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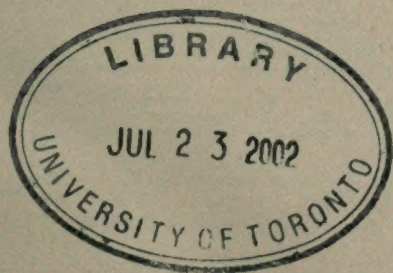
JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED FOR THE ASSOCIATION BY

ERNEST HART.

VOLUME II FOR 1876.

JULY TO DECEMBER.



London:

PUBLISHED FOR THE ASSOCIATION BY FRANCIS FOWKE, 36, GREAT QUEEN STREET.

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BRITISH MEDICAL JOURNAL:

BEING THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED BY ERNEST HART.

LONDON: SATURDAY, JULY 1, 1876.

THE HARVEIAN ORATION,

By EDMUND A. PARKES, M.D., F.R.S.,

Professor of Military Hygiene in the Army Medical School, Netley.

*Delivered before the Royal College of Physicians on Monday,
June 26th, 1876,*

BY

SIR WILLIAM JENNER, Bart., K.C.B., M.D., D.C.L., F.R.S.,

Physician to Her Majesty the Queen; Physician to University College Hospital; etc.

As you, Sir, are aware, the oration I am about to read was written and was to have been delivered by a Fellow of this College dear to all acquainted with him, and very very dear to all who knew him. Our last President, when Dr. Parkes died, expressed a wish that I should read the oration that he had prepared. The manuscript was, I found, unfinished; but, incomplete and unfinished as the oration is, it seems to me to contain so able and just an estimate of the character of Harvey's mind, and of the value of his labours, as to be worthy of being read, even in its incomplete state, before the College; and I believe that you, Sir, will agree with me that a tribute from such a man as Parkes to the memory of Harvey should not be withheld from the Fellows. No doubt, had Dr. Parkes lived to deliver the oration, some few sentences would have been polished, some parts of the manuscript would have been expanded and some parts curtailed, and a conclusion worthy of the occasion and of the orator would have been added; while grace would have been given to the oration in delivery by his voice, so pure and clear, and by his manner, so simple, and yet so impressive. I was anxious that the duty I have undertaken should have been entrusted to one more competent than I am to do justice to the oration and to Parkes's work and character; but, as my only wish is that the greatest possible honour should be done to Parkes's memory, I yield to Sir George Burrows's judgment that it is better that I, from my age, standing in the College, and long and intimate acquaintance with Dr. Parkes, should discharge the duty; and this must be my excuse to you, Sir, and to the Fellows, for standing here to-day, and for all my shortcomings.

SIR,—On the statue of William Harvey which was erected by his contemporaries of the College of Physicians, and which was burnt in the great fire of London, was an inscription, "Viro monumentis suis immortalis". In these days, when discovery succeeds discovery so fast that it taxes the memory to remember the discoveries, much more the names of the discoverers, it may be asked, Can we call any memory or any works immortal? Some few names in literature, some few in philosophy, and some among those who have founded or destroyed empires, have echoed down the stream of time for a thousand, or may be two or three thousand years, and have thus secured what we call immortality. But will William Harvey be admitted into this scanty band? A thousand years hence, will there be in this city an Harveian orator standing before the great physicians of those days, and proclaiming still the immortal name of the discoverer of the circulation of the blood? It may seem rather too curious thus to endeavour to anticipate the verdict of posterity; but it is only when we put the question in this way that we get the measure with which this discovery must be meted. Is it pure gold? Does it stand the fire of the assay? Will time bring no dimness upon it, nor eat into its substance and transform it into dust? The answer, I believe, must be that the explanation of the actions of the heart and of the circulation of the blood is not only one of those cardinal discoveries which lie at the

very foundation of physiology and medicine, but is from its very nature one of those great landmarks which must remain in the sight of all. The full interpretation of this great discovery is even now not given, for we are still painfully learning what the blood does in that marvellous circuit which never ends, yet ever recommences. The discovery can no more be overlooked or passed by in physiology than the movements of the world round our sun, and of our sun round some great centre, could be overlooked in the investigations of astronomy. We may, then, I think, confidently assert that this discovery is what we call an immortal one; that is, that it is too great and too momentous to permit men to let the name of the discoverer fade from their minds.

The oration which I have the honour to deliver to-day was not originally intended either to celebrate the discovery of the circulation or the name of the discoverer. It was, in fact, instituted by Harvey himself, and was intended to recall to the memory of the Fellows of the College of Physicians the names of the benefactors who, in their day, had done the College good and true service, and to exhort the members of the College to study and search out the secrets of nature by way of experiment. And it may be hoped that in years to come there may be many names and many memories which will be recalled in this hall and on this anniversary, and that other discoveries, if not so splendid as that of Harvey, may still be enumerated with pride by successive Harveian orators. But, on the present occasion, I propose not to pass beyond a theme which has had for me a powerful attraction. When anyone examines into this discovery of Harvey, and gradually recognises its extraordinary importance (for the full sense of what it grows upon him as he studies it), he cannot but be seized with an urgent wish to know how the mind which solved so great a problem was constituted; how it worked, and how it reached, not merely the probability, but the certainty of a grand natural law. The proof of the circulation of the blood was a discovery in the truest sense of the word. There was no accident about it—no help from what we call chance; it was worked out and thought out, point after point, until all was clear as sunshine in midsummer. Nor had it been anticipated. Harvey himself states quite candidly and truthfully how opinions stood before he published in this College his evidence on the motion of blood. Men for years had perplexed themselves about this problem. Now one guess, now another, may have hovered for a moment near the truth; but, as Dr. Rolleston has so well shown in a former Harveian oration, there cannot be for a moment a doubt of the entire originality of Harvey. As he claimed for himself, so we can most justly claim for him, that he "was the partisan of truth alone", and truth would have been shamed if he had robbed the least of his predecessors of a single grain of the discovery.

What, now, was the intellectual calibre and tendency of Harvey's mind as far as we can judge of it from his works? He appears to me to have had in a marked degree what is sometimes called the "scientific mind". But this term is not, I think, a good one. Some men who have nothing to do with science have a mind like Harvey's; there were examples of it in prescientific days, and, though it may be more common in our time, it has existed always. Nor is the term otherwise a correct one. Men of great mathematical insight must be called pre-eminently scientific; but the scientific mind to which I refer is not mathematical in the highest sense of the word. Harvey was one of those men who are urged on to submit everything to experiment and observation. As he himself says (I quote, of course, from Dr. Robert Willis's admirable translation), "he professed to learn and teach anatomy, not from books, but from dissections—not from the positions of philosophers, but from the fabric of nature". And, in his introduction to his work on *Generation*, where he has a chapter on the "Manner and Order of acquiring Knowledge", he says, among other sentences to the same purport, that "all true science rests upon those principles which have their origin in the operation of the senses; and that no one can truly be entitled discreet or well-informed who does not, of his own experience, from repeated memory, frequent perception by sense, and diligent observation, know that a thing is so in fact". And in another place he says: "Nature is herself to be addressed; the paths she shows us are to be boldly trodden; for thus, and while we consult our

proper senses, from inferior advancing to superior levels, shall we penetrate at length into the heart of her mystery."

It may be said that a mind of this kind, the main character of which is a habit of diligent observation of nature, presents nothing unusual; that all men have it more or less, and that we cannot make this habit or power a means of classification, or partition out an order of minds by what is a common possession of all minds. My contention is, however, that some minds possess this power and intentness of observation in quite an extraordinary degree, so that it really does separate them from other men. A parallel case may be found in music. All men have some musical power; but every now and then a man is born with such an extraordinary genius that he is quite lifted out of the crowd of common musicians. Mozart was, at five years of age, trying to compose a concerto for the harpsichord, and, at eight years, composing six sonatas, which were good enough to be published; Mendelssohn, at twelve, conducting his own operas; Beethoven deaf, yet knowing how to harmonise and combine the notes of diverse instruments, not one of which he could hear. All these, and many others, are examples that an universal faculty may rise into a region which seems above common humanity. In the same way, poets are truly said to be born, not made, for, admitting all the power of education, when we see that scarce ten centuries can claim an epic, we cannot but doubt whether education alone will ever elevate the poetical faculty, more or less possessed by all men, into those splendid examples which the names of Homer, Æschylus, Dante, Milton, or Shakespeare recall. And so, also, there appears to me a mind with quite peculiar mathematical insight. When Newton first read *Euclid*, it seemed a well-known road to him; his apprehension of the demonstrations, which ordinary men take so much time and trouble to learn, was so quick that the whole field of geometry unrolled before him almost as if he had a prior knowledge of it. But there was nothing in the nature of Newton's mathematical insight which was different from that of other men; it was merely that the extent and power of that part of his mind (as well as other parts) was so wonderful.

In the same way it seems to me that there is a mind pre-eminent in its power of observation and in its recourse to experiment. When it exists it gives us the great naturalists, and chemists, and physiologists of the time. Let anyone call up to his memory men whom he knows, and who are the acknowledged masters in Botany, or Zoology, or Chemistry, and I think he will admit that these have quite unusual powers of close observation and appreciation of natural phenomena. Here, again, it is power possessed by all men, but in them carried to an extreme. When, as in Newton, this observing or experimental power is combined with mathematical insight, we get a philosopher of the highest class, who writes his name indelibly on the record of Science.

Now, I claim for Harvey a position among the men exceptionally gifted with these powers of observation. There is in his works on Circulation and on Generation quite sufficient proof of this, and I shall give some evidence as I proceed. Men possessed of this power seem to be unable to avoid exercising it. They must observe, must try experiments, must, to use Bacon's phrase, be always asking questions of Nature. In the middle ages, to put a man to the question was to torture him into an avowal of the truth, and in this sense Harvey may literally be said to have tortured Nature. He was a thorough vivisectionist, and animals of all kinds ministered to his insatiable curiosity. He owns to having used a "variety of animals", whose living breasts and pericardia he opened; and if he had lived in these days he would, perhaps, have met with scant mercy from a Royal Commission on Vivisection. And yet, without that, would the circulation have been discovered? But the work on Generation shows even still more his power of really intense and continuous observation. What marvellous industry and indefatigable search after facts. And this disposition must have commenced extremely early, for he had made all his numerous experiments on the circulation before he was thirty-seven, and must have lasted to extreme old age, for he was still observing the movements of the stars or the growth of plants up to the time of death, when he was nearly eighty years of age. An usual peculiarity of this class of mind is the great ingenuity and imagination men show in arranging their experiments, and in devising new ones. Everyone must have admired the ingenious mechanism by which physical hypotheses are tested or proved; we may see a great chemist not only devising very complete apparatus, but getting at the composition of bodies in the most roundabout ways by substitution or residues, so that one is doubtful which most to admire, the marvellous result or the skill which has attained it. There is not much trace of this in Harvey's works, for the subjects perhaps hardly admitted it; he was an anatomist and naturalist, and had only to procure his animals, and to make his observations, but there are some parts in his writings which prove he could have shown ingenuity had it been wanted. Yet, on the whole, I should say he was

not an imaginative man, and when Dr. Willis calls him so because he uses some poetical expressions, the fact is overlooked that such expressions are merely the result of culture. Imagination is shown in other ways, and there is little trace of it in Harvey's writings; he bent his mind on the thing before him, and he kept it to objects of sense, and did not attempt, perhaps would not attempt, any flight which led him from the earth, except, perhaps, when by long dwelling on the impenetrable mysteries of generation, he allowed his mind to wander a little from the phenomena to their hidden causes. He possessed, however, in a very marked extent, one character of the class of minds to which he belonged. He had faith in facts. Now this may seem a common matter, but it is not altogether so. Many observers have a great mistrust of the facts they have themselves discovered. They are biased by previous theories, they do not see how their new facts fit in, they think there is some mistake, or they do not really fully see what they have seen. At any rate, they explain away what seems to them strange and unlikely, and really modify or alter what they have found. They are, in fact, honestly untruthful. Harvey was quite otherwise; when he had seen and touched, so to speak, a fact, and knew it was so, he accepted it, no matter how it struck on previous knowledge. To this clear truthfulness he owed his great discovery. I will only refer to one example of what I mean. After he had made out the actions of the heart, he fell at once upon the problem of the total amount of blood, and tried to determine this in animals, such as sheep and dogs. He then made out the capacity of the ventricles. In man he found the left ventricle would hold two ounces of blood; now his difficulty was to know how much it propelled into the aorta at each contraction, and I imagine that he did not succeed in doing this to his satisfaction, as he gives no experiments on the point. But he says, "Let us suppose, as approaching the truth, that a fourth, fifth, or sixth, or even but the eighth part of its charge is thrown into the artery." Then, counting the pulse, he shows that in half an hour far more blood must pass through the heart than all the blood in the body. In the case of the sheep, he says that if only one scruple passes at each contraction, in one half hour $3\frac{1}{2}$ lbs. would pass, but the sheep's total blood is only 4 lbs. But it is obvious he had a still clearer idea of the great velocity, as he takes the very lowest discharge he can conceive—namely, one scruple, so as to be within indisputable limits. But when he had taken his higher limit, he calculates that if the amount be half an ounce, not less than 41 lbs. 8 oz. would pass through in half an hour; and if it be one ounce, he says the quantity would be 83 lbs. 4 oz. He leaves, however, the actual amount to be hereafter settled by the experiments he has made, he says, with reference to this point. Now, even with the conviction of the truth of the circulation, he may well have been staggered at this enormous velocity. But he does not hesitate to accept the result. We now know the circulation is much quicker even than this last. Think how many men, when they got a glimpse of this rapidity, would have said, "That is impossible; there is some blunder". Harvey kept to his facts, and had faith in them, just as Edward Jenner, hearing the story that hundreds had heard before him, and had made no use of, had faith in the fact which has given to mankind the power of controlling small-pox.

In consequence of this faith in facts, he overlooks none; he passes by none. Now a common error is to think some facts more important than others; but all are important, and if one is left out, a whole heap may fall asunder. Now Harvey omits nothing; he commences with the most obvious, and proceeds step by step; nothing is blurred; nothing is left ill-defined. His work was composed before the *Novum Organon* was published, but it has been well said by Willis that it might have been planned on the model of that system.

The marvellous clearness of Harvey's treatise *On the Action of the Heart and Circulation* is quite unsurpassed. It is said that not one of his hearers at this College ever doubted his doctrine, and we can well imagine this when we see the way in which the facts are laid in order; first this, then that, then a third, and so the mind is led from step to step until the whole is seen clear as daylight. The opposition he met with came from outside, and from abroad; from those who had probably never read his lucid and convincing work. Happily, this College is free from the least suspicion of apposition; it honoured his doctrines when he proclaimed them living, and his memory when his written word alone remained.

Such was the mind, then, so gifted with the highest observing power, so true to what that power saw, so clear in stating what was seen, which made this immortal discovery. And now, I think, if my conception of the mind be a true one, we can see clearly how the discovery was made.

Harvey was twenty-four years of age when he returned from Padua. He had no doubt had his attention strongly directed to the subject of the motion of the heart by his teacher, Fabricius. He found every thing obscure, and determined, I presume, at that time, to work at

this problem. He desired, to use his own words, "to contemplate the motion of the heart and arteries, not only in man, but in all animals that have hearts; and, further, by frequent appeals to vivisection and constant ocular inspection, to investigate and endeavour to find out the truth". He nowhere gives a complete list of the animals he employs. He mentions, as it were incidentally, dogs, hogs, sheep, birds, eels, fish, snakes, lizards, toads, frogs, crabs, snails, shellfish, bees, wasps, hornets, flies. He laid all the kingdom of nature under contribution, and sacrificed hecatombs of victims. He went still further. Directed to it by a remark of Aristotle, he commenced the study of the development of the fowl in the egg, and also examined the foetus in man and animals. At first, he tells us that all was obscure, and he found the task so difficult that he was tempted to think with Fracastoro, "that the motion of the heart was only to be comprehended by God". But at length, by constant looking and watching, the thing became clear. He disentangled one movement from another, arranged them in time and order, and at last arrived at so perfect a knowledge of the intricate movements of the heart that he left really nothing for his successors to do. That formed, then, the first part of his great work, and gave the first words to its title, "*De Motu Cordis*".

No doubt years had passed before he had made all this out. Engaged in practice, married, and a few years later becoming physician to St. Bartholomew's Hospital, he can have had but little time for these researches.

At length, all was clear about the heart, and he had, in addition, carefully determined the total quantity of blood in the body of animals. He had also found out the action of the cardiac valves, and was acquainted with the valves in the veins; and now there came the next step. He nowhere precisely tells us, but he seems to have kept the whole facts before him, just as Newton tells us he did with his great discoveries, until the light began to dawn. To us who are so familiar with the circulation of the blood, it may seem strange that Harvey, having solved the mystery of the heart's action and of its valves, being certain that the blood poured out by the aorta and pulmonary artery and flowed in by the vena cava and pulmonary veins, should not have come at once to the idea of the circulation. But there were, perhaps, two causes which held him back. We must remember that there were no microscopes to demonstrate the channel of communication between arteries and veins; and of course he had no true conception of the immense capillary system. Then, even with a mind of such a class, it is impossible to put aside the influence of previous teaching. The power of the general opinion must impress every man, and lead him to see difficulties which are perhaps unreal. Harvey had very soon dismissed the absurd notion that there were invisible pores in the septum of the heart; but he appears to have been seriously hampered by the Galenic doctrine of the blood being supplied at once by the food. But at length he says: "Not finding it possible that this (that is, the quantity of blood) could be supplied by the juices of the ingested aliment, without the veins, on the one hand, becoming drained, and the arteries, on the other, getting ruptured through the excessive charge of blood, unless the blood should somehow find its way from the arteries into veins, I began to think whether there might not be a MOTION, AS IT WERE, IN A CIRCLE."

Here, then, at last, was his great discovery made. I entirely agree with the Harveian orator of last year, Dr. Guy, that Boyle's story of Harvey being led to his discovery by considering the action of the venous valves, is incorrect; that would have been merely a lucky guess from one fact, not an induction from a great many. His next proceeding is most characteristic of Harvey's character of mind. To most of us, I think, if the movement of the blood in a circle from arteries to veins had occurred, the conclusion would at once be, that it so completely accorded with all facts, that it must be so. We should be tempted to call out "*Eureka!*" like the sage of old. But Harvey's first thought was simply how to completely test and thoroughly prove this idea. He did not at once accept his own conception of motion in a circle, but tested it by experiment; for, says he, "*I afterwards found it to be true, and finally saw*" that the blood was distributed in such a way. In fact, he put his own hypothesis into the assay, and proved its truth so clearly, and by such able arguments, that even at the present day any one wanting to prove the circulation of the blood (microscopic observations and fine injections not being used) must adopt Harvey's method. In fine, he brought his doctrine to demonstration, and proved it once for all; and throughout everything was done by observation and induction. There is no theorising, no useless attempts at explanation, no employment of imagination, no guesses at truth; all is fact arranged in order, and leading slowly but certainly up to certain truth. Then the title of his book was complete, *De Motu Cordis et Sanguinis*, and it was published in 1628, though since 1616 he had yearly demonstrated its truth before this College. Everybody, in read-

ing Harvey's works, notices the extreme modesty with which he announces his discovery. The simplicity and the entire absence of self-applause are most remarkable. The clearness of the style, the careful avoidance of ambiguity of expression, and its brevity, make it, indeed, a model for all time of a philosophical treatise. The other work of Harvey which in part remains to us is the treatise on *Generation*. Harvey was evidently led, probably by the teaching of Aristotle and of Fabricius, to watch the development of the embryo in the fowl's egg. Probably he may have thought that by watching the punctum saliens he would gain some insight into the problem which so long occupied him. But very soon he must have pursued the subject of generation for its own sake, for it formed the study of all the latter part of his life. He had completed a work on the generation of insects, the loss of which during the civil wars caused him great regret; and this and his remarks on the interest Charles I took in his researches on the generation of deer, show he must have been busy with the subject.

Very early during his connection with the Court, he had obtained leave from Charles I to dissect the does killed in the hunts of which the king was so fond, and he interested Charles himself in the subject.

During the occupation of Oxford, where he remained for some time, he continued his observations on the chick; and in 1650, when he was seventy-two years old, Sir George Ent tells us he was still engaged with the subject. In that year, Sir George Ent obtained from him the MS. of the treatise on *Generation* we now have. He can hardly have studied the subject for less than thirty years. It appears, indeed, to have had for him the same fascination it has had for all physiologists who have attempted this difficult problem. Harvey was less successful with it than he had been with the circulation of the blood. He brought to bear on it the same patient observation and unwearied industry, the same keen insight and unrivalled power; but he was in face of an inscrutable mystery. What he did and how clearly he saw, as far as the light of those days permitted, has been admirably brought before this College by a former Harveian orator, Dr. Farre, who speaks with an authority on this subject second to none in this country. I shall not, then, venture to repeat what has before been so well said. I will only remark that Harvey seems to me to have clearly caught sight of the mystery of generation, which we, with all our better powers of inquiry, are just as much unable to solve. How it is that two minute cells, each so fragile that if removed for a few minutes from the conditions which surround them they die; how it is that these minute and apparently inert cells should meet and then should give rise to the most wonderful power we can conceive, is as dark a problem to us as to Harvey. We see it everywhere, in the vegetable and in the animal kingdom; suddenly from the contact of two cells of opposite sexes a formative power, as Harvey calls it, arises. The mother-cell acquires in a second entirely new powers—it grows, differentiates, produces layer after layer, organ after organ, and all with a most wonderful regularity as to time and order, which holds good age after age in the different species of vegetables and animals. At length arises not only the wonderful machinery of the animal body, but the mind, which tries to investigate its own extraordinary origin.

All attempts to explain this are mere concealments and subtleties of language. Harvey himself abandons in some degree his hold of facts, and looks upon the influence of the male cell on the female as a sort of "contagious effect", which he refers to in his treatise on *Conception* as accomplished by "atoms, odoriferous particles, fermentation, or anything else—even something immaterial". But the giving this name to the fact brought him no nearer to an explanation, but even confused it more. He was, in fact, at an end of the means of observation which were possible to him. He had no microscope to carry him farther, as it has done us, though the only effect has been to throw the inscrutable a little back. It must be said, however, that injustice is done to Harvey if we do not remember that his treatise on *Generation* is an incomplete work. He had lost the part on Insects; and he also evidently regarded the work we now possess as the commencement only of a complete treatise. Without dwelling further on this great work, I think it may be said that, baffled as he was in his search, it yet shows Harvey's wonderful power of observation as conspicuously as the treatise on the *Circulation*.

The mention of the loss of the treatise on the *Generation of Insects* may remind us that other works of Harvey's are lost which would be to us of inestimable value. In his second disquisition to Riolanus, he refers to a work on *Medical Observations and Pathology*, which he says will throw light on many diseases, and will show, he says, "how speedily some of these diseases, that are even reported incurable, are remedied and dispelled as if by enchantment". This work is lost, or if it exists.....

[With this broken sentence the oration ends; and with it the last literary effort of Edmund Alexander Parkes.]

THE TREATMENT OF EPILEPSY BY SODIC BROMIDE.

By W. AINSLIE HOLLIS, M.D.,

Assistant-Physician to the Sussex County Hospital.

In his elaborate paper on the therapeutic employment of the bromides,* Professor Binz finds exception to the statements I had previously made with regard to the value of the sodic bromide in the treatment of nervous diseases. The short paper in which I discussed the uses of this salt,† as far as my experience in it then went, was intended rather as an advertisement (to use the word in its original sense) to the profession, that they should not finally set aside this drug without a further trial, than as a complete and detailed account of its properties. For some time, I have had several opportunities of testing the efficacy of the sodium salt in the treatment of epilepsy, and I think I cannot do better than select some of the cases in which the influence of the drug was, in my opinion, most decidedly marked, and give a short analysis of them.

In making this selection, I have not been influenced by the apparent efficacy of the drug in some cases rather than in others, but by the fact that the epileptic attacks, previously to treatment, occurred at such short intervals, that any amelioration in their number or character was easily observed. With this object in view, I have tabulated the results of eleven cases which have come under my treatment at various periods; and I think I shall satisfy the sceptical that there are some active therapeutic properties in the sodium salt.

Before I briefly describe each case separately, I may as well state that, as regards the females, I carefully excluded pure hysteria from my diagnosis, and for this purpose I mostly relied upon the fact that during the paroxysms the patients bit their tongues or otherwise did themselves severe bodily injury; and these symptoms, in conjunction with the ordinary phenomena of an attack were, I considered, sufficiently diagnostic of epilepsy. As regards the average frequency of the attacks before treatment, I had of course mainly to rely upon the statements of the patients and their friends, and I may here state that I always obtained the confirmatory evidence of two or more persons. I also had in doubtful cases a means of proof which I felt justified occasionally in using. It consisted in omitting the ordinary bromide mixture for a week or more during the treatment, and watching the results. In most cases‡ I found an increased frequency in the number of the fits. I may here casually mention the case of a woman§, who suffered from confirmed epilepsy, and who stated that she had six or seven fits every week. For about two months she had taken thirty grains of potassic bromide in water three times daily; and subsequently, for a month, twenty grains of the sodic bromide in its stead; the fits, however, continued at the rate of two weekly, despite the treatment. Under these circumstances, as it appeared doubtful to what extent the bromides were serviceable, she was placed upon an ounce draught of simple camphor-water three times daily. In the course of the next fortnight, she had twelve fits, which number, in the following two weeks, was reduced to three upon returning to the use of the sodium salt in twenty grain doses as before. With regard to the table itself, the first column to the left hand gives the sex, age, duration of the epileptic period, and the treatment. The treatment itself is divided into periods of one week or its multiple. Occasionally the treatment has been omitted for a time, and notice of such omission will be found in the accompanying statement of the one case in which this occurred. The second column gives the average frequency of the fits before the commencement of the treatment, and is calculated on the data I have above noticed. The third and last column gives the number of fits after treatment, with (when necessary) particular statements of the number after any change of treatment.

CASE I.—A boy, aged 15, of fair complexion and stunted growth, had been the subject of fits since his birth. This patient, as might be supposed, from the long continuance of the epileptic attacks, was not regarded by me as a favourable one for any treatment. His manner was dull and listless, and his intellectual powers were feeble. The frequency of the attacks was not materially diminished in number by the aqueous solution of the salt, although when it was given in com-

bination with an ounce of the decoction of bark the fits seemed to be kept in abeyance, as stated in the table.

CASE II.—A butcher, aged 22, had been subject to epilepsy since an attack of sunstroke in Bombay two years previously. The intellect seemed unimpaired. His general health was good. No fit occurred during the continuance of the treatment with the sodium salt. (See table.)

CASE III.—(To this case I alluded in my previous paper, which was written within seven weeks of the commencement of the treatment by the sodium salt.) The patient, a cigar-box maker, was a fairly nourished young man, aged 25, of dark complexion and feeble intellect, and addicted to drink. His attendance was occasionally very irregular; and to this was probably due the variation in the intervals of time which separated the seizures. The results of the treatment, however, were more favourable than I was led to expect from the circumstances. I was somewhat surprised in this case to find that the potassium salt appeared to exert very slight, if any influence, on the fits. (See table.)

CASE IV.—This patient was a child, two years of age, who had been the subject of epileptiform convulsions since the commencement of dentition. The fits entirely ceased after the commencement of the treatment. The bromides appear to exert a greater influence upon the so-called "convulsions" of children than they do upon the more confirmed epilepsy of adult age. I have rarely found a case of such disease which did not speedily yield to small doses of these salts. In the present instance, the shape of the head, and the conformation of the carpal ends of the bones in the forearm, bespoke a rickety constitution.

CASE V.—This patient, a poorly nourished girl, eighteen years of age, had the closely set eyes and pinched expression of face supposed by some to be diagnostic of an epileptic diathesis. She had been afflicted by weekly epileptic seizures during the past year. She was also troubled with a short cough. Upon examination of her chest, I found the breath-sounds almost cavernous under the left clavicle, with a subsidence of the infraclavicular space, and other signs indicative of loss of lung-tissue, and, I have no doubt, of tubercular disease also. I placed a blister under her left collar-bone, and ordered her to take a draught of decoction of bark with twenty grains of the sodic bromide three times daily. She had nevertheless one strong fit during the next week. The dose of the sodium salt was thereupon increased to thirty grains, and from that time she had no further fits (March 14th, 1874).

CASE VI.—A well-nourished man, a blacksmith, aged 18, had occasionally four fits weekly, without premonitory symptoms. For the five weeks he was under treatment, there was no return of the epilepsy. In this case, the disease did not appear to have affected the intellect appreciably.

CASE VII.—This girl had a severe blow on the back of the head four years previously. There was no mark of the alleged injury. The fits commenced about the same period, and were, according to her mother, increasing in severity. She was poorly nourished, of somewhat feeble intellect, and complained of occasional headaches. During the course of her treatment, she was attacked with feverish symptoms and drowsiness. I therefore altered the draught of sodic bromide in decoction of bark to a saline mixture, as stated in the table. As far as the epilepsy was concerned, the treatment was very successful.

CASE VIII.—A servant girl, aged 17, was the subject of epilepsy since Christmas last, and had frequently bitten her tongue in the fits. Her general health was good. The average number of fits before treatment was four or five weekly. The month subsequently was marked by an entire cessation of the fits. The comparatively short time during which this patient had had the disease, and her general health, impressed me with the hopes of obtaining a speedy relief, and possibly a complete cure. The case was still under treatment. (See table.)

CASE IX.—A thin spare man, a hatter by trade, had been the subject of fits for the last eighteen years. The fits came on without warning, and were attended with convulsive motions of the body and limbs on the left side especially. During the course of the treatment, which had extended over a period of six weeks (March 1874), he had had six fits, an average of one weekly, against two or more prior to treatment. Since taking two drachms of the bromide salt daily, he had not had a fit. The result is fairly favourable in this case, when we consider the extended period over which the patient experienced the attacks. (See table.)

CASE X.—A school-boy, aged 13, although only subject to the disease for two years past, had the laterally compressed *facies epileptica* distinctly marked. The fits were at frequent intervals, and, although somewhat mitigated by the treatment, did not entirely cease even under the influence of considerable doses of the salt. No cause could be ascribed for their first appearance. (See table.)

* *Practitioner*, January, 1874. Translated by the late Dr. Anstie, from the *Deutsche Klinik*, 1873.

† *Ibid.*, August 1872.

‡ The exceptions to the rule were such cases as had been for several weeks under treatment.

§ This was a patient of my friend, Dr. Legg. The case is not tabulated.

Analysis of Eleven Cases of Epilepsy.

P.B. Potassic bromide; S.B.=Sodic Bromide.

CASES, ETC.	Average number of fits before treatment.	Number of fits after treatment.
No. 1. Male, aged 15; fits since birth	One or two weekly	One every two weeks, as below Two in four weeks Four in three weeks Two in eight weeks
P.B. gr. xv ex aquâ ter d. s.	..	..
S.B. gr. xv ter P.B.	..	..
S.B. gr. xv c decoct. cinch. f. 3j ter die sumend.	..	..
S.B. gr. xx in haustu	..	One in three weeks
No. 2. Male, aged 22; fits for two years. N.B. Patient began treatment in Sept. 1873, and terminated it on December 1st, 1873. (S.B. gr. xv c dec. cinch. pall. f. 3j ter die s.)	One in two weeks	One in five months. The fit was subsequent to the cessation of treatment
No. 3. Male, aged 25; fits for one year	One or more in the week; occasionally, many in one day	About one in four wks, as below
S.B. gr. ij ex aquâ t. d. s.	..	One in one week
Rep. haustus c S.B. gr. v vice gr. ij	..	One in six weeks
S.B. gr. xx c dec. cinch. p. f. 3j ter die sumend.	..	One in seven weeks
S.B. gr. xxv ut antea	..	None in three weeks
Rep. haustus c P.B. gr. x	..	One in two weeks
Rep. haustus c P.B. gr. xx	..	One in one week
Ditto c P.B. gr. xxv	..	One in one week
Ditto c P.B. gr. xxx	..	One in one week
Ditto c P.B. gr. xl	..	One in one week
S.B. gr. xx (vice P.B.) c dec. cinch. pall. f. 3j ter die s.	..	None in eight weeks
No. 4. Female, aged 2 yrs; fits for 18 months	One or two weekly; sometimes three in one day	None for two months
S.B. gr. ij c dec. cinch. pall. f. 3j ter die sumend.	..	..
No. 5. Female, aged 19; fits for one year	One every week	One in five weeks, as below
S.B. gr. xv c dec. cinch. pall. t. d. s.	..	One strong fit in the wk
Rep. haustus c S.B. gr. xxx	..	None in four weeks
No. 6. Male, aged 18; fits for 5 yrs.	Four in the week, occasionally	None for the five weeks under observation
S.B. gr. xv. ex aq. ter die s.	..	..
No. 7. Female, aged 11; fits for five years	Two or three in the week	One in five weeks, as below
S.B. gr. xv c dec. cinch. pall. f. 3ss ter die sumend.	..	One slight fit in the week
Rep. haustus c S.B. gr. xx	..	None in the week; drowsy
S.B. gr. xv c liq. ammon. acet. f. 3j ex aquâ ter die sum.	..	None in three weeks
No. 8. Female, aged 17; fits since last Christmas	Several weekly; sometimes four or five daily	None for the one month under observation.
S.B. gr. xv ex aquâ ter die sum.	..	..
No. 9. Male, aged 20; fits for 18 yrs.	Two or three weekly	Six in 6 weeks, as below One in the week
S.B. gr. xv c dec. cinch. pall. f. 3j ter die sum.	..	..
Rep. haustus c S.B. gr. xx	..	Two in one week
Ditto c S.B. gr. xxx	..	Three in one week
Ditto c S.B. gr. xl	..	No fits for two weeks
tinct. cannabis Ind. m. xv.	..	..
No. 10. Male, aged 13; fits for 2 yrs.	About three weekly	Five in five weeks, as below One in three weeks
S.B. gr. xv c dec. cinch. p. f. 3j ter die sum.	..	..
Rep. haustus c S.B. gr. xx	..	Three in one week
Ditto c S.B. gr. xxv	..	One in one week; feels better
No. 11. Male, aged 25; fits for 11 yrs	About one every two weeks	One since commencement of treatment 5 weeks previously
S.B. gr. xx c sodie bicarb. gr. xx et acidi tart. gr. xviii in aquæ f. 3j ter die sumend.	..	..

CASE XI.—An ex-police constable, aged 25, had been subject to fits about once a fortnight for the last eleven years. This patient was jaundiced when he first came under treatment. There was a premonitory impediment of the speech before a fit. His general health was good. Considerable relief was experienced by the administration of sodium salt in this case, although the man's history somewhat precluded the hopes of permanent benefit.

THE TREATMENT OF BOILS AND CARBUNCLES.*

By PETER EADE, M.D.LOND., F.R.C.P.,
Physician to the Norfolk and Norwich Hospital, etc.

THE object of the present paper is once again to call attention to the subject of boils and carbuncles and their treatment. This I have already done in 1869 and 1874; but, as I have reason to believe that the treatment which I advocate is by no means generally adopted, and as every fresh case of the disease confirms me more and more in my conviction of its efficacy, I have thought it worthy of being again mentioned at such a gathering as this.

I think the usual treatment of boils and carbuncles, as set forth in works of medicine and surgery, may be briefly described as this. If seen within the first day or two of its appearance, we are told either to divide the pimple across, or to apply nitrate of silver to its apex; after this, we are told to poultice it, to apply cold compresses, or merely to use pressure; and, when the mass has grown large and tense, either to let it run its natural course, or to divide some portion, or the whole, of it by incisions, or by caustic, and again to poultice, and so on.

In 1866, the late Mr. Startin wrote in the columns of the JOURNAL of this Association that he regarded "boils and carbuncles as having frequently or constantly a parasitic origin"—this opinion being grounded upon the success of his special practice, upon the fact of his having once or twice found cryptogamic vegetation in them like that of sycosis, and upon the observed fact that boils are occasionally propagated to other parts of an affected person, or even to other individuals by very close contact. But he said: "My opinion of the parasitic nature of these complaints is chiefly influenced by the rapidly curative effect of the application of parasitocides to the apex of the boil or carbuncle." These parasitocides were various forms of caustic, such as iodine, nitrate of silver, caustic potash, chloride of zinc, blistering liquids, and mineral acids, but the one which, for various reasons, he preferred to all others was the acid nitrate of mercury.

In my own practice, I have found these views of the parasitic nature of those diseases, as shown by the efficiency of destructive caustics, to be fully confirmed; but I believe that I have greatly improved upon Mr. Startin's practice, and that I have discovered that in carbolic acid we have an agent which is not only more safe, more manageable, and more universally applicable, but one which seems to be specifically destructive to the life and progress of both boils and carbuncles.

Boils are not uncommon, but carbuncles only occur in one's practice occasionally; but I may say that, in the several examples of carbuncle which have occurred to me recently, and in all the cases of boil, the carbolic acid has never failed—when properly and sufficiently applied—to arrest their growth and to abort them at once, if in an early stage; and to check their spread and prevent further extension in a later stage.

I believe it to be general experience that the pimple in which a boil begins its life and career may be destroyed by any common caustic, if thoroughly applied. I venture to assert also that a carbuncle, even when very considerably advanced and of very considerable size, may in like manner be destroyed by the free application of carbolic acid to its centre and other parts.

The essentials for its proper action, so far as my experience has gone, appear to be these.

1. The acid must be applied in *strong* solution (four or five parts of acid to one of glycerine is the strength I employ).

2. It must be brought into contact with the diseased tissue, for it appears to exert no influence on or through the unbroken skin. To this end, if sufficient opening do not exist when the case is first seen, a proper one must be fearlessly made in the very centre of the disease by some appropriate caustic, and, perhaps, the acid nitrate of mercury effects this better and with less discomfort than any other.

3. The acid solution must be occasionally reapplied to, and into, the hole thus formed, or those already existing, and I have found it a good plan to keep a piece of lint wet with a weaker solution constantly over the sore.

Take the following example which has occurred to me within the last two or three weeks.

A lady, aged 40, showed me a boil on the left buttock, of six days' duration. It was circular with a diameter of four inches; was red and angry looking; tender, hard at its base, and rapidly increasing. To

* Read at the combined meeting of the Cambridge and Huntingdon, East Anglian, and South Midland Branches, at Cambridge.

the prominent point in its centre I freely applied acid nitrate of mercury over a space about one-third of an inch in diameter. Next morning, I removed the scab which had formed, and freely passed the strong carbolic solution into the little opening formed in the mass as well as I could with a quill pen charged with the liquid (and I may say that I find this a very convenient instrument for the purpose). At this time the swelling had increased considerably in size, was more tender and inflamed and painful, and was threatening to be a very formidable case of the disease. Now, mark the effect of the treatment. The acid was freely applied twice more, during the day, and the very next morning on my visit, it presented the appearance of having suddenly collapsed. It had shrunk greatly in size, was flabby, and far less painful, and its vitality was plainly destroyed. In four or five days, nothing remained but a little hardness about its base, and it rapidly got quite well. No core was ever discharged, and no pus appeared after the first application of the carbolic acid.

Now, to what does such a history as this point (and I could give several such histories did time permit)? I think it says, as plainly as possible, that whatever the predisposing causes of boil or carbuncle may be, the disease itself is essentially a local one; that it is a disease parasitic in the skin or its sebaceous glands, and that it begins with a central portion or stem, from and around which, as a root, the rest of the mass grows and extends. The spreading fungus-circles common in our meadows, and known as fairy rings, give us an excellent illustration of the type of growth; and I think that the singular and constant effect of the destruction of the central portion in the way I describe, proves (as Mr. Startin thought) that which it is so difficult to demonstrate with the microscope.

I do not say that, when a huge carbuncle with its enormous growth into, and infiltration of surrounding cellular tissue has taken place, carbolic acid or anything else can be relied on absolutely and at once to stop its progress. It will probably then to some extent run through the stages of its life-history, but I believe that this is entirely because destruction of its centre is no longer the destruction of the life of the circumference, and because of the difficulty or impossibility of bringing the acid into contact with enough of the diseased mass. But even in a case or two of very large carbuncles, which I have seen for the first time in their later stages, and where the acid has been freely and assiduously passed into every hole which existed, I have been greatly satisfied with the apparent effect of the acid; and certain it is that, *wherever it touches* diseased tissue, all sloughing and supuration at once there cease, no further extension of disease takes place, and a most striking change from dirty slough to florid granulation occurs in the course of a very few hours. So much have I been struck with this, that I propose, when the opportunity of a large developed carbuncle offers, to inject a watery solution of the acid into various parts of the diseased mass, in the hope of thus completely destroying it even at this stage.

To sum up, the doctrines implied and acted upon in this paper are:

1. That boils and carbuncles are not mere inflammations and sloughings of cellular tissue, but specific diseases.
2. That they are parasitic, and, as such, endowed with a definite life and history.
3. That, in their early stages, they may be infallibly destroyed and aborted by destruction of their central stem or root; and that, even after this stage has passed, they may generally be destroyed, and in all cases, at the very least, greatly modified, by the free application of carbolic acid.
4. That, to produce this result, the acid must be freely introduced into the central portion of the disease, and also into any other part where an opening exists or is formed artificially.

Until lately I had been in the habit of using a much weaker solution of the carbolic acid in oil or glycerine than I have spoken of above; but I now find that, when used in small quantities, the stronger solution is quite safe and very slightly irritating, whilst its destructive power is, of course, much greater. Where, therefore, it is only intended to insert a small quantity into the mass, I advise that it should be of full strength; but where it is to be used more freely, or over a large surface, I only employ it much more dilute. The only constitutional effect I have ever witnessed from its free external application is the well-known blackening of the urine, and this has never appeared to produce the slightest evil result.

PRIZES AT APOTHECARIES' HALL.—The successful candidates for the botanical prizes of the Apothecaries' Society for 1876 were: 1. Richard Bredin, Liverpool School of Medicine, a Gold Medal; 2. Herbert Alfred Hill Fenton, St. Thomas's Hospital, a Silver Medal and a Book.

ECLAMPSIA IN A CASE OF DIPSO MANIA.

By F. MURCHISON, M.A., M.B. Edin.,
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CASES of convulsions in the pregnant, parturient, or puerperal state, are not unfrequently encountered by the physician-accoucheur; but their great rarity in asylum practice induces me to refer to the following as instructive, interesting as being associated with dipsomania, and typical of a disorder that is apt to become frightful in its manifestations, and, in the absence of judicious treatment, fatal in its results.

M. H. C., a robust married lady, thirty-six years of age, and the mother of three children, was admitted as a voluntary patient into the Crichton Royal Institution, in January of the present year. Her mental peculiarity consisted in a "great liking" for spirits, in which she had more or less recklessly indulged for some four years. On admission, her husband informed us that she was *enccinte*, that he expected her confinement about the end of April, and that he would remove her before her accouchement. The restrictions of asylum life, and probably also the withdrawal of her favourite indulgence, caused her, at first, much unhappiness. Time, however, made her contented, and the amusements and amenities of the asylum, cheerful and happy. Her gentle and amiable disposition endeared her to the other patients, who, whatever be their mental capacity, can always appreciate kindness. She became industrious and affable, and never assumed the querulous and dissatisfied demeanour characteristic of many dipsomaniacs. Her behaviour in every way was rational and circumspect. She enjoyed excellent health, until one evening an excited patient scolded her, and insinuated something unpleasant about her condition. This grieved her greatly. The following night she was wakeful, and in dread of some indefinable, but anticipated calamity. In the morning, she complained of headache, dizziness, impaired vision, and great general malaise. After partaking of some breakfast, she rallied somewhat, and got up with no very marked symptoms of approaching serious illness. Presently, one of the patients informed the attendant, who was in another part of the gallery at the time, that Mrs. C. had fallen into the fire. The attendant rushed in, and found her, *she thought*, burnt to a cinder. In the utmost consternation, she ran for the medical superintendent, who lost no time in seeing the patient, and devising means for her safety. He found her clonically convulsed, with purple congested face and hands, embarrassed inspiration, stertorous expiration, and a bloody froth issuing from her mouth; rapid and feeble pulse, and entire loss of sensibility; with the dorsum of her right hand severely burned, and her cheek cut by contact with the fender in her unconscious fall. She was removed to bed, and no sooner was she fit over, than others, to the number of five, followed in close succession, their severity being such as to cause great and immediate danger to her life. To prevent their recurrence, chloroform inhalations were decided upon, and continued uninterruptedly for eight hours, during which time thirteen ounces were administered, with the result that the convulsions were lessened in number and severity. Some embarrassment of the respiration and circulation contraindicated the continued use of the chloroform, and it was deemed advisable to stop its administration for a time. Before the patient was fairly awake, however, the fits recurred; and inhalation was again cautiously resorted to, and continued for four consecutive hours—six ounces having this time been administered, with the same influence over the number and severity of the convulsions. It now became, from the state of the respiration and pulse, highly dangerous to continue the anæsthesia, and chloral injections of twenty grains every hour till sleep was induced, were substituted. Three of these injections were sufficient to produce the desired effect, and the patient slept soundly for six hours. On awaking, she stared wildly about, and repeatedly exclaimed "Oh my head, my head!" The bowels and bladder moved, and she again lapsed into slumber, which continued unbroken for seven hours. The urine passed had a smoky and turbid appearance, and, on the addition of heat and nitric acid, was found to contain about a fourth of albumen. No tube-casts were detected.

Vomiting of a dark, dirty, and fetid matter mixed with bile took place at intervals, while paralysis of the bladder likewise showed itself, and necessitated the use of the catheter for two days, at the end of which there was a recurrence of the fits in a milder form, but they again readily yielded to the chloral treatment. Thirty-six hours after this the convulsions again recurred for the fourth time, and again were subdued by the internal use of forty-grain doses of the same hypnotic. Shortly afterwards, prodromic symptoms of labour began to be recognised; these lasted for two days, when true uterine contractions commenced, and in five hours, expelled breech foremost, a well developed male fetus, which, from the desquamated state of the cuticle and other *post mortem* appearances, must have been dead some days. The

placenta was removed, and there was no hæmorrhage nor any prominent symptom, save a severe gastric pain which lasted several days, and added greatly to the discomfort and exhaustion already present. Under the administration of suitable tonics and light nourishing food, the patient made a good recovery. She is still in the Institution and enjoys excellent health.

The causes of eclampsia have been for a long time, and are even now, a subject of much speculation; and, although much has of late years been done by eminent physicians to ascertain their real nature, the theories promulgated as to their origin and *modus operandi* require further illustration to make them acceptable to the most thoughtful of the medical profession. It is not surprising, therefore, that some have looked upon the supposed causes as so many effects of an unknown mental or physical potentiality, generating by impression in the system, and having acquired dynamic energy, causing slowly or speedily the convulsions and their morbid accompaniments. I am inclined to believe there is much truth in this theory, and that the case adduced is one that goes to prove the existence of some such agency. The comparative absence of premonitory symptoms; the susceptibility of the system from the uterine state to impressions; the predisposition through alcoholism to neuroses; the unwarranted abuse received, and the previous good health of the patient, all point to this conclusion. Fear, independently of any physical state, is known to be the exciting cause in many cases of epilepsy, and it is probable that in this instance its effect on the nervous system was the most important factor in causing the "machinery of life", already in a state of unstable equilibrium, to run riot. Doubtless, the previous intemperance of the patient had greatly predisposed her system to epileptiform convulsions, which are well known to result from excessive drinking. There are at present in this asylum cases which conclusively prove that alcohol, in addition to its other baneful effects, is potent enough to cause such seizures.

The treatment of eclampsia must respect the cause of the disorder, whether it be albuminuria, uræmia, hydræmia, or anæmia, and take cognisance of the diathesis and development of the patient. It must remove, if possible, all sources of moral, mental, or physical irritation, and aim at success without resorting to empiricism.

In the case described, chloroform did much to ward off the fits; but it was second in importance to chloral-hydrate, which I think worthy of the strongest recommendation. The tincture of the perchloride of iron was fairly tried and found wanting as a special curative agent. The bowels and bladder were attended to, and all known sources of irritation, except the uterine, removed. The dietetic treatment consisted chiefly of milk and beef-tea, on which the patient almost exclusively lived during the acme of her illness. When convalescence commenced, stronger food was cautiously used, and continued until an ameliorated condition justified a recurrence to the ordinary asylum diet.

INTESTINAL OBSTRUCTION, WITH STERCORACEOUS VOMITING, TREATED BY LARGE DOSES OF OPIUM, FREQUENTLY REPEATED.

By HERBERT JUNIUS HARDWICKE, M.D., Sheffield.

R. T., A MARRIED, healthy looking, and stoutly built man, about forty years of age, called at my surgery on the morning of October 18th, and complained of a severe pain in the abdomen, which commenced early in the morning of that day. For four days previously, he had been taking purgative medicines from a druggist, but could not get his bowels to respond to them. He requested me to give him some medicine to open his bowels, or he should die from the pain. I sent him home, with strict orders to go to bed and foment his bowels with hot water flannels, and to have an injection of one pint of warm gruel at once; and gave him six pills, of one grain of calomel and half a grain of opium in each, to take one every second hour until he was relieved from pain. I was at the time due at a labour-case, and promised to see him as soon afterwards as I could. The same evening, I called to see him, and found that he had not had a motion, and that the pain was worse. His face was pale; his countenance anxious; pulse 80; tongue coated; he had sickness, but no vomiting. The abdomen was distended with tympanites, and there was pain referred to the right iliac region more particularly. I ordered a continuance of the fomentations and a repetition of the enema, which latter was returned with no fecal admixture whatever. One grain of opium pill was now given to him every two hours. I saw him again early the next day (October 19th), and found him much worse; tongue dry and brown; pulse nearly imperceptible. The pain was greatly increased, and more generally over the abdomen; he had sickness and vomiting. I gave

him brandy and water, and ordered him to continue taking the pills every second hour. I saw him again in the evening with a neighbour practitioner, who recommended an increase in the quantity of the opium. I accordingly gave him one grain every hour, and brandy and water regularly. The vomited matter was now decidedly of a stercoraceous character, and the pain excessive; and the patient seemed inclined to sink. On calling to see him next morning (October 20th), I found he had been vomiting fecal matter incessantly during the night, and had been exceedingly full of pain. Whilst I was there, however, after a severe attack, the vomiting nearly entirely ceased; and just then the patient informed me that he thought the fomentations had moved the obstruction, as he felt greatly relieved. I at once, acting upon his own suggestion, ordered an enema to be administered, which, to my great satisfaction and the patient's intense relief, was returned in company with three or four hard pieces of feces, like black marbles. Shortly afterwards, he passed a large, dark-coloured, offensive stool, and from that time continued to improve. The pain gradually subsided, and the patient, in two or three days, was able to sit up and take food.

This case, to my mind, clearly proves the efficacy of opium in large doses, and frequently administered, in cases of intestinal obstruction. The obstruction here was clearly caused by the abuse of purgative medicines, which were administered by an incompetent person, who represented to the patient that he was qualified to practise; and opium was the cure. It appears to me that the value of opium in these cases is not sufficiently appreciated, at least in this country. I believe that in Germany the treatment I adopted in this case is pretty generally followed. I once heard a celebrated professor in one of the German universities say that more harm than good was often done in cases of intestinal obstruction by too much interference on the part of the medical attendant, especially in England. Of course, there are many cases of intestinal obstruction which demand prompt interference, in order to save the life of the sufferer; but many of such cases require operations, such as gastrotomy, from the mere fact that the previous treatment has been injurious, or, in other words, because the medical attendant has "done too much", instead of allowing Nature, assisted by opium, to overcome the difficulty. Too much interference in these cases is worse than if the patient had been left entirely to the care of Nature. I think it must be admitted that opium, given in full doses and often repeated, is the remedy—and the only remedy—in cases of intestinal obstruction. It might perhaps be urged that the large amount of opium given in such a short time would be injurious. I can only say that this man took, from six o'clock in the evening of the 18th to the same time on the 19th, thirteen grains; and from then until eleven o'clock in the morning of the 20th, seventeen grains; in all, thirty grains in forty-one hours, without the slightest sign of narcotism whatever.

SOME FURTHER CONSIDERATIONS IN RELATION TO LIFE-INSURANCE.

By ARTHUR S. UNDERHILL, B.A., M.B., Tipton.

I HAVE read with much pleasure the article by Dr. Thomas, in the JOURNAL of June 17th, on "Suppuration of the Middle Ear in relation to Life-Insurance". I know that each specialist must have his own hobbyhorse; but if we, as ordinary medical examiners, are expected to ask questions, or critically examine each organ or cavity separately, ours would not be an easy task, and there are few lives we could recommend as absolutely safe, and not doubtful in some part. It is a good plan to adopt the rule which is followed by some insurance offices, viz., that of having the candidate examined by the medical referee for the district, and of having a separate private report from the ordinary medical attendant of the candidate, as there are some diseases of which only the "family doctor" is cognisant, and an account of which no amount of cross-examination on the part of the medical referee will elicit; I refer particularly to syphilitic affections and uterine diseases. Apropos of this, I will refer to a case now *sub judice*, which has come under my own observation. Some three years ago, Mrs. T. asked me to attend her in her confinement. She stated that she had had several "losses" which had, however, ceased before becoming serious. She was expecting daily; the same evening I was hurriedly sent for as my patient was flooding; I found her blanched, almost pulseless, and lying in a pool of blood. On making a digital examination, I expected to find placenta prævia, but what was my surprise to find a large ulcer with ragged indurated edges, implicating the whole anterior part of the os and cervix uteri, bleeding freely, and breaking up when touched. The os was slightly patent posteriorly; in a short time the hæmorrhage

ceased, and the patient survived. In consultation next day with my father, we concluded that the case was one of cancer, or perhaps, in its present state, more properly rodent ulcer. Labour came on naturally in a few days, and as the os expanded I could feel the fibres of the uterus, devoid of mucous membrane, giving way at each pain, and momentarily expected a heavy pain would tear open the uterus and kill my patient, but, providentially, the uterus expelled a mature foetus without accident, and she made a fair recovery. For some few months afterwards, the ulcer seemed stationary, and then an insurance was effected for her by her husband. Another medical man was called in to examine the patient, although it was in my examining district for that company, and I was in no way consulted. The patient after this had several severe attacks of uterine hæmorrhage; the case slowly progressed, implicating the urethra and anterior wall of the vagina, then the bladder, urinary fistula being established, and finally the patient died two years and a half after effecting the insurance. This may be an unusual case, and, as far as I judge, shows a want of precaution on the part of the society effecting the insurance, as the patient herself and her friends, and also the medical referee, considered that she was in a fair state of health. I attended the patient up to the time of her death, but the first acquaintance I had of the fact of the insurance was when I was asked to give a death-certificate. Cases similar to those referred to by Dr. Thomas and by myself can hardly be safely answered by the general questions: "Are there any evidences of cancer or diseased bone?" and "Have you reason to suspect uterine disease?" as, in the one instance, otorrhœa, and, in the second, leucorrhœa, are very general symptoms.

OBSTETRIC MEMORANDA.

TREATMENT OF UTERINE HÆMORRHAGE BY INJECTION OF PERCHLORIDE OF IRON.

THE following case may interest some, and strengthen the faith of others. A. S., a married woman, aged 36, was pregnant about the full time with her seventh child. She had severe hæmorrhage in her last confinement, five years ago, and considerable loss in the two previous ones. On May 6th, she awoke in the night with profuse hæmorrhage; this had ceased when I saw her; there were no symptoms of labour. She was kept in bed, and there was no return of the hæmorrhage or signs of labour until the 13th. In the morning, she had slight pain, with a sanious discharge; no other indication of labour. In the evening, she had sudden and severe hæmorrhage. I found her a good deal exhausted, and the os dilated to the size of a crown, with full placental presentation. With the hand in the vagina, I pressed the two forefingers into the uterus, and separated the placenta thus far all round. In doing so, I found the membranes just within reach. As the os was retained, I passed my hand into the uterus, ruptured the membranes, and brought down one leg. The hæmorrhage ceased. I gave her a full dose of ergot, and as there were marked signs of uterine action, I allowed the child to be expelled by the natural efforts. This, with the aid of a second dose of ergot, was accomplished in a little more than half an hour. Pressure on the uterus brought away the placenta, and with it a large quantity of coagula. Almost immediately the uterus relaxed, which was followed by severe and continuous hæmorrhage. Having mixed four ounces of the strong liquor ferri perchloridi of the *British Pharmacopœia*, with ten or twelve ounces of water, I introduced my left hand into the uterus, cleared out clots, and with the tips of the fingers touching the fundus, I carried the tube of a Higginson's syringe to the fundus, and slowly injected the whole of the solution. The hæmorrhage ceased at once, and never returned. The patient has made a slow but steady recovery, and is now able to sit up most of the day, and has never had, from first to last, a doubtful symptom.

A case of less urgency, but of like interest, came under my care a few months ago; a woman, about 35 years of age, pregnant of her sixth child, on two or three occasions had had hæmorrhage, though not of an alarming character. The labour was natural, the placenta expelled without aid, the uterus firmly contracted on seeing her an hour afterwards. She had some discharge; the uterus was large and evidently not properly contracted. Pressure caused contraction, and the expulsion of a considerable quantity of coagula. Hæmorrhage was not severe, but obstruction continued for two hours; the uterus never having fully contracted. As the patient was becoming exhausted, I injected an ounce (all I had) of the liquor ferri perchloridi, mixed with about four ounces of water; the hæmorrhage ceased at once, and never returned. The patient recovered without a single untoward symptom.

In the first of these cases, life was, I think, undoubtedly saved by

the prompt use of the iron. In the second, the patient escaped much loss of strength, if not worse evils. I report these cases, in the conviction that the success of a somewhat new method of treatment in the hands of an ordinary practitioner is the best proof of its value.

S. W. NORTH, York.

EMPHYSEMA DURING PARTURITION.

I WAS called at 4 P.M. one day, two or three years ago, to Mrs. R., a primipara, who had been in labour since the previous night. The waters had escaped shortly before my arrival, and on examination I found the os nearly fully dilated, and a cranium presenting. The head advanced slowly till 6.45, when it apparently became impacted between the ischial tuberosities, and the pains, which had been strong throughout, became very violent. I noticed at this time an increasing puffiness of my patient's face. It commenced so gradually, that none of us noted its onset, and Mrs. R. herself was quite unaware of anything amiss. The skin was quite natural in colour. Dr. Blundell states that in a case which came under his notice, there was "an erythematous flush of the integuments, so that at first glance the patient appeared to labour under a sudden attack of erysipelas". On pressing the skin with the finger, the characteristic crepitus removed any doubt as to the nature of the swelling, which rapidly increased until the face and neck were enormously inflated, and all semblance of chin or outline of lower jaw had disappeared. The air did not make its way downwards over the chest so readily. The forceps was applied as soon as possible, the patient being chloroformed. She recovered without any bad symptom, the air being very rapidly reabsorbed. No physical signs were detected in the chest. Notwithstanding the enormous strain on the tissues of the respiratory tract during the expulsive efforts of parturition, it is so rarely that any rupture occurs, that this case may be worthy of record. Dr. Blundell only met with one case; the woman having suffered similarly in a former labour, and recovering on both occasions without a single bad symptom.

ARTHUR DOWNES, M.D.

SUBCUTANEOUS EMPHYSEMA DURING LABOUR.

IN the *Obstetrical Journal* for April, Mr. Blennerhasset Atthill records a case of this very rare complication of parturition which occurred in his own practice. A primipara, aged 20, towards the close of the expulsive stage suddenly complained of difficulty of breathing and of sight. Her neck and face, and especially the eyelids, presented a bladder-like appearance; and this extended all over the upper half of both back and front of the body. Labour ended naturally; and the emphysema, which at no time gave rise to much trouble or interfered with lactation, subsided gradually in ten days. Mr. Atthill remarks that we have in this case "the simple fact that during the expulsive efforts the lung gave way at a weak point, at which point there was adhesion of the two surfaces of the pleura, allowing the air to pass into the subcutaneous cellular tissue of the neck. Had there not been adhesion, there would certainly have been pneumothorax and collapse of lung. In fact, the generally protective adhesion at the site of the damaged portion of lung—perhaps a minute cavity—failed under the extra force, and so led to the occurrence of that which the case presented." Mr. Atthill has failed to find in general obstetrical literature any similar accidents of parturition. But, strangely—rarities are seldom unique—he has been able to refer in detail to two recent cases: one in the *BRITISH MEDICAL JOURNAL* for January 29th, by Mr. Worthington of Lowestoft, who believes that in his patient "the emphysema was due to the rupture of some marginal air-cells into the anterior mediastinum"; and a second case reported by Mr. Prince of Harrow Road this year in a contemporary, and of which no explanation is offered.

HERBERT PAGE.

MALFORMED FÆTUS.

I WAS sent for early a few days ago, to visit a patient whom I was engaged to attend in her confinement. On arriving, I found the os uteri fully dilated, and the bag of waters low down in the vagina. The pains did not appear very strong. It being four miles from home, I went into the next room for some refreshment, but had not left the room more than a few minutes when she appeared to have a very heavy pain. I then found the membrane near the os externum, but could not feel any presenting part. With some little difficulty, I ruptured the membranes, when an immense quantity of liquor amnii escaped, several gallons, saturating everything. After one or two more pains, no part came down. I therefore passed my hand into the uterus, and found the placenta entirely detached, and only kept within the uterus by the membranes. Beyond the placenta, I found a hand, and then the breech. There was not the slightest hæmorrhage, and had not been during

gestation, except that once, when the woman was about four months pregnant, she said she lost about as much as at a menstrual period. I brought down the feet, and delivered. The placenta came away very shortly afterwards, with certainly not more than the usual amount of loss; but the interesting part of the case is in the malformation of the foetus, which weighed only about two pounds and a half, although it was at full time, and the woman had always before borne very large children. The legs and lower part of the child (female) are natural as far as the lower lumbar vertebrae; then there is a sudden rise in the bones of about an inch, and there are two distinct ridges about two inches apart, between which the spinal cord is seen covered only by the spinal membranes—the spines and back of the vertebrae being wanting. This continues up to the head, there appearing to be no cervical vertebrae, the head being stuck on to the shoulders. The bony part of the head is almost entirely wanting, there being no covering to the head except membranes, similar to what covered the cord. There is only so much bone as would be contained in a line drawn round the skull, just above the occipital protuberances—the ears and the supraorbital ridges. The ears are perfect, but rolled up; the nose is a hooked one, similar to a hawk's; the rest of the child is perfect. I have seen two acephalous cases within the last two years, but never one with the spinal malformation combined. One of these was born before I arrived. The other was rather difficult to make out: the head presented, and on examining a soft pulpy mass was found.

THOMAS TINLEY, Whitby.

SURGICAL MEMORANDA.

MODIFICATION OF HIGGINSON'S SYRINGE FOR VAGINAL USE.

THE ordinary posture, in using vaginal injections, is very inconvenient to females suffering from uterine derangements.

1. The posture is a constrained one, and cannot be remained in for a sufficiently long time to allow the fluid injection to cleanse away the debris from every part of the vagina, and produce its full effect.

2. The womb, in the half upright position of the body, is forced down lower than natural, and so prevents the full effect of the injection.

3. In many irritable and inflamed conditions of the womb, the use of the ordinary syringe is quite inadmissible without the assistance of a skilled assistant or nurse, and totally so in the ordinary position.

About fifteen months ago, Messrs. Maw of Aldersgate Street made, at my suggestion, an addition of two and a half feet in length to the exit pipe of the ordinary Higginson's syringe, and a soft India-rubber nozzle five inches long, perforated with a number of holes for vaginal injections. The end to be introduced into the vagina is closed and rounded, and the open end slips over the ordinary bone or ivory rectal end. It is used as follows. The patient lies in bed, with the nates placed over a bedpan, and the vaginal portion is introduced, the basin or reservoir being placed at the bedside, on a small table at or a little above the height of the patient's body. The suction pipe (weighted, if necessary, with a small piece of lead of two or three ounces to prevent its coming out) is placed in the reservoir, and the ball squeezed in the ordinary way, so as to charge the instrument with fluid, and then the whole tube, if the reservoir be placed above, acts as a siphon, and the injection is thoroughly applied without the least exertion or discomfort of position on the part of the patient. If it be intended to apply the injection for an interrupted time, the basin is placed lower, and the injection made by squeezing the ball at intervals. In either case, the flow from the vagina is received in the bedpan. This mode of injection is particularly useful in irritable states of the vagina, etc. I have no hesitation in saying that, since I used this very simple and inexpensive form of syringe, I have had very much better and more appreciably favourable results from the use of vaginal injections.

T. M. LOWNDS, M.D., Egham Hill.

ROYAL MEDICAL COLLEGE, EPSOM.—At the annual election, on May 25th, for pensioners and foundation scholars, there were ten candidates for the former, and forty-one for the latter. The following were the successful pensioners, viz., Mrs. Mary Baird, who recorded 10,136 votes; Mrs. Lucy Garrett, 6,021; Mrs. H. Jagoe, 5,537; and Mr. J. H. Jackman, 4,565; leaving six unsuccessful candidates. The following were the successful scholars: H. Bāsan, who polled 10,616 votes; R. C. Nisbet, 8,251; C. W. Roberts, 8,153; H. R. Thompson, 7,428; S. Saunders, 6,782; E. W. D. Kite, 6,575; G. E. Adams, 6,486; W. Serjeant, 6,196; C. F. Baker, 5,849; H. O. P. Nind, 5,673; and J. A. Bowe, 5,620, leaving thirty unsuccessful candidates. The lowest polled only 178 votes.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

ST. MARY'S HOSPITAL.

CASE OF COMPOUND COMMINUTED FRACTURE OF THE PATELLA OPENING THE KNEE-JOINT: RECOVERY, WITH OSSEOUS UNION, AND WITHOUT IMPAIRMENT OF THE MOVEMENTS OF THE JOINT.

(Under the care of Mr. JAMES LANE.)

THE following case seems worthy of record, as an example of a very serious injury, which in former days would probably have been thought to require immediate amputation, but in which conservative treatment was followed by unusually rapid and perfect recovery. The permanently useful condition of the limb has been verified by a recent examination, made seventeen months after the occurrence of the accident.

A groom, aged 42, employed in training and breaking horses, was admitted on December 9th, 1874. His horse had run away with him, and, while going at full speed, his knee came into violent contact with a cart-wheel; he was thrown, and fell on the back of his head. When picked up, he was insensible; but had recovered his consciousness when admitted into the hospital, about half an hour after the accident.

State on admission.—Over the centre of the left patella was a vertical cleanly cut wound, about an inch and a half long; the patella itself was broken transversely about one-third from its upper margin, while a further fracture divided the lower fragment vertically into two nearly equal portions. There was but little separation of the fragments, the upper one not being retracted more than a third of an inch from the two lower pieces. The separation was much less marked than in the ordinary fracture from muscular action; the direct force which broke the bone in this case having probably not interfered with the attachments of the capsule and of the tendinous fibres of the vasti to the sides of the patella. The finger could, however, readily be passed through the wound and between the fragments into the interior of the knee-joint. The bleeding had ceased, and no appreciable discharge of synovia was noticed. The patient had also a scalp-wound, about three inches long, at the back of his head. The edges of the wound in the knee were brought together by two silver-wire sutures, and it was covered with a pad of lint dipped in carbolic acid and glycerine. The limb was then fixed in a straight position on a back splint with a foot-piece. The wound in the scalp was dressed with carbolic acid lotion.

December 10th. The knee was painful, and considerably distended with effusion, but no synovia had escaped; he, however, complained chiefly of pain in the head from the scalp-wound. Pulse 80; temperature 99.5 deg.

During the following week, the patient's pulse and temperature remained much the same. The knee became more distended, but was not severely painful. He was very restless and irritable, complained much of pain in the head, and would not keep the injured limb quiet. He was treated with subcutaneous morphia injections, and the bowels were at the same time freely acted upon. The pad of lint originally placed over the wound was not disturbed, but the whole knee was kept covered with lint dipped in a cold evaporating lotion.

December 18th. The pad of lint was removed to-day from the wound in the knee; it was found to be nearly healed.

December 27th. The silver sutures were removed. The wound was quite healed, but the effusion into the joint remained. The scalp-wound was nearly healed.

From this time, the patient progressed favourably. The effusion into the knee subsided by slow degrees. At the end of January, the splint was discontinued and a gutta-percha case was substituted, extending six inches above and below the joint, but leaving the patella exposed, as a sharp projecting spiculum of bone caused some annoyance, and threatened to break through the skin.

Early in March, a starched bandage was applied, instead of the gutta-percha splint, and the patient was allowed to walk about the ward. It was, however, only by slow degrees that he recovered the use of his limb. For some time, movement caused the joint to swell and become painful; and it was not until May 17th, five months after the accident, that he was considered fit to leave the hospital. At this time, he could walk pretty well, with the knee stiff, and had regained some power of

flexion and extension. The two lower fragments of the patella had united by bone, and were so closely connected with the upper fragment that it was thought that some amount of osseous union had taken place there also.

When seen recently, in May last, there was free flexion and extension of the knee, and the three pieces of the patella seemed to be firmly consolidated by bony union. The patient said he had resumed his occupation as groom for some months, and had been travelling on the Continent in charge of horses. He was able to ride and to mount and dismount without difficulty, though, perhaps, not quite so nimbly as before the accident; and he could not use the left spur quite as readily as the right.

HOSPITAL NOTES.

We have commenced a series of "hospital notes," which will serve to record points in practice, clinical and therapeutic hints, and brief notes of interesting points in relation to the science and art of medicine observed in the current inspection of hospitals. Such "chips" are among the most valuable materials of the workshop, and are too often sacrificed because there is no appropriate place in which they can be garnered. Contributions from the provincial hospitals will be very welcome in this column.

KING'S COLLEGE HOSPITAL.

Thoracic Aneurism: Laryngeal Symptoms.—We saw, with Dr. George Johnson, a man aged 59, admitted with attacks of spasmodic dyspnoea, and found to have paralysis of the left vocal cord. The patient said that about six months before, he felt peculiar sudden pain and choking about the upper chest and throat, and within a fortnight afterwards he became hoarse, and at times could not speak (it is worth noting that he remained for many months a patient at a "throat hospital"; as a purely "laryngeal" case); there was dulness below the clavicle, near the sternum, but no *bruit*, nor had there been perceptible impulse until lately. There was fulness on the left side of the neck; the left radial pulse was weaker than the right; the pupils were unaffected.

Dr. Johnson explained the palsy of the left cord by the pressure on the left recurrent laryngeal nerve of an aneurism developing chiefly backwards from the transverse and descending aorta, and he explained the spasmodic dyspnoea by spasm of the right cord, a reflex result, through the nerve-centre, of irritation of the vagus trunk of the left side. The other conditions which may cause the laryngeal stridor and the dyspnoea which often result from aneurisms or growths within the chest, are a bilateral spasm of laryngeal muscles from irritation of one vagus; *b* bilateral palsy of the same from pressure on one vagus and recurrent nerve. In general terms, a bilateral effect may be produced from a growth affecting one nerve only; this is proved by Bäumlér's and Johnson's cases (*Pathological Transactions*, vol. xxiii., and vol. xxiv.), and by Waller's and Rutherford's experiments on rabbits. For instance, the glottis being exposed, the superior laryngeal nerve was divided, its central end stimulated by a faradic current, and the glottis was at once spasmodically closed by strong adduction of both vocal cords. The explanation is, that a stimulus being sent through the *afferent* laryngeal nerve to the centre, is thence reflected by the *efferent* fibres of the two vagi through the recurrent branches to laryngeal muscles on both sides. Any movement of the larynx resulting from stimulation of *afferent* fibres of a vagus is bilateral; but direct stimulation of the *efferent* fibres of one vagus, as of the recurrent branch, or of the distal end of the superior laryngeal, causes movement of one side only. We know that the intrinsic muscles of the larynx are always, to a very great degree, bilateral in action; and, as Dr. Broadbent has suggested, muscles which act bilaterally must have their central nerve-nuclei so closely connected by commissural fibres that the muscles of each side receive the nerve-supply from both sides of the brain. Dr. Lockhart Clarke (in the *Philosophical Transactions*, 1868), has figured a connection between the fibres of origin of the spinal accessory nerve (which is known to supply the motor fibres in laryngeal branches of the vagus), and in this we appear to have an explanation of what we have recorded. This commissural union of the nerve-nuclei of bilaterally acting muscles explains certain well-known pathological phenomena as detailed by Dr. George Johnson, in his paper on the subject (*Medico-Chirurgical Transactions*, vol. lviii.). The patient offers an instance of another reflex action. Sometimes the muscles of the left cheek twitch, and the twitching can be produced by pressure at the root of the neck, implying reflected irritation of the fifth nerve. Another patient of Dr. Johnson got facial neuralgia, with facial palsy, and trismus, from a piece of flint embedded in a

partly healed wound of cheek on the same side, irritation being reflected from the fifth to the seventh nerve (*Transactions of the Clinical Society*, vol. vi.). One practical point may be further noted. In the experiments on rabbits, none of the reflex laryngeal movements could be produced when under the influence of chloroform, and preparations containing this drug have been found most useful in laryngeal spasm. The patient under notice, and others, had found great temporary relief from chloral hydrate. Dr. Johnson finds chloral also of the greatest use in pertussis, and in spasmodic asthma, in both of which complaints the vagus is involved.

Pneumonia in Children.—On examining the chest of a child said to have pneumonia, it was noticed that a diagnostic point between puerile and tubular breath-sound was that the former was scarcely heard with expiration, whereas the latter was then heard louder.

Empyema.—Concerning a case of empyema which had been aspirated, and was now wearing a drainage tube (one opening), it was remarked that cases of pleuropneumonia were generally dry, but that, when any fluid formed, it was usually purulent.

Albuminuria: Milk Diet.—A lad, aged 20, had been admitted in March last with effusion in both pleurae and in the peritoneum. There was no definite cause, and it does not seem of tubercular character, though at first suspected to be so; it suggests again the question of "catarrh of serous membranes". In the course of April, without evident cause, albumen was found in the urine with hyaline casts. This has gradually lessened, as has also the dropsy; the lad has had at different times, iodide of potassium, acetate of potash, quinine, and cod-liver oil, but Dr. Johnson attributes the improvement mainly to a steady course of milk. He has no preference for skimmed milk, especially in London. He has found often that a little solid food if given too early will increase the albuminuria.

The Urine in Cerebral Congestion.—A man was brought in with convulsion, probably alcoholic. "It is often said that urine is albuminous after a fit, from cerebral congestion; I never found it so, except of course, in confirmed uræmia."

Abdominal Abscess.—In one ward there are two women, each with a drainage-tube inserted in an abscess on the right side of the abdomen. One, unmarried, aged 50, had a swelling in that region about three years ago, when the catamenia ceased. It increased gradually till one month before admission, when the increase became rapid, and was accompanied with vomiting and faintness. The aspirator brought away a quantity of foetid pus, with quick relief. The diagnosis was not clear, but lay between pelvic hæmatocèle and perityphilitis. The history would seem to point rather to the former. But a more interesting case bears upon the question of dilating the female urethra for bladder-symptoms. We believe that in English literature, at least up to the present, no serious results of this operation have been recorded, even if it failed to cure. In the instance before us, a woman, aged 31, married eleven years, has had five children. With the last child, 18 months ago, she had a "fair time", but shortly afterwards had pain in the left iliac region. About four months afterwards she found pain during micturition, and blood and pus in the urine, and much increased frequency. At about the beginning of April, an instrument with three blades was passed into the bladder and opened, and afterwards an instrument was worn in the urethra, as she lay in bed, for four or five days. After the operation, much blood passed, and soon afterwards she noticed a swelling in the right side, which increased up to her admission on May 22nd. This proved to be an abscess, which Dr. Johnson considers to have its seat in the cellular tissue round the bladder. It discharged much pus, and continues to do so through an opening two inches above the anterior superior iliac spine. The patient had one severe rigor, and was put on five grains of quinine every four hours till moderate cinchonism was produced. She has still an evening temperature of 103 to 104 degs. F., with sweating and other symptoms of some degree of septicæmia, but the bladder symptoms are all better. There is no stone nor evidence of organic disease.

Interesting Cases.—Amongst other cases of interest in the same *clinique*, we noticed one of cerebellar tumour, with gradual loss of the special senses; one of thoracic tumour (carcinomatous) over which resonance is temporarily noticed; and a case of skin-bronzing in a young woman, aged 17.—The plan at King's College Hospital, by which a tested specimen of urine is affixed to each specimen glass, is a simple and good one; and the temperature chart in use has a serviceable blank column for brief notes of cases.

SIR JOHN CORDY BURROWS.—The will of this gentleman has just been proved by his son Mr. Seymour Burrows under the sum of £5000.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 23RD, 1876.

EDWARD BALLARD, M.D., Vice-President, in the Chair.

OBSERVATIONS ON BOX (*BUXUS SEMPERVIRENS*), WITH SPECIAL REFERENCE TO THE TRUE NATURE OF TETANUS.

BY SYDNEY RINGER, M.D., AND WILLIAM MURRELL, L.R.C.P.

THE authors were induced to undertake an investigation of the physiological action of box from the frequency with which it had been recommended in the treatment of hydrophobia. The views expressed as to the nature of box were founded partly on experiments made on frogs, and partly on the results of an investigation of the properties of gelseminum. The paper was divided into three parts—1. Introductory: the history of box, especially with reference to its use by the older writers on medicine in the treatment of hydrophobia; 2. Experimental: the action of box on the nervous system of frogs; 3. A consideration of the true nature of tetanus, illustrated by experiments on reflex action. In the second part, details were given of experiments performed on frogs before or after the injection of box. The drug caused paralysis, and then tetanus. The conclusions resulting from these observations were these: 1. The initial paralysis is cerebral in its origin; 2. The drug also produces paralysis and tetanus by its action on the spinal cord; 3. The sensory and motor nerves and the muscles are unaffected. In the third portion of the paper, the authors discussed the nature of tetanus. They were led to the conclusion that tetanus was not due to an excited condition of the spinal cord, but to depression or paralysis of the cord. If the symptoms induced by the injection of strychnine were due to mere stimulation of the cord, normal reflex action would be not only retained, but would be more vigorously performed. But, in frogs poisoned by box, irritation of the posterior extremities induced not a co-ordinated movement resulting in the withdrawal of the leg, but a general contraction of the muscles of the body, causing powerful extension of the limbs. This was regarded as evidence that the impression, instead of being limited in its action to that portion of the cord on which it impinged, was widely diffused through its motor tract, in consequence of depression or paralysis. It had been stated that box caused first paralysis of the limbs and then tetanus. But the authors considered it more rational to conclude that the drug first depressed the cord so as to diminish reflex action, and then caused tetanus by paralyzing its resistive force. If tetanus were due to excitement or stimulation of the cord, it was obvious that, as this condition subsided, the tetanic movements should gradually decline, and at last subside, with the restoration of normal reflex action. But the tetanic movements continued to grow weaker and weaker, till at last all movement ceased, and general paralysis ensued. In those cases in which, during the tetanic paroxysm, the muscular contraction was not greater, or was even less, than an ordinary reflex act, it must be admitted that the tetanus was not dependent on an excited condition of the cord, but solely on its lessened resistance, enabling an impression to diffuse itself through the greater part, or the whole, of the motor tract. In box-poisoning, a strong irritation often excited tetanus, whilst a feeble stimulus produced only a weakened reflex action. The explanation of this was, that in these cases the resistive power of the cord was but slightly diminished, so that a strong impulse could diffuse itself, whilst a weaker was confined to that part of the cord naturally associated with the stimulated nerve. Moreover, soon after the injection, the tetanus was limited to the irritated limb, because, the resistive power being but slightly weakened, the diffusion of the impression through the cord was correspondingly limited; but, as absorption continued, the resistive power grew weaker and weaker, and the impressions diffused themselves more readily and widely, until at last the whole, or a greater part, of the body became tetanised. The authors found in unpoisoned frogs, whose brains had been destroyed by pithing, that soon after the commencing decline of reflex action a condition of tetanus was observable. The tetanic symptoms were readily produced by gently lifting the animal and allowing it to fall on its back, or by striking it with the forceps on the cervical region. The tetanus varied considerably in its intensity in different cases. Sometimes the legs, though strongly shot out, were again quickly withdrawn; but in several instances the paroxysms, when at their height, lasted from a quarter of a minute to a minute, the limbs being so rigidly extended that the animal could be taken up by its hind legs and held out horizontally. The duration of tetanus varied, being dependent on the persistence of normal reflex action. The details were given of experiments, showing that this tetanus was purely spinal in its

origin, and an explanation was offered of the mode of production of the phenomena. Soon after systemic death, the cord became depressed, and reflex action was weakened; but with depression of reflex action there was diminution of the resistive power of the cord, whereby impressions ceased to be restricted to that portion of the cord on which they impinged, and, spreading widely, caused tetanic movements instead of a normal reflex act. At first, before there was much weakening of the resistance of the cord, a slight stimulation induced a natural reflex action; but, as depression of the cord progressed and the resistive power grew weaker, the tetanic movements became more powerful and were more readily induced. Moreover, it was found in these frogs, at a time when strong irritation was required to excite even slight tetanus, that a very powerful stimulation, such as a succession of blows on the back, would induce tetanus, which was immediately followed by diminished intensity of the ordinary reflex phenomena. The correct interpretation of these facts was that the blows depressed or broke down the resistive power of the cord, so as to weaken normal reflex action, and, by allowing the irritation to diffuse itself more widely, to cause increased tetanus. On striking vigorously and repeatedly a living and perfectly normal frog between the shoulders, there was excited at first a simple reflex act, but subsequently the posterior limbs after each blow shot out in a manner distinctly tetanic, although the movements were far less energetic than in pithed frogs on the decline of reflex action. The authors, whilst regarding tetanus simply as an indication of a diminution in the resistive power of the cord, pointed out that some tetanising agents, such as strychnia, left the reflex action unimpaired, whilst others depressed both the resistive and the reflex power. Some agents—for example, gelseminum—depressed the reflex function more than the resistive power, causing considerable paralysis but slight tetanus. Others—such as box—depressed the resistive power early and markedly, and subsequently and in a minor degree the reflex function, the result being strong tetanus, with slight paralysis. These views on tetanus threw light on the effects of slight chemical modifications of a drug on its physiological action. It was obvious that nerves in their constitution must differ from one another and from the brain and spinal cord, since a given poison might affect one part only. Strychnia excited powerful tetanus, and in large doses depressed simultaneously the motor nerves; but, if converted into an ethyl-compound, it no longer tetanised, but powerfully paralysed the ends of the motor nerves. By this change, its physiological action was not reversed, for as strychnia it paralysed the constraining or resistive power of the cord, whilst as ethyl-strychnia it paralysed the motor nerves.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 3RD, 1876.

WILLIAM O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

Flexible Uterine Sound.—DR. MURRAY exhibited a flexible vertebrated sound, which could be introduced limp, and when inserted, by twisting a screw at the end, the sound became firm and straightened. Adhesions could thus be detected. There was danger from the ordinary uterine sound passing through the fundus uteri. He only employed it in extreme cases of flexion, and not with a view to raising an adherent fundus.—DR. HAYES inquired if the uterine sound would pass through a healthy uterus.—DR. ROUTH stated that we could not tell what was a healthy uterus until we had passed the sound. He had seen the uterus perforated on three occasions by the sound passing right through the fundus.—THE PRESIDENT mentioned that Sir James Simpson had asserted that the sound often perforated the uterine walls, but it was a question whether in these cases it had not found its way into the Fallopian tubes. If the sound traversed the peritoneum, there would probably have been some peritonitis set up. In cases of sabinvolution, the walls were soft and fatty.—DR. GRIGG had seen a case where the sound perforated the fundus, the uterus being infiltrated with cancer. No evidence of the perforation existed *post mortem*.—DR. POTTER, on one occasion when endeavouring to redress a retroflexed uterus bound down by adhesions, perforated the uterine wall with the sound, and felt the point clearly through the abdominal wall, and yet no harm resulted.

Caries of the Pelvic Bones following Delivery.—DR. PLAYFAIR exhibited a specimen removed *post mortem* from a patient who had had craniotomy performed in two previous confinements. In the last one, she had been attended by a practitioner who had applied forceps at the brim. On admission to King's College Hospital, large portions of sloughy tissue were discharged from the vagina, and the urine escaped freely. Intense pneumonia of both lungs, probably of septicæmic origin, accompanied by much typhoid prostration, preceded the fatal issue. *Post mortem*, the left sacro-iliac synchondrosis was found to be

in a carious condition, the cartilage being entirely diseased, and the bones themselves extensively necrosed. The caries was probably the result of the septicæmia.—Dr. HAYES mentioned having seen the case, and stated that there had been a cough previously to labour, and it was, therefore, uncertain whether the pneumonia was antecedent to delivery.—Dr. SNOW BECK inquired as to the seat of the pneumonia, what were the stethoscopic signs, and what the character of the sputa.—Dr. PLAYFAIR explained that there were consolidation, crepitation, bronchial breathing, and the usual *post mortem* physical signs. He regarded the pneumonia as of secondary pyæmic origin.—Dr. WILTSHIRE thought it would be interesting to know the character of the locomotion, as there was separation of the sacro-iliac synchondrosis. He would like to know if there were any abscesses of the liver or other organs.—Dr. PLAYFAIR, in reply, stated that there were no abscesses of the liver.—Dr. SNOW BECK stated that in septicæmic pneumonia there was a watery expectoration, showing that there was congestion; but there was none of the ordinary rusty sputa characteristic of ordinary pneumonia.—Dr. CLEVELAND thought the question of injury from forceps a very important one. There was less likely to be any if chloroform were not given.

Case of Excessive Prolongation of the Anterior Lip of the Cervix.—Dr. ROUTH related the particulars of a case, which simulated polypus uteri. The projecting body appeared to be from six to seven inches long, and sometimes projected three inches beyond the vulva. It was removed by the *dérasseur*, the actual cautery being then applied to restrain hæmorrhage. There was no history of syphilis to account for the growth.

Further Report on the Case of Fibroid removed by Gastrotomy.—Dr. ROUTH stated that on section the tumour was solid throughout, exceedingly dense and hard, a purely fibrous growth, surrounded by a layer of black pigment.

A Contribution to the Statistics of Midwifery in General Practice.—Dr. COOPER ROSE gave the result of 1,250 consecutive cases of labour amongst well-to-do people, well nourished and carefully nursed. There were 199 primiparæ, and 17 cases of twins; 1,209 were vertex, and 19 breech-presentations. Only 2 mothers died, and 41 children. The forceps was employed in only 9 instances, turning in 6, and craniotomy in 4 cases. Details of the individual complicated cases were given.—Dr. EDIS thought the paper one of great interest. The Society were much indebted to Dr. Rose for relating his experience, and others would do well to follow his example, for there was much need of such experience to guide us as to when operative interference should be resorted to. With many practitioners, the employment of forceps was looked upon as a *dernier ressort*. Dr. Edis had been called to cases where labour had continued for many days, where the application of forceps succeeded in terminating delivery in less than a quarter of an hour. It would be well if it were more generally known that, in tedious and difficult cases of labour, the danger was not in applying, but in not applying the forceps. Numberless children's lives were sacrificed, and maternal risks greatly increased for want of timely assistance.—Dr. CLEVELAND could not but think there was an important connection between the few forceps cases and the fifteen still-births that were not accounted for. He believed there would have been fewer dead children if instrumental aid had been more frequently resorted to. He agreed with Dr. Edis, that it was most desirable there should be some general rule when the forceps should be employed. As regarded rupture of the perinæum, he considered that this accident might frequently be prevented by retarding the too rapid advance of the head, though the dilatability of the perinæum varied considerably. He agreed with Dr. Rose in the desirability of always maintaining careful guard and pressure over the uterus after delivery.—Dr. PLAYFAIR thought the communication one of great value. He felt diffidence in making any comments upon it, but thought the proportion of still-births, 1 in 30, rather large. It was a matter of urgent necessity to diminish the excessive infant mortality. Dr. Hamilton of Falkirk had had 600 consecutive cases without one still-birth, and other 750 cases and still none, owing to the timely application of forceps. At the Rotunda Hospital at Dublin, the forceps was employed once in every five or six cases, and no children were lost. It was a fault of modern midwifery that sufficient attention was not paid to the life of the child. The forceps was not applied nearly as often as it should be.—The PRESIDENT remarked upon the very small number of instrumental labours and the good results to the mothers. He thought the os, as well as the soft parts, should be dilated before attempting to apply the forceps, and then they might be used with safety to both mother and child.—Dr. B. ROBERTSON inquired if there were any reason for not stitching up the perinæum.—Dr. WESTMACOTT thought the whalebone loop would often prove of service.—Dr. SNOW BECK said that if anyone could draw up a code of rules which would serve as a guide for the application of the forceps, he would be conferring a great benefit

on all practitioners in midwifery; but he believed this to be impossible. Each case presented a combination of symptoms and facts peculiar to itself, and upon these symptoms the judgment and experience of the practitioner would have to decide. As to sutures in cases of ruptured perinæum, he regarded them as unnecessary. If the knees were tied together, the knees and parts came into apposition, and healing ensued.—Dr. COOPER ROSE, in reply, stated that the death of the patient after convulsions and chloroform seemed due to collapse, as sometimes happened after severe operations, and not to the effect of the chloroform. With respect to sutures in rupture of the perinæum, keeping the knees together with a bandage he found to be all that was necessary to secure good results. He never liked to interfere where nature appeared to be sufficient of herself to effect a cure. In regard to the high rate of still-births, no fewer than 6 were the syphilitic offspring of one mother, and others were unpreventable. As to the forceps, believing, as he did, that meddlesome midwifery was bad, he generally preferred patience to instruments, but acknowledged that extended experience might induce him to apply forceps more frequently.

Case of Puerperal Septicæmia.—Dr. HENRY GERVIS narrated the particulars of a case which he had watched from the commencement to its termination in St. Thomas's Hospital. The temperature observations from day to day were given, and the result of the *post mortem* examination. The case presented nearly every feature of septic infection—vaginitis, metritis, peritonitis, parametritis, phlebitis to a remarkable extent, embolic mischief in both lungs, with concomitant bronchitis, cedema, and pleurisy, congestion of the brain, and sero-purulent effusion into some of the larger articulations.—The discussion was adjourned until the next meeting of the Society, when Dr. WILTSHIRE proposed bringing forward a similar case.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, MAY 24TH.

SAMUEL CARTWRIGHT, Esq., President, in the Chair.

Syphilitic Teeth.—The adjourned discussion on this subject was renewed.—Mr. CARTWRIGHT expressed his regret that Mr. Salter was not present to open the discussion, especially as the cause of his absence was indisposition.—The SECRETARY read a letter from Mr. Salter, in which he regretted his inability to be present. He believed that Mr. Salter coincided with Mr. Hutchinson as to the existence of a peculiar type of tooth as the result of hereditary syphilis; but thought that more proofs were required to support the theory that mercury had any special action upon the teeth generally, or upon the six-year-old molars in particular. In those cases which Mr. Hutchinson had published, there was not always direct proof that mercury had been administered. Again, Mr. Salter thought that the cases were rare in which that mineral produced stomatitis in children, and that these malformed teeth appeared in people of all nations, whether it was used or not. His opinion was that there was nothing in the appearance of the so-called mercurial teeth to indicate that it was the result of other influences than depressed and arrested nutrition during development. At least 65 per cent. of the first molars showed symptoms of decay at an early age.—Mr. JONATHAN HUTCHINSON, after expressing his regret at Mr. Salter's absence, said that he did not think that the teeth which he called "mercurial" teeth were invariably owing to the effects of mercury. The malformation might be due to a variety of causes occurring in infancy. Constitutional influences might result in some congestion within the alveolar process, the capsule of the tooth being similarly affected. But he believed that mercury was the cause of the great majority of the examples of misformed teeth under consideration. The reason why the first permanent molar was the most liable to decay was probably that it was the first of the second set to calcify, and, therefore, was the most likely to suffer in the event of the child's health being decayed. As to the special characteristics of the mercurial tooth, the absence of enamel on the surface of the first four molar teeth was by far the most important. These teeth never escaped; and, if the others were affected, the central incisors, the lateral incisors, and the canines were most frequently so, the enamel being deficient. Syphilitic teeth were defective in size and shape, showing symptoms of general atrophy, whilst mercurial teeth showed few symptoms of malformation beyond the absence of enamel, a rugged condition of the denuded dentine being left. Mercurial teeth were invariably found in connection with lamellar cataract, the occurrence of which was subsequent to birth. In lamellar cataract, there was always a history of convulsions in early life; and, as a rule, mercury was largely administered in such conditions. He believed that lamellar cataract was connected with convulsions, and quoted several cases to prove that, where it existed when mercury was

not given, the teeth were unaffected; but that, when it had been administered for convulsions, the cataract and the imperfectly developed molars existed together.—Mr. COLEMAN asked whether Mr. Hutchinson had seen any tendency to transmission from parent to child of the peculiarly formed teeth of which he had been speaking.—Mr. HAMILTON CARTWRIGHT asked whether Mr. Hutchinson thought that, in the so-called stomatitic and mercurial teeth, it was necessary that there should be actual ulceration of the mucous membrane, and whether it might be owing to the effects of a special virus upon the developing structures; or did he think that actual stomatitis must be present.—Mr. HUTCHINSON said that, in that peculiar form of "craggy" tooth in which enamel was present, though imperfect, he frequently found it to be an hereditary condition; but he did not find this to be the case in the stomatitic or mercurial tooth in which no enamel was present. He did not think that ulceration need necessarily be present, but that congestion and inflammation of the parts connected with the development of the teeth was a quite sufficient cause. It would be interesting to discover what effects the salivation of a pregnant mother might have upon the tissues of the child.—Mr. W. HARDY related a case in which a child, who had been the subject of interstitial keratitis, in which the central incisor on one side only was of that conformation which Mr. Hutchinson thought to be diagnostic of syphilis. The corresponding tooth on the other side showed no signs of mal-development. There was no history of specific disease.—Mr. WARRINGTON HAWARD had examined the teeth of many children in the factory districts of Lancashire. Amongst many hundred children, he only found one case of inherited syphilis, and he did not see a single example of notched teeth. He had never seen a case of the typically notched permanent incisors in which the patient had not a history of hereditary syphilis. With regard to the so-called "mercurial" teeth, he found them very prevalent in the North, but he felt inclined rather to ascribe them to sweetmeats than to mercury, as the people there were able to afford many luxuries.—The PRESIDENT was inclined to agree with Mr. Haward, that sugar might have something to do with the early decay of the first molar teeth; though he thought that there was some difference between the merely decayed tooth and the stomatitic tooth.—Mr. HENRY LEE thought that to make syphilitic and mercurial teeth diagnostic of one particular condition was opposed to all the principles of medicine. With regard to syphilis, there was no one symptom which could be held to be exclusively diagnostic of the disease. He had seen paralysis and tetanus from syphilitic disease of the brain; but to say that lockjaw was diagnostic of specific taint would be ridiculous. His impression was that so described syphilitic and mercurial teeth were the result of impaired nutrition, whether caused by syphilis, scrofula, or any other condition. Doubtless, the hereditary form of syphilis might cause mal-development of the teeth; but this was simply the result of imperfect nutrition, and he thought that these results might be transmitted to another generation. Whether this was so with mercurial teeth, he could not say.—Mr. W. D. NAPIER expressed his gratification at finding that the opinions of Mr. Henry Lee, Mr. Francis Mason, and Mr. Risdon coincided with his own, and that that of Mr. Warrington Haward also tended towards the same conclusion. In answer to Dr. Drysdale's criticism, he justified the views that he himself held, as formed upon the basis of long personal experience; and to Mr. Coleman he pointed out that, by admitting several exceptions to the rule that had been laid down by certain physiologists for the determination of the existence of syphilitic taint, that gentleman had rather strengthened the arguments in favour of incredulity. Mr. Hamilton Cartwright's theory, that test-marks should not be looked for in teeth of the first dentition, because calcification took place *in utero*, he did not consider conclusive, so long as many congenital imperfections were acknowledged to be attributable to inherited syphilis. In reply to Mr. Jonathan Hutchinson, he said that it was his opinion that the difficulty of obtaining the previous history of the cases which Mr. Hutchinson would attribute to syphilitic taint, but which he himself believed to be more often the result of a combination of several inherited maladies, made the production of them or of illustrative casts, in most instances, wholly unprofitable; for which reason he had brought for inspection only one of the latter, and the blemish in this case might, he had every reason to believe, be attributed to a severe attack of scarlet fever in early life. He deprecated the acceptance of the theory that semilunar marks were a conclusive proof of inherited syphilis.

Dentigerous Cysts.—Mr. ALFRED COLEMAN read a paper on the pathology of that form of dentigerous cyst dependent upon a tooth, which, from misplacement or otherwise, had not been normally erupted. The writer first expressed his views upon the cause of the eruption of the teeth under normal conditions, which he accounted for by the growth of the maxillæ from their nutrient centres to their circumference, at which latter, as shown in many obvious instances, bone was

absorbed. The teeth, which were shown in many cases to have their fangs fully formed before eruption, were thus carried beyond the surface until their crowns meet with the opposition of opponents. Where this opposition was not afforded, teeth were exfoliated. These views, as advanced against the old theory, that the eruption of the teeth was due to the growth of their fangs, he had advocated in his lectures during and since the year 1865; but he did not claim priority, either for originality or publication, over Baumé, who had recently written exhaustively on the subject. Applying these views to the subject in question, it appeared to him that a misplaced tooth, so impacted between the roots of its fellows that it could not be erupted, would, after a time, when the process of bone-formation was less vigorous than at the period of the development and eruption of the permanent teeth, have its sac or that portion of it which surrounded the enamel, but which when that structure was perfected was quite detached from it in the advance of surrounding bone to the surface, thus leaving a space into which serous fluid, under atmospheric pressure, must be effused.—Mr. S. HAMILTON CARTWRIGHT exhibited several specimens of dentigerous cyst, amongst them one of a right superior maxillary bone in which the antrum was filled up with a cyst, the walls of which had become completely ossified, a supernumerary tooth being contained therein. He alluded to the various theories held as to the causation and pathology of dentigerous cysts, and said that he could not coincide with Mr. Coleman's view that the parietes of the cyst were the remains of the enamel organ—a view which had hitherto been generally maintained, though seeming to him to be not quite in accordance with the histology of dental development. Other views were that effusion took place between the remains of the dental and enamel pulps respectively, or between the enamel and the so-called cuticula dentis; but he thought that it was far more probable that the developmental sac assumed a secreting power after the tooth had been formed, the tooth being thus separated from its walls, the sac occasionally becoming ossified, as in the case he had shown; while in those examples where the crown of the tooth was only included in the cyst, the enamel organ might, perhaps, line the walls of the sac.—Mr. COLEMAN briefly replied.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, MARCH 14TH, 1876.

JOSEPH COATS, M.D., Vice-President, in the Chair.

Psoriasis Cured by Copaiba.—Dr. MCCALL ANDERSON presented a girl, nearly cured of psoriasis, although one or two faint marks could still be seen where the eruption had been. She had had several recurrences of the affection every winter, the eruption disappearing in summer, up till last summer, when it persisted; and, on admission to the Western Infirmary in the beginning of January last, she had a copious eruption extending also to the head. The treatment consisted exclusively in the internal administration of balsam of copaiba in capsules; and by the beginning of March the disease was almost cured.

Rupture of Spleen and Kidney.—Dr. JOSEPH COATS showed a specimen of rupture of the kidney and one of rupture of the spleen. Both the patients from whom these organs were removed died from the effects of a fall from a high window, and they were both peculiar in respect that there was no external appearance of injury corresponding to the internal lesion. He also referred to the conditions found in a case of injury to the head recently observed. In it, both kidneys were in an intense state of hyperæmia, the entire vessels being distended with blood. During the few hours of life, after the injury had been sustained, there was a very excessive secretion of watery urine. The injuries to the brain included laceration and hæmorrhage of the surface and hæmorrhage into the pons Varolii.

Syphilitic Tumour of Leg.—Dr. JOSEPH COATS showed a syphilitic tumour removed from the leg. It had formed a sessile growth of the shape of a flattened sphere, about an inch and a half in diameter. The tissue had an opaque yellow colour on section, and consisted of indefinite fibres, with fatty and pigmentary degeneration.

Adenoid Deposit in Liver.—Dr. DAVID FOULIS presented a liver, with numerous dark red soft masses, varying in size from a pin's point up to a pea; sections of these were placed under the microscope. The liver weighed thirty-four ounces; the tissue was flabby; the colour normal. The microscope showed, in the red nodules referred to, both white and red blood-corpuscles amidst a tissue similar to that of lymphatic glands. At one place, a small arteriole was traced into and across a red nodule, and it was plainly seen to be enveloped in the lymphatic tissue referred to. There were tubercular ulcers in the stomach and upper part of the small intestine. The duodenum was enclosed in a mass of gelatinous tissue, in which were set enlarged and cheesy mesenteric glands. These glands at one place pressed on the

gall-duct and on the portal vein. He thought that there had been infection of the liver, probably from the enlarged mass of glands, and that the lymphoid structures were seated in the perivascular sheaths; perhaps the term "miliary lymphoma" would best express the nature of the hepatic deposit.—Dr. PERRY said the case had been under his care; the symptoms had been extremely obscure and ill-defined; some effusion into the peritoneum existed; he had himself never seen anything like the appearances found at the dissection.—Dr. JOSEPH COATS said the case seemed to him to be one probably of lympho-sarcoma, in which the growth had penetrated into the hepatic artery or portal vein, the situation of the large tumour suggesting this; the multiple growths in the liver would thus be accounted for. It reminded him of a case which he had seen where the splenic artery, passing through a mass of cheesy glands, had been opened into, and there were numerous cheesy tumours in the spleen. The existence of soft tumours in the peritoneum around the glandular mass seemed to indicate that this mass was more malignant than ordinary scrofulous aggregations, and was in favour of its being lympho-sarcoma. Dr. Coats expressed his preference for the name lympho-sarcoma over lymphadenoma, chiefly on the ground that these tumours presented analogies to the sarcomata in their mode of growth.

Colloid Cancer of Mamma.—Dr. DAVID FOULIS showed a colloid cancer of the mamma, about the size of a hazel-nut, of a clear gelatinous appearance, quite circumscribed by a double layer of connective tissue.—In the discussion which took place, Dr. THOMAS REID referred to a case of this description, which had come under his notice some years ago; a fluctuating mass existed beneath the areola; and it was found, on removing the gland, to be a colloid cancer communicating with the lactiferous tubes. He thought the colloid substance was due to increase of the epithelial layers, and the fibrous part of the tumour to the stroma of the gland. From the few cases he had seen, he was inclined to think there was less tendency to recurrence than in other forms of cancer of the breast.—Some cases were mentioned by other members, tending to corroborate this last statement.

Lead-Pellets, etc., in Brain: Preservation of Intelligence.—Dr. HECTOR C. CAMERON showed lead-pellets and pieces of wadding found within the cranium of a young man, who had fired a pistol placed immediately below his chin. On admission to the Infirmary, a very large ragged wound of the neck, with the lacerated tongue protruding from it, was found; the parts were blackened, and great damage had been done to the soft palate. On the day after admission, his right orbit was found swollen, the eyelids being nearly closed and much discoloured; there was also subconjunctival ecchymosis. From this, Dr. Cameron had inferred fracture of the orbital plate. The eye was uninjured, and the sight good. The patient remained perfectly conscious up to his death. He answered questions readily by writing, and made his wants known thus.—Dr. FOULIS, who had made the *post mortem* examination, exhibited diagrams showing the injuries to the brain. The track of the shot went straight up, perforating the base of the skull immediately to the right of the crista galli. The right eyeball had escaped. The track went through the right frontal lobe, at the site of the olfactory bulb; it seemed as if, up to this point, the shot had kept in a body; but, on reaching the arch of the skull, it was deflected and scattered over the surface of the pia mater of the anterior half of the right hemisphere. The dura mater at the place of deflection was not torn, nor was the bone here injured. The membranes, however, were coated with a firm yellowish grey layer of lymph over the area where the scattered pellets lay. In the sloughing but circumscribed hole in the right frontal lobe, were found the two bits of paper and a few pellets now produced.

Ovarian Cyst, with Fallopian Tube stretched over it.—Dr. FOULIS also presented this specimen; and, as it appeared to be a true ovarian cyst with this peculiarity, it was referred to a committee for further investigation.

Enucleation for Sympathetic Ophthalmia.—Dr. THOMAS REID presented a patient, shown at last meeting, with sympathetic ophthalmia; and also the eyeball, which had been removed since then. The boy was fourteen years of age, and had been admitted to the Eye Infirmary on January 8th, with a wound half an inch in length, extending across the corneo-sclerotic junction of the left eyeball, and involving about equal extent of the cornea and sclerotic. The pupil was occupied by lymph exudation, projecting into the anterior chamber, and communicating with the wound of the cornea. The injury had been caused by dynamite explosion, and there was no evidence of any foreign body in the eye, pain and inflammation being slight. Under treatment by rest in bed and alteratives, the inflammation gradually subsided, and the lymph was in great measure absorbed. On February 2nd, a relapse occurred; the eyeball became injected in the ciliary region, and there was pain on pressure. Along with this, symptoms of sympathetic

irritation set in on the right side; and, on dilating this pupil, a small band of adhesion to the lens was observed at the lower and outer margin; the vision was still normal. Enucleation was decided on, but some delay occurred in getting the parents' consent. The left eye was removed on February 9th, under chloroform. On the 11th, the pupil, which had hitherto yielded readily to atropine, did not respond, and was kept in a medium state of dilatation only with difficulty. At the ciliary attachment of the iris, opposite the adhesion, there was a dark streak of engorgement, about three lines in extent; there was no pain, and vision remained good. Immediately after the operation, calomel and opium were given at night, and iodide of potassium during the day. The pupil soon began to dilate freely again. When now shown, the ophthalmoscopic examination revealed evidence of atrophy of the epithelial layer of the choroid, with slight capillary injection of the margin of the disc, this being due to the retinal veins. The eye had now become hypermetropic from the presence of hypertrophy of the deeper parts of the choroid. On making a section of the eye, after hardening in chromic acid, a band of lymph was found extending from the pupil to the cornea, and communicating with the zonula of Zinn, there being no trace of the lens. The ciliary body was hypertrophied, displacing the ciliary muscle forwards upon the iris; the retina was completely separated from the choroid, assuming a conical form, the apex at the optic nerve and the base at the zonula of Zinn, forming there a tolerably solid mass along with the exudation and the iris. No foreign body was detected.—Dr. REID showed, as a contrast to this case, a patient suffering from a very similar injury to the same part of the eye (received six weeks ago), where, after the lapse of a fortnight, an abscess formed in the ciliary region, and was now discharging pus, without any symptom of sympathetic disturbance having at any time appeared.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 11TH, 1876.

HENRY KENNEDY, M.B., President, in the Chair.

Non-pigmented Sarcoma of Eye.—Mr. H. WILSON exhibited the enucleated right eyeball of a woman. The eye had been blind for a year, but she had not suffered pain in it. Examination showed a bright reflection from the eye, chiefly on the temporal side. The fundus was pushed forwards toward the lens. The retina was slightly turbid, and its vessels were enlarged. Great agony suddenly set in, so that enucleation had to be performed without delay. A tumour was found to press upon the ciliary region, and the retina was detached. This tumour was a round-celled and spindle-celled sarcoma. Microscopical section showed that some of these distinctive cells had invaded the sclerotic, to which the disease was thus extending. The growth sprang originally, as is usual, from the choroid.

Osteomyelitis of Femur.—Dr. T. E. LITTLE showed the bones of the leg of a boy, aged 14, who had succumbed, after fifteen weeks, to the effects of an injury to the great toe of the right foot. After the accident, the lad overexerted himself, and in a day or so red lines were seen running from the seat of injury to the knee. The pulse was then 114, and the axillary temperature 104 deg. Delirium set in, and effusion into the knee-joint quickly took place. Deep-seated suppuration in the calf of the leg, and subsequently in the knee-joint occurred. Bed-sores formed on the fifteenth day. Obstinate diarrhoea and confirmed hectic ultimately ran down the patient. The cartilages of the articulating surfaces of the knee-joint and its internal ligaments were all destroyed. There were no granulations. The synovial membrane had almost disappeared, but in places it was still visible and deeply injected. The femur was extensively diseased. Osteophytes sprang from its lower end. A cavity existed in the medullary canal. This cavity was filled with a yellowish discoloured pus, in which shreds of lymph floated. A sequestrum of the cancellous tissue lay free in this bony abscess. The case was clearly one of diffuse inflammation, and it was noteworthy that the epiphysary line had acted as a line of demarcation of disease.

Disseminated Encephaloid Disease of Abdominal Organs.—Dr. GRIMSHAW exhibited the viscera of an intemperate shoemaker, who first suffered from dyspepsia in December 1875. Ascites appeared in the beginning of last February; there was pain in the left part of the epigastrium. The right hypochondrium was prominent. Dulness on percussion existed over the whole of the right side of the chest. Paracentesis gave exit to a dark-coloured fluid containing large oval cells. After death, an immense mass of encephaloid disease was found engaging the liver, the stomach—the coats of which were ulcerated near the cancerous tumours—the spleen, the great omentum, and the mesentery. The lungs also were engaged. The aorta was atheromatous.

ous, but the heart was healthy. Considerable pressure had been exercised by enlarged and diseased glands near the portal fissure on the cystic duct and inferior vena cava. The disease in the stomach had no doubt caused the pain in the left epigastrium.

True Aneurism of the Aorta.—Dr. HAYDEN laid on the table the thoracic organs of an intemperate man, aged 46, who had come into hospital for slight swelling of his face and feet. The heart's action was weak. A double murmur existed at the ensiform cartilage—of this, the first part was diffused and audible in the carotids, the other was confined in extent. Dulness prevailed from the nipple to the clavicle on the right side, and in this area a feeble pulsation was noticed. After some time, the pupils became contracted; the redema increased considerably. A strong heaving impulse and a double blowing murmur were perceptible in the right subclavicular region. Blood came up in mouthfuls at the end of February; and on March 4th the man died. The heart was enlarged, but structurally sound. The left ventricle was both hypertrophied and dilated. The aorta was enormously, but almost symmetrically, dilated to the end of its descending thoracic portion. Its walls were exceedingly atheromatous—the diseased process being in all stages of development. The origin of the innominate artery was diseased, but the rest of this vessel was healthy. The coronary arteries were pervious. Haemorrhagic infarctions were discovered in both lungs. Dr. Hayden said the case was an example of true aneurism, and presented the following features of interest: 1. The extent and degree of the atheromatous degeneration; 2. The occurrence of hypertrophy of the left ventricle, due to the atheroma; 3. The dilatation of the aorta, dependent on this hypertrophy; 4. A mechanical incompetency of the aortic valves, caused by the dilatation of the vessel above them dragging them asunder; 5. The resulting dilatation of the left ventricle; and 6. The co-existence of cirrhosis of the liver and kidneys.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, FEBRUARY 17TH, 1876.

J. M. TURNBULL, M.D., President, in the Chair.

On the Advantages of Ether over Chloroform as an Anæsthetic.—Mr. REGINALD HARRISON read a paper on this subject. After a few preliminary observations on the importance of duly discussing the relative advantages of anæsthetics, the author submitted for the consideration of the meeting four propositions. First: Is ether a safer anæsthetic than chloroform? In support of the greater safety, which the author maintained, of ether, he adduced statistics, independent testimony, and personal experience, the latter having been chiefly obtained in the Royal Infirmary, where ether, for the last twelve months, had almost superseded chloroform. Mr. Harrison alluded to a number of cases in which ether had been used, and expressed his entire satisfaction at the results so obtained. The second proposition was: Is the administration of ether attended with inconveniences, or followed by consequences, such as to render it an undesirable anæsthetic? Upon this point, Mr. Harrison was of opinion that the inconvenience attendant upon ether-administration had been much exaggerated. He had found that in the great majority of instances complete insensibility to pain could be obtained in five minutes. Many of the old objections had, he believed, now ceased to exist, in consequence of the great improvements that had been effected in the manufacture of ether. He reminded the meeting that the pure anhydrous ether should alone be used; that known as Robbins' anæsthetic ether for local purposes being dangerous for inhalation. As to after-effects, he thought that vomiting rarely occurred after ether-inhalation; certainly, more rarely than after chloroform. He considered that, as yet, we had no evidence that ether-inhalation had ever occasioned death by sudden paralysis of the heart; and that, inasmuch as deaths from ether were caused by asphyxia, we were, by the use of this anæsthetic in larger quantities than with chloroform, better able to regulate the effect to be produced. The most serious consequence of ether-inhalation was that advanced by Mr. Jessop of Leeds, who stated that several deaths from bronchitis had occurred after its use. The author thought, from the tenor of Mr. Jessop's letter, that this might have been due to faulty administration, as he had not noticed anything of the kind corroborative in his own cases. The smell of ether and its highly inflammable nature were not considered objections worthy of note, should its greater safety as an anæsthetic be admitted. The third proposition submitted was:—Are there cases in which chloroform is to be preferred to ether? Mr. Harrison confined his observations to general surgery, and expressed his concurrence with Mr. Pollock's experience, that ether was applicable in all kinds of operations, and for all varieties of persons from the youngest to the oldest. He reminded the meeting that chloroform had proved fatal in

the case of a child so young as two years of age (as recorded in the BRITISH MEDICAL JOURNAL for 1865); he mentioned this, as he thought there was a feeling that early life enjoys an absolute immunity from chloroform accidents. He had found children take ether quite as well as chloroform. The last proposition was:—Are we acquainted with other modes of producing anæsthesia which promise greater safety? He referred to nitrous oxide gas and bichloride of methylene. The former was only adapted to momentary operations, such as the extraction of teeth; whilst the latter had, he believed, proved more fatal, by occasioning paralysis of the heart, than even chloroform. In reference to the use of mixed vapours, the author had had but little experience. He hoped that information on this point might be supplied by some of the members intending to take part in the debate. The apparatus of Mr. Clover, by which nitrous oxide gas was used first, insensibility being subsequently maintained by ether, he understood had given excellent results, and so far had been unattended by any fatality. With our present knowledge of anæsthetics, Mr. Harrison was not prepared to admit that the principle of inducing anæsthesia by mixed gases and vapours was a good one; it being impossible to draw correct conclusions as to the respective merits of the vapours used. In concluding his observations, Mr. Harrison expressed his belief that much good would accrue from the discussion of this subject by an assembly composed almost entirely of those constantly engaged in the employment of anæsthetics.—Mr. T. SHADFORD WALKER testified to the practical value of the paper, but spoke principally with reference to the use of anæsthetics in ophthalmic practice. He had given ether largely, in cases of operations upon the eye, to patients of all ages, and found it highly satisfactory. He had never seen any untoward effects, but he admitted the objections of expense and of inconvenience in its use.—Dr. RAWDON, after two years' experience of ether, liked it better than ever. He had found it quicker in its action (when given properly) than chloroform, though he had met with exceptions to this rule. Sometimes also there occurred cases where there appeared to be want of susceptibility to its influence, though he believed that in these cases chloroform also was badly taken. He had never seen bronchitis produced by it, and very rarely sickness.—Mr. FAY spoke of the value of ether in dental practice.—Mr. BANKS said that, after large experience in all kinds of anæsthetics, he found that chloroform was most convenient, but ether safest; and he believed that we should soon agree with the Americans in preferring the safer one. He believed that, but for the name of Simpson, chloroform would have shared the fate of tetrachloride of carbon, and some other like anæsthetics. He nevertheless considered that deaths from chloroform were due to want of care or skill in administration, but that this source of danger was absent in the administration of ether, which might be given safely by an unskilled assistant, provided he did not choke the patient.—Mr. RUSHTON PARKER considered that waste of ether was effectually prevented by Clover's method of causing the patient to respire through a bottle containing ether. He approved of the administration of nitrous oxide antecedently to ether.—Dr. STEELE was not prepared at once to accept the view of the comparative safety of ether. Probably when we had a larger experience, we should find that the mortality after ether-inhalation was considerable. He believed that chloroform had never proved fatal in obstetric practice.—Dr. KELLERT mentioned, as one of the drawbacks in the use of ether, that the anæsthesia was of short duration, rendering constant administration of fresh doses necessary. He, therefore, preferred chloroform where (as, for instance, in country or colliery practice) an operation must be performed occasionally without any skilled assistance. He considered that ether was still on its trial.—Dr. GRIMSDALE had seen ether administered many years ago, when it was first introduced into this country, and considered it probable that the reason of its disuse was that it was not then obtained pure; also, that it was not given freely enough. Chloroform was, therefore, bailed with welcome at that time. He was satisfied that ether, as now used, was to be preferred to chloroform in many cases. In obstetric practice, however, he believed that chloroform was more satisfactory than ether to produce the partial anæsthesia then required.—Mr. PAUL said that he had seen deaths from chloroform, and was entirely in favour of ether.—Dr. BARR suggested that, inasmuch as ether often caused very violent struggles on the part of the patient, the excitement thus caused might possibly lead to fatal results in feeble patients. He would prefer to commence with chloroform, and keep the patient insensible with ether.—Dr. WALLACE thought that we might still look for a better anæsthetic than had yet been discovered. He believed the fatal character of chloroform had been much exaggerated. One reason for this belief was the apparently great want of correspondence between the number of fatalities and the immense quantity of chloroform manufactured.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

SATURDAY, APRIL 1ST, 1876.

HENRY JACKSON, M.D., President, in the Chair.

Case of Alvine Obstruction, with Observations.—Dr. IRVINE of Tarves reported the case of a man, aged 46, florid, hale, temperate, a farm-overseer, who, three years ago, suffered from a sudden severe attack of vomiting, with pain in the belly and constipation. He continued at his work, and the next day he was crushed between two carts. He was treated by leeches, and had cathartic pills and enemata, and hypodermic injections of morphia. The medicines taken by the mouth were rejected; and, without further treatment, the bowels were relieved two weeks after the first attack. He continued weakly for some months; and, when seen, he was found again suffering from vomiting, constipation, and pain in the belly, but without excessive tenderness of the abdomen, dryness or heat of the skin, or thirst. The pulse was 86; there was no drawing up of the knees, no tormina, no retraction of the belly. The treatment was by calomel, cathartic extract, enemata, and blisters. The vomiting and constipation continued, but the pain was relieved; and, after discontinuing treatment for several days, galvanism was used on the eighth day after the attack began; and, on the tenth day after the last evacuation, the bowels moved without any medicine, the evacuation being dark, hard, knotty, and mixed with blood. On January 8th, he had another similar attack; and was then treated by hypodermic injections of morphia, belladonna, and bismuth, with poultices and blisters. On this occasion, the constipation was relieved after two days. He had since then used bismuth, belladonna, and magnesia; and had suffered more or less from pain in the belly and swelling of the abdomen at night; the stools continuing very dark.

Case of Four Weeks' Starvation.—Dr. GEORGE of Keith reported this case. Mrs. J., aged 60, after having suffered for about two years from indigestion and irregular heart's action, was suddenly seized, on December 28th, 1875, with vomiting of blood. On visiting her almost immediately afterwards, she was found pulseless, with the skin cold and clammy, face sunken, lips blanched, clothes saturated with blood, and a chamber-utensil almost full of clots. On some brandy being given, she vomited a quantity of florid liquid blood, but this vomiting was checked by a draught of laudanum and turpentine. She continued very faint, cold, and clammy, with an inclination to nausea, for two days, taking iced wine and brandy, and also solid ice to suck, and having on the second day an enema which removed a quantity of digested blood from the bowels. On December 30th, she refused all food, drink, and medicine; and on the 31st, she was found with pulse 40; respirations 9; temperature in the axilla, 88 deg.; skin cold and dry, and arms and legs largely ecchymosed. No food was taken by the patient, however, up to January 30th, when, a large quantity of dark faeces having been passed, she took a little brandy and water; and she began to improve from that time, being able to move her arms in five days, and to be taken out of bed within a fortnight. She was now able to eat and drink well, being in better health than for years. She stated that her only unpleasant sensation during her long fast was nausea.

Notes on Midwifery Experience.—Dr. LYON of Peterculter read a paper on this subject. Owing to neglect of careful observation and research, parturition had up to a recent period been a subject for the exercise of men's ingenuity in inventing theories, and in describing positions of the child never existing in nature. Fifty years ago, when he was a student in Aberdeen, attendance on midwifery cases was not required, so that there were no opportunities of attending such cases until in actual practice, and then only in the more difficult cases, as those more natural were usually attended by midwives. As tedious cases were very common in those days, midwives were gradually dispensed with, and medical men were called in. Almost all first cases were reckoned "tedious", for no other reason than that they were protracted beyond twenty-four hours. It was quite common to be detained with a first case of natural labour two days and nights, owing to what was called "rigidity of parts"; the patient suffering more or less, with the os scarcely open, hard and unyielding, and the other parts dry and rigid. If the woman were stout (these suffered more), blood-letting, tartar emetic in small repeated doses, and hot fomentations, were used; often without effect. During this time, the pains were irregular, often entirely absent, and not expulsive. Afterwards the pains became regular; and then the parts slowly relaxed, and lubrication with mucus took place. Delivery was also delayed, often owing to the prejudice against instruments, when the use of the forceps would have saved much time and suffering. He had never used the long forceps, but had always turned when he was unable to reach the head with the short forceps. For a number of years

he had not met with the rigid condition of the soft parts, but complete relaxation with true labour-pains at once, and a large number of cases were now completed before assistance could be afforded. In most cases now, on the first examination, the cervix was quite obliterated, the os being the dilated outlet. When a distinct cervix could be felt, and the pains were irregular and not expulsive, true labour had not begun, and the symptoms were relieved by a full dose of opium. In regard to the "mechanism of parturition", it was strange that it still should be unsettled. He thought that the perinaeum should be supported. This was of great importance. Many a perinaeum had been saved by it. He had never seen a rupture of the perinaeum in his practice, though there had often been rupture of the mucous membrane of the vagina. The protection might be owing to its retarding the passage of the head, and thus allowing more gradual stretching. He believed that after the child was born a period should be allowed for the uterus to rest; and, unless signs of flooding came on, the uterus should not be grasped as soon as the fetus was expelled. Nature should be imitated, and a period of rest allowed. The expulsion of the placenta, when allowed to take place naturally, was by the edges coming first, the placenta being doubled and folded on itself; the folds being always in the direction of the length of the passages. When traction was made on the cord, and this was continued till the complete expulsion, the part first expelled was that into which the cord was inserted. This should not be the case. If it were necessary to help the expulsion, the best way was to lay hold of the edge of the placenta with the finger, and use a little gentle pressure, so as to assist in the natural folding. The only defence for pulling at the cord was its tending to ensure contraction of the uterus, but there were better means for doing this.—Dr. HIRSCHFELD used the long forceps, and considered grasping the uterus very useful.—Dr. ANGUS FRASER never supported the perinaeum, but always grasped the uterus.—Dr. ALEXANDER REITH had been in the habit of grasping the uterus, with the result of almost always finding the placenta on the bed. He considered support to the perinaeum useful.—Dr. CROMBIE believed that the pains began at the neck of the uterus, and thought this could be proved by examining the os and the abdomen at the same time. He always used the long forceps, and never turned when he could reach the head by the forceps. He considered that the uterus should be kneaded as soon as the child was born, as, by so doing, the probability of flooding was diminished.—Dr. WIGHT began his practice by supporting the perinaeum, but did not do so now. He had never had a case of rupture in natural labour.

The discussion was adjourned till next meeting.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

VESICATING COLLOID.

MESSRS. GALE AND CO., 15, Bouverie Street, have introduced a very convenient vesicating colloid, which has much to recommend it. It is prepared by exhausting powdered cantharides by means of the best solvent of cantharidine—acetic ether and alcohol. The cantharides powder is tightly packed in a percolator, and the acetic ether and alcohol passed through it until it is quite exhausted. To this solution a sufficient quantity of pyroxylin is added to convert it into colloid. This is next rendered flexible by the addition of Canada balsam and castor-oil. Vesicating colloid will be found to be a safe, powerful, and certain blistering agent; and, owing to its being in the form of colloid, its application may be well defined, as it is not liable to spread as ordinary blistering liquids do.

SYRUPUS CINCHONÆ ALCOHOLICUS (SCHACHT).

THE opinion is largely entertained that cinchona bark has a combination of properties which no one of its alkaloids, taken singly, nor indeed any available combination of them, can be said to possess. The preparation of a really complete alcoholic extract has therefore been justly considered a desideratum. This Mr. Schacht has aimed at producing in the Syrupus Cinchonæ Alcoholicus, which is made "by completely exhausting the bark with alcohol" and combining the product with syrup. It is an agreeable and promising preparation; it is prepared by Schacht and Towerzey, Clifton, Bristol.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 1ST, 1876.

STATISTICS OF THE EFFECT OF THE CONTAGIOUS DISEASES ACTS.

THERE are few subjects relating to which trustworthy statistics are more difficult to obtain, than the result of the Contagious Diseases Acts upon the health of what have been called the protected districts. The collection of the facts which serve as the basis of such statistics is beset with inherent difficulties, which have appeared insurmountable except as regards the army and navy; and the migratory character of residence at different stations, at home and abroad, under and not under the operation of these Acts, seriously complicates the preparation of statistics even relating to our army and navy. The whole subject, moreover, is one that has by the opponents of the Acts been so completely taken out of the region of calm and dispassionate discussion, that it has become singularly difficult to secure a critical examination of statistical evidence on either side of the question. The opponents of the Acts are so strongly convinced of their political, social, and moral iniquity, that, like antivaccination agitators, they distrust all figures giving evidence which does not coincide with their convictions. Bearing in mind both the inherent difficulties surrounding the statistical aspect of the question, which is more easily attacked than defended, and the form of the attack which might be expected from so conspicuous an opponent of the Acts as the Right Honourable James Stansfeld, M.P., we must confess that we anticipated but a barren result from his paper on the Validity of the Annual Government Statistics of the operation of the Contagious Diseases Acts, recently read before the Statistical Society. The paper itself and the discussion which followed, only proved that this subject has become so much one of political or moral feeling and sentiment, that the opponents of the Acts are not disposed to be convinced by figures. Mr. Stansfeld commences his paper with a statement that he is "absolutely opposed to the Contagious Diseases Acts from a hygienic point of view", and proceeds to affirm that, "You may reduce the percentage of cases of disease consequent upon sexual vice in given localities for a given time, but if your policy stimulates and increases the vice itself, that reduction may be temporary only, and its advantages apparent and not real. Or you may succeed permanently in reducing the percentage of specific disease, but at the cost of so stimulating vice, and especially early vice, that you may inflict a more general and irremediable injury on the health and vigour of the people than if you had left the specific disease untouched and unaltered." To argue with an anti-contagious disease advocate on these terms is simple waste of time. The question he affects to discuss is, whether statistics prove any decrease of specific disease as the result of these Acts; but he is careful to guard himself beforehand with the declaration that, in his opposition to the Acts, decrease or no decrease of specific disease does not influence him, even from a hygienic point of view.

Mr. Stansfeld attacks in his paper three sets of Government statistics, which treat more or less with this subject; the statistics contained in the Army and Navy Medical Reports, which show the reported cases of specific disease in the army and navy as influenced by the Acts, and the police statistics, which attempt to show the effect of

the Acts on prostitution in protected districts. The statistics of the army and navy exhibit a decrease of specific disease as the result of the Acts; and those of the police a marked decrease of prostitution in the protected districts. Neither of these deductions suits the arguments of the opponents of the Acts, and they are strenuously opposed by Mr. Stansfeld in his paper. The general tone of the paper with reference to the Army and Navy Reports implies a charge that the statistics are deliberately compiled with a view to show the advantageous results of the Acts; it is asserted that the figures are "dramatically" grouped and arranged for this purpose, and, although Mr. Stansfeld says in conclusion, "I find them (the figures) not impartial, but constructive, classified, and grouped, to support an existing policy in legislation"; he adds, somewhat paradoxically, "but I say nothing against their good faith".

It is impossible here to discuss in detail the figures in the army reports which were more especially the ground of Mr. Stansfeld's attack; but it appears to us that, if all charge of *malæ fides* is withdrawn, and in his remarks at the close of the discussion Mr. Stansfeld did most clearly disown such an intentional charge, the Government figures, as reproduced in the paper, prove most clearly a reduction of cases of primary venereal sores at the protected stations as the result of the operation of the Acts; whereas, the reports candidly acknowledge that the ratio of cases of gonorrhoea shows scarcely any decline. During the five years, 1868-72, the ratio of reported cases of primary venereal sores at the stations under the Acts, with an average strength of 41,319, averaged 4.49 per 1,000 *per annum*; whereas, at the stations not under the Acts, among an average strength of 23,894, the ratio was 9.16 per 1,000. Again, the number constantly in hospital with primary venereal sores in the four years 1870-3, at the stations under the Acts, averaged 4.33 per 1,000; while, at the stations not under the Acts, the average rate in the same years was 9.48 per 1,000. Then, as regards the table which Mr. Stansfeld describes as being "more dramatically but still less scientifically grouped", the facts set forth by its figures are sufficiently striking fully to account for the attempts made to discredit it. The figures relate to the fourteen years ending 1873, arranged in the following manner: the four years, 1860-3, representing the period antecedent to the passing of the first Act of 1864; the six years, 1864-69, during which the two Acts of 1864 and 1866 were partially in operation; and the four years, 1870-3, during which the later Act of 1866 was in full operation. We may ignore the statistics of this table so far as they relate to gonorrhoea, as it is admitted that they show no appreciable effect from the operation of the Acts. As regards the ratio of cases of primary venereal sores, it was at the stations "never under the Acts", 116 per 1,000 in the first, and 108 both in the second and third of the before-mentioned periods. At the stations "ultimately brought under the Acts", the ratio of those cases, however, which was 130 per 1,000 in the four years prior to the passing of either of the Acts, declined to 87 during the six years when the Acts were partially in operation, and further to 52 in the four years when the Acts were in full operation. Thus, prior to the Acts, the ratio of disease in the stations subsequently brought under the Acts was 12 per cent. higher than at those stations which have never been brought under the Acts; whereas, since the Acts have been in full operation, the ratio of this disease at the protected stations has fallen more than 50 per cent. below the ratio at stations not under the Acts. It is true that the ratio has fallen both at protected and unprotected stations, but the before-mentioned figures show the strikingly increased rate of decrease at protected stations. Now, Mr. Stansfeld attempts to make capital out of this decline at unprotected stations, and urges that the grouping of the years is dramatic and unscientific, and that it would be fairer to calculate the rate of decrease from the rate in the last year prior to the passing of the Acts; this course would show a smaller decrease, as the rate in this year chances to be considerably below the average rate in the four years prior to the Acts. It is impossible to discuss seriously a charge which displays such an unscientific suggestion for the arrangement of these

statistics. Grouping of years together is the only legitimate method for dealing with such figures, and as the grouping of the years adopted is the one naturally suggested by the facts, relating to which information is required, the comparison of the average results for each of the groups is not only scientific, but must yield trustworthy results, always presuming that the facts which served as the basis of the calculations are real facts, and impartially collected and arranged.

It was fortunate that the recent return of Dr. Balfour from foreign service enabled him to be present and to take a prominent part in the discussion which followed the reading of Mr. Stansfeld's paper. Dr. Balfour frankly took upon himself the whole responsibility for the preparation of the army statistics relating to the effect of the Acts upon this specific disease in the army, as published in the Army Medical Reports up to and including the report for 1872. Those who know Dr. Balfour personally, and even those who only heard his remarks on this occasion, cannot avoid sympathising with the earnest warmth with which he repudiated the charge, inferred by the general tone, even more than the actual words, of Mr. Stansfeld's paper, that these army statistics had been compiled with the object of supporting an existing policy in legislation. The imputation of unworthy motives—and few motives are, scientifically, more unworthy than the publication, for a purpose, of figures which are "not impartial"—has always been a favourite proceeding with the opponents, both of the Contagious Diseases Acts, and of compulsory vaccination. Inspector-General Lawson, in defending the army statistics on this subject, was able to point out many palpable errors into which Mr. Stansfeld had fallen in his criticism of these statistics, through his want of scientific, medical, and statistical knowledge. Dr. Drysdale, who expressed his belief that the Contagious Diseases Acts had led to an increase of the most dangerous forms of syphilis by their partial application in England, urged that a similar result had been produced on the continent by a general application of similar laws to the entire population; with regard to the army statistics of the subject, he pronounced them to be utterly valueless, because no attempt was made to classify the primary venereal sores as soft and hard. Dr. Nevins, whose opinions and facts are largely reproduced in Mr. Stansfeld's paper, spoke in support of the views expressed by the reader of the paper, and made some serious charges of partiality against the text of some of the army and navy reports, although he admitted that the facts contained in the tables to those reports were, in the main, trustworthy.

Dr. Mouat, of the Local Government Board, declared his conviction that the reader of the paper had triumphantly proved his case, and pronounced a somewhat extravagant eulogium upon the manner in which the right honourable gentleman had handled his subject. Dr. Wm. Farr, F.R.S., and Dr. Guy, F.R.S., both past Presidents of the Statistical Society, were of opinion that, from a statistical point of view, Dr. Balfour and Inspector-General Lawson had successfully rebutted the charges made by Mr. Stansfeld against the "validity of the Government statistics".

We will not attempt to follow Mr. Stansfeld in his discussion of the value of the police statistics which profess to show the effect of the Acts upon prostitution in the protected districts. We have not much faith in police statistics in general, as we recently pointed out with reference to their statistics of suicide, and their statistics of prostitution may be as untrustworthy as Mr. Stansfeld would have us believe; but it must be remarked, that his rebutting evidence is inherently weak, and that, without conclusive evidence, which in the nature of things it is very hard to obtain, it is fully as probable that the operation of the Acts has been to reduce the number of prostitutes in the protected districts, as that the operation of the Acts has been largely to stimulate prostitution. The opponents of the Acts are illogical in denying that their operation has led to a reduction of the disease, at the same time that they urge that immunity from disease, due to the State regulation of prostitution, stimulates and increases the vice itself. Then, as to the charge of the large increase of clandestine prostitution, which only means the existence in protected districts of a considerable number of

unregistered prostitutes, what does it amount to? No one supposes that all women who live an immoral life are registered; but it is impossible to doubt that the registration and submission to examination, etc., of the large proportion, including the lowest class, of prostitutes, has a tendency to produce the decrease of disease in protected districts, which is shown in the figures published in the Army and Navy Medical Reports.

It is well to remember that the promoters and supporters of the Acts do not recognise their influence, if any, on prostitution as any argument either for or against their expediency. Parliament in passing these Acts, pronounced the strongest protest against the right of an individual suffering from a loathsome disease knowingly to communicate it to another; and, we venture to believe, that Mr. Stansfeld has failed in his attempt to prove that the operation of the Acts has not led to the results which was expected from them, as regards their effect upon the health of the army and navy.

Mr. Stansfeld, however, urges in his paper that, "you cannot judge the hygienic consequences of such legislation by reference to army and navy statistics only; it affects, also, the civil population within the districts to which it applies". The reports of the Registrar-General afford the means for observing the rate of mortality referred to syphilis in these protected districts both before and after the Acts came into operation, and for comparing these rates with those which prevailed at similar periods in other parts of England and Wales not under the operation of the Acts. A careful investigation of these facts has produced results which are full of interest, and call for more detailed notice than space will allow on the present occasion; we propose, therefore, to discuss them at an early opportunity.

THE PLAGUE.

WE regret to announce the presence of plague at Shuster, in south-western Persia. The malady is reported also to have shown itself in Persian Kurdistan, south of Lake Urmiah. The extensions across the Turco-Persian frontier immediately before the customary decline of the disease in Mesopotamia, after the accession of hot weather, suggest that the newly invaded area may become the seat of prevalence of plague in 1877. Each year since the beginning of the present period of increased activity of plague in Mesopotamia, a new district has been invaded, and the area of prevalence has become widened. First, in 1873-4, limited to certain marsh villages on the Lower Euphrates and Tigris, in 1874-5 the disease attacked some of the towns along the course of the streams and on the borders of the infected marshes; and now, in the present year, it has attacked the great centres of population in Mesopotamia, namely, Hillah, Bagdad, Kerbella, and Nedjef. The reported appearance of the disease in Persian Kurdistan, and its ascertained appearance in Shuster, indicate a wider range of extension than had previously been observed in this outbreak, both to the north and to the south of the area of prevalence, since its reappearance in 1873. Russia, alarmed lest there should be an extension to the Transcaucasian frontier, and thence along the route by way of Poti to the shores of the Black Sea, endangering her territory in Europe, has already established a quarantine of observation on the Transcaucasian frontier and on ships sailing to her ports from the southern and eastern ports of the Black Sea. Persia, moreover, aided by the advice of Dr. Tholozan, had instituted measures of quarantine along the different routes of communication between Persian territory and Mesopotamia, and established a quarantine-station on the isle of Khiza, at the mouth of the Shat-el-Arab, to aid in the protection of her coast-line in the Persian Gulf. These different precautionary measures, more verbal than real, would appear to have proved as futile as like measures for the prevention of the passage of cholera across the Turco-Persian frontier, when that disease has existed as a newly spreading epidemic in Mesopotamia.

Shuster, where plague has now appeared, is a town of about 8,000 population, situated on the river Karun. In 1832, as many other

towns and villages of western Persia, it was depopulated by plague. The terrible visitation of that year, since which the district seems to have been free from the disease in an epidemic form, is still remembered by the older inhabitants, and the reappearance of the malady is regarded with a dread proportionate to the local traditions of its former severity.

This year's prevalence of plague in Mesopotamia is rapidly declining, and seemingly coming to an end. The official data which have, to the present time, been published on the subject, are very incomplete; but notwithstanding, they show that this prevalence has been of a magnitude as yet very imperfectly appreciated. In answer to Mr. Twells, in the House of Commons, on the 26th inst., the Under Secretary of State, Mr. Bourke, said that the loss of life from plague in Bagdad had been, in February and March, 259; April, 1,707; May, 1,550; and June, 143. These figures probably represented about one-half the actual mortality from the disease. Plague has been proportionately as fatal in Hillah, and probably also in the two sacred towns of Kerbella and Nedjef. In the two latter cities, great centres of pilgrimage, it is found exceedingly difficult to obtain even approximate returns of the sickness and mortality from plague. We may hope, however, before long to have a corrected and trustworthy account of this year's prevalence of plague in Mesopotamia. Dr. Arnaud, one of the Ottoman sanitary physicians, who investigated the outbreak of plague in the province of Benghazi, and prepared an admirable report of his inquiry, has been sent to Bagdad by the Ottoman Sanitary Administration, with special instructions to report on recent prevalence of plague in Mesopotamia. We shall look for his report with great interest, and in the hope that his researches will throw further light upon the remarkable epidemiological problem presented by the reappearance and growth of a believed extinct pestilence.

DR. PÉTREQUIN, the well-known surgeon of Lyons, has lately died.

THE honour of knighthood was on Tuesday last conferred by Her Majesty on Dr. Charles Wyville Thomson, Professor of Natural History in the University of Edinburgh, and Director of the Scientific Staff of H.M.S. *Challenger*.

SIR WILLIAM FERGUSSON.

WE are happy to be able to report that during the past week Sir William Fergusson has continued to improve. He has slept well, the dropsical symptoms have almost entirely passed away, and he has been able to walk daily into another room on the same floor.

DR. ARTHUR FARRE.

DR. FARRE continues to make satisfactory progress. The joint-wound seems to have closed, and the slight suppuration to be superficial. The splints have not been disturbed. We should have stated last week that Mr. Prescott Hewett is in daily attendance, together with Mr. Pollock; and that Sir James Paget continues to act as consultant in the case.

ROYAL COLLEGE OF SURGEONS.

THE number of candidates for election into the Council of the College has not been increased since our last publication. Messrs. Simon, Humphry, and Holden, offer themselves for re-election; and a fourth vacancy being caused by the death of Mr. Southam, the following gentlemen in addition offer themselves: 1. Mr. Edward Law Hussey, Oxford; nominated by Messrs. George May, J. Ludford White, Walter R. H. Barker, Edward R. Owen, Frederick J. Butler, and John Briscoe. 2. Mr. William Adams, Henrietta Street: nominated by Messrs. Jonathan Hutchinson, William MacCormac, C. F. Maunder, F. E. Hicks, John Croft, and William Allingham. 3. Claudius Galen Wheelhouse, Leeds; nominated by Messrs. George W. Callender, W. D. Husband, Samuel Hey, T. Pridgin Teale, Edward Lund, and Reginald Harrison. The list of stewards for the festival of the Fellows, which takes

place on the day of the election at the Albion Tavern, under the chairmanship of Mr. F. B. Curling, F.R.S., is rather smaller than usual, the number being seventy-nine, of whom fifty-seven are metropolitan, and twenty-two provincial Fellows.

THE ACCIDENT AT ST. GEORGE'S HOSPITAL.

THE inquest held upon the body of Eliza Gomez, who perished through the breaking of a tank at this hospital, ended in a verdict of "Accidental Death". The evidence given, stated that the deceased was twenty-four years of age, and the wife of a musician residing at Hammersmith. She had been a patient in Wright's ward for three weeks, and was at the time of the accident swept through the front into the Students' Room by the rush of water. The tank held 7,500 gallons, and had been erected in 1869 by Messrs. Easton, Amos, and Anderson. The tank had been cleaned out and thoroughly examined on April 4th. The whole of the wrought-iron work of the tank was much corroded and weakened; and Mr. Hunt, surveyor, who gave evidence, was of opinion that the immediate cause of the accident was the breaking of one plate of each pair of cheek-plates near the bottom of the tank, which was unequal to the double strain put upon it. The cast-iron plates being then left without restraint, bulged out, cracked, and fell. The tank would not be strong enough without the bars. There was no settlement or crack in the walls or girders upon which the tank rested. It was remarked that the accident would open the eyes of the engineering world, and it would be necessary to reconsider the construction of tanks of this height. The jury recommended that in future, after each cleansing of the tank, some competent person should examine it as to its strength.

CHARING CROSS HOSPITAL.

WE are glad to observe that this hospital is resuming its excellent work under improved conditions. In March last, it was entirely closed; even the new building, which had been prepared for temporary use, was, for some architectural reason, unavailable, and the hospital received no in-patients until about June 1st; up to the present date, however, nearly one hundred beds have been again brought into use. The three or four separate, but communicating, small wards on each side of the staircase have, on all the storeys, been thrown into large wards, eighty feet in length by about thirty-five in width; these are a great improvement, but still seem deficient in height, though the alterations were especially intended to remedy this—we believe that not one of them is so much as thirteen feet high. It is a matter for regret that more allowance in this respect could not be made. They look at present very clean and very cheerful, painted in green and buff; the fire-places have been set in the middle, two in each ward, and are fitted with Steers' patent air-chambered grates; the closets, two in number, with central lavatory, have been built out from the side, but are somewhat cramped for space; the windows have been much improved, having large upward louvres, easily controlled by a lever handle; ventilation is effected by these windows, by the open fire-places, and through the ceiling into a shaft warmed from the hot water-pipes which are laid in the new wards. It is hoped that 1,200 cubic feet may be allowed to each bed, but possibly the desire to have at least two hundred beds may lead to some curtailment of the space; this would be a matter for regret. It has always seemed to us the duty of a hospital to do everything possible to sanitary science, and especially to provide most liberally light and air for a moderate number, rather than to injure, as it must more or less, all its inmates, in the endeavour to serve too many. The wall-space has, of course, been lessened by the removal of partition-walls, and this lessening is made up for by the two new wards in Chandos Street; they hold twenty beds, and are to be appropriated to women and children; but the best result we could wish the hospital authorities to achieve, would be ample space and improved accommodation for their former total of 170 beds, rather than running the risk of vitiating their excellent work by any approach to overcrowding. All hospital experience teaches the same lesson. The Charing Cross

Hospital has already to contend with the objection of a large outpatient department on its ground floor, *under* its wards; and *above* its wards are provided the sleeping-rooms of nurses. We suppose that space in London is so valuable that there is no help for keeping to this old and objectionable custom, but it furnishes an additional and most forcible argument for the allowance of a maximum, and not a minimum, of cubic space for every one within the hospital walls.

CONVERSAZIONE AT THE ROYAL COLLEGE OF PHYSICIANS.

THE *conversazione* of Wednesday last attracted a distinguished company, and was highly successful. Dr. Risdon Bennett, the President, was assisted in the reception-room by the Censors, Dr. G. Johnson, Dr. Quain, Dr. Garrod, Dr. Farre, and other eminent Fellows. Among the various objects of interest displayed, Sir Joseph Fayrer contributed specimens of Benares work, India pottery, etc.; Sir H. Thompson, several paintings, views, and studies; and Dr. Billing, gems and works of art. Dr. Sibson lent some rare examples of Wedgwood ware, and original drawings by Flaxman and Fuseli. Mr. Seymour Haden sent a portrait of John Hunter, with an autograph letter; and Dr. Cheadle, a fine Vandyke of Sir Kenelm Digby. Dr. C. J. B. Williams sent curious nests of snails and spiders; and Mr. Curling, a Chinese translation of one of his works. Dr. Wilks sent a curious collection of photographs, not easily to be obtained or seen out of convict establishments—the inmates of a county jail; and, for comparison, photographs of lunatics, and of others who divided their life between prisons and asylums. Dr. Wilks has not yet formulated conclusions from his material, but seems inclined to consider both classes as to some extent “victims of their organisation”. Amongst scientific apparatus, we noticed especially the original and ingenious “amœbo-scope” of Professor Norris. His idea is to show that the movements of amœbæ are physical—*i. e.*, not vital; and he shows that movements may be produced in protoplasmic substances by slight changes of temperature. Thin strands, nearly six feet long, of India-rubber, support a weight with which is connected a multiplying index; and this index shows when the strands of rubber shorten under the influence of cold air, and lengthen again, or become relaxed, under the influence of warmth: movements which constantly alternate. The “Lissajone figures”, showing the relation of acoustics and optics, and the possibility of setting a tuning-fork by sight of its vibrations, were shown by Messrs. Ladd, and proved extremely interesting; and models of the same, with pendulum apparatus, by Messrs. Tisley. There were also amply supplied microscopes by the best firms. The toughened glass and specimens of Mr. Coleman’s painting, shown by Messrs. Mortlock, attracted much attention; as also did the magnificent gems of Mr. Flower. It was said that more than £100,000 worth of jewelry was contained in his case; and professional fees seemed to some rather light in the balance, when they examined an ear-drop of a single pearl valued at 1,000 guineas. An opal set of historic interest belonged to the Queen Hortense. Several artists of eminence, Mr. McCarthy and Mr. Armstead, lent excellent statuettes; Mr. Wyon, seals and dies; Professor Tennant, gems; Mr. Morson, works of art; and Messrs. Doulton, some admirable specimens of pottery. Mr. Mapleson lent a model of the Opera House of the future; and Mr. Fowler, a curious sword and antique vases found in excavating for its foundations.

UNCERTIFIED DEATHS IN BIRKENHEAD.

WE are very glad to observe that medical officers of health are now pretty generally giving valuable assistance to those who have long been urging upon the Government the necessity for a more complete system for the certification of the causes of deaths. This assistance is rendered in the shape of information as to the proportion of certified and uncertified causes of death in the different urban and rural sanitary districts. Mr. Vacher, the Medical Officer of Health for Birkenhead, in his last annual report, states that in 52 of the deaths registered in that borough during 1875, the cause of death was “entered in accordance with the statements of persons giving information to the registrars, information

often inspired by a midwife, or herbalist;” in other words, was not certified, either by medical practitioner or coroner. These 52 uncertified deaths were equal to 3.8 per cent. of the whole of the deaths in the borough, and corresponded with the proportion which prevailed in the previous year; 32 were of infants under one year of age, 10 of children aged one year and under five, 2 of children aged between five and fifteen years, and 8 of adults aged upwards of fifty years. Infants are the principal sufferers, from the neglect to provide duly qualified medical assistance during illness. The proportion of uncertified deaths in Birkenhead bears very favourable comparison with that which prevails in many of our northern manufacturing towns, but it is more than twice as high as in London, where it averages 1.5 per cent. Causes of death are more completely certified in London than in any other part of England and Wales, and yet in London, during 1875, more than 1200 deaths were registered without any scientific or satisfactory evidence of their cause. The number of uncertified causes of death in the whole of England and Wales, during last year, must have been little short of 30,000, or 5 per cent. of the total deaths.

THE HARVEY MEMORIAL.

THE response made to the appeal issued during this week by the Honorary Secretary to the fund, Mr. George Eastes, to various members of the profession, has been so hearty and substantial as to leave it no longer doubtful that a very considerable sum will be subscribed for the erection, at Folkestone, of a statue worthy of Harvey. A wide appeal for donations is made to all classes of the community; and a circular will at once be addressed to the members of the medical profession resident in the United Kingdom. The co-operation of all is earnestly desired. Subscriptions will be acknowledged in the *Times*.

SANITARY STATE OF NAPLES.

WE are glad to learn that the letters of Professor Maclean in this JOURNAL, on the danger to unwary travellers from the bad sanitary arrangements in some of the finest hotels in Naples, have been followed by good results. Instead of pursuing the course usual on such occasions, of sending an indignant letter to the *Times*, denying the facts and abusing their accuser, the Association of Hotel-keepers in Naples forwarded a memorial to the Government of Italy, representing the bad condition of the drainage of the city, and the way in which their interests were likely to suffer from this cause. The Government promptly replied by sending down a Royal Commission to inquire; the result being the abolition of an inefficient municipal body, and the commencement of energetic measures of reform. This is a good example of the operation of enlightened self-interest.

THE LATE HARRIET MARTINEAU.

THE autobiographic memoir of this gifted authoress in the *Daily News* of the 29th contains some very painful matter for the professional reader. Perhaps when the complete memoir, of which this is a brief sketch, is published, the sharp outlines at present so conspicuous may be softened down; but the present statement is not complimentary to the profession. That in 1839 “she was brought home on a couch from Venice in a state of health so hopeless that she left London and settled herself at Tynemouth, on the Northumberland coast, within reach of family care and attendance”; that “here she remained a prisoner to the couch till the close of 1844”; and yet, that she lived twenty-one years after this, does not show the profession to advantage in diagnosis, nor yet in prognosis. It is with a certain sense of confusion and shame, that we read that she tried mesmerism “to obtain some release from the use of opiates. To her own surprise and that of others, the treatment procured her a release from the disease itself, from which several eminent medical men had declared recovery to be impossible. In five months she was perfectly well”. When she afterwards rode on a camel to Mount Sinai, and on horseback to Damascus, the evidence of the recovery was complete. Her memoir before us finishes, “Her disease was deterioration and enlargement of the heart, the fatal character of which was discovered in January 1855. She declined through-

out that and subsequent years, and died on the 27th of June, 1876". There can be no doubt that Harriet Martineau's case is not one of the triumphs of the profession, and that the public attention attracted to her case did not add to the confidence of many persons in medical skill as to the diagnosis and prognosis of affections of the heart. In 1855, Miss Martineau was fifty-three years of age, and doubtless suffered, as many females do about that age, from considerable debility of the heart, with dilatation of its chambers. But was there any deterioration of its structure? The subsequent history disproves this part of the diagnosis; and it was on this deterioration (degeneration of structure (?)) that the hopeless, and as it appears mistaken, prognosis rested. With the advance in our knowledge of the progress of structural disease of the heart, such a gloomy prognosis is scarcely likely to be given now. The sensible treatment of rest on the couch, by reducing the demands upon the heart, continuing for so long a period, probably did much to falsify the prognosis given, and so to bring apparent discredit on the profession.

NORTHERN COUNTIES ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE annual meeting of the Association will be held in the lecture-room of the Literary and Philosophical Society, Newcastle-upon-Tyne, on Monday, July 3rd, at 2 P.M. A meeting for the transaction of formal business will take place at 1 P.M. At 2 P.M., an inaugural address will be read by the President, Dr. H. J. Yeld. The following papers will be read, etc.: 1. On the Prevention of Infectious Diseases, by Mr. H. E. Armstrong; 2. Demonstration of the Use of the Slide-Rule in the Preparation of Vital Statistics, by Mr. J. M. Fox; 3. On the Inefficient Registration of the Causes of Death, by Dr. J. M. MacLagan; 4. Short Notes on the Registration of Sickness, by Mr. Henry E. Armstrong. Dinner will be provided at the Turk's Head Hotel, at 6 P.M.

BROWN LECTURES ON PATHOLOGY.

AT the request of the Committee of the Medical Institute, the Senate of the University of London has directed that these lectures shall this year be delivered in Birmingham, by the Brown Professor, Dr. Burdon Sanderson, F.R.S. The lectures, five in number, on the "Pathology of Inflammation", will be delivered at 4 P.M., on Thursday, July 6th, the three following Thursdays, and on Friday, July 28th, at the Masonic Hall, New Street. This is one of the first fruits of the establishment of the Medical Institute. This valuable course of lectures has in London attracted large audiences of the most highly cultivated members of the profession, and no doubt will be received with equal interest in Birmingham.

RECENT URBAN MORTALITY.

DURING last week, 5,565 births and 3,228 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living, and varied as follows: in Plymouth it was 14; Sunderland, 16; Birmingham and Norwich, 18; Wolverhampton, 19; London, Nottingham, Brighton, and Bradford, 20; Newcastle-upon-Tyne and Leicester, 21; Edinburgh, Glasgow, Dublin, Portsmouth, and Bristol, 22; Hull and Salford, 23; Liverpool and Sheffield, 24; Manchester and Leeds, 26; and Oldham, 28. The highest zymotic death-rates in the English towns were 5.0 in Manchester and 6.8 in Salford. The fatality of scarlet fever showed a decline in Portsmouth, but had increased in Sheffield. In Manchester and Salford, 24 more fatal cases of small-pox were registered. In London, 2,296 births and 1,304 deaths were registered; the births were 53 above, the deaths 42 below the average of the week. The 1,304 deaths included 2 from small-pox, 31 from measles, 46 from scarlet fever, 7 from diphtheria, 36 from whooping-cough, 14 from different forms of fever, and 30 from diarrhoea; in all, 166 deaths, or 87 below the average, and equal to a zymotic rate of 2.5 per 1,000. Six of the deaths from scarlet fever occurred at Fulham. The 30

deaths referred to diarrhoea, including 19 of infants under one year of age, and were 18 below the corrected average. One death from "trichinosis" in the London Hospital was registered. In greater London, 2,781 births and 1,577 deaths were registered; in outer London, the general and zymotic death-rates were 13.9 and 1.5 per 1,000 respectively, against 19.5 and 2.5 in inner London. At Greenwich, the mean reading of the barometer was 29.82 inches; the mean temperature of the air was 62.4 degrees, or 2.2 degrees above the average. Rain fell on Friday and Saturday to the amount of .33 of an inch.

LIGATURE OF THE COMMON ILIAC ARTERY.

THE operation of ligature of the left common iliac artery for aneurism of the external iliac of the same side has lately been performed successfully by Dr. Pires Caldas of Bahia. The patient was a man aged 36. He was discharged cured at the end of fifty days; the circulation in the limb being re-established, and the temperature only slightly lower than normal in the foot. From statistical tables appended to the report of the case, it appears that the common iliac artery has been tied for aneurism in twenty-six cases (including the present one), and that recovery has occurred in eight of them.

THE UNIVERSITY OF GENEVA.

THE new Faculty of Medicine in the University of Geneva has been organised, and the following professors have been appointed: Physiology, Schiff; Anatomy, Laskowowski; Pathological Anatomy and Histology, Zahn; Clinical Medicine, Revillo; Clinical Surgery, Juliard; General Pathology, D'Espin; General and Operative Surgery, Reverdin; Therapeutics, Prévost; Hygiene, Dunant; Forensic Medicine, Gosse; Obstetrics and Gynaecology, Vaucher; Polyclinic, Vulliet; Pharmacology, Brun; Psychology, Olivet. The school will be opened at the commencement of next winter session.

NORTHERN MEDICAL CONGRESS.

A NOTICE of a rather unusual kind, signed by Professor Panum, appears in the *Hospitals-Tidende* for June 14th. It is to the effect that, believing that many young practitioners desirous of attending the medical congress to be held at Göteborg may be prevented from doing so by pecuniary considerations, he has made application to the Government for aid similar to that previously afforded on a similar occasion; and that the sum of 600 kroner (about £33) has been allotted by His Majesty the King of Denmark to defray the travelling expenses of ten young members of the profession (*medicinske Kandidater*). When the names of applicants have been received, a meeting of the Faculty of Medicine in Copenhagen will be held to make the necessary selection.

THE NORTH STAFFORDSHIRE INFIRMARY.

WE lately alluded at some length to the North Staffordshire Infirmary and to the system which obtains there whereby the factories of the neighbourhood contribute to the support of the hospital. So considerable are these establishment subscriptions, that nearly one-half of the entire income of the institution is derived from this source. The Infirmary is the centre, as it were, of a system of medical clubs; but the advantages which it offers are far superior to those which the ordinary clubs can obtain. From the members' point of view, nothing can be more satisfactory; but we doubt whether the interests of the medical profession have been sufficiently considered. The staff of the Infirmary receive no *honorarium* for their services; and unless this wide-spread club be conducted with an unusual degree of consideration, it can hardly fail to operate injuriously upon the general practitioner of the neighbourhood. Though the medical staff receive no payment for the attention which they bestow upon those who may properly be called club-patients, yet they have hitherto had the privilege of having a pupil at the Infirmary free of expense. This was a slight recognition of their services. But we understand that now it is in contemplation to withdraw the privilege, and to make a charge of £40 per annum for each resident pupil. Thus the medical staff will be practically left without any acknowledgment of their services whatever. And, not

unnaturally, it is asked whether the managers propose to offer the medical officers any equivalent for the privilege which is thus taken away from them. It appears to us that the principle upon which the question should be settled is clear enough, though there may not improbably be difficulties of detail. Wherever the applicants to a hospital or dispensary pay money, not as a matter of charity, but for value which they expect to receive, a commercial element is introduced, and the medical officers have a right to be paid for their services. At the North Staffordshire Infirmary, as we have said, nearly half the income is derived from the payments of the workpeople in the adjacent factories. When these people, or their immediate relatives, are ill, they have a claim upon the services of the medical men attached to the Infirmary: Why should not the medical men receive a certain proportion of the factory subscriptions? This is the principle which is carried out, we believe, at the Royal Albert Hospital, Devonport, and at all provident dispensaries. If the North Staffordshire is, in a great measure, a provident hospital, let it carry out the principle which is a fundamental part of all such institutions.

THE LATE PROFESSOR STROMEYER.

THE following extract from a letter written last month to a friend in England by the late Professor Stromeier, shows how much he appreciated the visit of the English deputation to him on the occasion of his jubilee, and is so characteristic of him, that it seems worthy of being made public.

"Nothing gave me more pleasure at my festival than the presence of three English gentlemen; and the sympathy which my whole career has created in your native country. This is no vanity; nor want of national feeling. Our own countrymen may be partial, which a foreign nation is not likely to be. The Emperors of Germany and of Austria, the King of Saxony, and the Grand Duke of Baden, have decorated me with crosses and stars. The Empress Augusta made me a present of a magnificent vase, with portrait of her husband. The University of Göttingen made me a Doctor of Philosophy. Amongst the presents which I received, there was one, however, which, a trifle in itself, was highly valuable to me, because I could regard it as a proof that my physiological way of explaining cases is still successful in practice. It was a small piece of carpet-work, made by a young lady whom I had lately cured of a large prolapsus recti by warm baths and a little magnesia. I consider this dreadful complaint as a consequence, not of paralysis, but of irritation—spasmodic reflex action. The case would have been operated upon, probably by actual cautery, if my interference had not taken place. I quote this to suggest the idea that there is no greater reward for a medical man than the success of his own ideas."

THE ORDER OF ST. JOHN OF JERUSALEM.

By the permission of the Queen, the Knights of the English League of the Order of St. John of Jerusalem (of which the Duke of Manchester is the Lord Prior) held their anniversary service at the Chapel Royal, Savoy, last week. Subsequently, the general assembly took place, when papers were read by the Rev. T. Hugo, M.A., and Surgeon S. Moore, Army Hospital Corps. The report states that the order continues to supply "diets" to convalescent out-patients of various hospitals, and is extending the use of its ambulance litter.

CUMULATIVE EXERCISE AS A THERAPEUTIC AGENT.

DR. J. MILNER FOTHERGILL writes to us:—It is usual to regard the inhabitants of the eastern cities of the United States of America as a people averse from physical exertion. American women are notoriously disinclined to take systematic walks or other form of exercise. A reactionary movement is now on foot and progressing rapidly. It is attained by a machine by means of which the patient is enabled to lift so many hundred pounds. At first, it consisted of a simple arrangement, by which so many bricks or other material were raised; now, however, it is a neat machine costing one hundred dollars; and made so as to be carried about when travelling, and "when packed it is about the size of an ordinary trunk". It is got up even in black and gold ornament. Various pamphlets are issued by the "Health Lift Company", in which elaborate directions are given; as how to place

the feet, how to stand, and how to lift. Ladies use these lifts, and the amount ordinarily lifted by them is 300 lbs.; gentlemen lift 600 lbs.; though of course these weights are exceeded by some lifters. Woodcuts are given; in which the attitudes to be assumed are illustrated. The great argument of the health-lift is, that by this means the muscles of the body generally are exercised, and that by its means more muscles are used than in any other form of exercise. The next argument is, that such exercise for ten minutes a-day "is found to be amply sufficient to keep the body in good physical condition"; a great matter with busy people. The business man can call in on his way to or from his office, and; in ten minutes, give himself thorough and complete exercise for the day. It is claimed for this exercise that it acts as a prophylactic; that it keeps the body in health, that it will make a thin man stout, and also that "faithful lifting" will make a large man small, in the way of reducing superfluous tissue. Its originator, Dr. George B. Winship of Boston, from a puny sickly youth, given to headache and indigestion, the subject of much taunting at Harvard College for his feebleness, in two years developed himself by lifting, till he was the strongest man in the class. Its use is recommended for brain-workers, professional men, and others of sedentary habits. Oliver Wendell Holmes, Judge Booth, the Rev. J. F. W. Ware, D.D., and a host of others, give their written testimony as to the good effects they derived from this exercise. A large number of medical men are found amongst the testimonialists. Not only does this lifting exercise improve digestion, relieve constipation, develop the chest, and cure cold extremities, but it eases headache, abolishes rheumatism and neuralgia. More extraordinary still, it is said not to be contraindicated by heart-disease; and certainly an enthusiastic advocate of it, with double aortic disease, of which he is fully cognisant, asserts it gave him rather a feeling of relief than of overtaxation when lifting. He is very strong about the exact attitude to be assumed when lifting. The body is to be kept erect, the back straight, and the lifting is to be done by the muscles of the thighs. The statements given about its suitability for women are rather astounding. "It strengthens the back and pelvic viscera; it restores displaced organs to their natural position; it relieves all their weaknesses, and prepares them for the ordeal of childbirth in the most natural and effective manner." It is further stated to exercise "a favourable effect upon the condition of pregnancy". And the question, "Should a woman who has frequently miscarried lift?" is answered thus, "By all means: It is not only perfectly safe; but, in most instances, a sure preventive of recurrence." A case is given. Several cases of prolapsus uteri cured by lifting are also given. When we remember how the uterus is kept in position by the retentive power of the abdomen, and the effects of muscular effort in extruding the contents of the abdomen and pelvis, these statements seem very extraordinary; but they are, apparently, all made in good faith. Many new and curious things have come across the Atlantic, but muscular effort, and that too of no trifling character; as a treatment for heart-disease; for prolapsus uteri, and miscarriage, is almost beyond belief. A means of securing efficient physical exercise for perfect health by ten minutes' exertion each day recommends itself to the busy; the advantages are palpable. But as to the utility of lifting in the cases just given, there is much room for honest scepticism. To some the whole thing may look more than dubious; but the testimonials of well-known persons are some guarantee of its genuineness. One hundred lifters have been purchased by medical men; so, in a little time, we will have further evidence on this new method of "cumulative exercise".

SCOTLAND.

At a large meeting of the managers of the Royal Infirmary, Aberdeen, held on the 23rd ult., Dr. Garden was appointed Junior Surgeon. The other candidates were Dr. Forbes Moir and Dr. Hall. The result of the voting was as follows: Dr. Garden, 82; Dr. Moir, 48; Dr. Hall, 8.

Two human skeletons were recently discovered by some workmen making excavations in the Nethergate, Dundee. They appeared to be those of full grown persons; one of whom was a male. The bones were in a state of advanced decay, and it is supposed they were interred at the end of last century; on the opposite side of the street also large quantities of human bones have been found.

THE Medical Superintendent of the Glasgow Royal Lunatic Asylum, Dr. Yellowlees, has just issued his annual statement in connection with the institution. During the past twelve months, 324 persons have been admitted, an increase of 28 over last year. Of those discharged, 85 were recoveries. The asylum had been much improved in its internal arrangements, and special attention paid to the occupation and amusement of the inmates.

At the quarterly meeting of the managers of the Aberdeen Infirmary and Lunatic Asylum, a letter was read from Dr. Kerr resigning the appointment of surgeon to the infirmary, which he has held since 1847. In proposing that the resignation be accepted, the Chairman referred in very complimentary terms to the efficient services rendered by Dr. Kerr during that long period. The income of the two institutions amounted to £16,382, and the expenditure to £14,184; a very satisfactory state of matters, and much in contrast with what is often found in infirmaries. The number of inmates of the asylum was stated to be 482.

CARBOLIC ACID POISONING.

AN old man named Henderson was found in an unconscious state on the North Inch, Perth, on June 21st. He died next day with symptoms of poisoning. A *post mortem* examination showed that death had been caused by drinking carbolic acid. The deceased is supposed to have taken the acid in mistake for whiskey.

EDINBURGH WATER-SUPPLY.

THE fortnightly statement shows that the water-supply is greater at present than has been the case at the same season for some years back. The total quantity in store on June 20th was 608,000,000 gallons, as against 417,000,000 gallons at the same date last year. The delivery on that day was at the rate of 27.34 gallons per head per day to a population of 281,200. The rainfall at Glencorse from January 1st to June 20th has been 19.25 inches, as against 12.70 inches in 1875, and 10.80 inches in 1874.

ANDERSONIAN UNIVERSITY, GLASGOW.

THE annual report has just been issued by the trustees of this institution. It appears that the £7,000 required to institute a chair of applied mechanics has been obtained, and a teacher of the subject appointed. The legacy of the late Mr. Kerr having been paid, the bursaries in anatomy, botany, and natural philosophy will be commenced immediately. Plans for the reconstruction of the western portion of the University buildings have been prepared, to give additional accommodation. Mr. G. Bischoff having resigned the Young Chair of Technical Chemistry, Mr. E. J. Mills, D.Sc., F.R.S., has been appointed in his stead. Under the Freeland Trust, the lectures on natural philosophy were delivered last winter by Professor Forbes, those on chemistry by Professor Dittmar, and those on anatomy and physiology by Dr. A. M. Buchanan. In all, the students who have attended the various classes during the past year number 2,230.

HEALTH OF EDINBURGH.

THE medical officer's report for May shows that during that month there had been 403 deaths registered in the city, being at the rate of 23.19 per 1,000 of estimated population. Since 1872, there has been a progressive increase of mortality in the month of May, the rate having been only 21.18 in 1873. The increase this year may be accounted for by the unusual prevalence and fatality of diseases of the chest, 20 per cent. of the total mortality being due to this cause alone.

While there has been no epidemic raging, all the more common diseases have been represented in the mortality. Thus, while there has been a striking diminution in the fatal cases of scarlatina, as compared with last year, fever, diphtheria, measles, and whooping-cough each add largely to the general mortality. It may be added that the accommodation provided by the Infirmary and Sick Children's Hospital proved amply sufficient for the requirements of the city, so far as infectious diseases were concerned.

BURIAL GROUNDS IN GLASGOW.

THE local authority of the city of Glasgow, some time ago, instituted an inquiry into the state of the burial grounds within their jurisdiction, which had been closed by the sheriff's warrant. In a report just issued by the sanitary inspector, a good deal of information on the subject will be found; it also contains proposals for the establishment of an extensive extramural cemetery, and the erection of public district mortuaries. It recommends that immediate steps be taken to discontinue grants for interments in the intramural cemeteries and crypts referred to; that application should be made to Parliament for powers to purchase, lay out, and dispose of such quantity of ground for extramural interment as will be consistent with sanitary progress, and public and private economy; and that the powers conferred by the Public Health Act of 1857, in regard to mortuaries, be forthwith carried out. In advocating this last-named measure, it is pointed out that they would be found very advantageous in every case of death in the dwellings of the poor. In this connection it is mentioned that there are in the city 35,226 one-room houses, and 48,880 with two rooms, containing an occupancy of nearly four-fifths of the population.

IRELAND.

DURING the week ending June 17th, the number of deaths from zymotic diseases registered in Dublin was but 19, the average number for the corresponding week of the preceding ten years being 24.5.

A MEETING of the Queen's University was held at Dublin Castle last week, when the various degrees and diplomas were conferred by the Vice-Chancellor, Sir Dominic J. Cotterill, Bart.

UNIVERSITY OF DUBLIN.

At a meeting of the Senate held on the 24th ult., it was unanimously resolved that the honorary degree of M.D. should be bestowed upon Dr. James Emerson Reynolds, Professor of Chemistry in the University. It was also determined that the degree of Licentiate in Midwifery should be instituted. The Rev. S. Haughton, Medical Registrar of the School of Physic, stated that this was the first time any University had recognised the position obtained by obstetric medicine and surgery; and he had no doubt that a long series of Universities would follow the example of the University of Dublin.

CORONERS' BILL (DUBLIN).

THE Corporation of Dublin have petitioned Parliament in favour of this Bill. They wish that "the office should not be confined to the legal, medical, or magisterial professions, but that the election of the most competent person should be left to the discretion and judgment of the Municipal Council". This means, in other words, that whoever has the most friends among the members of the Corporation should be appointed, although altogether ignorant of the important duties of coroner in a city like Dublin. The Council of the Irish Medical Association, in a circular lately published, remark, in relation to this matter, that, if the Bill should become law in its present form, it will be prejudicial not only to the interests of the profession, but also to those of the public at large, and will be calculated to interfere with the due administration of justice in cases requiring the intervention of a coroner. The appointment of a second coroner for Dublin, in the vacancy caused by Dr. White's death, has been postponed by the Corporation until the fate of the Bill has been ascertained.

THE ANNUAL MEETING OF THE ASSOCIATION IN SHEFFIELD, 1876.

WE publish this week in another page a programme of the Sheffield meeting. It will be seen that the arrangements made are already of a most satisfactory character, and all things promise an interesting and successful meeting. The arrangements for the officers of sections are now completed, and, as will be seen, a few papers have been announced. As the time for making preliminary arrangements is this year short, it is desirable that notices of papers to be read should be forwarded as soon as possible.

THE VIVISECTION BILL.

THE Vivisection Bill has passed through its various stages in the House of Lords, with the amendments which Lord Carnarvon undertook to insert, as a result of the representations which have been made on behalf of the profession. The Bill is so far improved. We by no means consider that in its present state it is satisfactory; nor, indeed, do we think that it can be allowed to pursue its further course without a most vigorous effort either to modify it considerably or to throw it out altogether, so that a measure, conceived in a larger, and juster, and more generous spirit, may be substituted for it.

The Bill especially fails in that the Government has refused all modification of the clauses relating to registration and licence; in that the word "animal" is so used that it includes every tadpole or hydra; and in the absurd power which it lodges with the Secretary of State of deciding a great many things of which he can know nothing, and of settling, for instance, in every case, whether a cat or dog shall be used for a particular experiment.

There is no precedent for such legislation; there is no ground for it; and the Bill is still, as it stands, a monument of weakness and ignorance on the part of the responsible Government, and of the legislators who have allowed them to stoop to a passing popularity by an ignoble attack upon the profession which is, perhaps, least able to resent it, but which certainly least deserved it.

The attitude of the public press generally has been satisfactory. The deputation of Thursday week showed for the first time what the medical profession really think on this subject; that stroke of united exertion at once changed the whole tone of public opinion. The attack had been directed with vehement cowardice and base invective against a few physiologists, against imaginary "students" of cruel disposition who have been invented for this occasion, and against presumed "sciolists". When it was seen that the medical profession knew how to speak in the face of the country with united and representative force, and that the whole profession applauded the beneficent studies by which the whole world benefits, intelligent men who had taken no interest in the discussion began to inquire and to think. They began to refuse their credence to the wild calumnies and ignorant fabrications which have been circulated so freely and with so much impunity. Independent inquiry and intelligent thought are all that are needed to produce a reaction of common sense. The public have well founded confidence in our profession; and if every member of the profession who regards with indignation the obstructive, insulting, and ungenerous legislation which has been proposed, will bestir himself to influence public opinion, especially to inform and influence his representative in the House of Commons, it is certain that this measure will never pass that House in its present form: it will either be remodelled or abandoned. No government is strong enough to carry such an unstatesmanlike measure in face of the general indignation of the profession which it insults and degrades; and it rests entirely with the medical profession, and very largely with the members of this Association, whether they will or will not submit to this unnecessary, restrictive, and humiliating legislation. No such measure was ever before proposed, except as applicable to habitual criminals, or convicts liberated

on ticket-of-leave; they, and they only, are subject to registration and licence; compelled to hold that licence subject to whatever conditions a Secretary of State chooses to impose; liable to its revocation; and compelled to furnish whatever reports he chooses to demand.

The Senate of the University of London has joined in the protest; and in Mr. Lowe it can furnish at least one man who can fairly state the facts in the House; and no doubt he will find able support in Mr. Playfair, Sir Philip Egerton, Sir John Lubbock, and others. The Parliamentary Bills Committee of the Association will meet again this week to confer upon the best means of offering further organised resistance to the objectionable clauses of this Bill. Meantime, we hope that our associates will lose no time in bringing all their parliamentary influence to bear in the same direction; and we shall be happy to receive any communications as to members of the House of Commons who may desire further information, or who will be willing to assist in amending or rejecting the Bill.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE number of candidates for election into the Council of the College of Surgeons has not been increased since our last publication. Mr. Simon, Mr. Humphry, and Mr. Holden offer themselves for re-election, and will probably be returned to the Council.

For the vacancy caused by the death of Mr. Southam, there are Mr. Hussey, Mr. Adams, and Mr. Wheelhouse of Leeds. We have already expressed what is, we believe, the general feeling, that a provincial Fellow should be selected to fill Mr. Southam's place; and Mr. Wheelhouse, having come forward at the request of so great a body of provincial Fellows, may be taken to be their choice as the provincial surgeon whose election they believe will be most likely to further the interests of the College. Mr. Wheelhouse is senior surgeon of the Leeds Infirmary, and has had long experience as lecturer in an important and efficient school. His ability, moderation, and judgment are well known, and have been publicly proved on many prominent occasions. He holds a very high position in surgery, and is especially known for the punctuality and assiduity with which he fulfils all business engagements. It would be difficult to find anywhere a more suitable man for the post, and we hope to see the good feeling of metropolitan surgeons towards their provincial fellows proved, and the national representative character of the College maintained on this occasion, by finding provincial and metropolitan surgeons combined in supporting the candidate whom the provinces have presented for this vacancy.

THE preparations added to the museum during the last twelve months may be seen in the theatre of the College, on and after Monday next, the day of the annual election; but it may be as well to mention that, in consequence of the examinations taking place at an earlier date than usual this year, they will not remain after Thursday, July 6th, so that, if our readers wish to see them, they must take an early opportunity of doing so.

THE President of the College, Sir James Paget, and Lady Paget, received, on Tuesday last, a numerous and distinguished society of friends at the College. Nearly a thousand persons were present. The guests were received in the hall, which was draped and lighted for the purpose; and the museum, brilliantly lighted and filled with a host of learned doctors, accompanied by a crowd of fair women, presented a *coup-d'œil* of rare and curious beauty. The strangeness and novelty of this gathering in these noble saloons, surrounded by uncouth zoological and anatomical preparations, were much remarked last year on the occasion of a similar entertainment by Mr. Flower; and the reception of Tuesday night must rank as the most brilliant and interesting professional reception of the season, or indeed of any recent date.

A SANATORIUM FOR INEBRIATES.

A MEETING was held at Earl Percy's, 25, Grosvenor Square, on the afternoon of Friday, June 23rd, for the purpose of founding an institution for the cure of inebriates, and placing it on a solid and permanent basis. Earl PERCY occupied the Chair. Mr. HOLTHOUSE stated,

that he opened his sanatorium at Balham on July 1st, 1875, and from that period to the present time he had had ninety-seven applications, either from patients themselves (very few), or from their relatives or their medical attendants. Of this number, only twenty-one came under treatment; and he hoped that eleven of these were, or would be, cured. He read extracts from the letters of some who had left, expressing in grateful terms the change they felt in their mental and bodily health, and their steadfast resolve to continue abstainers. Mr. Holthouse insisted on the necessity of some legislative measure for the compulsory treatment and protection of those who could not, by any entreaties, be induced to place themselves in an establishment like this, or to remain a sufficient time to be cured. He then read a most affecting letter from a gentleman, whose wife was a subject of dipsomania, ending, "I could not refrain from writing strongly on the subject of a disease that I am perfectly powerless to cope with; a disease that *could* be cured if the law gave the *power*, a disease which, as long as that power is denied, forces me to stand passively by, and watch it bring its victim to lunacy, my children and myself to ruin, and distress and disgrace on all those connected with its unhappy victim".

Some appropriate speeches, expressing concurrence and sympathy with the object for which they were met, were then made by the gentlemen who moved and seconded the following resolutions, which were carried unanimously.

1. Moved by Sir HARCOURT JOHNSTONE, Bart., M.P., seconded by ROBERT BAXTER, Esq.: "Public opinion having already recognised the necessity for the protection and treatment of the intemperate, this meeting, having heard of the success which has attended the treatment of inebriates at Balham under comparatively unfavourable circumstances, and having learnt from Mr. Holthouse that the term for which he has taken the house at Balham expires at the end of the present month, is of opinion that an immediate effort should be made to secure another and more suitable building, with the view of founding an institution for the cure of inebriates, and placing it on a solid and permanent basis."

2. Moved by the Rev. Canon PROTHERO, seconded by JOHN BOODLE, Esq.: "That this meeting, having ascertained that a place well adapted for such an institution exists in the neighbourhood of Richmond, and is now in the market, is of opinion that the opportunity of acquiring it should not be lost; and pledges itself to co-operate with the following noblemen and gentlemen in raising the necessary funds for its purchase: The Earl of Shaftesbury (*President*); the Duke of Northumberland; the Duke of Westminster; the Duke of Argyle; Earl Percy, M.P.; Earl Grey de Wilton; Lord de Ros; the Dean of Westminster; Robert Baxter, Esq.; Stephen Alford, Esq., F.R.C.S.; Dr. G. F. Blandford; Sir Harcourt Johnstone, Bart., M.P.; Captain G. O. Popplewell, R.N.; Dr. Richard Quain, F.R.S.; Dr. C. B. Radcliffe; Henry Spencer Smith, Esq.; C. Holthouse, Esq.; and Charles Hoare, Esq."

3. Moved by Sir THOMAS WATHEN WALLER, Bart., seconded by Dr. QUAIN, F.R.S.: "That the noblemen and gentlemen, whose names are on the prospectus, be the Council of the institution, with power to add to their number, and that they be requested to appoint a subcommittee to carry out the foregoing resolution."

4. Moved by MCCARTHY DOWNING, Esq., M.P., seconded by W. H. ASHURST, Esq.: "That Stephen Alford, Esq., Dr. G. F. Blandford, Dr. C. B. Radcliffe, and Henry Spencer Smith, Esq., be the Visiting Committees, with power to add to their number, to report from time to time to the Council on any matter which they may think it desirable to bring before their notice."

5. Moved by C. HOLTHOUSE, Esq., seconded by the Hon. and Rev. Lord DYNEVOR: "That the best thanks of the meeting be given to the Earl and Countess Percy for their kind assistance and support, and for allowing the meeting to be held at their house."

MEDICAL DEGREES OF THE UNIVERSITY OF DURHAM.

SEVERAL modifications in the medical registration of the University of Durham were we read approved at a convocation held this week. In effect, the changes resolved upon were as follows: 1. To allow the degrees of M.B. and C.M. to be taken at the end of the four years' course of medical study, instead of as heretofore at the end of one year from that time: 2. To require that a candidate for a degree of M.D. shall be of the age of twenty-four years at least, and of the standing of two years at least from the date of his admission to the degree of M.B.: 3. To give the warden and senate power to institute a special examination, with the view of affording to practitioners of fifteen years' standing the opportunity of obtaining the degree of Doctor of Medicine. An

addition was made to the regulations affecting Codrington College, providing that the students of that College who had completed their course of study and examination previously to Michaelmas, 1875, should be admissible to the degree of B.A. after passing the final examination.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Thursday, the 6th day of July next, at Three o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, June 9th, 1876.

BRITISH MEDICAL ASSOCIATION: FORTY-FOURTH ANNUAL MEETING.

THE Forty-fourth Annual Meeting of the British Medical Association will be held at Sheffield, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1876.

President.—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S. Edin.

President-elect.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

An Address in Medicine will be given by E. H. SIEVEKING, M.D., F.R.C.P., Physician-Extraordinary to the Queen.

An Address in Surgery will be given by W. F. FAVELL, Esq., Surgeon to the General Infirmary, Sheffield.

An Address in Public Medicine will be given by ALFRED CARPENTER, M.D., Croydon.

The business of the Association will be transacted in Four Sections, viz. :—

SECTION A. MEDICINE.—*President*: Dr. Chadwick, Tunbridge Wells. *Vice-Presidents*: Dr. J. C. Hall, Sheffield; Dr. Law, Sheffield. *Secretaries*: Dr. Robert Farquharson, 23, Brook Street, London; Dr. Banham, Glossop Road, Sheffield.

SECTION B. SURGERY.—*President*: Jonathan Hutchinson, Esq., London. *Vice-Presidents*: C. G. Wheelhouse, Esq., Leeds; J. Barber, Esq., Sheffield. *Secretaries*: Dr. J. Hardwicke, Mitton Lodge, Rotherham; John Chiene, Esq., 21, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President*: Dr. Lombe At-hill, Dublin. *Vice-Presidents*: Dr. E. Jackson, Sheffield; Dr. Thorburn, Manchester. *Secretaries*: Dr. Wiltshire, 57, Wimpole Street, London; F. Woolhouse, Esq., Chantry Road, Sheffield.

SECTION D. PUBLIC MEDICINE.—*President*: Dr. J. B. Russell, Glasgow. *Vice-Presidents*: Dr. Eastwood, Darlington; Dr. F. T. Griffiths, Sheffield. *Secretaries*: Dr. H. F. Parsons, Goole; Dr. S. Drew, Chapelton, Sheffield.

Local Secretaries.

Arthur Jackson, Esq., St. James's Row, Sheffield.

J. H. Keeling, M.D., 267, Glossop Road, Sheffield.

Tuesday, August 1st.

1 P.M.—Meeting of Committee of Council.

3 P.M.—Meeting of Council, 1875-76.

8 P.M.—General Meeting.—President's Address; Annual Report of Council; and other business.

Wednesday, August 2nd.

9.30 A.M.—Meeting of Council, 1876-77.

11.30 A.M.—Second General Meeting.

11.30 A.M.—Address in Medicine.

2 to 5 P.M.—Sectional Meetings.

9 P.M.—Soirée.—Weston Park Museum.

Thursday, August 3rd.

9 A.M.—Meeting of Committee of Council.

10 A.M.—Third General Meeting.—Reports of Committees.

11 A.M.—Address in Surgery.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner.

Friday, August 4th.

10 A.M.—Address in Public Medicine.

11 A.M.—Sectional Meetings.

1.30 P.M.—Concluding General Meeting.—Reports of Committees, etc.

Promenade Concert at the Albert Hall.—Visits to the Works.

Saturday, August 5th.

EXCURSIONS.—Chatsworth, Wentworth, Wharnccliffe, and other places.

PAPERS.—The following papers have been promised.

Chiene, John, F.R.C.S. Cases of Irreducible Femoral Hernia.
Drysedale, C. R., M.D. 1. On Syphilitic Epilepsy.—2. On the Duality of the Chancere.

Eassie, W., C.E. Mechanical Disinfection.

Kerr, Norman S., M.D. The Medical Administration of Alcohol.

Thompson, J. Ashburton, L.R.C.P. A New Emetic Purge.

Yeo, I. Burney, M.D. The Results of Modern Research in the Treatment of Phthisis.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

THE ANNUAL MUSEUM.

The Ninth Annual Museum of the above Association will be held in the Church Institute, Sheffield, on August 1st, 2nd, 3rd, and 4th, 1876.

The Museum Committee will be glad to receive applications as early as possible from persons desirous of becoming exhibitors, and with such applications a statement of the amount of space required.

The fittings necessary for exhibiting the objects sent will be provided; but all expenses connected with packing and carriage, and all risk from injury or loss, must be borne by the exhibitors.

A printed or written description of all articles intended for exhibition must be forwarded for insertion in the Catalogue. All such descriptions must be sent to either of the Secretaries, on or before July 15th; and all articles intended for exhibition must be delivered (addressed "Museum Committee", Church Institute) on or before July 24th, 1876.

The name of the exhibitor should be written on the outside of each parcel; and, to facilitate the return of the articles, a card bearing his name and address should be enclosed.

All communications should be addressed to the Secretaries, from whom any further information can be readily obtained.

W. R. THOMAS, Norfolk Street, } *Honorary Secretaries,*
SIMEON SNELL, 17, Eyre Street, } *Museum Committee.*

The articles to be exhibited must be included in one of the following classes.

1. New Instruments and Appliances in Medicine, Surgery, and Obstetrics.
2. New Drugs, new Preparations, and new Articles of Diet for Invalids.
3. Pathological Specimens, with Photographs, Models, Casts, etc., illustrating Disease.
4. New Physiological Apparatus; Microscopes and Microscopic Specimens, Pathological and General. New Chemicals and other Appliances used in Histological Research.
5. New Inventions relating to Public Health.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, June 8th, 1876.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The annual meeting of this Branch will be held in the rooms, No. 198, Union Street, on Saturday, July 1st, at One o'clock in the afternoon.

A. OGSTON, } *Honorary Secretaries.*
J. URQUHART, }

Aberdeen, June 9th, 1876.

NORTH OF ENGLAND BRANCH.

The annual meeting of this Branch will be held in the Town Hall, Morpeth, on Thursday, July 6th, at 2.30 P.M.: President, 1875-76, S. E. PIPER, Esq., F.R.C.S.; President-elect, 1876-77, MATTHEW BRUMELL, Esq.

The following resolution will be moved by Mr. E. Jepson:—"That this Branch desires to bring under the notice of the General Council of the British Medical Association, the great desirability of taking steps to obtain and to support a representative in the House of Commons, who shall specially watch over the interests of the medical profession."

Dinner at the Queen's Head Hotel. at 4.45 P.M. Charge, exclusive of wine, 7s. 6d.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne; June 17th, 1876.

METROPOLITAN COUNTIES BRANCH.

The twenty-fourth annual meeting of this Branch will be held at St. James's Hall, Piccadilly, on Friday, July 14th, at 4 P.M. precisely: President, ROBERT BARNES, M.D.; President-elect, JONATHAN HUTCHINSON, Esq.

Dinner at 6 o'clock precisely. Tickets, One Guinea each.

ALEXANDER HENRY, M.D. } *Honorary Secretaries.*
ROBERT FARQUHARSON, M.D. }

London, June 14th, 1876.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The annual meeting of this Branch will be held at the Guildhall, Swansea, on Thursday, July 6th, 1876, at 12.30 P.M.: President, S. H. STEEL, M.B.; President-elect, ANDREW DAVIES, M.D.

Further particulars will appear in circulars.

ANDREW DAVIES, M.D. } *Honorary Secretaries.*
ALFRED SHEEN, M.D. }

Swansea, June 12th, 1876.

WEST SOMERSET BRANCH.

The annual meeting of this Branch will be held at the Clarence Hotel, Bridgwater, on Thursday, July 27th, at 2.30 P.M.

Dinner at 5 o'clock.

Members who may desire to bring any communications before the meeting are requested to give notice to the Secretary.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, June 19th, 1876.

YORKSHIRE BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at Bradford on June 15th, Dr. BURNIE, President, in the chair.

President's Address.—The President delivered an address, the principal subject of which was, after allusion had been made to certain local matters, that of puerperal fever.

Report.—The Report of the Council was read by the Secretary. The Branch was said to be in a most satisfactory condition, with an increasing number of members, which now amounted to 260. Three meetings had been held during the year; besides the annual meeting at Leeds, in the autumn a conjoint assemblage of this and the East York and Lincoln Branch took place at York, and in the spring the members met at Rotherham. The total number of communications made on those occasions amounted to twenty. The Report then went on to request the assistance of the associates in forwarding the objects of the Committee, for the restrictive legislation for habitual drunkards, by signing the petition prepared by that Committee. The resolutions passed at a meeting of the Council, held at Leeds and published in the JOURNAL, respecting the dismissal of Dr. Deville from his post of Medical Officer of Health for Harrogate, were read. In strong terms, the Report alluded to the gross injustice of the Vivisection Bill, and to the injurious effects it must have on physiological research, and the advance of medical science, as well as its crippling influence on a large number of willing workers in this department; and the Council earnestly called on the members to resist it becoming law by every possible effort on their part. After an expression of regret that the conjoint scheme for examination, prepared by the General Medical Council, and to which for so long a period the Association had pledged itself, had not yet been carried out, reference was made to the gratification it must afford the members that the annual meeting was to be held this year within the limits of their Branch, through the public spirit of the Sheffield Associates. The annual meeting of the Branch would be held next year at York, and Dr. Shann was named as president. The Report concluded by calling upon the members to endeavour, by individual exertion to aid and extend the objects of the Association, and so give to it additional and extended usefulness, and to assist scientifically and practically in the cultivation and advancement of that art which has for its

object the alleviation of human suffering and misery. By amalgamation, unanimity of action was secured to the profession; benevolent and generous feelings were exercised; and the power of the members, as a corporate body, far exceeded the reach of the most energetic solitary effort. The adoption of the Report was proposed by Mr. HUSBAND and seconded by Mr. NORTH, who expressed themselves strongly against the Vivisection Bill, and the unjust manner in which Dr. Deville had been treated by the Harrogate Commissioners. On these heads the meeting was unanimous.

Council.—On the motion of Dr. DE BARTOLOMÉ, seconded by Mr. SPATTERGOOD, the following gentlemen were elected as Council and representatives to the Council for 1876-1877.

French Council.—York: A. Ball, Esq.; W. D. Husband, Esq.; W. Matterson, M.D.; S. W. North, Esq.; G. Shann, M.D.; I. M. Williams, Esq. Leeds: C. Allbutt, M.D.; C. Chadwick, M.D.; J. D. Heaton, M.D.; S. Hey, Esq.; T. R. Jessop, Esq.; T. P. Teale, Esq.; T. Scattergood, Esq.; C. G. Wheelhouse, Esq. Sheffield: M. Martin Bartolomé, M.D.; J. Benson, Esq.; W. F. Favell, Esq.; J. C. Hall, M.D.; A. Jackson, Esq.; J. H. Keeling, M.D. Bradford: R. H. Mead, Esq. Scarborough: R. T. E. B. Cooke, Esq. Wakefield: S. Holdsworth, M.D. Huddersfield: S. Knaggs.

Representatives in the General Council.—C. Allbutt, M.D.; W. Burnie, M.D.; W. F. Favell, Esq.; J. C. Hall, M.D.; J. D. Heaton, M.D.; S. Holdsworth, M.D.; A. Jackson, Esq.; W. Matterson, M.D.; R. H. Mead, Esq.; A. S. Myrtle, M.D.; G. Shann, M.D.; T. P. Teale, Esq.; C. G. Wheelhouse, Esq.

Secretary.—On the motion of Dr. HEATON, seconded by Dr. GOYDER, Dr. Procter was re-elected secretary.

Papers.—The following papers were read:

1. Mr. MEADE: On some forms of Idiopathic Peritonitis.
2. Dr. CAMERON: On the Use of Arnica as a Topical Anodyne.
3. Mr. Jessop exhibited a few Surgical Specimens recently under treatment.

Dinner.—After the meeting, the members dined together at the Victoria Hotel.

STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE third ordinary meeting of this session was held in the Board Room of the Mines Drainage Offices, 22, Darlington Street, Wolverhampton, on Thursday, May 25th, 1876: Present, HENRY DAY, M.D., President, in the chair, and thirty members and visitors.

New Members.—The following gentlemen being members of the Association were elected members of the Branch: Mr. C. Brady, Tunstall; Messrs. B. Juneaux and W. Walter, North Staffordshire Infirmary; Mr. J. H. Palmer, Madeley; Mr. G. G. Sharp, Walsall; Mr. J. P. Warburton, Betley; Mr. Webb, Cheadle.

Vote of Condolence.—It was proposed by Dr. MILLINGTON, seconded by Mr. C. A. NEWNHAM, and carried unanimously: "That the sincere expression of sympathy and condolence of this Society be communicated to Dr. Fraser of Wolverhampton, on the recent serious domestic bereavement he has suffered in the death of Mrs. Fraser and one of his children."

Communications.—I. Mr. J. HARTILL exhibited a portion of the ileum of a patient, aged 16, who had recently died from Obstruction of the Bowel. A careful record of the case was read.

2. Mr. H. L. BROWN exhibited an improved appliance for Bloodless Operations, consisting of elastic rings of sizes varying from one to three inches, and boxwood plugs, each having a projection on the under surface, which compressed the artery, and a deep groove on the upper surface into which the ring fitted. Mr. Brown demonstrated, to the satisfaction of the Society, the usefulness of his invention.

3. Mr. FOLKER exhibited a mass of Phosphatic Calculous Matter formed around a No. 6 gum elastic catheter, which had slipped into the bladder twelve months previously. For several weeks preceding the operation for its extraction, the patient had suffered most severely, and, on his admission into the North Staffordshire Infirmary, he seemed so near death that it was not deemed advisable to defer the operation. Bistrial lithotomy was accordingly performed the same day, and in three weeks he went home perfectly well.

4. Mr. C. A. NEWNHAM exhibited a Calculus, weighing 178 grains, extracted after previous slow dilatation of the urethra, from the bladder of a girl seven years old. It was of horse-shoe shape, and had as a nucleus an ordinary pin.

5. Dr. J. H. TYLECOTE showed a specimen of a Prolapsed Knotted Funis. Dr. Tylecote narrated the history of the case, and stated the result of his experience of such cases in a total number of 1,200 labours.

6. Mr. GARNER read a paper on Gout.

7. Dr. TOTHERICK read a paper, entitled "On one of the causes of Hæmoptysis".

8. Dr. MILLINGTON read the notes of a case of Embolism of the Pulmonary Artery occurring during Pregnancy, where the diagnosis was confirmed by *post mortem* examination.

THAMES VALLEY BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held on May 17th, at the Dog and Fox Hotel, Wimbledon; Dr. LANGDON DOWN in the Chair.

Communications.—I. Dr. BROADBENT read a paper on Syphilitic Disease of the Brain; which was followed by a discussion.

2. The CHAIRMAN and Mr. MAUNDER related a case in which a Button had been diagnosed in the left Bronchus of a boy, and had been successfully removed through an opening in the trachea.

New Members.—Two gentlemen were elected members of the Association and Branch, and one a member of the Branch.

Dinner.—The members and friends (seventeen in number) then dined together.

CORRESPONDENCE.

REGISTRATION OF FOREIGN DEGREES.

SIR,—I should be glad to know on what grounds your correspondent "Justitia" asserts, that "most of the British graduates have incurred increased expense, often a year or two of extra study, and expended much time and brain-work, in order that they might legally claim the title of M.D." It is incumbent on him to allege the facts on which such a statement is based. If every British graduate is, indeed, a better and more expensively educated man than his fellows, let us give his pretensions verified. If the case be proved, no one will then grudge so superior a creature the "privileges of the British graduate", whatever they may be. At present, the impression prevails that there are numbers of non-graduates who are at least as learned and accomplished as a great many "British graduates" one meets with. Your correspondent writes as if all the universities of the United Kingdom were of equal merit, and all their graduates persons of equally superior quality. But *il y a fagots et fagots*.—I am, sir, etc.,
June 1876. ONE OF THE MEMORIALISTS.

SIR,—Your correspondent "Justitia" is wrong in one point in his letter of June 17th. I am not aware that any foreign degree can be got by a day or two on the continent. I am a foreign graduate, and upon comparing my examination with that of the University of St. Andrew's, I find that the foreign examination was decidedly harder, and at the same time more practical. I have not yet heard of one of the ten annual men at St. Andrew's being rejected, whereas at Brussels this frequently occurs; men rush over, thinking that their presence is only required, and they find to their cost that there is an examination. "Justitia" states that no extra study is required; in answer to this, many of the foreign universities do require extra subjects; for instance, hygiene, which to a man of ten years' practice is quite a new subject, and in my student days was only taught at Netley. Dr. Parkes's book is the only one in the English language that enters fully into the subject. Dr. Wilson's work, though very good for a medical officer of health, is too small for an examination. I should also like to know what is the difference in position between one on the *Register* who is M.R.C.S., and one who is M.D. (e.g.) of Edinburgh. I say, none at all. The M.R.C.S. may be fifty years of age, and because he cannot obtain a degree in this country he goes to Brussels. No one can prevent him from practising in England, and he asks as a favour to be able to register his degree. The Medical Council might send one of their number to be present at one examination, and if he went to Brussels he would be satisfied with his first visit. Instead of a day or two, as "Justitia" hints, he would find it five; also he would find the clinical examination in the hospital to be a thoroughly searching one; also the operations on the dead body to be a new thing to Englishmen, as I am not aware of any board in England that requires this. If the men who were foreign graduates before 1858 could register, I think it a decided hardship for those who have graduated since then.

In conclusion, I would strongly advise intending foreign graduates to visit Brussels. The examination is a good one; and the degree is one of which the possessor need not be ashamed.—I am, etc.,

June 1876.

M.D. BRUSSELS.

THE MEDICAL DEFENCE ASSOCIATION.

SIR,—The JOURNAL of June 24th states that, at the recent annual meeting of the South-Eastern Branch of the British Medical Association, Mr. W. Hoar "deprecated the Medical Defence Association assuming the functions and discharging the duties which, he conceived, rightly devolved upon the British Medical Association".

I have no wish to deny the proposition advanced by Mr. Hoar as far as it relates to the duties of the British Medical Association; indeed, I shall be very pleased if it is more generally recognised and acted upon; but I shall be glad to hear upon what grounds he thinks that the action of the Medical Defence Association is to be deprecated, as I am not anxious—and, I think, I may say the same for those who form the Executive of the Association—to employ my time and energies in promoting any movement which may be regarded as an evil, or which can be shown to be unnecessary.

I remain, sir, your obedient servant, GEORGE BROWN,
Honorary Secretary of the Medical Defence Association.
12, Colebrooke Row, N., June 26th, 1876.

SUBCUTANEOUS OSTEOTOMY.

SIR,—With regard to my operation of subcutaneous osteotomy of the femur below the trochanters, will you allow me to correct the impression which might otherwise prevail from the report of Mr. Maunder's cases of osteotomy, lately brought before the Harveian Society, which appeared in the JOURNAL of last week?

This subcutaneous section of the femur was first performed by me, in 1872, as a new operation, applicable, more particularly, to cases of ankylosed hip-joint, with malposition of the limb, when resulting from scrofulous disease; a class of cases unfitted for Adams's operation of subcutaneous section of the neck of the femur, that portion of the bone being diseased. In my operation below the trochanters, the liberation of the conjoined psoas and iliacus muscles, as the source of contraction, was an additional element in the design of that procedure. For the osteotomy, I used a saw, having a thin and very narrow blade, and only two inches long, like a piece of serrated watch-spring, with a stem set in a straight handle; an instrument adapted for the purpose of dividing the femur subcutaneously, having previously passed a similar tenotomy-knife obliquely down to the bone, from below upwards. Both instruments were made by Messrs. Weiss. This tenotomy-like operation is completed in two or three minutes, and without any appreciable laceration of the textures or *débris* of bone being produced by the miniature saw; a small compress of lint is then slid over the puncture, and thus the limb is brought down to the straight position without the admission of air. In both my cases, the subcutaneous puncture-wound healed readily without suppuration, and firm bony union took place.

In recently adopting this operation below the trochanters, Mr. Maunder used first three chisels, and now, I believe, prefers one, to divide the femur. But the substitution of a chisel for the saw renders the osteotomy no longer subcutaneous, a very important disadvantage in point of surgical principle. And I can conceive that the propulsive action of a chisel may prove to be a less safe mode of section, by splintering the bone or driving into the textures beyond; accidents which would seem to be possible in using such an instrument.

I am, yours, etc., FREDERICK JAMES GANT.
London, June 26th, 1876.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

OWING to serious indisposition, Mr. Joseph Hesslegrave, the Medical Officer of Health for the Golcar, Linthwaite, Longwood, Marsden-Almondbury, Marsden-in-Huddersfield, Scammonden, and Slaithwaite Urban Sanitary Districts, usually called the Colne Valley Districts, having been unable, during the last few weeks, to make his visits and monthly returns, sent notice of the fact to each authority, with an intimation that he placed his resignation, if deemed desirable, in their hands. At the meeting of the representatives of the authorities, held last week, upon the matter being brought forward, the following resolution was proposed: "That this meeting sympathises deeply with the medical officer, Mr. Hesslegrave, in his affliction, regards him as worthy of every forbearance and the utmost consideration, and trusts he will soon recover so as to be able to discharge his onerous duties as efficiently and satisfactorily as hitherto." It was carried unanimously, and the chairman was requested to communicate it to Mr. Hesslegrave.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

REDDITCH.—Mr. Herbert Page's report contains a detailed account of the sanitary condition of the Redditch urban district, and a more unsatisfactory statement it has scarcely ever been our duty to consider. Mr. Page commences his report by pointing out the powers conferred on local authorities by the Public Health Act, and the necessity for their energetic enforcement in Redditch, although the local board was constituted as long ago as 1859. He especially mentions as being urgently required efficient sewage, adequate and wholesome water-supply, properly constructed and clean habitations, and a general supervision over the sanitary state of the town. The number of houses in the town district is 1,540, many of them being very old and in a very bad sanitary condition. The majority were built for the working classes, many of them back to back, and some have been so constructed since the formation of the Board. The general unsanitary conditions are enumerated at length, viz., water in the cellars, damp walls, leaky roofs, floors covered with broken stones or bricks, filthy condition of the houses, very imperfect or total want of drainage, saturation of sub-soil, bad water-supply, inadequate closet-accommodation, windows which will not open, and overcrowding in many of these wretched dwellings. He also advises that a rough sketch of proposed dwellings should always be laid before the sanitary committee, so as to prevent the erection of any more houses back to back. He also advises that all works executed under the orders of the sanitary committee should be carried out under the immediate superintendence of the inspector, and the work not passed unless his requirements were strictly fulfilled. A house-to-house inspection has recently been made of all the houses in the town, to ascertain the state of their drainage, closet-accommodation, and water-supply. It appears that there are 700 middens in the town, most of which are built of brickwork, uncemented, and larger than the regulation size. Many adjoin the dwelling-houses, are open, undrained, and contain the refuse of the house as well as the ordinary contents of a midden-cesspool, and give off most offensive effluvia. No fewer than 458 are uncovered, against 242 which are covered; and in one part of the town there are only "72 closets amongst 3,000 inhabitants, or 41.6 persons to each closet, and there are "332 persons without any closet-accommodation whatever". All kinds of sullage are thrown into the cesspools, because no provision for house-drainage has even been attempted. Mr. Page observes on this that the disposal of the sewage is an engineering question into which he will not enter, but strongly advises, until proper sewers are provided, that the dry earth or charcoal system should be adopted.

Bad as the midden system is, the sewerage is worse, as it appears that there are only about one-seventh of all the streets in the old-town district that are properly sewered. The return is as follows: "Total length of streets sewered sufficiently deep, 3,421 feet; insufficiently deep, 5,374 feet; not sewered at all, 16,818 feet." It appears that the Board, "several years ago", had an estimate of the necessary works prepared, but it was completely laid aside until a very recent period, when they appear to be waking up to something like a glimmering of their responsibility, as an extended scheme is under consideration. A policy of inertia, or of piecemeal work, has hitherto been advocated, with the results we have just mentioned; but the medical officer must strenuously protest against any scheme which will not contain the whole district. He says that a 27-inch brick sewer is connected with a 15-inch pipe in one case, and with an 18-inch in another; and that, consequently, the sewers cannot possibly work well. The water-supply is derived almost universally from surface-wells, so that it is rarely wholesome, and many specimens were "perfectly undrinkable and unfit for any use whatever".

It appears that, out of a population of 6,841, 5,097 persons have a good and plentiful supply, 1,492 a bad supply, and 228 no water-supply at all. Besides this, a single pump supplies as many as 120 people, whilst 2,653 persons are supplied from 73 pumps, or 34 persons to each pump. This surely cannot be satisfactory in any sense. It has been proposed to cement the sides of the surface-wells; but the medical officer very properly objects, because they would still derive their supply from surface-water.

The description just given of Redditch indicates it to be one of the most unsanitary towns in England. We should not have believed that any local authority could have been in existence for above sixteen years and have allowed a small town to have remained almost entirely without sewers, and consequently without water-closets and house as well as surface-drainage. There is a surveyor to the Board, and he has made a report, which, we think, must be a somewhat curious document, considering the almost entire absence of those works which it is a surveyor's duty to superintend. There can be no excuse now for want of proper drainage-works, as money can be borrowed on the security

of the rates at moderate interest, and the repayment be extended over a series of years. It is to be hoped that, before another report of the medical officer is printed, the Board will at least have contracted for the proper sewerage of their district.

There were 211 births and 148 deaths registered in the year ending December 1875, or at the rate of 149 births to 100 deaths. The town birth-rate was 30.8, and the death-rate 20.6 per 1,000 inhabitants. The mortality from zymotic diseases was 3.5 per 1,000 population, the most fatal being from whooping-cough. A large percentage of deaths occurred from phthisis, caused apparently from saturation of subsoil, dampness of the houses, want of sewerage and house-drainage, inhalation of irritant particles from metal filing, much of which is done at home, and from dust in the factories. The immense mortality of children under five years old, amounting to nearly 50 per cent. of the whole, is most lamentable, especially as many were caused by careless exposure, bad nursing, and "the daily transference of infants by their mothers to a day-nurse's house". Mr. Page concludes his observations on the death-rate of his district by stating his opinion that, considering the elevated position, open country, and facilities for drainage, "the present death-rate may be looked upon as one in a great measure unopposed by what has been done, and consequently it might be fairly expected that the death-rate ought to be lower and can be lowered".

Considering the number of nuisances which exist, the amount of work done by the inspector of nuisances would be ludicrously small were it not that the inhabitants must pay in pocket and in health for his inactivity. Certainly the contrast between the work done in this district and in those where sanitary works are actively carried out is so striking as to make it appear that his office is quite a sinecure. The report scarcely shows who is in fault, the inspector or the board; but it is quite clear that, if the board desired the large number of nuisances existing in the town to be removed, they would not tolerate the inspector's inactivity.

BARNSELY BOROUGH.—Dr. Michael T. Sadler reports that the death-rate for this borough was about 26.88 per 1,000, being much below that of 1874, which was 31.12. The births registered were 1,245, being 60 in excess of 1874, the rate per 1,000 inhabitants being as high as 48.8 per 1,000, so that the population is probably higher than calculated. The mortality of children under one year was 30 per cent. of the total deaths, being, therefore, greater even than for Whitechapel; but the number of deaths under one year to 1,000 births registered were less, viz., 183, so that the excess of deaths under one year to total deaths was partly caused by the somewhat lower total number of deaths. The deaths from seven principal zymotic diseases amounted to about 5 per cent of the population, which was decidedly high. The proportions of deaths to total deaths from other classes of disease were as follows:—From inflammatory diseases of the respiratory organs, 5 per cent.; from tubercular diseases, 3.92; from wasting diseases of infants, 2.62; and from convulsive diseases of infants, 2.50. Whooping-cough was unusually fatal, and scarlet fever less so than usual. The sanitary works carried out were not large; but the objection to perform them was so great, that nearly 10 per cent. of the owners on whom the notices were served had to be summoned before the magistrates. There had been several epidemics of typhoid caused by drinking contaminated well-water.

POOR-LAW MEDICAL APPOINTMENTS.

APPLEBEE, Edward Alexander, L.R.C.P., appointed Medical Officer to the Weobley Union, *vice* W. H. Kerbey, M.R.C.S.Eng., resigned.
BLACKMORE, George H., M.R.C.S.E., appointed Medical Officer to the Fulham Workhouse, *vice* E. C. Barnes, M.R.C.S.Eng., resigned.
CORNISH, Philip Alfred, M.R.C.S., appointed Medical Officer for the 9th District of the Totnes Union.
DAVEY, R. Staines, M.D., appointed Medical Officer to the Second Division of the Dover Union, *vice* R. G. Davey, M.R.C.S.Eng., resigned.
JOHNSON, Henry S., L.K.Q.C.P.I., appointed Medical Officer to the 10th District of the Totnes Union.
M'LEOD, A.W., M.R.C.S.E., appointed Medical Officer of No. 1 District of the Fulham Union, *vice* F. Egan, L.K.Q.C.P., resigned.
MARTIN, John, M.R.C.S., appointed Medical Officer to the Alcester Union, *vice* T. Haywood Smith, L.R.C.P., resigned.
O'CONNOR, Jacob, M.D., appointed Medical Officer to the Portsea Island Union Workhouse, *vice* W. D. Williams, resigned.
SETTLE, John, L.R.C.P.Ed., appointed Medical Officer for the Parish of Barrow-in-Furness and the New Workhouse.
WALKER, John West, M.B., re-appointed Medical Officer to the Spilsby Union.
WILLIAMS, Henry, L.R.C.P., appointed Medical Officer and Public Vaccinator for the South District of the Bingham Union, *vice* A. C. Taylor, M.B., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

HOSGOOD, Samuel, M.R.C.S., appointed Medical Officer of Health for the Swinton and Pendlebury Urban Sanitary District, *vice* W. M. Shearman, L.R.C.P.Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

THE *Army and Navy Gazette* states that among the medical appointments which now require to be filled in consequence of the changes effected by the recent Royal Warrant, are the charge of the Sanitary Branch in Whitehall Yard, vacated by Surgeon-General Rutherford, M.D., C.B.; and the charges at Portsmouth, vacated by Surgeon-General Mouat, V.C., C.B.; at Gibraltar, vacated by Surgeon-General Balfour, M.D.; at Netley, vacated by Surgeon-General Prendergast; at Bombay, vacated by Surgeon-General Inglis, M.D., C.B.; at the Cape of Good Hope, vacated by Deputy Surgeon-General Heffernan, M.B.; and at Manchester, vacated by Deputy Surgeon-General Ewing. In addition to these, the retirement of Surgeons-General M'Ilree and Currie, and the death of Deputy Surgeon-General Lloyd (who, by-the-bye, was on the point of being relieved), have left Dublin, Aldershot, and Halifax, N.S., vacant. As to future arrangements, all is uncertainty.

THE ARMY MEDICAL DEPARTMENT.

SIR,—In the face of the offers held out by Government to induce candidates for the Army Medical Department to come forward, I think it only right that the latter should be made fully aware of certain facts which speak for themselves. A candidate, after passing the examination for nomination to Netley, will have to go through a course of study at the latter establishment for six months at least; and a second course, should the first not have proved satisfactory. During this time, he will receive five shillings *per diem* pay, out of which sum he will have to find uniform and maintenance, and probably pay incidental charges connected with mess, etc. When he shall have passed into the army, he will then be compelled to furnish himself with staff uniform, and with regulation instruments and books; moreover, if appointed to charge of a regiment, he will be involved in the usual regimental expenses.

Lastly, one word to those who have a love or calling for their profession. Experience unfailingly teaches us that army practice results in professional deterioration, unless constant study, under the greatest disadvantages, be perseveringly followed; and that army life engenders habits both of mind and body which unfit most men for the application and patient endurance which are the elements of success in private practice.—Yours truly,

May 27th, 1875.

SENEX.

SHORT-SERVICE APPOINTMENTS.

SIR,—On the 14th August next, it will be seen whether the medical profession will accept the ignominious terms offered by the War Office for ten years' service in the army—a thousand pounds, with a chance of being one of the six selected each year for the permanent establishment. Even at the very low rate of pension now given after the termination of twenty years' service—viz., twelve shillings *per diem*—a thousand pounds does not represent the proportionate value of the pension which should be earned after ten years—six shillings. This sum represents £100 *tos. per annum*, the capitalised value of which at thirty-one years of age in a good life would be at least £3,000, if not more. At the end of ten years' service, forty-four of the candidates who enter in August next (if so many are obtainable) will have again to return to civil life. What are they to do? The great blot on an otherwise good warrant is the clause limiting the number to be selected to six each year. Why cannot it be altered? It is rumoured that the war-office insists upon this clause being retained. They can only be taught by the logic of events.—I am, etc.,

X. Y. Z.

THE NEW WARRANT.

SIR,—May I be allowed to draw the attention of the profession to an injustice committed in the New Army Medical Warrant? It will only affect a few officers comparatively, but should not be allowed to pass on that account. These few have been already most unfortunate, and should not be still further punished. I allude to the scale of pay laid down for surgeons-major—namely, £1 on appointment, and £1 5s. after five years' service as such. It seems to have been forgotten or ignored that a number of medical officers, even after Mr. Cardwell's famous promise to the contrary, were not promoted at fifteen years' service, some few being left close upon sixteen years in the junior rank. Under the Warrant of 1858, under which these officers entered the service, they would have received their increase of pay at twenty years' service; they will now have to wait until they have served five years as surgeons-major, which will bring some to nearly twenty-one years' service, before they receive their increase of pay. Paragraph 1 ought to be amended, and the rate of £1 5s. a day should be given after five years' service as surgeon-major, or on completion of twenty years' full-pay service as surgeon and surgeon-major.

The injustice I complain of possibly might escape notice among the more glaring instances in which faith has been broken with medical officers serving under previous warrants; it is to prevent this that I have written on the subject. Possibly this wonderful scheme may not attract candidates for the Army Medical Department, and that a new warrant may be required, and thus give an opportunity to correct the injustice of which I complain.

I have the honour to be, sir, your obedient servant,

A VICTIM.

NAVAL MEDICAL APPOINTMENTS.

BIDDULPH, Surgeon R. W., to the *Excellent*.
BOURKE, Staff-Surgeon Martin E., to the *Warrior*.
CADDY, Fleet-Surgeon John T., to the *Black Prince*.
CALDWELL, Fleet-Surgeon John, to the *Minotaur*.
CARTER, Staff-Surgeon George, to the *Dasher*.
DOBBYN, Staff-Surgeon John S., to the *Arion*.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Thursday, June 22nd.

Navy Meat.—Mr. PLIMSOLL asked the First Lord of the Admiralty whether, in view of the statement in an Admiralty paper that "no meat is ever sold which is not perfectly fit for food", he would give the House an assurance that no meat should be sold while fit for food in the Navy, and that when no longer eatable it should be destroyed.—Mr. HUNT: The statement should have been "that no meat is sold for human food which is not perfectly fit for human food". Meat unfit for human food is occasionally sold to soap-boilers and fat-boilers for their business. The only assurance I can give is that meat unfit for human food shall be declared to be so at the time of sale, and that a record shall be kept of the names of the purchasers. [*Hear, hear.*]

Pollution of Rivers Bill.—Mr. SCLATER-BOOTH appealed to the House to allow this Bill to be read a second time, remarking that he believed there was no difference of opinion as to the expediency of passing a measure of this kind.—After a short discussion, the Bill was read a second time, with an understanding that certain of its provisions should be considered on the report.

Monday, June 26th.

The Plague.—Mr. TWEELS asked the Under Secretary of State for Foreign Affairs if his attention had been directed to the alarming reports circulated of the existence of plague in Bagdad, and if he would state what reports concerning the disease and mortality Her Majesty's Government had received from Her Majesty's Consul General at Bagdad, and the present sanitary condition of that city and the neighbourhood; and inquired, further, if the stringent quarantine restrictions imposed by the Turkish and Egyptian authorities against ships arriving in the Red Sea from the Persian Gulf have been strictly in accordance with duly notified regulations, and if British shipping and shipping of all other nations have alike been impartially subjected to them.—Mr. BOURKE replied that the attention of the Government had been turned for some time to the question of the plague in Mesopotamia, and to the reports received from Her Majesty's Consul at Bagdad. At first, the disease did not appear to be the plague; but since then, reports which had reached the Foreign Office showed that it was that dangerous disease. The last report on the subject was received yesterday, and it was dated at Bagdad the day before. According to that, it appeared that the disease might be said to be entirely worn out. It was to this effect:—"No deaths in Bagdad from plague during last three days. Health generally good." The number of deaths in February and March amounted to 259; in April, 1707; in May, 1550; in June, 143—total, 3659. Dr. Colville, the resident doctor at Bagdad, stated that the disease was the real plague. He did not consider quarantine necessary for passengers; but still there was necessity for great care to be taken in the carriage of wool. With regard to the second question, complaints were very often made to Her Majesty's Government and to our Consuls at Jeddo, and other ports on the Red Sea, that British shipping was subject to vexatious quarantine regulations and other restrictions which were not imposed upon the vessels of other nations; and correspondence had been going on for some time with the Turkish Government on the subject. He could assure his hon. friend that the exertions of Her Majesty's Government would continue to be directed with the view of obtaining for British shipping that fair and equal treatment which we were entitled to ask from the Turkish Government. [*Hear, hear.*]

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 22nd, 1876.

De Caux, Frederick, Bracadale, Norwich
Grimwood, John Joseph Wright, Bury St. Edmund's
Harper, Charles Norton, 187, Victoria Park Road
Holloway, George, Wednesbury
Kay, William, 89, Goswell Road

The following gentlemen also on the same day passed their primary professional examination.

Bigg, G. S. K., Middlesex Hospital
Hetherington, G. H., St. Thomas's Hospital
Lightfoot, W. S., St. Thomas's Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—
AMERSHAM UNION—Medical Officer for the Missenden District.

CHARING CROSS HOSPITAL—Medical Registrar. Applications on or before July 12th.
CUMBERLAND INFIRMARY, Carlisle—Resident Assistant House-Surgeon. Salary, £60 per annum. Applications before July 12th.
DERBY FRIENDLY SOCIETY'S ASSOCIATION—Assistant Surgeon. Salary, £150 per annum. Applications on or before July 1st.
HANTS COUNTY LUNATIC ASYLUM—Two Assistant Medical Officers. Salary of Senior Officer, £150 per annum; salary of Junior Officer, £100 per annum. Each will have furnished apartments, board, etc. Applications on or before July 10th.
HOSPITAL FOR SICK CHILDREN—Medical Registrar. Applications on or before July 13th.
INFIRMARY FOR CONSUMPTION, 26, Margaret Street—Visiting Physician. Applications on or before July 20th.
MITFORD and LAUNDITCH UNION—Medical Officer. Salary, £45 per annum. Applications on or before July 14th.
NORWICH MEDICAL INSTITUTE—Surgeon. Salary, £150 per annum. Applications early in July.
PENZANCE UNION—Medical Officer for the Third District.
ROSS UNION—Medical Officer for the Third District. Salary, £80 per annum. Applications on or before July 3rd.
ST. AUSTELL UNION—Medical Officer for the Roche District.
ST. THOMAS'S HOSPITAL—Resident Assistant Physician. Salary, £100 per annum, with furnished rooms, etc.—Resident Assistant Surgeon. Salary, £100 per annum, with furnished rooms, etc. Applications to the Treasurer.
SAMARITAN FREE HOSPITAL FOR WOMEN—Physician. Applications on or before July 15th.
SEAMEN'S HOSPITAL, Greenwich—House-Physician. Salary, £75 per annum, with board, rooms, and attendance.—House-Surgeon. Salary, £50 per annum, with board, rooms, and attendance. Applications on or before July 12th.
WARWICK COUNTY ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications to the Superintendent.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BRADFORD, C. L.S.A., appointed House-Surgeon to the Birmingham General Hospital.
HARPER, G. S., L.R.C.P., appointed House-Surgeon to the Belgrave Hospital for Children.
MACCALL, William N., M.D., appointed Honorary Surgeon to the Clinical Hospital and Dispensary for Children, Manchester.
POYNTER, George Frederick, M.R.C.S.E., appointed House-Surgeon to the Westminster Hospital, *vice* Arthur Price, Esq., resigned.
PURCELL, F. A., M.D., appointed Assistant Surgeon to the Cancer Hospital, Brompton.
LAW, W. T., M.D., appointed Resident Medical Officer to the Hospital for Consumption and Diseases of the Chest, Brompton, *vice* R. Rendle, F.R.C.S. Eng., resigned.
LLOYD, James H., M.R.C.S.E., appointed House-Surgeon to the Tiverton Infirmary.
SNOW, Herbert L., M.D., elected Surgeon to the Cancer Hospital, Brompton.
WATSON, Thomas H., M.B., appointed Assistant-Physician to the Fife and Kinross District Lunatic Asylum, Cupar.
WILKINS, Robert Bird, M.R.C.S. Eng., appointed House-Surgeon to the Queen's Hospital, Birmingham.
WILLIAMS, W., M.D., appointed Honorary Surgeon to the North Dispensary, Liverpool.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

MACAW.—On June 18th, at Malta, the wife of Staff-Surgeon K. Macaw, M.D., of a daughter.
THURSFIELD.—On June 26th, at Leamington, the wife of *T. W. Thursfield, M.D., of a son.

MARRIAGES.

DAVIES—**JACKSON**.—On June 17th, at St. Luke's, Chelsea, by the Rev. Gerald Blunt, Rector, Francis Pritchard Davies, M.B., Superintendent of the Kent County Asylum, Barming Heath, near Maidstone, to Agnes Warden, youngest daughter of the late Alexander Jackson, Esq., of Chiswick.
RENTON—**RODGERS**.—At St. Stephen's, Lambeth, on June 21st, by the Rev. Canon Titcombe, George Renton, M.D., of Consett, Durham, to Mary, daughter of the late Robert Rodgers, Esq., of Wavertree, Liverpool. No cards.
PARROTT—**NORMAN**.—On June 24th, at Denham Church, Bucks, Edward J. Parrott, M.R.C.S., of Hayes, Middlesex, to Emma, second daughter of James Norman, Esq., of Southlands, Denham.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The last meeting of the twentieth session was held at the Royal Kent Dispensary, Greenwich Road, on Friday May 5th. The President (Dr. J. N. Miller) in the chair. In accordance with Rule 15, three members were elected to audit the treasurer's accounts. The following cases were brought forward for discussion: by Dr. Carr, "A case of General Dropsy (Bright's disease) cured by puncturing the legs, or diuretics illustrating the doctrine of elimination"; by Dr. Ralph Gooding, "A case of Prostatic Disease"; by Mr. J. Prior Purvis, "A case of severe Trifacial Neuralgia of long standing, successfully treated by the continuous galvanic current, after defying all sorts of anti-neuralgic remedies". The Annual Dinner will take place on Wednesday, June 28th, at the Ship Hotel, Greenwich, at 6 for 6.30 P.M. precisely. Tickets, including wine and coffee, 15s.

OPERATION DAYS AT THE HOSPITALS.

MONDAY — Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY — Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY — St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY — St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY — Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY — St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Dr. Braxton Hicks and Dr. Goodhart, "On the Displacement of the Uterus by Distension of the Bladder, as shown by Experiments on the Dead Body"; Mr. Lawson Tait, "Case of Vesico-vaginal Fistula left Fourteen Years after Lithotomy, cured by a series of Plastic Operations"; Dr. Redmond, "A Case of Secondary Puerperal Haemorrhage"; and other communications.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

LETTERS from Mr. Hill, Dr. Williams, Mr. Benson, and other papers and articles, are postponed from pressure on space till next week.

DR. BRETT ON EDITORIAL RESPONSIBILITIES.

GENTLEMEN.—Your repeated published declaration of just and generous principles, of fair play and brotherhood, in the advancement and pursuit of medical science, by the circulation of free thought, without respect of persons or private interests, filled me with admiration, and induced me to become a subscriber to the BRITISH MEDICAL JOURNAL. All these good principles, which tend to gather into one all the members of a liberal profession, have been departed from or overlooked in my regard. May I, therefore, ask you why was it, and how is it, that you have taken no notice of my work, *The New Physiology of the Nerves and Vital Organs*, which I sent to you for review? It is not a compilation; it is an original work, presenting new views on the most profound and vital of all subjects. Competent authority in high places and in the domain of philosophy have pronounced it a valuable contribution to medical science. The author's works on medical, religious, political, and social questions, are well known in Great Britain and America, and favourably reviewed by the daily press and first-rate reviewers, who love and circulate truth. I cannot believe that a professional brother will treat a brother as Calvin treated his pupil Servetus. Hoping, therefore, that your fault is only an omission and inadvertence, and that you will respect your professions and repair your neglect of me, and review my *New Physiology* at your earliest convenience, I remain, Mr. Editor, your loving confidant and faithful servant,

WILLIAM BRETT.
103, Cornwall Road, Notting Hill, W., June 26th, 1876.

*. If we did not allow Dr. Brett to speak for the merits of his own production, he might feel as much aggrieved as Mr. Brown of Northallerton. After reading his book, however, we do not think that any review we could publish would be satisfactory to his feelings.

FOREIGN BODY IN BRONCHUS.

THE report of the transactions of the Harveian Society, published in the JOURNAL of June 24th, Mr. Maumder is made to say that he removed "a glass *solfatire*, which had been lodged in the left bronchus of a lad aged 15, for some weeks, without discomfort". In reality, the foreign body had only been down in the bronchus (opposite the nipple, as stated by the patient) twenty-four hours. Mr. Maumder's impression is, that the wire acted as a scoop.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

MR. HOGG AND THE REV. DR. TREMLETT.

MR. JABEZ HOGG forwards to us a warm correspondence between himself and the Rev. Dr. Tremlett of Hampstead on the subject of vivisection, and including a discussion of the objection which the latter gentleman has expressed to the appropriation of his collection to the Hospital Fund, because the London Hospital contributes towards the expenses of the medical school attached to the hospital. The objection seems to us far-fetched, inasmuch as the reasons for that appropriation are found in the fact, that the maintenance of an efficient medical school is essential to the usefulness of the hospital. Without the gratuitous services of a large body of medical students, the heavy and skilled labour of dressing and recording the symptoms and investigating the cases of so great a number of patients could not be carried on. The Committee of the London Hospital are wise in their generation in making the appropriation, which is by no means an exorbitant *quid pro quo*. Dr. Tremlett may readily satisfy himself of this by applying to the Rev. Mr. Kitto or the Rev. Mr. Rowsell, who are among those who have authorised the grant. Dr. Tremlett may also, we think, rest assured that the medical profession is at least not less humane than the mass of mankind, and that infliction of pain, except for the most important reasons, is not and would not be countenanced by them. If Dr. Tremlett will read the report of the Commission, and not garbled extracts from it, he will be able to satisfy his conscience on this ground. If he cannot, we should not quarrel with him for withholding his contributions, or directing their application in whatever way he thinks best. We should be very unwilling not to concede to others the same freedom of opinion which we claim for ourselves.

AN ASSOCIATE asks:—Can you, or some of your readers, inform me in your next issue of any private houses or institutions where ladies of small means, nervously affected, but not fit subjects for a lunatic asylum, are received?

MEDICAL ETIQUETTE.

SIR,—In reply to Mr. Jackson's letter of last week, I beg most distinctly to state that I met Mr. Evans, and that we consulted together at the patient's bedside. Everything was arranged in and readiness, except Mr. Evans's fee. I never declined to meet Mr. Evans. I never requested the patient to call in another medical gentleman whom I named: I should like Mr. Jackson to name the gentleman. I never attended, nor offered to attend, gratis, but the reverse; and in case my account should turn out gratis with another name, I took the precaution to get a little paid towards it every week. I did not then say the patient's life was in danger, but I had told her so all along. I never said I would have nothing further to do with the case. I never used pressure in any way.

Before Mr. Evans was called, the patient and her friends called Mr. D. Gibson in. That gentleman also declined to act without a fee. They refused the hospital, and had failed to get a surgeon gratis. No doubt they were in great distress; but I should like to know by what authority Mr. Jackson undertook the case, as I am not aware that he holds any surgical qualification. I could get the above attested, but I decline to stoop.—Yours truly,
Clydesdale House, Hull, June 26th, 1876.

DAVID ALEXANDER.

C. H. B. (Gosport).—We believe that the fourth volume of Reynolds's *System of Medicine* is approaching to completion, and that nearly the whole of the matter is in type.

SANITARY ORGANISATION.

SIR,—I propose to read a paper at the annual meeting of the Association at Sheffield on Chaos, as illustrated by the arrangements of the Central and Local Government Boards for the prevention of Disease and Death; and I am desirous of obtaining information on the following points.

1. Instances of irregular and overlapping districts; difference of size and of officers' salaries.
2. Facts showing the difficulty of obtaining reliable information as to the existence of epidemic or preventable disease by Medical Officers of Health of Combined Districts.
3. Instances where Poor-Law Medical Officers have been called on in virtue of Mr. Lambert's Circular-letter of March 1874, requiring them to give information as to the existence of epidemic disease, but have had no extra payment voted them for the additional labour entailed thereby.
4. Any information shewing the middle which has arisen consequent upon the rural arrangements of Mr. Stansfeld's Public Health Act, 1873.

Everything supplied me shall be treated as strictly confidential, if the contributor of such information desires it.—I am, sir, yours obediently,
33, Dean Street, Soho, W., June 29th, 1876.

JOSEPH ROGERS.

NERVOUS SHOCK COMMUNICATED TO THE SUCKLED BABE?

SIR,—The death of the child recorded in the JOURNAL under the above heading will, I think, bear a much more intelligible explanation. We have the fact of the mother "all of a whirl", at about ten o'clock at night, wrapping up her babe, of a few months old, in two shawls, and suckling it in an open carriage during a drive of eight miles. Here is every circumstance favourable to suffocation. Why, then, seek to explain death by so unheard-of a cause as nervous shock communicated by the breast? Experience does not warrant such a conclusion. Who ever before heard of such a thing? On the other hand, how many of us have known suckling continued through far worse circumstances to the mother without in any way affecting the child? I have myself seen a mother fall down in a fit, with the child at the breast, without its being in the least affected. If we admit the shock-theory to be tenable, milkmen should be warned to protect their cows from the attacks of tiresome dogs, or we may have to explain sudden deaths in more advanced life upon such "milk-and-watery" hypothesis.—Yours truly,
Aldershot, June 1876.

H. ERNEST TREESTRAIT, F.R.C.S.

THE GOVERNMENT CONVICT SERVICE.—A member asks for information as to the steps to be taken so as to obtain a situation as Surgeon in the Government Convict Service.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

CUCA-LEAVES.

SIR,—I have read a series of papers in your *JOURNAL*, pointing out the advantages derived from the taking of cuca-leaves, or erythroxylon coca, in banishing fatigue after long bodily exercise, and, indeed, in some cases apparently preventing weariness, when a very unusual amount of hard walking and difficult climbing have been self-imposed in the experiments tried by those gentlemen who have recorded their experience. Three points have been particularly enunciated: an extra amount of bodily exercise, a very small supply of nutriment during the time of experiment, and the swallowing of the saliva, with which has been mixed the juice of the cuca. It has struck me very forcibly that the same good effects as are ascribed to the cuca under the circumstances of the experiments, will be found to obtain if strychnia be substituted for the other drug. After a hard day's London practice, when quite done up, and perhaps called on to do extra and unexpected work, a few drops of the liquor strychnia will banish the overpowering fatigue of mind and body, will quite refresh for the unlooked-for toil, and enable us to perform it, and that, too, when we feel the want of an approaching meal. So exactly alike are the effects of those two substances in the experiments named, that I cannot allow the opportunity to pass without calling attention to them: but I also consider that a great deal depends on the resolution to accomplish the feat, whatever it may be, upon which we have set our mind; and the words of the Roman writer start up before me: "They are able because they seem to be able."—Yours faithfully,

G. DE GORREQUER GRIFFITH.

THE USE OF THE GUM-LANCET.

SIR,—It is evident, as Mr. Robert Torrance stated last week, that I have "lost the meaning of his note", and that I understood him to have written in unqualified condemnation of the practice of lancing the gums of children during dentition. I have carelessly re-read his letter, with the object of ascertaining whether this was due to my stupidity, or to ambiguity of expression on his part. To elucidate this, let me quote a passage from his letter. "When I was a student, lectures were given on the general management of teething children, to which I have adhered, and have seldom been disappointed; but the other day, on refusing to accede to the popular demand of lancing the gums, much to my surprise I was shown an edition of a late work recommending this—nay, more, by an eminent member of the profession—*On the Management of Children*, which undoubtedly tended to justify their ill opinion of me, the rules laid down there being very different from those I had been taught." Whether this is consistent with Mr. Torrance's later statement, that he "always lances the gums of children when they are red, and swollen, and tense, and infected", is a question on which I still entertain doubt.

The views of the other correspondents on this subject are sensible, and entirely accord with my own. Cases often occur in which there is considerable difficulty in diagnosing the part dentition plays in the causation or aggravation of symptoms. In such cases, it is better to err on the safe side; better to do this harmless operation several times needlessly than to neglect it once, when its omission might be attended with troublesome, nay even serious, results.

While leaving this discussion, I would express strong disapproval of Mr. Torrance's use of the phrase "ancient family doctor", which he contemptuously applies to one of his competitors. It is not becoming, for, whatever may be his opinion, age and experience are very respectable and valuable qualities. I am, sir, yours truly,

ROBT. E. HUNTLEY.

Jarrow, June 2nd, 1876.

MR. J. S. WILSON (Greenock).—The amount is ten pounds (£10) per month.

GOUT AND URTICARIA.

SIR,—Can any of your readers suggest a remedy for the following? I have suffered for many years at intervals from ordinary gout, and now for the last fortnight have had the complaint somewhat severely in my hand. In addition to this, I am driven almost wild by urticaria affecting the whole body and limbs, attended by the most intolerable itching both by day and night. Most of the ordinary remedies have been tried, without any alleviation. Any suggestion likely to relieve me will be thankfully received by

AN OLD ASSOCIATE.

POISONING BY VIRGINIAN CREEPER.

SIR,—I send you an account of two cases of poisoning, which I believe to be uncommon, and, if considered of sufficient interest, I should be glad if you would insert the following in the *JOURNAL*.

On June 22nd, two little girls, aged respectively 5 and 2½, chewed the leaves of the common Virginian creeper. They do not appear to have swallowed any, but only the juice; the masticated leaf they spat out. Very shortly after taking the leaves, about 5 P.M. on the same day, they were both seized with violent vomiting and purging, with considerable tenesmus, but in neither the vomit nor the stools was there any blood or fragments of leaf. Immediately afterwards, they became collapsed, very pale, skin cold, and sweating, and the pulse hardly to be felt (the father's authority). They remained apparently in a deep sleep for about a couple of hours, when they were roused by a return of the vomiting and purging. They were then given large quantities of milk, with some rum; after which they revived. Neither of the children had any sign of convulsions. When I saw them about nine the same evening, they were recovered to a great extent; both were very pale. The elder complained of some pain in the stomach; the younger still very prostrate. The skin was rather cold, and there was very marked dilatation of the pupils, and thready. The pulses of both were 120. I did not see any of the vomit or the stools; but the parents say that there was nothing peculiar about them, but they were very liquid. There is no doubt about what the children had taken, be cause, on recovery, the father took the elder child into the garden, and she showed him the creeper as what they had been chewing.

I do not remember to have heard or read of poisoning from this very common plant; but it is very evident that a very small quantity of its juice has very powerful irritant effects, and produces very dangerous symptoms. It would be interesting to know whether there are any other cases on record, and what have been the results. As regards the treatment, nothing could have answered better than the milk which the father gave, and I only followed it up with a good dose of castor-oil, and the next day the children were quite well.—Yours faithfully,

Chatham, June 24th, 1876.

HERBERT L. BERNAYS.

MR. GARRAWAY.—We are not very well informed on this subject, but there is a good popular book on *Domestic Medicine and Surgery* for colonial use in the bush by Dr. Gardner, published by Smith, Elder, and Co.; and we think a good book of the kind was also published by Nelson and Co. of Paternoster Row.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

PRIVATE FORMS OF PRESCRIPTIONS.

SIR,—I should feel obliged to you if you would insert the following fact in your *JOURNAL*, which is now such a powerful organ to suppress anything like unprofessional conduct. A patient of mine a short time since consulted a physician and lecturer to one of the London hospitals at his own residence, paying the usual fee, and returned home with the following prescription. R. Mist. ferri c. strychn. 3j ter die. The medicine not suiting, a second visit was paid, and I was anxious again to see the prescription, which was as follows. R. Pilulæ tonici xij, i bis die 8. The patient was told on each occasion that the medicine could only be obtained at "one chemist's", whose name was given. Should I meet with a similar case again, I shall publish the names of both parties in your *JOURNAL*.—Believe me to be, yours faithfully,

HERBERT LUCAS.

P.S.—The chemist pays carriage for medicine sent to any part of the country.

F.R.C.P.—We fear the publication of such a request might be an inconvenient precedent. It should appear as an advertisement in one of the daily papers.

DR. BACON (Cambridgeshire Asylum, Fulbourne) writes to say that he did not receive any copy of the petition for amendment of the Vivisection Bill. We hope this was not the case with many members. Further proceedings will be taken in respect to the amendment of the bill in the House of Commons, which will, we hope, receive the hearty support of the great body of the members.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. George Johnson, London; Dr. J. Matthews Duncan, Edinburgh; Mr. H. E. Armstrong, Newcastle-upon-Tyne; Dr. E. Symes Thompson, London; Dr. Lowndes, Egham Hill; Mr. George Pollock, London; Messrs. Seydel and Co., Birmingham; Mr. George Brown, London; Mr. Holthouse, Balham; Dr. J. B. Bradbury, Cambridge; The Secretary of St. Thomas's Hospital; Dr. Edis, London; Mr. John Jennings, Ipswich; Mr. J. Sampson Gamgee, Birmingham; Mr. Thomas Tinley, Whitby; Dr. J. Bourke, Malta; Dr. Sharpey, London; Dr. J. Crichton Browne, Southsea; Dr. Underhill, Tipton; Dr. Gowers, London; Mr. Hadley, Birmingham; Dr. W. Easby, March; Mr. Burdett, Greenwich; Dr. Finlayson, Glasgow; Dr. J. Marion Sims, London; Mr. John Wilson, Greenock; Mr. Nicholson, Hull; Mr. Maunders, London; Mr. Eastes, London; The Secretary of Apothecaries' Hall; Mr. F. G. Gant, London; The Registrar-General of Ireland; Dr. Wm. Fairlie Clarke, Southborough; Mr. T. M. Stone, London; Mr. Edward Garraway, Faversham; Dr. Isambard Owen, London; Mr. Wheelhouse, Leeds; Mr. Wrench, Baslow; Dr. Woods, Southampton; Dr. Brett, London; "Peter Simple, M.D."; Mr. Ernest Trestrail, Aldershot; Mr. Alfred Coleman, London; "Anti-Quack"; M.A.; Dr. J. Milner Fothergill, London; The Registrar-General of England; Mr. J. T. Clover, London; Dr. J. W. Moore, Dublin; Mr. Richard Davy, London; Dr. Joseph Bell, Edinburgh; Mr. J. O. Smith, Shrewsbury; Mr. Robert Cuffe, Woodhall; Mr. Jabez Hogg, London; Contra; Dr. McKendrick, Edinburgh; F.R.C.P.; Mr. David Alexander, Hull; Our Edinburgh Correspondent; Mr. W. Eassie, London; Mr. James Stockwell, Ormskirk; Mr. Fosbrook, Birmingham; Dr. Quain, London; Dr. Jagielski, London; M. Jourdan, Royat; Our Dublin Correspondent; Mr. Higham Hill, London; Mr. M. Smith, Hurstpierpoint; Mr. Oldman, Spalding; Mr. G. W. Baylis, London; Dr. Wiltshire, London; Mr. Annandale, Edinburgh; Mr. N. A. Humphrys, London; Dr. Bacon, Fulbourne; Mr. Herbert Lucas, Huntingdon; Captain Mercier, London; C. H. B.; An Associate; Mr. Woolcombe, Devonport; M.; The Secretary of the Obstetrical Society; Dr. Joseph Rogers, London; Mr. H. W. Coleman, Armley; Mr. T. Clarke, Pewsey; Dr. Wade, Birmingham; Dr. R. J. Lee, London; The Secretary of the Statistical Society; Dr. Latham, Cambridge; Mr. C. H. Robinson, Dublin; Dr. Gowers, London; Dr. Copeman, Norwich; Dr. Maccall, Manchester; Mr. T. K. Jones, London; etc.

BOOKS, ETC., RECEIVED.

Lectures on Orthopædic Surgery and Diseases of the Joints. By Lewis A. Sayre, M.D. London: J. and A. Churchill. 1876.
Surgical Emergencies. By W. P. Swain, F.R.C.S. London: J. and A. Churchill. 1876.
Diseases of the Rectum. By T. B. Curling, F.R.S. Fourth Edition. London: J. and A. Churchill. 1876.
Operative Surgery. By Christopher Heath, F.R.C.S. Part II. London: J. and A. Churchill. 1876.
The Book of Prescriptions. By Henry Beasley. Fifth Edition. London: J. and A. Churchill. 1876.
The Harrogate Mineral Waters. By A. S. Myrtle, M.D., etc. London: Baillière Tindall, and Cox. 1876.
Elements of Pharmacy. By F. Harwood Lescher. London: J. and A. Churchill. 1876.

OBSERVATIONS

ON THE

WORK AND CHARACTER OF THE LATE
E. A. PARKES, M.D., F.R.S.:BEING THE SUPPLEMENT TO DR. PARKES'S HARVEIAN
ORATION.*Delivered before the Royal College of Physicians,
Monday, June 26th, 1876.*

BY

SIR WILLIAM JENNER, Bart., K.C.B., M.D., D.C.L., F.R.S.,
Physician to Her Majesty the Queen; Physician to University College
Hospital; etc.

WHEN Dr. Parkes penned the sentence, "It may be hoped that, in years to come, there may be many names and many memories which will be recalled in this hall, and on this anniversary", ill though he was, no one thought that his memory would be the first to be recalled in this hall and on this anniversary; for I am sure that you, Mr. President, will not think the day when the College has done him the unprecedented honour of having his unfinished oration read before the Fellows inappropriate for me, one of the oldest of his friends, very briefly to recall the leading facts in his professional career, and to express, in a very few words, the estimate I have formed of the characteristics of his mind and the worth of the work he performed.

After a very distinguished career as a student, Dr. Parkes was appointed, in 1842, Assistant-Surgeon to the 84th Regiment, and went to India when just twenty-two years of age. He remained in the army less than three years, the greater part of which time he spent in India. Shortly after his return to England, he published his work on Dysentery, and the following year that on Cholera. These works prove, more than all the many honours he obtained at his College and University, the amount of work he must have performed as a student—the real knowledge he possessed, knowledge only to be acquired by hard, continuous, unremitting work, and the varied character of that knowledge, chemical, microscopical, anatomical, and clinical. These works, had they been written by one who had filled the post of physician to an hospital for years, would be held to give evidence of high merit in their author; but when it is remembered that they are the productions of a man who had only then closed, and that at an early age, his college days, their merit must excite our surprise. And when, further, we call to mind that the clinical records and *post mortem* facts were collected by a man who had just entered the army, everything around him novel and enticing, at such an age, to legitimate idleness and pleasure; that they were collected by a man to whom the complete discharge of his numerous official routine duties was a matter of conscience; that the records of clinical facts and of *post mortem* appearances were made in India at the most trying season of the year, when the labour of merely attending to the sick during a great epidemic must have been most laborious, our surprise at the merits of the works and our admiration for the man must, I think, be unbounded. Apart from the evidence these two works afford of Parkes's energy, power of work, and the wide extent of his knowledge, they prove that he possessed even then originality of mind, rare powers of accurate observation, and the ability to combine the facts observed and to draw sound conclusions from those facts. Having regard to the age of their author, the circumstances under which the materials for them were collected, and their intrinsic merits, these two works are among the most remarkable in medical literature.

The promise given by Dr. Parkes's works on Dysentery and Cholera was amply fulfilled. He never ceased working till he passed away, and his work was always productive of results valuable to science or immediately conducive to the benefit of mankind. In 1849, he was appointed special Professor of Clinical Medicine at University College. His published lectures tell something of the worth of his clinical work, but those who followed his teaching can alone tell how great was the influence he exercised over his class in inciting them to work, to accurate observation, and, above all, to the discharge of their daily duties as students of a profession on the proper exercise of which so much of the weal or woe of mankind must for ever depend. The variety and extent of his knowledge, his capacity of influencing others and spurring them on by his example to unwonted exertion, the amiability of his

nature, conjoined as it was with great firmness in condemning or resisting what seemed to him to be wrong, pointed him out as the best man in our profession to organise and superintend the civil hospital established at Renkioi during the war with Russia. There his important duties were discharged in such manner as to afford complete satisfaction to his professional colleagues and to the Government, and to secure for him the perfect confidence of Mr. Sydney Herbert and of Sir James Clark, to whose appreciation of his abilities he owed his appointment.

When, in consequence of the report of the Royal Commission appointed to inquire into all matters affecting the sanitary condition of the army, it was determined to establish the Army Medical School, Dr. Parkes was consulted by Mr. Sydney Herbert, then Secretary of State for War, on many points in reference to the constitution of the school. Subsequently, when this school was established, Mr. Sydney Herbert offered Dr. Parkes the most important post in the new school, viz., that of Professor of Hygiene. He accepted the appointment, for it afforded him the opportunity of devoting himself to a matter in which he had always taken the deepest interest, viz., the subject of hygiene, in its relation especially to the health of troops. For this most important post he was unquestionably better qualified than any man in Europe. He had gained much practical knowledge in India, and his articles on the subject in the *British and Foreign Review* prove that he had critically examined and mastered, I may fairly say *all*, that had been written on the subject. This appointment enabled him to carry out his wish to reside in the country. The delicacy of Mrs. Parkes's health, and his own and her tastes, had for some time led him seriously to contemplate leaving London; and these motives were strengthened by the fact that he had two serious illnesses during the ten years he was special professor of clinical medicine at University College, and that he knew that he inherited a strongly marked tubercular constitution.

Although a sound and able practitioner, and possessed of considerable powers of diagnosis, Dr. Parkes never did much private practice in London. His health, his absence from England, the fact that he had no speciality, and his age—for we all know that success in practice is, to some extent, a question of survivorship—all these forbade his attaining a large practice before the time he left London. But his practical knowledge of medicine, his tact, his honourable, straightforward conduct, and his kindly feeling to his younger brethren, would certainly have secured to him, had he remained in London a few years longer, and had his health permitted, a very large consulting practice. He was a man whom the profession would have appreciated and trusted.

After his appointment to the Medical School at Chatham, his energies were devoted almost altogether to the advancement and spread of hygienic knowledge, and his writings on Hygiene followed each other in quick succession. In 1861, he commenced a series of Annual Reports on the Progress of Hygiene. The last of these reports appeared last year. They are, as Dr. Aitken has described them, models of *precis* writing, and invaluable as records of the progress of hygiene. His *Manual of Practical Hygiene*, published in 1864, is a monument of industry, a model for clearness of arrangement and style, and withal a work of great practical importance. His Knapsack Report, his Reports on the issue of a Spirit-ration during the Ashantee campaign of 1874, on the Effects of Alcohol on the Human Body, his lectures before this College, and his papers on Nitrogenous Elimination, are all of the highest scientific and practical importance as contributions to the study of Hygiene; and, like all he wrote, their worth is perfected by the knowledge that everything he states to be a fact from his own observation may be implicitly received as a fact, and used as fact by those who undertake similar or allied investigations.

It is characteristic of the man that, while a student at college, his labours were spread over all his studies; he neglected no one, but left, as we have seen, well-informed on all subjects. When in India, he devoted his energies to the study of the diseases there only to be studied—there only to be seen on a large scale. When Professor of Clinical Medicine, it was to practical medicine that he gave his whole mind. He worked at that and taught that, and his pupils alone know how well he taught it. His clinical lectures, embracing a great variety of subjects, give perfect evidence of diagnostic skill and practical acumen. It was while working at and teaching practical medicine that he collected the store of materials for his standard work on the *Composition of the Urine in Health and Disease* and under the action of Remedies. After his appointment to the Chair of Hygiene, it was to the study and teaching of hygiene in all its branches that he devoted his powers. It was this concentration of energy that enabled him to do so much, and to do it all well.

It would not be right for me to conclude this part of my sketch without calling attention to one of his latest efforts to advance practical hygiene—I mean his writings in defence of the Contagious Diseases Acts. His perfect command of the facts and his dialectic skill

enabled him to convince all open to conviction of the value of these Acts; and he would be a reckless—I was going to say a wicked—man, who, having read Parkes's papers, should propose their repeal. He was the purest-minded man I ever knew, and he defended the Contagious Diseases Acts. He was the kindest-hearted, the gentlest, the most humane man I ever knew, and you have heard the words he addressed to his College on vivisection. Dr. Parkes, by his writings on hygiene, did much to spread the knowledge of the subject, but as a teacher he did yet more. His colleague, Dr. Longmore, writes to me: "The influence Dr. Parkes exerted on those who had the advantage of his tuition before entering the military service of the country, and thence indirectly on the public services themselves, was beneficial to an amount which can hardly be over-estimated. It was not merely the knowledge which he was able to impart in the course of each sessional period of the Army Medical School, though, owing to his painstaking personal teaching and lucid expositions, the extent of this was very large, both in regard to the principles and practice of military hygiene as well as to the chemical manipulations applied to it. But what was even more valuable, was the interest in the work which he contrived to awaken in many of those who came under his tuition. He was such an ardent, honest, and indefatigable searcher after scientific truth himself, and for truth's sake and the general good only, that his example as much as his teaching served to excite a kindred love of the same pursuit in others. That the zeal so excited was not evanescent, has been proved by what many of his pupils have since accomplished in science."

Of the wisdom of Sydney Herbert's choice of Dr. Parkes to advise him originally in the organisation of the Army Medical School, and subsequently to fill the Professorship of Hygiene in that school, no one can now doubt. The Professor of Surgery, who was his colleague from the commencement of the school, writes to me:—"Since the formation of the school, as must happen in all important establishments, various important questions have arisen from time to time in connection with the interior economy and working. Dr. Parkes's previous associations with the army, his wide acquaintance with educational subjects, his numerous official relations with London professional institutions, his prudence and tact, his single-minded devotion to the interest of the public service, and at the same time his thoughtfulness for others, all these circumstances caused the active part which Parkes constantly took in the discussion on these questions to be of inestimable value in attaining a right and satisfactory solution of them."

How highly Dr. Parkes's labours in the field of military hygiene are appreciated by those best capable of judging their value, may be well illustrated by the eloquent paragraph with which Baron Mundy, the Professor of Military Hygiene at the University of Vienna, concludes his biographical notice of Dr. Parkes:—"All the armies of the Continent should, at parade, lower their standards; craped, if only for a moment, because the founder and best teacher of military hygiene of our day, the friend and benefactor of every soldier, Edmund Parkes, is no more." And Dr. Longmore, commenting on Baron Mundy's eulogy, writes to me, "Dr. Parkes was indeed a benefactor to the soldiers of all armies, if the diffusion of a knowledge of the best means of warding off sickness from bodies of troops, of augmenting the standard of health, and of increasing the individual welfare and happiness of soldiers, constitutes a benefit; and even now that he has gone to his rest, he will continue to be a benefactor to them, for he has trained a small army of followers to reflect and diffuse still further the light which he imparted during his lifetime."

Of the extent of Parkes's labours, and of the value of the scientific and practical outcome of his labours, all here can judge; but those only who personally knew him, and whose personal knowledge of him extended over a series of years, can fully appreciate the mental and moral worth of the man, and the loss mankind has sustained by his death at an age when his intellectual power was in its full strength—when his love and capacity for work were undiminished, and when his influence was daily widening.

My acquaintance with Dr. Parkes began when he and I were attending the same classes at University College, and continued till his death. As a student he was distinguished by brightness and cheerfulness, amiability, unselfish willingness to help others at any cost of trouble to himself, energy in work, diligence in the using of each hour for the studies of that hour, the high moral tone that pervaded his converse, and above all, and crowning all, by the real living purity of his being. Goodness and purity shone through all his daily life; they were visible in his lesser as well as his greater acts; his purity was not mere lip purity, but pervaded his work and his very being at all times and in all places.

The excellence of his life was so evident, his work was such, earnest work performed so unostentatiously and manifestly from such high motives, and the charm of his manner was so great, that few of his

fellow-students could escape being better men from associating with him. He illustrated well the contagious power of goodness; he diffused among his fellows purity of motive, as some men have diffused among their contemporaries impurity of morals.

From what I can now call to mind of his appearance, and from what he was physically in his latter days, I know that Parkes possessed in his youth much refined beauty of face and form; but his moral nature so clothed his physical, that few who knew him intimately would have been struck by his physical appearance. Still, body, mind, and moral nature were, as they so often are, in perfect harmony.

Few men have preserved through life the mental and moral characteristics of their youth so unchanged. What he was in the spring time that he was in the summer of his life, and that he was when cut down by death in the early autumn of his days.

With increase in years his mind ripened, his sphere of action widened, his influence over others operated in new and perhaps more important ways; but in all moral and intellectual essentials Dr. Parkes was as a man what he was as a youth—he was animated by the same principles and stimulated by the same faith. As years went on, his mind proved itself to be singularly well balanced; he possessed an extraordinary power of acquiring information; his memory was very retentive; he was the best informed man in the medical literature of the century I ever met; he was unprejudiced as he was learned; he could use with ease the information he acquired, and could express his ideas clearly and simply; his language was always elegant, and on occasions eloquent; few physicians have equalled him as a writer. His powers of observation, of perception, of reasoning, and of judgment, were all good, and equally good. But as in his youth so in his manhood (the beauty of his moral nature), his unselfish loving kindness, his power of inculcating others with his own love of truth, with his own sense of the necessity of searching for the truth, of questioning nature till she yield up the truth, of earnest work, were his most striking characteristics.

From the constitution of his mind, Dr. Parkes was greatly indisposed to take an unfavourable view of men's motives or conduct, and especially so of the motives or conduct of his professional brethren. He judged others by himself, and therefore, never doubted the purity of their motives. He thought all men good till they proved themselves to be otherwise. He was, however, the reverse of a weakly, good-natured man; for, if once satisfied that a man was animated by unworthy motives, was guilty of dishonourable conduct towards his brethren, he was most severe in his condemnation. Still he would even then rarely say aught against the man, but would, as he once wrote to me, "learn to shun him."

The last days of Edmund Parkes proved the truthfulness of his life. In the very sight of death he displayed the same forgetfulness of self, the same thoughtfulness of others, the same desire to urge forward true work, that had characterised him from boyhood onward. When he believed himself to be dying and heard that I was coming to see him, he was most anxious that I should arrive before his end. The motive that prompted this anxiety was that he might with his last breath promote good and useful work; it was that he might express to me his earnest wish that I should exert the influence which he hoped my position might give me to stay the hands of those who, through ignorance of the value of the Army Medical School, might possibly hereafter curtail its usefulness, or even destroy it. He most earnestly impressed upon me his sense of the worth of all his colleagues, of the value of the work they were doing, and the fitness of each for his special duties. A body of men so able and so well fitted for their duties, if once dispersed, could, he said, never be again collected. In the very act of dying, then, this noble man thought most of others, and how he might best promote the progress of good and useful work when his own hand must be powerless and his own tongue silent.

While Parkes was near to us, we saw how perfect was each portion of his life; but it is only when death has placed him at a distance that we can realise how completely he stands out from his fellows. It is only now when death has placed him at a distance that we can see his character as a whole, that we can fully appreciate the harmonious beauty of the several parts of his being, and the full height of his intellectual and moral stature.

And now, sir, that I have finished the task the judgment of others and my own sense of duty imposed on me, I must say that, although I have striven my best to draw Edmund Parkes truthfully, I feel, to use his own eloquent words, written for a like occasion, "how pale and tame a portrait I have drawn of this noble and large-hearted man. Would that to some pen, which could draw the outline more boldly, and could fill in the lights and shadows more delicately, this task had been assigned."

AN ADDRESS

ON THE

HISTORY, CONSTITUTION, AND OBJECTS
OF THE BRITISH MEDICAL
ASSOCIATION:

AND ON MEDICAL ORGANISATION IN GLASGOW.

*Delivered at the First Annual Meeting of the Glasgow and West of
Scotland Branch.*

By ALLEN THOMSON, M.D., LL.D., F.R.S.S.L. & E.,

Professor of Anatomy in the University of Glasgow; President of the Branch; etc.

THE purpose of our present meeting is to establish for Glasgow and the western districts of Scotland a local Branch of that great national professional union known as the British Medical Association.

It is my first duty to thank you for the honour of requesting me to preside on this occasion. I cannot but feel that there are many closely connected with the practice of our profession who might more appropriately have been chosen, and who would have acted more efficiently as your leader in this movement; but, having been urged to accept the office of local president, I will endeavour to show my sense of your kindness by doing all in my power to promote the object of your meeting. I must, however, bespeak your indulgence for the imperfect manner in which my task may be accomplished.

As the nature and objects of the British Medical Association, though very familiar to many in England, may not be known to some of those whom I now address, it may be proper that I should in the outset refer very briefly to its origin, nature, and progress.

The Association was first formed in the year 1832; mainly, I believe, at the suggestion and through the exertions of Sir Charles Hastings, M.D., of Worcester; and, being designed to bring together the medical practitioners of the English counties, was at first called the Provincial Medical and Surgical Association. Its objects, as stated in the opening address of its founder at the time of its first establishment, were to remove the disadvantages under which the provincial members of the profession laboured from their isolation and want of co-operation; to render their exertions for the promotion of knowledge more effective and useful by combination; and to maintain the honour and respectability of the profession by the establishment of free intercourse and friendly feelings among its members.

For this purpose, annual meetings of the whole Association were arranged to take place in different localities; and it was intended that, by these meetings, and by the formation of local Branches to meet in different parts of the country, the members, besides being benefited socially and scientifically, should be encouraged to devote themselves more specially to the following objects, viz.:

1. To collect useful information of all kinds on speculative or practical professional subjects.
2. To cultivate a knowledge of the medical topography of England by statistical and scientific investigation.
3. To inquire into the spread of epidemic diseases in relation to the circumstances of each locality.
4. To promote the knowledge of hygiene, sanitary matters, and the adjustment of medico-legal questions.

By the zeal and assiduity of its founders, the organisation of the new Association was soon completed; and the fitness of the first plans, which have undergone little essential change since the commencement, has been evinced by the uniform success of the meetings and the steady progressive advance of the Association in numbers, influence, and usefulness.

In its first year (1832), 310 members had joined the Association. In 1843, at the end of its first decennial period, the number of members had increased to 1,300. In 1853, the number was 1,850. In 1863, it was only about 2,200; and in 1866, when the present editor assumed the management of the JOURNAL, it was about 2,500; but, from that time onwards, a very rapid increase took place, so that, in 1873, the number of members had risen to 5,500. It now probably approaches 7,000; amounting thus to about a third of the whole number of qualified medical practitioners in Great Britain and Ireland, which, as in-

dictated by the *Medical Register* and Churchill's *Directory*, is upwards of 22,000.*

The present revenue of the Association is upwards of £9,500; it is now free of debt, and has a growing surplus.

Forty-three annual or general meetings of the Association have been held in different places since the first, which took place at Worcester in 1833. In Birmingham and in Oxford the Association has met three times; and, in each of the following places two meetings have been held, viz., Edinburgh, Leeds, Liverpool, London, Manchester, Norwich, Worcester, and York; and one meeting only in the following towns, viz., Bath, Brighton, Bristol, Cambridge, Canterbury, Cheltenham, Chester, Derby, Dublin, Exeter, Hull, Leamington, Newcastle, Northampton, Nottingham, Plymouth, Sheffield, Southampton, Swansea, Taunton, and Torquay.

The formation of local Branches has been gradual. Their number at present amounts to 29. Of the 29, only one, so far as I know, has been formed in Ireland. In the north of Scotland two have existed for some years; and the southern counties of Scotland are included in the Border Counties Branch. Another has, about the same time as ours, been formed in Edinburgh. Of the remaining Branches, two are Welsh, and 22 are English. The meetings of the local Branches vary according to the circumstances of their localities; being in some of them only once in the year, in others more frequently, in several three or four times, and in a few as often as monthly.

It was a part of the original plan of the Association to publish and circulate among its members the various memoirs and contributions read at the meetings. The Association, indeed, appears in some measure to have taken its rise among the supporters of a journal which was begun in the year 1828, under the name of the *Midland Medical and Surgical Reporter*, and which was carried on with success during the four succeeding years. It was, however, arranged at first, to issue the papers and addresses brought forward at the Association meetings by means of *Transactions*, of which nineteen volumes were printed nearly annually, or in the course of the first twenty-one years of the existence of the Association, and distributed to the members.

In 1840, the *Provincial Medical and Surgical Journal* was originated by Dr. Hennis Green of London, not being originally connected with the Association; but professing to carry out its objects; and one of the Worcester Council of the Association, Dr. Streeten, was at Dr. Green's request associated with him as co editor. An arrangement was made with the proprietors of the *Journal*, by which every member of the Association was to be supplied with a copy of the *Journal*, while they continued to receive also the volume of *Transactions* for the year. In 1844, the *Journal* became officially connected with the Association; and, in 1845, it was placed under the management of the Committee. This *Journal* was for a time published weekly in London, but it appears to have languished and to have caused financial difficulties, and it was thereafter for a time issued only fortnightly in Worcester.

As the number of members of the Association, however, increased, and its activity and influence came to be more felt and acknowledged, it was deemed expedient to give the union a wider scope, to include within its operations the practitioners of London and the neighbouring metropolitan counties, and to extend its membership to Scotland and Ireland. In 1853, after considerable discussion, the *Journal* was transferred to London under a new editorship, that of Dr. John Rose Cormack; and was published weekly in an improved form under the name of the ASSOCIATION MEDICAL JOURNAL.

In 1856, the Association assumed the name of "*British Medical*"

* In 1871, the whole population of Great Britain and Ireland being about 31,500,000, the number of registered medical practitioners was about 21,200, or nearly in the proportion of one medical man to 1,485 of the inhabitants.

I subjoin the following view of the relation between the membership of the Association and the number of the profession in the several divisions of the kingdom, as given in the ASSOCIATION MEDICAL JOURNAL for October 21st, 1853, p. 913.

	Number of Medical Men.	Members of the Association.
England.. ..	9,315	1,748
Wales	315	112
Scotland.. ..	1,623	47
Ireland	2,100	4

The whole number of the Association in this year is stated at 1,906.

At the end of 1870, the relation between the number of members of the Association and the profession was as follows (see BRITISH MEDICAL JOURNAL, January 7th, 1871, page 22).

	Number of Medical Men.	Members of the Association.
England and Wales.. ..	13,455	3,739
Scotland	2,000 (about)	102
Ireland	2,400 (about)	298

Including members in the Army and Navy, Colonies, &c., the total number at the end of 1870 is stated to be 4,201. At the annual meeting in Edinburgh in 1875, the number was 6,112; and there have since been numerous accessions.

† A second meeting in Sheffield will be held this year.

instead of that of "*Provincial Medical and Surgical*"; and the JOURNAL accordingly, in 1857, appeared under the new name of BRITISH MEDICAL JOURNAL, and was edited by Dr. Andrew Wynter. In 1861, two volumes of the JOURNAL came to be issued annually instead of one as formerly; and now Dr. William O. Markham became the editor.

For the last ten years, or since the beginning of 1867, except during an interval of a year in 1869-70, when the JOURNAL was conducted by Mr. Jonathan Hutchinson, Mr. Ernest Hart has acted as editor; and, under his able and judicious conduct, the JOURNAL, besides giving a full account of all the business and transactions of the Association, of which it is the authorised organ, with the enormous circulation of 7,750 copies, maintains an honourable and useful place among the records of the medical literature of the time.

The Association is composed entirely of legally qualified members of the profession, and it is now incorporated (1874) under the Board of Trade according to the "Companies' Act" of 1867, Section 23. By this agreement, the funds of the Association must be entirely expended in the promotion of the objects of the Association, and no portion of them can be applied, directly or indirectly, by way of dividend or bonus, or otherwise to the profit of any of the members of the Association, excepting in so far as concerns the payment of the services of the officers of the Association.

The objects of the Association under the memorandum of its incorporation are—

a. The periodical meetings of the Association and the profession generally.

b. The publication of a JOURNAL and occasional *Transactions*.

c. The grant of moneys for the promotion of medical and allied sciences.

The annual payment of a guinea by each member entitles the payer to receive a copy of the JOURNAL or any *Transactions* which may be published. The payment is due in advance on the 1st of January in each year.

The business of the Association, other than the scientific papers and discussions, is under the management of a Council and of a Committee of Council; and the officers consist of a President of the whole Association, a President-elect, Vice-Presidents, a President of the Council, a Treasurer, an Editor of the JOURNAL, and a Secretary.

The constitution and laws of the Association are of the most liberal, I might almost say democratic kind.

Members are admitted by a vote in their favour of three-fourths of those present in the Council or Branch Council in which they are proposed, and they are also liable to expulsion for misconduct (on due cause shown we shall suppose) by an adverse vote of the like number of their fellow-members.

The General Council of the Association consists of members chosen by the members of the several Branches, in the proportion of one councillor for every twenty members; and these, along with an honorary secretary of each Branch, form the representatives of the several Branches in the entire Council. Along with these are associated in the Council, the President, the President-elect, the Vice-Presidents, the President of the Council, the Treasurer, the Readers of Addresses (who have been nominated), and the Presidents of Sections.

The President of the whole Association is annually elected by the Association; while the President of the Council holds office for three years, and is elected by the votes of the Council.

The Council holds its regular meetings at the annual meetings of the Association, and at such other times as may be appointed; and prepares a Report of the general state and proceedings of the Association for the past year to be presented at the annual meeting. But the affairs of the Association are mainly conducted by means of the Committee of Council, consisting of twenty members elected by the Council, together with the President, President-elect, Vice-Presidents and Treasurer, and the Honorary Branch Secretaries for the time being.

This Committee meets not less than four times in each year, and has the management of all the ordinary business, nominates the readers of addresses, determines the division of sections, and names their presidents, directs the publication of the JOURNAL, and reports to the Council on the financial state of the Association, and in general regulates the order and conduct of business, and acts in all emergencies arising during the year.

Lastly, I may mention, as affecting the proceedings of our present meeting, that a Branch of the Association may be constituted by any local set of members, not less than twenty in number, provided it is recognised by the Committee of Council. The Branch governs itself under its own by-laws, which are approved by the Committee of Council as being consistent with the general laws of the Association. Each Branch is independent of the others, elects its own officers and Council,

pays its own expenses, and cannot act for or incur any obligation on behalf of the Association.

It can scarcely be supposed that meetings such as those which take place under the auspices of the Association, in which large bodies of the most able and well-informed men of a learned profession are brought together for the consideration and discussion, not merely of scientific and practical medicine and surgery, but of all subjects concerning the business, character, life, and honour of the profession at large and its individual members, could be held without the eduction of very important results.

The information collected and published from the various general and Branch meetings has often been of a very valuable description. The introductory addresses of the President, and the appointed addresses on the progress of medicine, surgery, midwifery, physiology, and sanitary science in the several sections, usually by men of the highest eminence, have been of a most interesting and valuable kind, and have influenced perceptibly the advance of knowledge and progress of inquiry in the several departments; while the agency of the Association in the discussion of many of the general and particular topics affecting the welfare and regulating the conduct of the profession, has had a strong and wide-spread influence in forming and guiding the opinions of many members, and has operated largely and powerfully on the views of the legislature and general public.

It would be vain for me to attempt to refer to or even to mention the more important subjects which have from time to time engaged the attention of the Association. Leaving entirely out of view the many interesting scientific questions and valuable collections of information which have been brought under review at the various meetings, it is enough for me here to mention, as a few of the more interesting general questions which have at various times occupied the Association, the following subjects, to show how active and various has been their regard for all the interests of the profession.

The subject of Medical Reform had occupied the Provincial Medical Association for a considerable time before 1853, when the Metropolitan Counties Branch was first established. At that time, a Committee of the Branch was formed to watch the progress of the Reform question, etc., and from that time onwards, during several years, great activity prevailed in the Metropolitan Counties Branch and in the parent Association for the promotion of a measure of reform, in which the representative principle should receive full recognition. For this purpose, in 1854, a Bill was prepared for the Association, and amended by their Committee; and in 1855 this Bill was introduced into Parliament by Mr. Headlam, and again in 1856.

In 1858, the Medical Act founded on Mr. Cowper's Bill, was passed. And although this did not provide for the direct representation of the medical profession to the extent desired by the Association, yet I believe the exertions of their Committee had, in the earlier periods of the reform movement, a salutary effect in directing legislation on this subject into a proper channel, more especially as regards the reciprocity of practice in all parts of the country, and in drawing attention to the importance of improving the preliminary as well as the professional education of candidates for licences.

The reiteration of Medical Reform, in connection with an expected amendment of the Medical Act, in the year 1868, again brought the Association into activity on the subject of the representation of the profession in the Medical Council; but as yet nothing has been done in that direction. As a member of the General Medical Council, I should wish to avoid expressing any decided opinion on this subject; but, perhaps, I may be allowed to say that, so long as the Council was made the arena for the contention of privilege among several sets of the licensing bodies, as it was during a considerable number of the earlier years of its existence, I felt some sympathy with the views which were favoured by Mr. Headlam's Bill and by the Association. Since these contentions have ceased, and the Council has been permitted more loyally and steadily to apply itself to the business of improving medical education and examination, I think it may be felt that the question of more direct representation of the profession has lost some of its importance, and it may be hoped that the several licensing bodies and the Government will so exercise their patronage in the choice of their nominees to the Council, as to make the profession in general feel that their opinions are in reality effectively represented in that body, and that thus legislation on the subject may be rendered unnecessary.

Among the more important of the other subjects which have at different times engaged the attention of the Association, may be mentioned the wide and deeply interesting one of Sanitary Organisation and Reform, and more recently the special qualification to be granted in State Medicine or Medical Police; and it is well known that we owe much in connection with the Public Health Act to the exertions of the

Association, though much remains still to be accomplished in this department.

In representations made at various times to the Army and Navy Boards, with respect to the unfavourable position in which the rules of these services place the medical officers; in suggestions as to the compulsory Vaccination Bill, the Artisans' Dwellings Bill, the possible provisions for the Care of Habitual Drunkards, for Provident Dispensaries and the medical relief of the sick poor, and for the social and moral improvement of the medical profession at large, we have only to look at the annual records of the transactions, as published in the JOURNAL, to become aware of the earnest desire of the Association to accomplish measures which have for their object at once the good of the profession and the service of the public.

It is right also to allude to two other matters connected with the Association. One of these is the appropriation of a portion of its funds annually to the granting of sums of money in encouragement of scientific inquiries in connection with medicine, for which £165 was dispensed during the past year. The other is the Benevolent Fund, raised by voluntary subscription, for the temporary relief of distressed medical men, their widows and orphans, and the management of which has, since 1835, been a part of the business of the Association. The relief is confined to the cases of regularly educated medical men of irreproachable character, who are in actual distress. The income of the fund, which was for some time small, rose in 1853 to £655, and has been fully maintained since that time.

It could scarcely be expected that on such subjects as fall to be described at various times in the Association entire unanimity of opinion would be held, and occasionally, therefore, keen enough disputes have occurred. But if we consider the exciting nature of some of the topics, and the various locality and condition of those engaged in the contests, I think the proceedings of the Association may be regarded as having been on the whole conducted with a degree of harmony which could scarcely have been anticipated.

But while we are disposed to give full credit to the Association for its exertions in promoting the advance of scientific and practical medicine, and the attainment of useful and important objects connected with the social and political status of the profession, it can scarcely be doubted that the greatest of its advantages have been, and are to be, derived from its ethical or moral effects directly upon those attending its meetings, and, through them and the records of the JOURNAL, upon other members of the profession. It will, indeed, be freely admitted that a great stimulus to exertion must be given to the younger members by the example of the more advanced and able men who deliver the addresses and contribute to the scientific business of the meetings; and all who have joined in these meetings acknowledge with lively satisfaction the pleasant effects of the rational and kindly intercourse which they produce, tending to excite emulation, to lessen differences of opinion, to remove prejudices, and to create harmony and friendship among men of congenial pursuits.

Such, gentlemen, being the nature and progress of the British Medical Association, and it having been determined to found a Branch for Glasgow and the western counties of Scotland, I purpose to direct your attention to the capabilities which our district presents for this Association of its medical practitioners. On a consideration of these and other circumstances, we shall have to determine how far we can sympathise and approve of the objects of the Association, and in what manner and to what extent we are disposed and able to forward them; and we may be expected also to inquire what benefits we may hope to reap from the combined action of the medical profession which is contemplated.

It will occur to many that, while the want of such an union as that of the British Medical Association might be felt in remote provincial towns, destitute of medical organisation, as in the circumstances which led to its first foundation in the English provinces, there does not exist in Glasgow or its immediate vicinity, the centre of two public licensing bodies, of several important and long-established institutions both of a charitable and an educational character, any urgent necessity for new means of bringing together the body of medical practitioners, or stimulating them to united work for the good of the profession. And this is no doubt so far true. But the same remark would apply, and perhaps even more forcibly, to London, Edinburgh, and Dublin; and yet, in these places, the influence of the Association has been found to be beneficial, and the general meetings at all events have excited much interest, and have not only contributed in a marked manner to the furtherance of those general professional objects which the Association contemplates, but have also assisted and stimulated the labours of the existing institutions.

In the attempt to establish a Branch Association in this place, it will

of course be necessary, as is very properly suggested by the Committee's Report, to guard against its interference with the operations of any societies or institutions already existing. And I would, therefore, venture to suggest that, in the meantime, the operations of the Branch intended to be established here should be made subsidiary to those of the other existing institutions, and should rather be such as will pave the way for a greater degree of general union and co-operation among the members of the profession.

With a view to this object, I think we must look forward to obtain, at no very distant date, a general meeting of the British Medical Association in Glasgow. As a proof of the advantages of such a meeting, I need only refer to the brilliant success which attended that held at Edinburgh in the past year; and I feel assured that when the matter is viewed in its proper light, it will soon be felt that Glasgow and the west of Scotland must not lag behind in the endeavour to bring about such an union of the active intelligence of the profession, as may stimulate and invigorate the exertions of its members for their own improvement and for the increased utility of the profession to the public.

[To be continued.]

CLINICAL LECTURE

ON THE

TREATMENT OF COMPOUND DEPRESSED FRACTURES OF THE SKULL.

Delivered in Queen's Hospital, Birmingham.

BY SAMPSON GAMGEE, F.R.S. EDIN.,

Surgeon to the Hospital; President-elect of the Birmingham and Midland Counties Branch of the British Medical Association.

GENTLEMEN,—Is the trephine to be employed or not in compound fractures of the skull, with depression? No question more than this has engaged the attention of practical surgeons: it is still unsettled, and I shall endeavour to lead you to a correct understanding of its merits in commenting on three cases which I have to bring before you. In each case the scalp was divided, and the bones of the skull were broken and driven in, without, however, producing evidences of injury to the nervous centres. In none of the cases was the trephine employed; in all the result has been perfectly successful.

The man before you, Thomas Moran, a bricklayer's labourer, aged 55, was admitted to Ward 3 on September 15th. While he was at work just previously, a brick fell from a considerable height upon his head, making a Y-shaped scalp-wound about two inches and a half in length, and situated rather above the middle of the left parietal bone. The flap of the wound being turned back, a Y-shaped fracture became visible, with its centre depressed to one-third of an inch; the sides of the fracture sloping evenly towards the central and most depressed point. The man seemed little affected by the accident, and had no idea of its serious nature. The edges of the wound, admitting of easy approximation, were brought together and dressed with dry lint; and for the first fortnight the patient was kept perfectly quiet in bed, on milk diet, with an ice-bag on the head. No signs of constitutional disturbance appeared, and the man was discharged at the end of seven weeks, to use his own terms, "in as good health as ever he was in his life". The wound was then quite healed, and the area of the depressed bone measured one inch and a half longitudinally, seven-eighths of an inch transversely; its depth was three-eighths of an inch in the centre.

The next patient, Henry Hadden, a machinist, aged 25, was admitted into the Queen's Hospital at 11.20 P.M. on September 25th. A few minutes previously, in a street row, a brick had been thrown at his head, producing a wound an inch in length, over the left temporal ridge, in a line above and in front of the ear. The hæmorrhage was considerable. The probe passed into a very abruptly punctured fracture of the skull; the amount of depression being half an inch, and the edges on one side at least, being quite perpendicular. Mr. C. W. Keetley, our house-surgeon, to whom I am indebted for the notes of these cases, made a memorandum at the time, to the effect that, in Hadden's fracture, a small piece of bone appeared to have been driven right in. The man was quite sensible, though faint from loss of blood. He was put to bed, with an ice-bag on the head. At 8.30 next morning, a little headache was complained of; the pupils were even; temperature 101 deg. A magistrate took the depositions at the bed-side in the afternoon.

September 27th, morning. Pulse 80; temperature 98 deg. There was a thin drab fur on the dorsum of the tongue. The bowels were not open. He had slept well; was very hungry. The wound was healthy. His eyes were slightly swollen.

The bowels acted the next day. The wound gradually healed; and on October 9th, the ice-bag was left off, a flannel cap allowed to be worn, and the man to get up. At the end of another fortnight the man was discharged in perfect health; the cicatrix was quite sound; and the depression at the seat of fracture admitted the end of the little finger, which did not seem to touch bone at the bottom.*

The third case which I have to bring before you is that of T. Smith, a joiner's labourer, aged 25. He was stooping down at his work, when a brick fell on his head from a height of thirty feet. When admitted to Ward I (4.15 P.M., October 15th, 1875), half-an-hour after the accident, he was quite sensible. A wound on the left side of the head was bleeding freely; corresponding to it was a depressed fracture of the skull, the depressed piece of bone being horse-shoe shaped, and situated near the middle of the lambdoidal suture. The depressed surface was about one-eighth of an inch below the surrounding bony level. No head-symptoms. Pulse 80; temperature 99; respirations 24. The edges of the wound were approximated and dressed with dry lint. An ice-bag was ordered to be kept on the head constantly.

October 16th. Temperature 99; pulse 72; respirations 20. He was perfectly sensible. He had taken plenty of milk. He was ordered to have an ounce of castor-oil.

October 17th. He slept four or five hours in the night. The bowels had acted. Temperature 101; pulse 104; respirations 22.

October 18th. Temperature 101.6; pulse 76; respirations 25.

November 19th, morning. Temperature 99.2; pulse 84; respirations 22. There were still no symptoms of serious lesion or constitutional disturbance.—7 P.M. Temperature 104.4; pulse 104; respirations 32. He had a rigor half-an-hour ago. A full dose of castor-oil was administered, and the bowels freely relieved. No other untoward symptom occurred, and the rigor and rapid rise of temperature remained an inexplicable incident. •

Dec. 8th. He had continued perfectly well, and for the last month had acted as assistant porter in the hospital. He was now discharged, and I made the following note: "The length of the cicatrix is one inch and three-quarters. The depressed portion of bone measures one inch and one-eighth, by seven-eighths of an inch. The depression is deepest in the centre, where no bone can be felt. The man looks perfectly well, and says that he is so†."

You have here three cases of compound depressed fracture of the skull, admitted within a period of one month, treated successfully, without the trephine or elevator. You may form some idea of the interest attaching to these cases, by a statement of Erichsen, that, with a single exception, he does "not recollect ever having seen a case recover, in which a compound depressed fracture of the skull occurring in the adult had been left without operation.‡

Prescott Hewett's counsel is given in no doubtful terms. "What", he asks, "is to be done, supposing there be a wound leading down to the bone in a depressed fracture of the vault without symptoms? The rule is that we are to operate and at once."§ With the utmost regard for this dictum of one of the most thoughtful surgeons of our time, who has made injuries of the head the special object of his clinical studies, and conceding that, in his advocacy of operative interference in compound depressed fractures of the skull, Prescott Hewett is at one with many eminent surgeons, especially British, I am clearly of opinion that the practice followed in the cases before you should be the rule of practice.

When addressing you on the treatment of compound fractures of the limbs, I have sought to impress upon you the wisdom of the precept, "to aim at reducing a compound to the condition of a simple fracture, and to treat both alike"|| This precept is equally applicable to compound depressed fractures of the skull, when the brain is not injured.

Although unanimity has not yet been attained, the progress of surgery has powerfully contributed to the establishment of this proposition. A century ago, operative interference was the rule in all fractures of the skull. It was Quesnay, himself an advocate of the prac-

tice of interference, who gave force to the opinions of dissentients, by the very title of one of those masterpieces of clinical study embodied in the memoirs of the old Academy of Surgery.* It fell to the lot of another of the academicians to substitute for traditional empiricism rules of practice as prudent and safe in their application, as their conception was enlightened and their demonstration closely and carefully reasoned. With few reservations, Desault was opposed to the use of the trephine in fractures of the skull.† It was otherwise with his great rival on this side of the Channel, Percivall Pott. The elevator and trephine were his favourite instruments, and so great was his ascendancy in the surgical world, so much more fascinating for the multitude, then as now, were boldness and complication than prudence and simplicity, that his heroic action had many imitators;‡ foremost amongst whom was his most illustrious pupil John Hunter, who went so far as to advocate the trepan in some doubtful cases, "as the operation can do no harm."§ The impending French Revolution, and its attendant slaughter on the battle-fields of Europe, was soon to furnish those lessons which, in surgical as in other experience, make men judicious.

When, after the battle of Talavera de la Reyna, the order was given for all the wounded who could leave the town to march, Surgeon Rose found himself in charge of a large number of the disabled Guardsmen. Twelve or fourteen of them had compound fractures of the skull, some with depression. In none of these was the trephine employed. The retreat in the burning sun lasted sixteen days, and yet every one of those who were wounded in the head recovered.||

Hennen¶ relates the case of Corporal Corkeyne, wounded by a musket-ball in the head at Waterloo. The fractured portion of bone was driven into the brain (being exactly an inch and one-fourth from the surface of the scalp). No operation was performed, and yet the man was discharged cured in a few weeks. After quoting a similar case, Hennen sums up: "We have here sufficient proof that there is no absolute necessity for trepanning, merely for depressed bones from gunshot"—an opinion strengthened by the cumulative experience of military surgeons, many of whom now entirely discard the trephine, while almost all are agreed that its use should be restricted to very exceptional cases.††

Desault's conservatism told directly on the civil practice, not merely of his own countrymen,‡‡ but of British surgeons. John Bell, §§ with his true surgical instinct, with his impetuous energy, and with the furnished eloquence of his ripe culture, threw in his lot against the trepan. "After the expiration of my apprenticeship at these hospitals," Astley Cooper has placed on record,||| "I went over to Paris, to see the practice of Desault at the Hôtel de Dieu; and there I found that scarcely ever under any circumstances did he trephine; and he was more successful than the English surgeons." Abernethy, ¶¶ and Lawrence, *** too, were in this matter disciples of Desault, and on the same side must be mentioned one of the most enterprising surgeons of the century—a master who combined in a very rare degree fearlessness and judgment, power of brain, and skill of hands—I allude to Robert Liston. In his *Practical Surgery*††† he thus writes: "When fracture of the skull is complicated with wound of the scalp, the surgeon will not in general mend matters much by trephining, as has been advised, merely because there is a wound; if the depression is pretty extensive, and unless he has a better reason to give for the proceeding than the mere circumstance of the fracture being compound, as it is called, he will often thus add as much to the injury and to the risk which the patient is subjected to by it, as he would by dividing the scalp in simple fractures."

* *Précis de Diverses Observations sur le Trépan dans les Cas douteux*, par M. Quesnay. *Mémoires de l'Académie Royale de Chirurgie*, 8vo edition, tome i, p. 311, et seq. Paris: 1774.

† *Œuvres Chirurgicales de P. J. Desault*, par Xavier Bichât. Paris, an. ix, 1801. *Mémoires sur les Plaies de Tête*, vol. ii, p. 1, et seq.

‡ *Fractures of the Cranium, with Depression*, in the *Chirurgical Works of Percivall Pott*, vol. i, p. 213, et seq. London: 1783.

§ *The Works of John Hunter, F.R.S.*, with notes, edited by James F. Palmer, vol. i, p. 494. London: 1837.

|| Quoted in Ballingall's *Outlines of Military Surgery*, fourth edition, pp. 288-9. Edinburgh: 1852.

¶ *Principles of Military Surgery*, by John Hennen, third edition, p. 290. London: 1829.

** Desault's *Op. cit.*, p. 291.

†† *Vide* Professor Longmore on the Treatment of Gunshot-Wounds of the Head, in *Holmes's System of Surgery*, second edition, vol. ii, p. 175, et seq. 1870.

‡‡ Dupuytren, *Leçons Orales de Clinique Chirurgicale*, tome vi. Paris: 1839. *Blessures de la Tête*, p. 128, et seq.

§§ On Fractures of the Skull, with Depression, in John Bell's *Principles of Surgery*, vol. ii, part ii, pp. 764, et seq. London: 1806.

|| *Lectures by Sir Astley Cooper on the Principles and Practice of Surgery, with Notes and Cases*, by F. Tytrel, vol. i, p. 279. London: 1824.

¶¶ *The Surgical Works of John Abernethy*, a new edition, vol. ii, pp. 24-5. London: 1827.

*** Quoted in Guthrie, on *Injuries of the Head affecting the Brain*, p. 118, et seq. London: 1842.

††† London, 1846, fourth edition, p. 45.

* I saw this patient seven months after the accident, and he continued in perfect health.

† I have seen this patient while this lecture has been in the press. The man continues (nine months after the accident) perfectly well, never having missed a day's work. Three small pieces of bone have worked through the cicatrix, which is quite solid, pale, and painless, over the depressed bone.

‡ Erichsen, *Science and Art of Surgery*, sixth edition, 1872, vol. i, p. 433.

§ Prescott Hewett, on *Injuries of the Head*, in *Holmes's System of Surgery*, second edition, vol. ii, p. 271. London: 1870.

|| On the Treatment of Fractures of the Limbs, by Sampson Gamgee, p. 112. London: 1871.

This warning is of special significance, emanating as it does from one who had had abundant opportunities of witnessing the effects of the trephine and elevator, and who possessed operative skill and courage in so high a degree, that he never felt the temptation to inaction as a refuge from responsibility.

Samuel Cooper* was equally conservative; but it is due to you to state that three of his contemporaries—Guthrie,† Brodie,‡ and Velpeau§—in the very first rank of surgical authorities, rather inclined to the heroic practice of Pott than to the physiological watchfulness and the gentle medical measures of Desault. Italian surgery|| has gradually come round to non-interference as the rule of practice in fractures of the skull, while the German school has traditionally been opposed to the trephine.¶ Neudörfer, writing after the Franco-German war, sums up directly against it.** Mac Cormack†† reflects the experience of the French and German surgeons on the battle-field of Sedan, in the statement that, “as a general rule, the largest proportion of good results (in gunshot fractures of the skull) obtain amongst those cases where the amount of operative surgery has been at a minimum”.

Jules Rochard‡‡ has contributed an interesting summary of the international position of the question. Speaking of trephining, he says: “The spirit of reserve distinguishes French surgery. It holds a position between the practice of the Germans, who scarcely ever trephine, and that of the English and of the Americans, who, though resting on the same rules as ourselves, have much more frequently recourse to this operation. Léon le Fort has analysed the trephine operations on the two sides of the Channel from 1855 to 1866. He has found one hundred and fifty-seven of them in England, and only four in France, in that period.”

The authorities I have quoted will be sufficient to convince you that the masters of our science have treated this question as a very important and difficult one. From their differences you will learn caution and toleration in judging others, and the need of most careful inquiry, before you determine to use the trephine. The three patients whom I have brought before you with compound depressed fractures of the skull, successfully treated without the trephine or elevator, have not recovered by accident or in virtue of a curious coincidence. As many authorities are against me, I have deemed it my duty to compare my opinion with that of others, for your instruction. In examining the question from an historical point of view, I do not pretend to have exhausted it; but I do hope to have proved that the progress of opinion has, on the whole, been in favour of non-interference, when the scalp is wounded and the skull broken and driven in;§§ without, however, producing symptoms of brain-lesion. The lesson very impressively taught by a careful study of the subject is this: that whereas the trephine was almost indiscriminately employed before surgery attained to the position of a science, its use has steadily decreased as enlightened experience has accumulated. Many surgeons, from being advocates of the trephine, have gradually abandoned it; but, so far as my researches have extended, I cannot find an instance of conversion to the practice of trephining by a surgeon whose reason indisposed him to adopt it, or whose experience had once led him to relinquish it. That there may be cases of compound depressed fracture of the skull justifying operative interference I do not deny, and I have myself had occasion to operate successfully in such cases in this theatre. Another opportunity may present itself for discussing

these cases. For the present, I shall limit myself to again impressing upon you my conviction that, in compound depressed fractures of the skull without brain-symptoms, the proper course of practice is NOT TO TREPHINE.

ABSTRACT OF RESEARCHES ILLUSTRATIVE OF THE PHYSICO-CHEMICAL THEORY OF FERMENTATION, AND OF THE CONDITIONS FAVOURING ARCHEBIOSIS IN PREVIOUSLY BOILED FLUIDS.*

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for the Paralysed and Epileptic.

THE author first called attention to the fact, that no previous investigator has professed to have seen well marked fermentation set up in urine that had been boiled for a few minutes, if it have thereafter been guarded from contamination. The previous invariable barrenness of this fluid after boiling has been ascribed by germ-theorists to the fact, that any organisms or germs of organisms which it may have contained were killed by raising it to the temperature of 212 deg. F. (100 deg. C.).

In executing some of the experiments with urine described in this communication, two chemical agents have been brought into operation under novel conditions, and an ordinary physical influence has been employed to an entirely new extent. In several respects, therefore, these new experiments differ much, as regards the conditions made use of, from those hitherto devised for throwing light upon the much-vexed questions as to the possible origin or fermentations independently of living organisms or germs, and as to the present occurrence or non-occurrence of archebiosis.

The chemical agents employed under new conditions in these experiments were liquor potassæ and oxygen—both of them being well known as stimulants, if not as promoters, of many fermentative processes.

It has been recognised by several investigators of late years, that neutral or slightly alkaline organic fluids are rather more prone to undergo fermentation than slightly acid fluids. This fact may be easily demonstrated. As the author pointed out in 1870, if two portions of an acid infusion are exposed side by side at a temperature of 77 deg. F. (25 deg. C.), fermentation may be made to appear earlier, and to make more rapid progress in either of them by the simple addition of a few drops of liquor potassæ; on the other hand, if a neutral infusion be taken and similarly divided into two portions placed under the same conditions, fermentation may be retarded, or rendered slower in either of them at will, by the simple addition to it of a few drops of acetic or some other acid.

A neutral or faintly alkaline organic solution can in this way be demonstrated to possess a higher degree of fermentability than an otherwise similar acid organic solution. It seems, therefore, obvious that the changes capable of taking place in boiled acid and neutral solutions respectively should also vary considerably. Numerous experiments by different observers have demonstrated the correctness of this inference. Boiled acid infusions guarded from contamination mostly remain pure and barren if kept at temperatures below 77 deg. F. (25 deg. C.), though other infusions similarly treated and similar in themselves, except that they have been rendered neutral by an alkali, will oftentimes become corrupt and swarm with organisms. The latter result follows still more frequently with neutral infusions when they are exposed to a higher generating temperature in the warm-air chamber; and under this stronger stimulus a small number of boiled acid fluids will also ferment.

On the other hand, the influence of oxygen in promoting fermentation has been fully appreciated since the early part of the present century. Formerly an influence was assigned to it as an initiator of fermentation as all-important as some chemists assign to living germs at the present day. But this was a very exaggerated view. In some fluids, as the author has shown, fermentation may be initiated just as freely, or even rather more so, in closed vessels from which the air has been expelled by boiling, as in others in which atmospheric air, and consequently oxygen, is present. The explanation of this fact is probably to be found in the supposition that, in starting the fermentation of these fluids, diminution of pressure may be of as much, or even of more, importance than contact with free oxygen. In respect to other organic

* Article “Trephine” in *Dictionary of Practical Surgery*, by Samuel Cooper, seventh edition. London: 1838.

† *On Injuries of the Head affecting the Brain*, by G. J. Guthrie, p. 92 and 117. London: 1842.

‡ Pathological and Surgical Observations relating to Injuries of the Brain, by B. C. Brodie, F.R.S., in *Medico-Chirurgical Transactions*, vol. xiv. London: 1828.

§ Velpeau, *De l'Opération du Trépan dans les Plaies de Tête*. Paris: 1834.

|| *Lezioni di Medicina Operatoria e di Patologia Chirurgica*, di Regnoli e Ranzi, volume quarto, p. 47, et seq. Firenze: 1850.—*Istituzioni di Patologia Chirurgica*, scritte da Felice de Rensis e Antonio Ciccone, terza edizione, volume primo, p. 178, et seq. Napoli: 1852.

¶ *Vide* Durchbohrung des Schädels in *Die Chirurgischen Krankheiten und Verletzungen des Gehirns und seiner Umhüllungen* von Victor Bruns, p. 1037, et seq. Tübingen: 1854.

** “Die Trepanation niemals eine Heil-Operation sein kann.” Neudörfer, *Handbuch der Kriegschirurgie und der Operationslehre*. Zweite Heft. Specielle Theil. Leipzig, 1872. Erste Abtheilung, p. 82.

†† *Notes and Experiences of an Ambulance Surgeon*, by William Mac Cormack, p. 65. London: 1871.

‡‡ *Histoire de la Chirurgie Française au XIXe Siècle*, p. 862. Paris: 1875.

§§ Since this lecture was delivered, Mr. Bryant has published the second edition of his *Practice of Surgery*, and Mr. T. Holmes his *Treatise on Surgery*. Both authors are substantially in agreement, though Mr. Bryant is much more decided that the trephine should not be employed in compound depressed fractures of the skull without brain-symptoms.

fluids, however, the influence of oxygen seems decidedly more potent as a co-initiator of fermentation than that diminution of pressure which is brought about by hermetically sealing the vessel before the fluid within has ceased to boil. Urine will be found to be an example of this latter class of fluids.

The physical influence which has been employed in unusual intensity in the present researches is heat.

Previous experiments have never designedly had recourse to a generating or developing temperature above 100 deg. F. (38 deg. C.). The heat employed has frequently been below 77 deg. F. (25 deg. C.), though a temperature between this and 95 deg. F. (35 deg. C.), has been regarded both by chemists and biologists as most favourable to the occurrence and progress of fermentative changes generally.

Early in the month of August 1875, the author ascertained the fact that some boiled fluids which remained barren when kept at a temperature of 77 deg. to 86 deg. F. (25 deg. to 30 deg. C.) would rapidly become turbid and swarm with organisms if maintained at a temperature of 115 F. 46 C.). More recently he has discovered the surprising fact that a generating temperature as high as 122 deg. F. (50 deg. C.) may be had recourse to with advantage in dealing with some fermentable solutions. Fluids which would otherwise have remained barren and free from all signs of fermentation, have, under the influence of this high temperature, rapidly become turbid and corrupt. This discovery is regarded as of great importance in reference to the questions now under discussion, and it is one which was quite unexpected. The author had previously shared in the generally received opinion that temperatures above 100 deg. F. (38 deg. C.) were likely to impede rather than promote fermentation.

In maintaining the experimental fluids at the high temperature above-named, the vessels containing them were placed in the hot-air chamber of an incubator such as physiologists employ, to which one of the very ingenious gas regulators of Mr. F. J. Page had been fitted (see *Journal of the Chemical Society*, January 1876). In this way the fluids may be kept at a known and practically constant temperature for an indefinite time.

Liquor Potassæ as a Promoter of Fermentation in Boiled Urine.—In the autumn of 1875, the author instituted some experiments to ascertain whether the fermentability of boiled urine, like that of many other fluids, could be increased by previously mixing with it a quantity of liquor potassæ sufficient for its neutralisation.

The experiments answered this question in the affirmative. It was found that urine to which the above-named amount of liquor potassæ had been added, would constantly ferment and swarm with organisms within a few days after it had been boiled; though some of the same stock of urine in the acid state (that is, without the addition of any alkali) would, when similarly treated in other respects, remain barren. The fact of the production of an increased fermentability in boiled urine by previous neutralisation was thus established.

Further experiments were then instituted to throw light upon the cause of such increased fermentability. It was desirable to ascertain whether (1) it was due to survival of germs in the boiled neutralised fluid or (2) to the chemical influence of potash in initiating or helping to initiate the molecular changes leading to fermentation in a fluid devoid of germs and other living matter.

The mode of testing the relative validity of these rival interpretations seemed easy. It was only necessary to ascertain what the effect would be of adding boiled liquor potassæ, in proper quantity, after the acid urine had been rendered barren by boiling it, instead of adding it previous to the process of ebullition. If fermentation occurred in the fluid thus neutralised, without extraneous contamination, the first interpretation would obviously be negatived.

This crucial experiment was at first tried with flasks plugged with cotton wool, the plug in each of them being penetrated by a closed glass tube containing the measured amount of liquid potassæ. The tubes having been drawn out to a capillary portion at the lower end, and bent at an obtuse angle, they could be easily broken by slight downward pressure against the bottom of the flask whenever it was desired to mix the liquor potassæ with the boiled urine. This apparatus was very similar to that first made use of by Dr. William Roberts in some experiments with hay-infusion (*Phil. Trans.*, vol. clxiv, p. 474), in which he obtained opposite results from those now about to be recorded with urine. The latter fluid is, however, for several reasons, more suitable than hay-infusion for trying such experiments.

Several trials made with urine in this apparatus showed that its fermentability was just as much increased by adding boiled liquor potassæ after the urine had been boiled in the acid state, as by adding the alkali previous to the process of ebullition. Such a result was therefore quite opposed to the first interpretation as to the cause of the increased fermentability of neutralised urine.

The definite overthrow or establishment of this interpretation was so important that it seemed desirable to try such experiments again by some more rigid and certain method. The author, therefore, devised a new mode of experimentation in which sealed retorts replaced the flasks plugged with cotton-wool, and in which the contents of the enclosed liquor potassæ tubes could be more effectually heated.

It was first of all ascertained that accurately neutralised urine boiled in a retort and sealed whilst boiling, would ferment in a day or two if kept at a temperature of 122 deg. F.*

This fact having been established, other retorts were charged with a measured amount of urine, and also with a small glass tube containing liquor potassæ in quantity almost sufficient to neutralise the urine employed.† The glass tubes containing the liquor potassæ had been drawn out at one end, sealed, and then immersed in boiling water for different periods, before introducing them into the retorts. After each retort had been charged with urine and a liquor potassæ tube, its neck was drawn out to a capillary point, the urine was boiled, and the retort was hermetically sealed before ebullition had ceased. Thus closed, the vessel was at once immersed with its neck downwards in a can of boiling water for from four to fifteen minutes, so as to expose it and its contents for an additional period to a temperature of 212 deg. F. (100 deg. C.)

The urine was thus boiled in its unaltered acid state and sterilised. After the retorts had cooled the liquor potassæ was liberated from its tube in all but one of the batch, which was kept as a control experiment. The liberation was easily effected. It was only necessary to give the retort a sudden shake so as to drive the capillary neck of the enclosed tube against its side. The tube was thus broken, and immediately (owing to the comparative vacuum within the retort) the liquor potassæ was sucked out and mixed with the fluid which it was destined to neutralise.

The result of these experiments was similar to those executed with the plugged flasks and liquor potassæ tubes. The boiled caustic potash added afterwards within the sealed retorts, caused the previously barren fluids to ferment and swarm with *Bacteria*. The fluid in the control experiment remained pure, though after several days, or longer, it also could be made to ferment by breaking the liquor potassæ tube, and replacing the retort in the warm chamber.

[To be continued.]

NOTE UPON PROFESSOR EICHHORST'S NEW PATHOGNOMONIC SYMPTOM OF PROGRESSIVE PERNICIOUS ANÆMIA.

By T. GRAINGER STEWART, M.D.,

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IN the number of the *Centralblatt für die Medicinischen Wissenschaften* for December 24th, Professor Eichhorst of Jena announces that he has discovered a pathognomonic characteristic of progressive pernicious anæmia, by which the disease may be recognised and distinguished from all others, both in the early and the advanced stages. He says, "While some of the red blood-corpuscles are of natural size, and are marked only by their pale colour and imperfect tendency to form *rouleaux*, others are to be seen which at once attract attention by their small size. They are often not a fourth of the size of a fully-formed corpuscle. They are, however, more deeply coloured, and, when they roll under the covering glass, it is seen that their biconcave outline is more or less lost. Their diminutive size is such, that many of them look like small red-tinged fat-globules."

These changes he considers as characteristic of the disease in question, as the increase of white-corpuscles is of leucocythæmia. Should his observation prove correct, it is manifestly one of great importance. I am anxious to direct attention to it; and, at the same time, to record the fact that, after careful examination of the blood in two well marked and ultimately fatal cases which occurred in my practice, I did not detect the presence of these bodies. Indeed, in one of the cases, the red-corpuscles were larger than natural, the increase of size being such as to attract the attention of at least one other observer besides myself, who studied the condition of the blood.

* Though the boiled urine will ferment in retorts from which the air has been expelled by boiling, it will undergo this change more quickly if it be in the presence of purified or sterilised air. In the experiments now about to be described, however, it was much more convenient to use airless retorts.

† As a slight excess in the amount of liquor potassæ has been proved to have a most restrictive influence when dealing with urine, it was found safer in these experiments not to provide liquor potassæ sufficient for full neutralisation. Many details on this subject are given in the memoir itself.

REPORT ON THE DEATH OF THE EX-SULTAN
ABDUL AZIZ KHAN.

By E. D. DICKSON, M.D.,

Physician to the British Embassy, Constantinople.

THE official accounts given of the death of the ex-Sultan Abdul Aziz Khan, and the statement drawn up at the inquest held on that occasion by the nineteen medical officers present, have been criticised in a disparaging manner.

The writer of one article, in order to strengthen his arguments, intimates that he knows a good deal about Mohammedan feeling; but, at the same time, he shows his utter ignorance of Mohammedan custom. He views the case of Abdul Aziz's suicide with English eyes; judges it according to English practice; and condemns it by English law. He forgets that England is a limited State; that beyond it there are other nationalities differing from it in race, language, creed, education, and feeling; and that what may appear monstrous to his Anglican notions may seem very different to those of a foreigner, especially to a native of the East, whose very essence, to use a common phrase, is in contradiction with his own. The writer justly observes that the body of the ex-Sultan, Abdul Aziz, had been removed from the spot where he died before the inquest was held on it. He moreover says, that the wounds inflicted at the elbow-joints might have been caused by the hand of an assassin; and, that neither the nature of these injuries, nor the amount of blood mentioned in the medical report, were sufficient to account for his late Majesty's death. He considers, moreover, the idea of destroying himself with scissors as puerile; and that the theocratic character of the ex-Sultan was opposed to any attempt to lay violent hands on himself.

All these reflections are the natural result of meditations made at a distance, and based solely upon the account of Abdul Aziz's death given in the newspapers; and, remembering the tragic end of many of his Majesty's predecessors, the recent *coup d'état*, and the critical circumstances of the moment, I must own that my first impression when invited to assist at the inquest was, that I was going to inspect the victim of an act of foul play. It was, therefore, only after having carefully considered all the facts of the case which came to my knowledge, that I became convinced that the death of Abdul Aziz was caused by his own hand, and in the manner described, though unsatisfactorily, in the official account given of that sad event.

In order to put forward all the facts of this extraordinary case in a brief and intelligible manner, I will blend the *circumstantial evidence* obtained on that occasion into one narrative with the *direct evidence* derived from an inspection of the body; an examination of the site where the lethal act was committed; and a consideration of the instrument exhibited to account for this act.

The *Times* of June 12th very justly observes, "that the late Sultan was more than half insane; his mental infirmity being imperfectly concealed by the exalted position in which the fortune of his birth and misfortune of his country had placed him". In fact, as far back as 1862, previously to his trip to Ismid, Abdul Aziz had shown signs of mental aberration, and had been visited by Dr. Mongeri, chief physician to the lunatic asylum at Scutari, at the request of the late Mehmed Ali Pasha, the Sultan's brother-in-law, and at that time Marshal of the Imperial Palace. Dr. Mongeri declared that his Majesty was suffering from *mania, with paroxysms of fury*. The sea-voyage, country air, change of scenery, and a few days' repose, restored his health to its usual standard. Again, so strongly marked were his mental hallucinations after his dethronement and removal to the Pavilion at Tchiragan on the Bosphorus, that every weapon with which it was thought he might injure himself was carefully taken away from him; but, on the morning of his death, he asked for scissors to trim his beard. This demand was referred to his mother, who, little thinking what use he was going to make of them, sent him her own scissors and a hand mirror to enable him to trim his beard. The scissors were very small, about four inches in length; very sharp, and very pointed; having the back of one blade blunt, and with a small knob near its point—such, in fact, as ladies use when making embroidery work. On receiving these things, he sent all his attendants (females) out of the room, closed the door, bolted it inside, and put an end to his existence.

A considerable time having passed without stir, the women who usually waited on him mentioned the circumstance to the Valide Sultana (his mother), who ordered them to enter the room and see what was the matter; but, finding the door fastened, and receiving no reply to their inquiries, they burst it open, and beheld the horrid spectacle of his Majesty lying upon one of the sofas in it weltering in

his blood. His mother, his wives, and his children were instantly there; a scene of the utmost confusion and dismay ensued; the women broke the windows to pieces, and screamed for help. Their cries were heard at a very great distance—even across the Bosphorus, on the Asiatic shore, and brought from thence to their rescue Hussein Avni Pasha, the Minister of War. The soldiers stationed in the guard-house close by, believing the alarm was caused by a fire, rushed also to their assistance, and the whole neighbourhood was astir, wanting to know what had happened. Medical men were sent for in every direction; but, seeing that the body of Abdul Aziz gave no signs of life, it was removed from the spot where it lay and conveyed to the said guard-house, in order to take it away from the women's apartments, where the greatest confusion prevailed, and thus allow more freedom of action to those who were endeavouring to restore animation. This endeavour, however, having failed, all that was now necessary, as the rule in Mohammedan countries, would have been to carry the corpse at once to a place where it could be washed, perfumed, and packed in a winding-sheet, and then buried in some consecrated spot allotted for the purpose. According to the *Hadis*, or Mohammedan traditional custom, this must be done before the sun which shone at the death of the person has set; hence the hurry attendant on all Mohammedan funerals.

Inquests, in the English sense of the word, are never held in Turkey—still less necropsies, on the bodies of Mohammedans; but the suddenness of Abdul Aziz's death, his exalted position, and a liberal-minded feeling on the part of his Majesty Sultan Murad and his ministers, decided them to call for a medical inquiry which would examine into the circumstances of his late Majesty's death, and give its testimony accordingly. The result is already known to the public; but, as it has not afforded general satisfaction, I shall relate the facts recorded on that occasion, as *observed, and appreciated by myself*.

The body of Abdul Aziz was dressed in a loose gauze-shirt with wide sleeves, and wide silk drawers; in fact, in his night garments. A muslin handkerchief tied round his face upheld the lower jaw; and a sheet of white calico covered his person. The sleeves and the drawers were soaked with blood. The fingers of both hands, especially round the insertion of the nails, were stained with blood. The arms presented two gashes; one at the bend of each elbow—in front. The direction of both these wounds was oblique, from above downwards, and from within outwards; and their edges were jagged. That on the *left arm* was deep. I passed my forefinger into it, down to the very joint. The skin, the superficial veins, and the deep-seated tissues were cut through, and the ulnar artery laid open, but not entirely divided. The wound on the *right elbow-joint* was superficial, cutting only across the skin and superficial veins. No other injury whatever was discovered on his person. The surface was cold; but rigidity had not yet supervened—there was hardly time for it to manifest itself, as the ex-Sultan died at about half-past nine in the morning, and the inquest was held at two o'clock in the afternoon. His skin was very pale, and entirely free from bruises, marks, or spots of any kind whatever. There was no lividity of the lips indicating suffocation, nor any sign of pressure having been applied to the throat. His features were placid, and resembled those of a person who has expired tranquilly; but his beard had been removed, leaving only the moustache on the upper lips untouched. Considering the veneration in which the beard is held by all Mohammedans, cutting it off can only be explained by an act of madness.

The room in which Abdul Aziz died is spacious and lofty. It has five windows; three looking over the Bosphorus, and one in each adjoining corner at right angles to them. The entrance into the room is from a door opposite to the three windows, and leading to a lobby above the staircase. A mat-floored, damask curtains, and a damask-covered triangular sofa, placed in each of the two corners near the windows, were the only furniture in the room when I visited it.

Close to the right-hand corner of the right hand sofa, on entering the room from the door, there was a large pool of coagulated blood upon the matting—I should say, considerably more than a quart in quantity. Upon the sofa itself, near this spot, there was a depressed hollow on the seat, soaked with blood; and a little way from it, towards the left, at about an arm's length distance from the depressed hollow, another but smaller stream of blood. The cushion against the wall, forming the back of the seat, at the place of the depressed hollow, was also marked with blood near its free edge. The scissors which were shown to us, as found upon this sofa, at the death of the ex-sultan, were exactly such as I have described, and were moreover stained with blood. No smell of chloroform, ether, alcohol, or other volatile substance was perceptible either on the ex-sultan's body, or in the room where the blood-stained sofa lay.

Dr. Millingen, one of the court physicians to his late Majesty, was

among the first who saw the body of Abdul Aziz on the morning of his death; and he assures me that the ex-sultan's mother, his wives, his eldest son (Iusuf-Izzetdin Efendy), his daughters, and all the women and eunuchs of the harem, declared to him that his Majesty *had killed himself*; and besides, the Haznadar-usta (the comptroller of the female household), gave Dr. Millingen, who had not yet seen the suicidal implement, another pair of scissors, and told him that they were exactly similar to those with which Abdul Aziz had destroyed himself, and which he received from his own mother; an act which the Haznadar-usta considered, under the circumstances of the ex-sultan's position and state of mind, as highly imprudent and blamable.

From the foregoing statement, it is clear that no other inference can be drawn regarding the death of Abdul Aziz Khan, than that he committed suicide. All the testimony obtained on that occasion concurs in establishing this fact. The appearance presented by the body, and the nature and direction of the wounds found on it, show that these wounds were self-inflicted; and the position of the blood stains indicates that they were made while his Majesty was seated upon the sofa, resting his left arm on the edge of the back cushion; attacking that arm first, and afterwards the right arm, thus causing the stream of blood flowing from the left arm upon the matting to deviate into his lap. The other stain of blood marked upon the sofa was caused, I believe, by the flow of blood from his wounds when he fell exhausted on his right side upon the sofa. The implement found near him corroborates this explanation; and it is a fact well known to psychologists, that persons suffering from mental derangement, especially from *lypomania* of a religious or suicidal character, are *insensible to pain*, and that this spontaneous analgesia is as strongly marked in such cases as it would have been under the influence of artificial anaesthetics. The testimony of his own family, that of the other inmates of his household, and the unsettled state of his mental faculties, add a mass of evidence which no sophistic subtleties can shake. It now, therefore, only remains for me to refute the remark which has been made, that "the character sustained by Abdul Aziz, as the visible leader of the Mohammedan faith, would have rendered death by his own hand a heinous offence in his estimation", by remarking that, notwithstanding suicide is far more frequent amongst Christians than amongst Mohammedans, yet it is as sinful for a Christian to destroy himself as it is for a Turk.

BROMOHYDRIC ACID.

By J. MILNER FOTHERGILL, M.D., M.R.C.P.,

Assistant-Physician to the West London Hospital, etc.

THE utility of the bromide of potassium is now generally acknowledged by the profession, and its effects upon the nervous system are often of the greatest service. At the same time, it is not readily combined with several agents with which it may be advantageously administered, as quinine, for instance. Last year, I abstracted for the *London Medical Record* (April 20th, 1875), a paper by Dr. De Witt C. Wade on this agent, which appeared in the *Peninsular Journal of Medicine* in February 1875. He described there the usefulness of bromohydric acid, especially in obviating the headache which is produced in some persons by quinine. From what he said, I handed over his paper to the dispenser of the West London Hospital, and commenced to prescribe the new remedial agent. The formula is as follows, for the production of the acid in quantities of two quarts. Dissolve $\frac{3}{4}$ x, 3 vi, gr. xxviii of bromide of potassium in four pints of water, then add $\frac{3}{4}$ xiii, 3 i, gr. xxxvii of tartaric acid. The bitartrate of potash is precipitated, and the hydrobromic acid remains in a clear bright, almost colourless, fluid, possessing an acid taste and the ordinary acid properties, as well as the peculiar properties of bromide of potassium, as compared with any other salt of potash.

The accuracy of this last statement may be challenged by some readers. I will, therefore, briefly relate the conclusions arrived at after a twelvemonth's experience of the drug. It certainly does prevent the occurrence of headache, after each dose of quinine, in those who before had to desist from taking quinine for that reason. It is, perhaps, not invariably successful, but its power is very marked. It also prevents the fulness felt in the head by some persons, especially those labouring under cerebral anæmia, after doses of iron. It is also useful in nervous conditions, and, with quinine, is excellent in those cases where there is much nervous exhaustion from excessive indulgence in tea or in alcohol; this being tried in a case of nervous excitability and sleeplessness, where there had been much resort to chloral-hydrate.

In forms of excited action of the heart, connected with general nervous excitability or nervous exhaustion, hydrobromic acid is most useful. Given with quinine (of which it is a capital solvent) and digi-

tal, it gives better results than the bromide of potassium and digitalis; this is a favourite combination with me at both my hospitals, and is agreeable as well as effective. In all hysterical conditions connected with ovarian excitement, it seems to have all the properties of the bromide of potassium. It is equally useful in the vomiting of pregnancy, and seems to exercise quite as powerful an influence over acts of reflex origin as does the bromide. It is especially adapted for the relief of menorrhagia associated with sexual excitement, and is even more effective here than the bromides themselves. It is also of use in whooping-cough, and combines conveniently with quinine, forming an effective measure in this troublesome affection. With spirit of chloroform and syrup of squills, it forms a most agreeable and palatable cough mixture of no mean potency. It is also of use in case of cough of reflex origin. Where there is gastric irritability, it is the most useful of all acids, possessing the usual properties of acids generally and of the bromine as well.

The dose of the acid, prepared as above, is one drachm as a full dose. Half a drachm is the dose I ordinarily employ. Bromohydric acid has the further advantage of not producing the troublesome eruption so often the result of doses of the bromide of potassium, at least so far as my experience has yet extended. There are many qualities about this acid to render it an useful member in our therapeutical *armamentarium*.

Dr. Wade states that it is useful in the treatment of fever. It would seem the acid *par excellence* where there is much cerebral excitement in pyretic affections, but of this I have no personal experience.

SURGICAL MEMORANDA.

UNUNITED FRACTURE OF FEMUR.

THE case of ununited fracture recorded in the *JOURNAL* of to-day (June 24th), leads me to report a somewhat similar one which came under my observation in July 1873. A male, aged 27, apparently in good health, broke his right thigh, while hunting, about its middle. The limb was put up in the usual way, but, after seventeen weeks, union had not taken place. Under these circumstances, I saw him. It was agreed, in consultation, that the whole limb and pelvis should be enveloped in starched bandage, the patient be put upon crutches, and sent to Margate. There he was under the care of Messrs. Curling and Hicks of Ramsgate. In about two months he returned to town, union having taken place. He has ridden many a race since. This gentleman was of an active restless disposition, and doubtless constantly disturbed his splint and fracture.

Another case, more recently under my care in the London Hospital, came home from sea, in a similar plight. Starched bandages were used; and several months elapsed before union occurred.

C. F. MAUNDER, F.R.C.S., Surgeon to the London Hospital.

CONTRACTION OF THE PALMAR FASCIA,

IN the Remarks on Glaucoma by Mr. Jonathan Hutchinson in the *JOURNAL* of June 17th, he states that "the contraction of the palmar fascia in finger-contraction is irremediable". It may be interesting to Mr. Hutchinson and the readers of the *JOURNAL* to be informed that Dr. Otto Madelung, of the University Hospital at Bonn, has treated these cases successfully by means of an operation which he describes in a pamphlet published by Messrs. Trübner and Co. The operation consisted in laying bare the palmar fascia, and carefully dividing the contracted fibres. Dr. Madelung adduces several cases in which the treatment was permanently successful.

GEORGE DUPLEX, L.R.C.P.Ed., Torrington Square.

DISLOCATION OF THE HIP, IN A GIRL AGED EIGHT YEARS, REDUCED BY MANIPULATION WITHOUT CHLOROFORM.

FROM its extreme rarity, the peculiar accident, and the mode of reduction, induce me to publish the following interesting case.

On the evening of Tuesday, April 25th, I received a message requesting me to see a daughter of Mrs. W., residing some distance from my house, who had received a severe injury to the hip. I was unable to see the case that night; and requested my assistant, Mr. W. B. Boughton, to do so, who, immediately on seeing the case, diagnosed it readily. It appears that this child was being pursued down the street by two boys, with iron hoops. She entered a passage dividing two

blocks of houses, and having got mid-way, was overtaken by one of the hoops passing between her legs, which threw her down with much force; and, by some unaccountable circumstance, she fell with one leg through a sort of trap-door into a cellar, the iron grating of which had been previously displaced. When found, she was laid upon the side on which the dislocation had taken place, suffering most intensely from pain and shock, also quite unable to stand. My assistant placed her in bed in the most comfortable position possible, and ordered hot fomentations to be applied, until the case was seen by me. I may here state that the unfrequency of such cases, and the fact of my having only seen one similar case, and that under the care of Mr. S. Hey of Leeds, during the period of four years that I was one of the house-surgeons to the Leeds General Infirmary, made me very dubious of the diagnosis.

I did not see the case until early next morning, having been called up owing to the restlessness and suffering of the child. I had her placed in the erect position by the side of the bed, and, from the very characteristic features of the deformity, recognised it at once as being one of dislocation of the left hip, with the head of the femur resting on the dorsum ilii. There was marked inversion; the knee being turned inwards towards the sound side; the ball of the great toe resting on the dorsum of the right foot: and on measuring, there was an inch and a half of shortening. The head of the femur could also be distinctly felt and seen in its new position. I laid the child on the bed, flexed the thigh well on the body, rotated outwards, abducted, and suddenly extended; to my great satisfaction, and to the delight of all present, the sharp snap, which is so unmistakable in these cases, was audible throughout the room. The child, whose previous sufferings were great, exclaimed "I am all right now; the pain is gone". I put on a Liston's splint, and kept her in bed for a month; and, in five weeks after the accident, I was somewhat surprised to find her playing in the street without a vestige of lameness.

H. W. COLEMAN, L.R.C.P., M.R.C.S., etc., Armley, near Leeds.

THERAPEUTIC MEMORANDA.

TREATMENT OF PSORIASIS BY INDIA-RUBBER CLOTHING.

As to the two cases of psoriasis, which were cured in about a fortnight by merely wearing vulcanised India-rubber clothing, and which were reported by me in the JOURNAL for February of this year, Dr. Mackey of Birmingham asked of me in the JOURNAL, columns the very pertinent inquiry as to whether there would be any return of the disease after a few months. I am now (in June) able to reply. The younger patient writes me "I have now ten places on my right arm, and they are about the size of a pea; when any fresh ones appear, they are very small indeed". The elder patient writes "I have now on each elbow a slight roughness, and in all, on various parts of the body and limbs, fifty-six spots altogether, the largest not being bigger than a pea and the smallest being as large as a mustard-seed". [This patient, immediately before treatment, was covered by thousands of closely sprinkled spots.] It seems, therefore, that there is a slight re-appearance of the disease in both cases. If the clothing had been worn longer, this possibly might not have happened. If the clothing had not been worn at all, the patients would certainly now have been in an infinitely worse condition than the state of comparatively complete immunity they now enjoy.

I may add to these cases that of a Jewish boy, aged 18, who had been the subject of psoriasis since the age of fourteen. (I have already in this JOURNAL advanced an opinion that psoriasis is especially common amongst the Jews). The frequency with which psoriasis is to be met with amongst the Jews is very remarkable, when it is remembered that (according to the *Jewish Chronicle*) there is only one Jew in a hundred persons of the population of London. On March 30th, he began to wear, night and day, a complete suit of India-rubber over the body and limbs; he was then copiously covered over body and limbs with large patches of psoriasis of a most pronounced character. He wore the rubber clothing only six days; by that time he was perfectly well over the body and limbs. His head and forehead (severely affected) remained as before. They have since been efficiently dealt with in the same way. At the present time (namely, two months after his six days' treatment), he remains still without a trace of his disease. I have cited these cases because they have been in-patients, and, therefore, constantly under observation; but, in the out-patient department of the British Hospital, I have, within the last few months, employed India-rubber clothing on a tolerably large scale in the treatment of psoriasis. In most cases, the result has been such as is exemplified

in the three cases I have cited; but I have nevertheless found that, in a small minority of cases, the India-rubber fails to cure (I cannot tell why) even after a month's or six weeks' wear, although it always does some tangible good.

BALMANNO SQUIRE, M.B.

RHEUMATIC FEVER TREATED BY SALICINE.

On May 6th, I visited J. M., aged 28, and found him suffering from a severe attack of rheumatic fever. His left shoulder, elbow, and knee were much swollen and very painful. He was very feverish. The tongue was coated, and the bowels were confined. I ordered him two calomel and colocynth pills, and a mixture with large doses of bicarbonate and nitrate of potash. On May 7th, he had had a very restless night. He had great difficulty in moving. He was delicious at times. He had great thirst; no appetite. Pulse 120; temperature 102. The urine was thick, high-coloured, and scanty. The bowels had been opened freely. There was slight pain over the region of the heart, but I could detect no abnormal sounds. He was ordered for diet beef-tea and milk; a mustard poultice to be applied over the heart; and twenty minims of tincture of perchloride of iron every four hours. On May 8th, he had been delirious through the night. All the joints were much swollen. Pulse 120; temperature 102. The pain in the side was gone. He could not move either hand or foot. He was ordered to take ten grains of salicine every three hours. On the 9th, he was much the same, perhaps slightly improved. He had had a quieter night. Temperature 101; pulse 108. He took food well. On the 10th, he felt quite well. The joints were much less swollen. He told me that, about thirty-six hours after taking the first powder, the pains left him. Temperature 99; pulse 100. The bowels acted freely, and the urine had a better colour. On the 11th, the improvement still continued. Temperature 98½; pulse 90. He had slight pain in the shoulder. On the 14th (the salicine having been discontinued the previous day), he had had a more restless night. The pains had returned in some of the large joints. Temperature 100; pulse 96. The bowels were quiet. He was ordered salicine every four hours. On the 16th, he was much better. The pains were quite gone. Temperature normal; pulse 90. On the 20th, he sat up, and had a chop for his dinner. He felt quite well, and could move all his joints freely. The temperature was normal.

The chief features of this case are: 1. The rapid improvement after taking the salicine; 2. The return of the pain and swelling in the joints, and increased temperature, when the powders were left off; 3. The almost immediate relief when commenced again; and, lastly, no stimulants of any kind were given throughout the illness.

JAMES POLLARD, M.R.C.S. Eng., Torquay.

CLINICAL MEMORANDA.

GONORRHOEA: ACUTE RHEUMATISM: PNEUMONIA.

MR. S., aged 20, consulted me on April 29th for an attack of gonorrhoea, which had appeared two days previously. He was ordered liquor plumbi with tincture of opium as an injection, and a mixture containing balsam copaiba, with spirit of nitrous ether, liquor potassæ, and tincture of hyoscyamus. On May 1st, consequent to exposure, rheumatic pains occurred in the knees, ankles, wrists, and fingers. He was ordered bicarbonate of potash, with nitrate of potash and tincture of opium; cotton-wadding to the inflamed joints; and chloral draughts at night. On that day week, hæmoptysis (about two ounces) took place. There were considerable lividity of the face, mucous râles over the chest, and, after some hours, pneumonic crepitation of the right lung and a slight portion of the left. The pulse was 120, strong; the respirations 48. There were great anxiety and loss of memory. The bowels were opened by a calomel purge. The urethral discharge was stopped. He was given tartar emetic in half-grain doses every third hour, and small doses of prussic acid; and was cupped over both lungs to about five ounces. Ice, lemonade, etc., were allowed. On May 8th, the pulse was 120; respirations 48; temperature 100.5 deg. On the evening of the 7th, he took at 9 o'clock ten grains of quinine. He was still taking the alkaline mixture, as the rheumatism was very acute. There was a brick-dust deposit of the urine. He had copious perspirations, and intense pain in the joints of the ankle, knee, and wrist. At 7 P.M., the temperature was 100.75 deg.; respirations 36. He was cupped over the right lung behind, and ordered to take at 9 o'clock twelve grains of quinine. May 9th. The temperature was 100.5 deg.; respirations 24; pulse 114. He was ordered tartar emetic in doses of one-eighth of a grain; linseed-meal poultices

and hot fomentations to the chest. The bowels were well open. The expectoration was not so viscid. A teaspoonful of brandy was ordered to be taken three times in the day; also beef-tea, etc. May 10th. Pulse 90; respirations 22; temperature 98.5 deg. The alkaline mixture was stopped; and he was given chloric ether, tincture of cinchona, carbonate of ammonia, and tincture of squills. The pains were gone. A tablespoonful of brandy was ordered three times daily, with plenty of beef-tea. On May 11th, he was up for an hour. Next day, the gonorrhoeal discharge reappeared; and the following, from leaving his room contrary to orders, some rheumatic pains occurred, which subsided under a few doses of the alkaline mixture.

REMARKS.—Expectoration of pure blood is unusual in pneumonia. The rheumatism was most acute; both ankles, knees, wrists, and all the fingers, being engaged, and swollen to nearly double their usual size, leaving the patient quite helpless, and unable even to move in bed without assistance. The stimulants administered during the inflammation of the lungs were of considerable benefit, bringing down the pulse; but they did harm in another way, the gonorrhoeal discharge recommencing, and lasting longer than it should, ultimately disappearing under the use of injections of nitrate of silver. The slight delirium at night, the loss of memory, and apathetic condition of the patient, showed the gravity of the attack.

CHARLES H. ROBINSON, F.R.C.S.I., Dublin.

OTORRHOEA IN RELATION TO LIFE-ASSURANCE.

I HAVE read with considerable interest a carefully written paper by Dr. Llewelyn Thomas in the JOURNAL of June 17th, on Suppuration of the Middle Ear. I fear that the symptom of a discharge from the ear does not meet with the attention either from the profession or from the public which its possible results undoubtedly demand. In fact, amongst the public a foolish idea is very prevalent that a discharge from the ear is either healthy, or that any attempt at arresting its course may be attended with untoward results; and I believe it is also not uncommon for surgeons to assure an anxious relative that the little patient will probably grow out of it, which is, unfortunately, rarely the case. It is certainly a matter worthy of the most careful consideration, that disease of the tympanum is, according to statistics, the most frequent cause of so fatal a disease as cerebral or cerebellar abscess. An interesting physiological fact is also mentioned by Dr. Thomas: that the pus rarely finds exit by the Eustachian tube, and of this he probably gives the true explanation, that in most cases the tube is rendered impervious by the accompanying inflammatory processes. Dr. Hughlings Jackson some years ago in the JOURNAL drew attention to certain epileptiform convulsions occurring in connection with discharges from the ear; and strongly urged that, in all cases of hemiplegia in children, the ear should be examined; and that, in the necropsies, the possibility of venous thrombosis from aural disease should be borne in mind. I certainly agree with Dr. Thomas in his suggestion that insurance companies should insert in their forms a question on the subject of otorrhoea, as it is abundantly proved that death may occur as an indirect result of otorrhoea at any period or lapse of time after its first appearance.

EDWARD J. NIX, L.R.C.P., L.R.C.S. Edin., etc.

THE question of otorrhoea in relation to life-insurance, so well considered by Dr. Llewelyn Thomas in the JOURNAL of June 17th, is no doubt of great importance to every life-office; although this chronic complaint may, perhaps, be rightly supposed to be included in the general question, "Have you any complaint not already mentioned?" and the negative answer to it may be plainly and honestly given, because many patients suffering from chronic otorrhoea may not have any idea of the serious consequences to which an apparently innocuous running from the ear might occasionally expose them. I think that, for the reasons concisely expressed by Dr. L. L. Thomas, insurance offices ought to be greatly interested in having a direct and short question in regard to this symptom put to every patient presenting himself at their offices. There is no doubt that death may occur from such a trifling cause as an habitual running from the ear; and well-authenticated statistics fully corroborate this statement. A simple chronic otorrhoea of course needs but a proper though possibly slight exciting cause to be suddenly converted into a very grave and fatal disease, which, from its past duration and localisation, has made of the canalis auditorius and the tympanum a *locus minoris resistentie* upon which any cold, especially in a deteriorated state of health, or any injury, may seize immediately and preferentially. We all know what dangerous anatomical neighbours the internal ear has, as Dr. L. L. Thomas has well demonstrated in his article. We further know how serious the pathological changes are in these

parts, and how difficult it is to obtain any good results by treatment if the inflammation and suppuration have settled in the internal parts. Between bone and membrane the matter creeps up; and, wherever it is opposed on its way, great pressure may be caused locally on the membrane; and an abscess may eventually burst it, invading the brain-substance directly. All these terrible dangers probably never present themselves to those who suffer from habitual otorrhoea; and no wonder, because the discharge is so slight, and has existed so long. Thus some may ask, How can such a bagatelle influence the life to be insured and the interests of the company? Surely the patient may be excused in reasoning thus; but can any medical practitioner look indifferently on such important and vital points, and claim at the same time to protect conscientiously the interests of his clients? I think with Dr. L. L. Thomas that, for the protection of the life-offices, the above particular question ought to have its separate place amongst the other interrogatories.

VICTOR JAGIELSKI, M.D., M.R.C.P. Lond.,
Physician to the Infirmary for Consumption and Diseases of the Chest.

OBSTETRIC MEMORANDA.

A CASE OF TWO-HEADED MONSTROSITY.

ON January 31st last, I was called into the country to see Mrs. B., the wife of a master-collier. The messenger stated that she had been in labour for a day and night, and that a midwife was with her, and the pains had been strong for hours, but she made no progress. Upon arrival, I found my patient, a little spare woman of highly nervous temperament, in labour of her seventh child, and at her full time. She said she had, in all the previous confinements, been very quick and straightforward. All the children except the last one were born alive; the last, the midwife told her, would have lived only for the water in the head. On examination, I found the membranes not ruptured and tough, the os quite dilated, with head, hand, and cord presenting. I at once ruptured the membranes, and easily turned; but, in doing so, felt a second head, and, supposing it to be a case of twins, told the nurse to prepare for such. I succeeded, after much difficulty, in delivering the head; when, to my astonishment, I found the child still unborn, owing to its having another neck and head. At this stage, the



body was moving convulsively; and I have no doubt that, if the second head could have been delivered quickly, the child would have lived; but, owing to the difficulty of extracting it, the child was still-born. There was no flooding. The placenta, a single one, was expelled at once. Upon examining the child, I found it fully developed, with two perfect heads. The spinal column was united from the sacrum to the top of the dorsal vertebrae; the cervical vertebrae divided to form two necks. The body was well nourished. The mother made a quick and good recovery. She could give no reason for the state of the child; she had never been frightened, and felt well all through the pregnancy. I enclose a photograph of the case.

HENRY ROBINSON, L.R.C.P. Ed., Chesterfield.

THE Public Analyst for Somersetshire reported to the Midsummer Quarter Session that he had analysed two hundred and five samples during the past quarter, of which one hundred and fifty-seven were genuine, and forty-eight adulterated.

Mentha and Epiphyllum convulsions in 8 cases of Cerebral Abscess

REPORTS

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

FOUR CASES OF RHEUMATISM TREATED BY SALICINE.

(Under the care of Dr. SYDNEY RINGER.)

[Reported by Mr. SYDNEY PEARSE, M.R.C.S., Physician's Assistant.]

THE following four cases of rheumatic fever have been treated in this hospital by salicine. In each case the patient was a female, the age being between seventeen and thirty years. Three of the patients had never before suffered from rheumatic fever; the fourth had an attack twelve months previously. In none of the cases was the rheumatism due to syphilis or lead-poisoning, neither was it gonorrhœal. It was simple rheumatic fever.

CASE I.—A pale anæmic-looking girl, aged 17, attributed her present illness to washing and standing in the damp. She had not had rheumatism before. Her parents were free from this and from gout. She came under observation four days after the attack.

On admission, the left knee and right shoulder were chiefly affected, but the other joints also to less degree. Temperature 102.1 deg.; pulse 110. The heart-sounds were normal, and there was no pericardial effusion. The patient commenced with twenty grains of salicine three times a day. This was continued for five days with no result. The temperature was 103.5 deg.; on the fifth day, it was 102 deg. The pulse remained also just as on admission. The same dose of salicine (gr. xx) was then given every two hours; and in five days the pulse had fallen to 70, but the temperature continued 100 deg. On the fourteenth day, the salicine was increased to thirty grains every two hours. Next day, the temperature was 99 deg., and did not afterwards rise above this. On the eighth day, a systolic murmur at the apex was detected; and the same day a pulmonary murmur at the base was first heard. On the tenth day, loud friction-sound was audible over the cardiac region; and on the twelfth day pericardial effusion had reached the second rib. The friction continued to the seventeenth day. The joints one after another became painful, in a greater or less degree, until the twenty-second day, when the patient commenced to take iron. The bowels were costive throughout.

CASE II.—The patient, aged 27, had always worn flannel, but had lived badly. This was the second attack. The mother and father were also subject to rheumatism. The present illness, due to damp, commenced April 9th, and she came under treatment twelve days afterwards. On admission, there were great pain and swelling of almost all the joints, including the fingers and toes. The lower jaw was not affected. The organs of respiration were healthy. There was no pericardial effusion, but a distinct basic systolic murmur, and a murmurish condition of the first sound at the apex. Temperature 101.6 deg.; pulse 100. The patient was given twenty grains of salicine every two hours. In two days, the temperature had fallen to 99.4 deg., and the pulse to 90. Nearly all the pain in the joints had disappeared. On the fourth day of treatment, or sixteenth of the disease, the temperature became normal, when it suddenly rose to 100.4 deg., but became 98.4 deg. in twenty-four hours. The pulse fell about six beats daily, and on the sixth day was 68. The mitral murmur, which was scarcely audible on admission, became well marked; the aortic obstructive murmur was not changed. No pericardial effusion could be detected. When she was first seen, the tongue was covered with thick creamy fur. On the third day, some aperient medicine was required, after which the bowels were perfectly regular. The patient was convalescent on the seventh day.

CASE III.—The patient was a nurse in the hospital, aged 20. She never had rheumatic fever before, but there was a family history of rheumatism. She came under treatment on the second day, with a temperature of 102.8 deg., and a pulse of 136. The respirations were 24. The joints affected were the knees and ankles. There was considerable œdema of the lower extremities as high as the knees, which was not confined to the joints. In this case, there was no cardiac mischief; but the patient suffered from constant vomiting and almost entire suppression of urine, which was not albuminous. For the first two days, the patient took some citrate of potash, during which the urine became normal in quantity, and the vomiting ceased. The shoulders and elbows became affected; the temperature on the fourth

day being 102.6 deg., and pulse 120. Salicine was given in twenty-grain doses every two hours. The next (fifth) day, all the joints were much less painful. The pulse was 98, having fallen twenty-two beats in twenty-four hours. The evening temperature was 100 deg. On the sixth day (third of treatment), there was no pain of the joints. The temperature was 99.3 deg.; the pulse had fallen ten beats. The patient slept without hypodermic injection for the first time. On the seventh day, the evening temperature rose to 100.4 deg. Next morning, it was normal. The pulse had not risen with the temperature. On the eleventh day, the temperature suddenly went up to 100.4 deg., and the pulse to 102, without any apparent cause; and then fell gradually to the fourteenth (eleventh of treatment), when it became and remained perfectly normal. No cardiac disease was developed, and there was no pain in the joints after the sixth day. There was a tendency to constipation throughout.

CASE IV.—A healthy-looking girl, aged 19, caught cold by walking too fast. She never had any rheumatism before. There was no hereditary predisposition. She came under treatment on the fifth day of her illness. The knees, hips, ankles, shoulders, and elbows were affected. The temperature was 101; the pulse 132. There was no pericardial effusion, but a soft blowing systolic murmur at the apex. Constipation was not very marked. The patient commenced with thirty grains of salicine every second hour. The next morning, the temperature had fallen to 98.8 deg., and the pulse to 108. The pain of the joints was very little altered. The same evening, the temperature went up to 100.2 deg., but since then did not reach 100 deg. After taking salicine four days, the temperature had gone from 101 deg. to normal. The pulse was 88; but the patient complained of pain in the left mammary region, and there was a slight increase in the cardiac dulness. There was no pain in the joints; but the evening temperature continued about 99 deg. till the ninth day, after which it was 98.4 deg. On the ninth day, the cardiac dulness was normal. The mitral murmur increased in intensity whilst the patient was under treatment.

REMARKS.—In Case I, salicine seemed not to have the least effect whilst sixty grains *per diem* were being taken. A daily dose of 240 grains brought down the pulse in five days from 110 to 70. The temperature did not become normal under this dose, and 360 grains daily did not entirely reduce it. The murmur developed and the effusion took place whilst 240 grains were taken daily. In this case, the temperature was highest (103.5 deg.), and the pulse not so frequent. The salicine was not so efficacious as in the others.

In the second case, the temperature and pulse rapidly fell; but the effect on the pulse was most marked. The mitral murmur developed in intensity under treatment. The patient was convalescent on the seventh day, but had been ill twelve days previously to treatment.

In the third case, there was a marked falling of temperature (2.6 deg.) within the first twenty-four hours of taking salicine. The pulse was more frequent than is usual in rheumatic fever, and fell twenty-two beats in one day, and afterwards ten beats a day, till it reached 70. No murmurs were developed.

In the fourth case, there was not much fever, and a frequent pulse; this fell twenty-four beats in one day, and eight for the next two days.

In all the cases except one, the patients had on linen clothes, and were not wrapped up in cotton-wool.

SUMMARY.—From the above cases, it will be seen that salicine, to be efficacious, must be given in doses of twenty or thirty grains every two hours. *a.* It entirely relieves the pain in the joints in an average of four days. *b.* It brings down the temperature in an average of eight days, after which the temperature is normal. *c.* On the pulse, its action is most marked, if that be very frequent. It becomes normal in from three to five days. *d.* It does not prevent valvular disease or pericardial effusion. *e.* It does not produce nausea or vomiting, but in each case it produced constipation.

WESTMINSTER HOSPITAL.

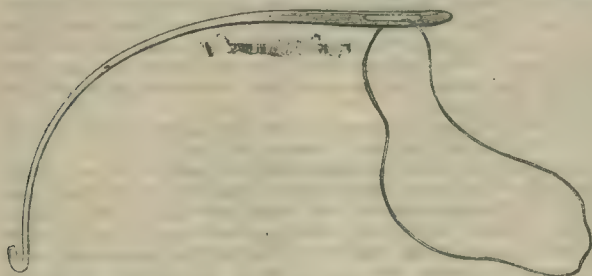
TRACHEOTOMY-TUBE DROPPED INTO THE TRACHEA.

(Under the care of Mr. RICHARD DAVY, Surgeon to the Hospital.)

G. P., aged 18, was admitted on Sunday, March 12th, 1876, at 6 A.M. He had typhoid fever in 1874, followed by laryngeal distress; to relieve which tracheotomy was performed. He had worn a tube ever since; and, on the morning of admission, he had removed the inner tube to wash it, but had never cleaned the outer tube since its introduction (a year ago). On trying to reintroduce the inner tube, he pushed the outer down into his windpipe, by reason of the outer tube being completely eroded at the point where the shield-plate was soldered on. He was naturally alarmed, and, during the time expended in fetching a

cal, he went to a looking-glass, and, with great care and self-possession, luckily inserted the tip of the inner into the outer tube; next he was seized with cough, hæmoptysis, and dyspnoea; but the cough rather relieved him, because it slid the outer further up the inner tube.

On admission, he was all of a tremble from agitation; the attacks of dyspnoea were paroxysmal; and he had the two tubes (telescopic fashion) in his trachea to the extent of three inches and three-eighths. The patient's head being slightly lower than his heels, I passed a common surgical probe bent thus (see Diagram) inside both tubes;



at three and a half inches I felt the hooked end catch, and had the satisfaction of at once withdrawing both cylinders. A new tracheotomy tube was inserted, and in twenty-four hours he was discharged. The string was attached to the probe, to prevent the possibility of its dropping into the trachea. Mr. Maunder has recently removed a button from the bronchus by the wire-loop. These wire instruments are undoubtedly useful, because they are efficient, and occupy a very limited space in the respiratory area.

HOSPITAL NOTES.

WE have commenced a series of "hospital notes", which will serve to record points in practice, clinical and therapeutic hints, and brief notes of interesting points in relation to the science and art of medicine observed in the current inspection of hospitals. Such "chips" are among the most valuable materials of the workshop, and are too often sacrificed because there is no appropriate place in which they can be garnered. Contributions from the provincial hospitals will be very welcome in this column.

ST. GEORGE'S HOSPITAL.

Empyema: Iodine Injections.—We saw, with Dr. Dickinson, two cases presenting points of interest. One man, aged 32, had been admitted first four years before, when Dr. Fuller removed by incision the unusual quantity of 137 ounces of pus. Subsequently, he wore a cannula or tube for two years, when the discharge lessened and the wound closed. Six months ago, there was evidence of reaccumulation. Six weeks ago, he was admitted and aspirated, and now wears an India-rubber drainage-tube between the sixth and seventh ribs, and in a line with the anterior axillary fold. For the last three weeks, he has been injected daily with iodine (two drachms of the liquor to one pint of water), and is improving. Six weeks ago, the discharge amounted to five or six ounces daily, and is now only two or three ounces. Dr. Dickinson has seen more benefit from this than from any other form of injection. From carbolic acid, used in ordinary strength, he has seen serious irritation, with marked evening rise in temperature. This remark applies especially to cases with extensive suppurating surface, and it is in such cases that iodine is preferable. Carbolic acid gives good results sometimes, where comparatively little injection is required. Another man, aged 18, got scarlatina, then nephritis, then empyema, and was aspirated on May 19th, being at the time in *extremis*. Dr. Dickinson prefers to close the wound, at least at first, unless the discharge be foetid. The patient was aspirated five times before this occurred. A free opening was then made in the same position as in the last case, being more forward than usual; a drainage-tube inserted, and iodine injections commenced. An India-rubber tube is preferred to metal, simply for the convenience of injections. There should be much care in securing tubes externally. Some time ago, in the case of a child, the tube was missing one day, supposed to have been removed with the linen; but at the *post mortem* examination it was found in the oesophagus, having ulcerated through a bronchus, been coughed up, and partially swallowed. In all cases of continued empyema, there is probably some amyloid change in the viscera; but we have no reason to think this man's having had nephritis renders him more liable to such change in his kidney.

Albuminuria.—In the same ward are two strongly contrasted cases: one with extensive dropsy; the other sallow, emaciated, and with pericarditis and pneumonia. Both are said to have granular kidney; but "where the patient is swollen, the kidney is swollen; and where the patient is thin, the kidney is contracted". We observe, as to treatment, that Dr. Dickinson combines one-third of a grain of elaterium with half a drachm or a drachm of confection of senna, and the sulphate or nitrate of potash with perchloride of iron. The patient with pericarditis has had a blister, has continued his iron mixture, and seems better.

Pleuripneumonia: Treatment.—A man was brought in having been seriously ill four or five weeks, and profusely salivated. There was evidence of fluid in his right pleura at the front, and of consolidation behind. On account of the cedema of surface, it was thought the fluid might be purulent, but no opening was made; the fluid is being absorbed; and, as a consequence, the heart is drawn rather upwards and to the right. "When they cannot expectorate in pneumonia, I believe antimony does good; and, speaking in general terms, cases treated with much stimulant or much quinine seem to me more usually prolonged and more liable to caseous degenerations."

Iodide of Potassium in Aneurism.—A man aged 36 has a pulsating prominence on the left side of the sternum, in the region of the third and fourth ribs; it is dull, and has a varying systolic bruit. The heart-beat is low down, and the action is irregular. The diagnosis is aneurism of the descending aorta. There are no laryngeal or other pressure-symptoms. It is notable that, although the chest-wall is pushed forward, the measurement of the left side of the chest is one inch smaller than that of the right: this is explained by the supposition that the aneurism compresses the lung more than it expands the thoracic wall. As to etiology, there is reason to suspect syphilis. The man is a gas-fitter, and has no heavy work. Ten years ago, he had chancre, and had secondary symptoms for some years; but married six years ago, and has one healthy child; his wife has not suffered. Three years ago, he had one "fit", and dim vision for some time afterwards. Eighteen months ago, he began to have very violent pain in the chest, with pulsation; and he was suffering to an extreme degree when admitted in April. He got chloral and morphia without more than temporary relief; but on May 10th he was put on iodide of potassium (ten grains thrice daily), and the dose has been steadily increased until he is now taking thirty grains thrice daily. There is now some very slight evidence of iodism. There has been no special diet or continued rest; but the pain, pulsation, and, in short, all the symptoms, are much ameliorated.

Diagnosis of Palsy of Seventh Nerve.—A man, aged 54, presents the ordinary lesions of facial palsy, the orbicularis palpebrarum being markedly affected; he cannot half close the left eyelid; he is deaf with the left ear. "The mischief must be in the course of the nerve; if central, you never get so much affection of eyelid, and if peripheral, i.e., external, you would not get deafness". There is a doubtful history of syphilis.

Double Stethoscope.—We observed this in use in the wards. "We have used it a good deal, but find on the whole the single instrument the more useful; you require a double one occasionally for particular sounds; it magnifies them no doubt; for instance, it is most useful for judging of heart-sounds and action, as in the hypertrophy of Bright's disease."

Joint Inflammation: Myeloid Tumour.—Under Mr. Pollock's care, we noticed a boy admitted with an obscurely fluctuating enlargement of the left knee-joint, extending nearly half-way up the femur; on the calf was a separate and also fluctuating tumour. The history was of eight months' duration only, and there was no evident pyæmia or rigor, so that the case simulated in some degree a myeloid tumour of femur; it was found, however, to be extensive pulpy degeneration of the whole synovial sac (which was full of cheesy material), and under the calf-muscles was a large abscess; a high-amputation was performed, and the wound seems healing by the first intention. In the case of another lad (under the care of Mr. Pick), a sudden and rapid enlargement of the knee-joint was found to have its cause in hæmorrhage from a myeloid growth of the lower femur; in this case also amputation has been performed.

Painful Prostate.—In a case of enlarged prostate in an old man, where the passage of a catheter was extremely painful, Mr. Pollock remarked that such pain was often relieved best by tying in an elastic instrument for a few days.

Perforating Ulcer.—In a case of this kind, affecting the foot in a man, the little toe and its metatarsal bone had been removed; the ulcer had begun a few months before on the sole, "as a wart or corn". There is a curious loss of sensibility sometimes in this affection, and sometimes it progressively invades all the bones of the foot.

Syme's Amputation; Sloughing of the Flap.—Mr. Pollock observed that it was the first time he had ever known this sloughing to occur.

Periostitis; Fracture.—An abscess connected with periostitis of femur, in a boy aged 9, had been freely opened, and the femur found denuded of periosteum; some days afterwards the boy had, against orders, got up (on crutches), fallen, and broken his thigh at site of operation. Mr. Pollock remarked that after an operation for necrosis, when the bone-shaft has been weakened by gouging, it is possible for a slight accident to break the bone, and yet there being healthy bone or periosteum left, one might hope for union as in a compound fracture; but in the case before us, the periosteum being separated, and the bone in greater part dying or dead, union would be almost hopeless, and the lad has not sufficient power to bear the risk of delay; therefore amputation will now be the best resource.

Results of Empyema.—An ill-cared-for lad showed an exaggerated degree of thoracic deformity; the front of the left chest was much flattened, in the axilla was the scar of an opening, and between the scapula and spine were two more openings, both discharging pus. The upper one was at the level of the scapular spine, an unusual position for a natural opening.

[ERRATUM.—In our "Notes" of last week, p. 10, line 2 from bottom of column, instead of *fifth* nerve, should be read *seventh*.]

YORK COUNTY HOSPITAL.

A CASE OF FRACTURE OF THE PETROUS PORTION OF THE TEMPORAL BONE FROM A SLIGHT FALL, WITHOUT EXTERNAL MARKS OF VIOLENCE: MENINGITIS, ATTENDED BY PECULIAR THERMAL PHENOMENA.

By GEORGE SHANN, M.D., Physician to the Hospital.

I OUGHT to apologise, on several accounts, for bringing before this Society the case I am about to communicate. In the first place, on account of the questionable testimony on which some of the circumstances are recorded, namely, whenever it was necessary to trust to the unsupported testimony of the patient herself, her mental condition throughout being such as to render her statements doubtful, her answers to questions being frequently equivocal and somewhat rambling. An additional ground for apology is, that the case, especially as given in our printed programme, would appear to belong to the province of the surgeon rather than to the physician. The interest of the case, however, is partly connected with its questionable character, whether belonging rightly to the domain of medicine or of surgery; a point only placed beyond question in the minds of some by the revelations of the *post mortem* examination. The case might perhaps have been more properly described as one of meningitis following a fall on the head, attended by peculiar thermometric variations.

In reference to the accident with which the case originated, it seemed at first sight difficult to suppose that it alone could have been attended with such an amount of violence as would account for the phenomena which presented themselves. My chief reason, however, for thinking that the relation of the case would prove of sufficient interest to the profession, was the peculiar character of the thermal variations which were exhibited in the course of the disease. These variations will be best understood by an examination of the charts now exhibited.

I will now relate briefly the history of the case, and then make a few observations on the thermometrical peculiarities connected with it, and on the apparently slight amount of external force brought to bear compared with the extent of the internal injury which resulted.

The patient, H. H., was a married woman of short stature and slight figure, forty-four years of age, said, by her husband, to have been a drinker for years, and to have been "very queer" for some time before the accident occurred which gave rise to her illness. She presented herself for admission as an in-patient of the hospital on the 15th of July last, stating that three weeks previously she had fallen down in a dizzy attack, and that she remembered nothing more; but that she was found lying on her left side, and bleeding from the left ear; that the bleeding was considerable, and continued more or less all night, and that it was followed by a somewhat large discharge of water from the ear; that the day following, the bleeding having been stopped, as she supposed, by cold water bandages to the head, she brought up a large amount of blood from the stomach. According to her own account, she had never previously had any pain or discharge from the ear, and she had good health. Since the fall, she had complained much of pain across the forehead and in the left ear, and of dizziness. The left ear was totally deaf, which she affirmed was not previously the case. She had had occasional wandering since the accident. There was no

numbness or impaired motor power in any part. So far, the woman's account of her case was on the whole corroborated by an intelligent young woman, a neighbour, who accompanied her. Her tongue was white, her appetite very poor. She had occasionally felt sickly after food, and brought it back again. There was no pain at the stomach. The bowels were opened daily. The urine was natural. The catamenia were regular, and had returned at the proper period.

On July 16th, the day after admission, she complained much of pain in the head, and had not had much sleep. No rambling had been noticed by the nurses. She was deaf of the left ear, but could hear a watch two inches from the right ear. The urine was of specific gravity 1008, not albuminous. For the ten days following admission, no material change took place in the symptoms; she continued to complain of the pain in her head, and was once sick and vomited. About a week after admission, she was first observed to wander occasionally during the night, which, in the first instance, quickly passed off for a day or two at a time. At the end of about a fortnight, she became very wandering, and was quite wild and unmanageable about the third week, which state continued pretty constant up to the termination. She got little sleep, except when under the influence of chloral-hydrate and bromide of potassium. Sometimes she spoke of seeing snakes, and at others fancied she was nursing babies. There were no very marked variations in her symptoms, but when not rambling she continued to complain of her head.

That to which I wish specially to direct the attention of the members is the periodic variations of temperature. This will be best understood by examining the thermic charts (here reduced to a table).

July 16.	M.	..	..	102.7	Aug. 2.	8 A.M.	..	..	99.7
	E.	..	..	98.25		12 (noon)	..	..	98.8
" 17.	M.	..	..	98.25		8 P.M.	..	..	97.5
	E.	..	..	103.15	" 3.	12 (night)	..	..	100.0
" 18.	M.	..	..	98.3		8 A.M.	..	..	99.5
	E.	..	..	98.8		12 (noon)	..	..	101.0
" 19.	M.	..	..	102.5		8 P.M.	..	..	98.7
	E.	..	..	99.3	" 4.	12 (night)	..	..	99.0
" 20.	M.	..	..	97.6		8 A.M.	..	..	99.0
	E.	..	..	103.0		12 (noon)	..	..	100.3
" 21.	M.	..	..	98.5		8 P.M.	..	..	99.6
	E.	..	..	98.2	" 5.	12 (night)	..	..	99.6
" 22.	M.	..	..	101.75		8 A.M.	..	..	98.4
	E.	..	..	98.0		12 (noon)	..	..	98.5
" 23.	8 A.M.	..	..	97.2		8 P.M.	..	..	98.7
	12 (noon)	..	..	96.8	" 6.	12 (night)	..	..	101.0
" 24.	3 P.M.	..	..	102.5		8 A.M.	..	..	99.8
	12 (night)	..	..	101.75		12 (noon)	..	..	98.75
	8 A.M.	..	..	97.75	" 7.	8 P.M.	..	..	98.8
	12 (noon)	..	..	97.5		12 (night)	..	..	99.6
" 25.	8 P.M.	..	..	99.25		8 A.M.	..	..	99.5
	12 (night)	..	..	102.4	" 8.	12 (night)	..	..	99.0
	8 A.M.	..	..	101.75		8 A.M.	..	..	98.3
" 26.	8 P.M.	..	..	98.5		12 (noon)	..	..	98.8
	12 (night)	..	..	97.5	" 9.	8 P.M.	..	..	100.25
	8 A.M.	..	..	97.5		12 (night)	..	..	100.5
	12 (noon)	..	..	103.3		8 A.M.	..	..	98.8
" 27.	8 P.M.	..	..	102.5	" 10.	12 (noon)	..	..	95.3
	12 (night)	..	..	100.0		8 P.M.	..	..	100.75
	8 A.M.	..	..	98.2	" 11.	12 (night)	..	..	100.0
	12 (noon)	..	..	98.0		8 A.M.	..	..	98.6
" 28.	8 P.M.	..	..	98.8		12 (noon)	..	..	99.75
	12 (night)	..	..	100.3	" 12.	8 P.M.	..	..	100.8
	8 A.M.	..	..	101.25		12 (night)	..	..	101.4
	12 (noon)	..	..	100.5	" 13.	8 A.M.	..	..	101.4
" 29.	8 P.M.	..	..	98.75		12 (noon)	..	..	102.5
	12 (night)	..	..	99.2	" 14.	8 P.M.	..	..	103.0
	8 A.M.	..	..	97.5		12 (night)	..	..	102.6
" 30.	12 (noon)	..	..	102.3	" 15.	8 A.M.	..	..	103.0
	8 P.M.	..	..	100.8		12 (noon)	..	..	104.0
	12 (night)	..	..	99.6	" 16.	8 P.M.	..	..	105.0
" 31.	8 A.M.	..	..	97.4		12 (night)	..	..	105.25
	12 (noon)	..	..	97.6	" 17.	8 A.M.	..	..	105.3
	8 P.M.	..	..	99.5	" 18.	12 (noon)	..	..	106.4
" 1.	12 (night)	..	..	100.75					
	8 A.M.	..	..	98.4					
	12 (noon)	..	..	99.75					
	8 P.M.	..	..	100.3					
Aug. 1.	12 (night)	..	..	100.4					
	8 A.M.	..	..	100.8					
	12 (noon)	..	..	102.25					
	8 P.M.	..	..	100.4					
" 2.	12 (night)	..	..	100.0					

For the first eight days, the temperature was taken at the usual hours, 8.30 in the morning and 7 o'clock in the evening. From that time to the end, it was taken four times in twenty-four hours, namely, at 8 o'clock A.M. and 12 at noon, and 8 o'clock in the evening and 12 at night. This was owing to the attention given to the case by our temporary house-surgeon, who took much interest in it, but was only convinced, on the evidence of the *post mortem* examination, that a fracture of the skull could have resulted from so slight a fall, or one unattended by any external appearance of injury.

Tracing the undulations of temperature on the charts, it may be observed that, during the first ten days, the thermal waves were very regular in time, and fairly so in extent, fluctuating between the normal temperature, or a little below it, and 102.5 deg. or 103 deg., completing the pendulum motion between the highest and lowest points and back again in regular periods of thirty-six hours. The highest elevation during these days was 103.3 deg., and the lowest depression 97.2 deg., giving a maximum range of 6.1 deg. In the course of the next ten days, the intervals of time occupied in passing through the successive points of highest elevation were less regular, being respectively 42, 23, 36, 36, 36, 32, 36, and 24 hours; and the length of the wave shorter, the maximum elevation only twice rising above 101 deg., and the lowest degree of depression ranging for the most part about, or above, the normal. During the succeeding five days, the range of temperature between the highest and lowest points averaged about 2.5 deg., and the periods observed in attaining the successive points of maximum elevation were more variable, being 36, 24, 12, 48, and 20 hours respectively.

During the last five days of the illness, the temperature never sank so low as 100 deg.; it rose first 103 deg., declining then to 100.8 deg., and in 16 hours rising to 104 deg., in 24 hours more to 105 deg., and in the succeeding 16 hours to 106.3 deg., at which elevation it was observed three hours before death, which took place thirty-one days from the time of admission into the hospital. The state of the pulse was not regularly recorded; when observed during the course of the illness, it ranged between 90 and 100; what were its state and frequency about the termination I am unable to state, having been from home at the time, and also when the *post mortem* examination was made, of which the following is the report.

There was found to be a fracture extending transversely through the petrous portion of the temporal bone. The meninges of the brain for some distance around the fracture were inflamed. The brain-tissue in the neighbourhood was inflamed and softened. The heart was softened from fatty degeneration. The other organs were normal.

The history and *post mortem* appearances indicate that the case was one of simple traumatic meningitis; and it is an interesting subject of inquiry, how far the peculiar thermal phenomena exhibited are in any way to be regarded as characteristic of such an affection. Again, it is important in a medico-legal point of view to know, with practical certainty, that a fracture of the skull may result from a simple fall in a dizzy attack, there being at the same time no discoverable marks of external injury, so far as could be ascertained.

REVIEWS AND NOTICES.

MEDICAL POLITICS; being the Essay to which was awarded the first Carmichael Prize of £200 by the Council of the College of Surgeons, Ireland, 1875. By ISAAC ASHE, M.D., M.Ch., Trinity College. Dublin: Fannin and Co.

It is not often that we light upon a book which contains so much in so little compass as Dr. ASHE's Carmichael Essay for 1873. Dr. Ashe has evidently thought out in a masterly and comprehensive manner, and withal in a way in harmony with the best spirit of the age, many, if not all, of the problems suggested by the present state of the medical profession. A man of education and evident culture, he is himself a good specimen of the kind of medical man he would wish to see represent the profession in all parts of the country, and who, if they did so, would speedily raise the estimation in which doctors are held to at least as high a level as that occupied by the sister professions of the Church, the Bar, the Army, and Engineering. It would not be possible in a review to follow the author in all his investigations, as to do so would require a criticism nearly as long as the little volume itself; and we earnestly hope that those who have the interests of the profession at heart will soon possess themselves at first hand with the suggestions of the author. Two principles, as he tells us, underlie the proposals which he has to offer: the first, that of organisation; the second, that of self-government. The medical profession ought, he thinks, to put an end to the sneers of their critics, who call them "an unorganised rabble", by forming among themselves some bond of union which shall enable them to undertake concerted action. And, although the author does not object to trades-unionism as such, it is yet only the unobjectionable features of unionism which he proposes to introduce, and not the objectionable features at all. Thus he sees no advantage at all in medical men meeting together to decide what is the lowest visiting fee they will take. This is evidently regulated by the law of supply and demand of medical labour; and, if any arbitrary fee be fixed on which the public think too high, the inevitable consequence must

follow that, in the present plethora of unoccupied and needy men in the profession, men will come from other parts of the country to accept at a lower rate of remuneration work which the local men refuse. But limiting the numbers of the men who enter the profession is a totally different thing. This has worked well in the case of trades, he says, while any attempts at the arbitrary raising of wages have failed. Dr. Ashe proposes to limit the numbers of the profession chiefly by the very desirable means of raising the standard of examination. This he proposes to do both in general literature, under the head of the preliminary examination in arts, and also as regards the professional examinations themselves. And, as such increase of strictness in examination would have the effect of lessening the numbers of men who pass, and, therefore, of diminishing the fees of the examiners, he further proposes, in the most liberal spirit, that this difference should be made good by general subscription among the profession itself, who would, of course, be the gainers by the transaction, and probably by the army and navy surgeons, whose promotion would be so much quickened, as fewer and fewer men came forward to fill the vacancies. Dr. Ashe's figures on this point are so interesting, that we give them here. The calculation refers to Ireland; but, of course, the principles involved include England and Scotland also. By the *Directory*, we find that there are 2,150 medical practitioners practising in Ireland. If the very liberal allowance were made of one medical man for every 1,000 inhabitants in small villages, and one more for every fraction of 1,000 additional (that is, three medical men to a population over 2,000, and so on), it would be found that no less than 500 medical men, or 24 per cent. of the whole, would require to be deducted without the efficiency of medical help being in the least impaired, and, of course, with the effect of increasing the fees and regulating the work of those who remained. If the 500 removed were the least efficient, as the proposal to exclude them by raising the standard of examination would assuredly imply, then an advantage would accrue to all parties concerned; to the men themselves, who would be prevented from entering upon the performance of duties for which they were unfit; to those who were left, because their position in life would be improved, while their proportion to population would be such as to make them efficient; and to the public, who would be relieved from the temptation of treating medical men either dishonestly or cavalierly, since the better understanding among the members of the profession would no longer allow them to connive at the running up of large bills with one medical man, and leaving him for another when he dared to ask for payment; and the actual need of medical help and realisation of its value would soon compel to the bestow of it the consideration which he is fairly entitled. One hundred and fifty men annually enter the profession in Ireland. Supposing that fifty, or one-third of this number, were prevented from entering by stringency of examination, in ten years the reduction of 500 proposed for the whole country would have been effected. This would have entailed a loss in examination fees of about £1,000 a year for the ten years, which sum could be met by a subscription of 14s. each *per annum* from the 1,650 medical men in practice, and they, he thinks, would probably be quite willing to make such a subscription, since their own incomes would have been, on the average, so much increased as to make this a mere bagatelle. We must confess to a feeling of doubt as to whether this part of the proposal would work. If, we ask, the practitioners in the country were willing to pay the subscription, would the examiners be willing to receive it? Both suppositions seem rather unlikely, but the latter the more so of the two; and, indeed, neither seems necessary, since, on the one hand, the examination fees might be raised one-third, so as to leave matters where they were as regards income; or, on the other, the colleges might be appealed to, to sacrifice a little of their income, in order to affect so beneficially the whole profession. But the real remedy is one suggested much later in the book; viz., a conjoint examining body. One of the details of the appointment of such a body of men would have to be the mode in which they should be paid, and it might even be possible to induce the Government to vote a sum of money from the consolidated fund to meet this charge. However or whencesoever the payments were made, it would obviously involve the failure of the whole scheme if one college or set of colleges only should raise its fees and standards of examination. The necessary result would simply be, that men would either not appear for examination before that college, or that, appearing and being rejected, they would go and pass elsewhere. And the only means of obviating this contingency would be either an universal raising of the standard, which is hardly to be expected, or, still better, the formation of one conjoint examining body. There is no one thing to which we are disposed to look with more hope for the improvement of the general standing of the medical profession than this, and, indeed, we fear all efforts in this direction must ignominiously fail, unless it be carried out. We cannot too urgently im-

press this on the profession or the public, and we do trust to seeing this scheme carried out at no distant date. Dr. Ashe is in favour, as we understand him, of conjoint examining bodies, but not of "the one portal" system. It may be, he thinks the latter impossible of realisation. If it should prove so, for the present we are willing to accept some amount of union of examining bodies as an instalment; but our own feeling as to the real remedy is strongly as we have expressed it. If we had a set of imperial qualifications, they might and ought to be of different grades; but their value would be fixed and known, while at present values really cannot be set upon qualifications at all.

We have left ourselves no space to follow Dr. Ashe through his numerous and carefully thought-out observations on various points in medical reform. Rarely, indeed, have we found ourselves in such complete accord with any writer as regards the questions discussed. His remarks on drug-selling, on the admission of women to the study and practice of medicine, on the representation of the profession in the Medical Council, on the guinea fee, and on all the points he touches, are, indeed, well worthy of consideration, and we can only congratulate him on the felicity as well as breadth with which he has touched them off, and the committee of the Carmichael Prize Essay, that so able a writer has taken up these subjects.

NOTES ON BOOKS.

DR. ROBERTS'S *Handbook of the Theory and Practice of Medicine* (H. K. Lewis) has rapidly reached a second edition. It is, indeed, a very carefully written and judicious manual; and the fact that students have taken to it says more than many favourable reviews; for they and their teachers may be credited with a very shrewd perception of the qualities in a text-book which make it most valuable to them. We owe Dr. Roberts a fuller review of his excellent handbook.

SWAIN'S *Surgical Emergencies* (Churchill) also appears in a new edition. The choice of subjects for a book with such a title is not an easy one; and we see that Mr. Swain includes in his a chapter on "Antiseptic Treatment in Surgery". He treats his subjects, however, clearly and simply, and with the unhesitating plainness of a man who has tried what he recommends, and has made up his mind about it. This is better than mere book-making, of which there is so much; and whatever success Mr. Swain's book meets, it fairly earns.

DR. ALFRED ASHBY'S *Register of Visits and Index of Notes for the Use of Medical Officers of Health or Sanitary Inspectors* (Knight and Co.) will be found very useful by health-officers in the daily record of their work. It is essential that this sort of work be carried out and registered methodically; and we do not doubt that Dr. Ashby's well-arranged register will be largely used, and will effect a great economy of time and trouble.

DR. TILBURY FOX'S *Plates of Skin-Diseases*, and BENTLEY and TRIMEN'S *Botanical Plates* (Churchill), of which we have already spoken favourably, continue their serial publication with unchanged merit.

The first two parts of Mr. CHRISTOPHER HEATH'S *Course of Operative Surgery* (Churchill) are beautifully illustrated by Léveillé in coloured plates of rare merit. Such a publication cannot fail to be useful, and has already, we believe, met with considerable success. Parts I and II are before us. We shall reserve a fuller notice till the whole series have appeared.

MR. THOMAS SMITH'S *Manual of Operative Surgery on the Dead Body* (Longmans) appears in a second edition carefully revised and improved by the addition of valuable anatomical matter; and the revision of many of the directions as to operations. This is a very excellent manual. Mr. Walsham has taken a large part in the revision.

Our Medicine Men (Leng and Co.) is a bulky but trashy production, by a person who confounds maundering with thought and drivelling with ratiocination. It aims at being philosophical; it is, in fact, childishly nonsensical from beginning to end.

BEASLEY'S *Book of Prescriptions* (Churchill, fifth edition) is in its way a classic, and a wide-spread favourite. It is very convenient to have formulæ at hand, and here are three thousand of them.

Aids to Anatomy, by GEORGE BROWN, M.R.C.S. (London: Baillière, Tindall, and Cox), is a very useful series of hints to the advanced student for methodising his knowledge, and towards self-examination. They are reprinted from our spirited contemporary the *Student's Journal*, and will be very useful to those who use them aright. The book is disfigured by a very ugly and ill-printed title page, and the mechanical execution is defective. The misprints which disfigure the title-page and preface are discreditable.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 8TH, 1876.

THE VIVISECTION BILL.

It may be useful to say a few words in reference to the report of the meeting this week of the Parliamentary Bills Committee, and of the memorial to the Home Secretary and petition to the House of Commons which was then adopted, and which we print in another page.

We would ask every reader into whose hands this JOURNAL falls to sign and return the petition without delay, and to forward the printed copy of the memorial to his representative in Parliament, asking him to support its prayer. Mr. Cross has appointed to receive a deputation on Monday next, at 2.30, at the Home Office, when it will be presented as a memorial, and many of the most eminent members of the profession will express their concurrence in its statements and recommendations.

There is no doubt of the great and salutary effect upon public opinion of the demonstration of medical opinion which was afforded by the strength of our deputation to Lord Carnarvon. An attempt has since been made to spread the belief that such concessions as Lord Carnarvon has made are sufficient to satisfy the medical profession. It is necessary completely to undo the effect of that attempt. It is certain that the profession is profoundly dissatisfied with the Bill as it stands. It is, indeed, simply monstrous that any Government should press upon the Legislature such a Bill as this is, or should insult the whole medical profession by proposing a series of restrictive provisions of licences, reports, registers, conditions, penalties, and criminal proceedings, to regulate scientific research. Such legislation as this is wholly without precedent on our statute-book, except for habitual criminals and ticket-of-leave men.

Surgeons and physicians holding diplomas which invest them with the most solemn responsibilities of life in respect to human beings, are, by this Bill, in deference to the outcry of crazy and ignorant fanatics whose every allegation has been disproved, treated as objects of permanent suspicion in respect to animals. Not a tadpole or a frog, not to say a dog or cat, can be trusted to those who are the daily custodians of human life.

Every line of the Bill is pregnant with offence to common sense, and insult to the common humanity of our profession. It not only prescribes degrading restrictions, but suggests an unworthy distrust of the whole medical profession. We feel convinced that the rising tide of ridicule and indignation in the public mind will submerge the Bill, and sweep it out of the House of Commons; but to this end it is essential that the profession should speak its mind once more, unanimously and with vigour.

We trust, therefore, that no effort will be spared to inform members of Parliament of the light in which this Bill is regarded, and to urge their uncompromising opposition to it. We hope, also, that all who attended the last deputation will feel it a duty to be present on this occasion also; and that those who were prevented from attending the summons on the former occasion will make up for the omission by bringing influential friends with them on Monday. The Bill is being pushed forward energetically; but its rejection or radical amendment may be ensured if the profession collectively and all its members individually exert their influence. There is no time to be lost.

THE CONTAGIOUS DISEASES ACTS AND THEIR EFFECT UPON THE HEALTH OF THE CIVIL POPULATION.

FOR judging of the results of the Contagious Diseases Acts upon the health of the population residing in protected districts, no statistics have hitherto been published, except those supplied in the Medical Reports of the Army and Navy, which necessarily deal only with the health of the naval and military forces.

The Right Hon. James Stansfeld, M.P., in the paper which he recently read before the Statistical Society, with some justice urged that the real hygienic effect of these Acts cannot be fairly judged by reference to army and navy statistics alone. He did not, however, furnish any statistics relating to their effect upon the health of the civil population in the protected districts. The army and navy statistics deal with cases of gonorrhœa and primary sores; but, as no national system of registration of disease yet exists in this country, it is evident that there is no basis for similar statistics relating to the general population. The national death-register, however, affords the means for ascertaining the number of deaths referred to any special disease in the various districts of England and Wales during a long series of years. It is, moreover, in the majority of cases, fair to assume a very definite relation between the number of deaths from a given disease and the number of cases. Bearing this in mind, it appeared to be desirable to ascertain the proportion of deaths referred to syphilis in those districts which had been brought under the Contagious Diseases Act of 1866, both before and after the operation of that Act; and also to compare the results with similar figures for other parts of England and Wales which had never been brought under that Act. Before detailing the results of this investigation, it may be well to state that it was undertaken as an entirely independent inquiry, without any means of knowing what the results of the investigation would be, and having only for its object the contribution of further facts, derived from a source which is certainly impartial, to assist in determining the true effect of these much abused Acts upon the sickness and mortality from this special disease in the population living in districts under the Acts.

It should be stated that the deaths certified in the death-register as occurring from syphilis cannot, for very obvious reasons, be taken fairly to represent the number of deaths which in reality are due to the result of syphilitic poison. The number of deaths referred to that disease without doubt considerably understate the true number due to this cause. There is, however, no reason to believe that the deaths from this disease have been more correctly returned in one than another of recent years, or that the percentage of under-statement should vary persistently in districts under and not under the operation of the Contagious Diseases Acts. If these assumptions be as sound as they appear reasonable, the use to which it is proposed to put the figures relating to the deaths from syphilis is perfectly legitimate. The general body of the medical profession, who certify the causes of individual deaths throughout England and Wales, can scarcely be accused of any possible partiality in certifying deaths from syphilis, whether these certificates relate to deaths occurring in protected or unprotected districts. Mr. Stansfeld, therefore, and the other opponents of the Contagious Diseases Acts, should acknowledge that the source of this information is quite above all suspicion of the interested motives which he recently imputed to the Army and Navy Medical Departments in the preparation of their statistics on this subject. Let us now proceed to consider the results of this investigation.

Mr. Stansfeld gives in his paper a list of the different stations at which the Acts were put in force, and the dates at which the Act of 1866 came into operation thereat. The stations in England are twelve; namely, Devonport and Plymouth, Portsmouth, Chatham and Sheerness, Woolwich, Aldershot, Windsor, Shorncliffe, Colchester, Winchester, Dover, Canterbury, and Maidstone. The investigation of which we have spoken embraced the registration-districts including eleven of these twelve stations; Woolwich was alone omitted, partly

on account of its short distance from London, which renders it probable that diseased men and women would resort to the metropolitan hospitals, and partly because, by a change in the constitution of the registration-district of Woolwich, there is a difficulty in obtaining comparable facts for the two periods dealt with.

Having fixed upon these eleven stations as the field of special investigation, the groups of years to be dealt with had to be decided. Two periods of five years were selected; the first consisting of the years 1861-5, which immediately preceded the year 1866, when the Act of that year came partially into operation. The second period consists of the five years 1870-4, when the Act of 1866 was in full operation at all the stations. The four years 1866-9 were omitted, because the Act of 1866 only came into operation from time to time during that period, the dates varying between October 1866 and January 1870. The area and period of the investigation being fixed, the death-register was resorted to for the purpose of abstracting all the deaths referred to syphilis in those eleven stations or districts in the two periods of five years. The deaths of males and females were distinguished, and also the cases of congenital infantile syphilis from the adult fatal cases of the disease. The enumerated population of these eleven stations and districts was 492,408 in 1861, and 551,341 in 1871. From these numbers the population was estimated to the middle of 1863 and 1872, as the middle of each group of five years, for the purpose of calculating the annual rate of mortality from syphilis in each of the two groups of years.

The deaths referred to syphilis in these eleven stations or districts were 354 in the five years 1861-5, and 303 in the five years 1870-4. Measured by the proportion to population, the annual death-rate from the disease was equal to 140.7 per million persons living in the first group of five years, before the Acts came into operation; whereas in the second group of five years, 1870-4, after the Acts were in full operation, the rate did not exceed 108.4 per million. Thus the death-rate from this disease in the eleven stations or districts was 21 per cent. lower during the five years 1870-4, when they were under the operation of the Act of 1866, than during the five years 1861-5, before the Act came into operation. In order to appreciate the importance of this marked decline in the fatal cases of syphilis since the Act of 1866 came into operation, it is necessary to inquire whether a similar decline in the fatality of the disease occurred in other parts of England and Wales which have never been brought under the Act. By excluding the population and the deaths from syphilis in these eleven stations or districts during these two periods of five years, we find that the annual death-rate from syphilis in the rest of England and Wales was equal to 66.1 per million persons living during the five years 1861-5, and had risen to 79.7 per million in the later five years, 1870-4. The syphilis death-rate was higher by 20 per cent. in the second than in the first period. Thus while at the eleven stations brought under the Act of 1866 the death-rate from this disease showed a decline of 21 per cent. between 1863 and 1872 (taking these years as the middle of the two periods of five years), the rate in the whole of England and Wales, exclusive of those eleven stations and districts, showed an increase of 21 per cent. Although, from the small numbers of deaths which are annually referred to syphilis, it would be unsafe to draw any important conclusions from returns for single years, by grouping these two periods of five years together the deductions drawn from the before mentioned figures should be trustworthy. Neither the reduction of fatal syphilis in the half-million of population under the Act between 1870-4, nor its increase in the rest of England and Wales in the same period, can be explained by the chance variation of small numbers. Let us state the comparison between the syphilis mortality at these stations and in the rest of England and Wales in these two quinquennial periods in another way. During the five years 1861-5—that is, before the Act of 1866 was passed—the death-rate from this disease in the eleven stations was more than double the average rate which prevailed in the whole of the rest of England and Wales; it was as 213 to 100, and showed an excess of 113 per cent. in the eleven stations. In

the second five years, after the Act of 1866 had come into full operation at the eleven stations, the excess in the death-rate from syphilis at these stations, compared with the average rate in the rest of England and Wales, had declined from the 113 per cent. mentioned above to 36 per cent. If the operation of the Contagious Diseases Act of 1866 is not to be credited with this marked decline in the recorded fatal cases of syphilis in these eleven stations, the discovery of any other reasonable explanation will severely test the ingenuity of those strenuous opponents of the Acts who refuse to acknowledge that any hygienic effect has resulted from them.

There are one or two other points in connection with the figures resulting from this investigation, to which it may be useful briefly to refer. The fatal cases of syphilis in these eleven stations during the two quinquennials were abstracted so as to distinguish the sexes, and also the cases of congenital disease in children. One noticeable fact apparent from the figures was, that the fatality among children from congenital syphilis showed no decline in the second period. In the eleven stations, 211 deaths of children were referred to this disease in the first, and 212 in the second quinquennials. If correction were made for the increased population in the second period, a small decline might be proved, but one scarcely worth notice. We will not venture now to discuss why congenital syphilis has not declined, whereas the fatal adult cases have decreased so markedly. Our principal object here is to state facts as we find them; there appear, however, to be obvious reasons why the effect of the operation of the Acts upon the disease and mortality of adults should follow more promptly upon the Acts coming into operation, than the effect upon the mortality of infants from congenital disease. With regard to the deaths of adults referred to syphilis in the eleven stations or districts, they were 143 in the first period of five years, and declined to 91 in the second period when the Act of 1866 had come into full operation; this was equal to a decrease of 36.4 per cent. in the adult cases. Another interesting fact connected with this decrease of adult cases is, that the proportion of decline was almost identical among men and women; 36.2 per cent. in the deaths of males, and 36.5 per cent. in those of females. Had the decrease been confined to women, or even had it been much larger among women than among men, it would have been but natural to suggest that diseased women in the protected districts possibly leave those districts to escape the restrictions imposed by the Acts. The same suggestion would not, however, apply to males; and, as the proportional decline of male and female adult death-rates from syphilis may be said to be identical, this objection appears to be untenable.

We have not attempted to examine in detail the ratio of decrease in the mortality from syphilis at each of the stations, partly on account of the space which such an examination would occupy, and partly because the figures for most of the stations are too small to yield trustworthy results, even when dealing with those two groups of five years. We may state, however, with regard to the two largest stations, that the decrease of fatal cases was very marked in Portsmouth; whereas, no decrease was shown in Plymouth and Devonport. In Plymouth and Devonport, the annual death-rate from syphilis was equal to 197.5 per million persons living in the five years 1861-5, and to 197.8 in the five years 1870-4, after the Act of 1866 came into full operation. We have before stated, that in the aggregate of the eleven stations, the rate declined from 140.7 in the first, to 108.4 in the second quinquennial. Why the death-rate from this disease in Plymouth and Devonport should be so much higher than at the other stations, and why the Act of 1866 should have been inoperative there, whereas elsewhere its effects appear so marked, deserves investigation. It is needless to say that the inclusion of the Plymouth and Devonport figures considerably decreases the percentage of decline in the aggregate of the eleven stations which we have been considering.

Without venturing to affirm confidently that the marked decrease in the number and propagation of deaths referred in the death-register to syphilis in the aggregate of the eleven stations or districts since they were brought fully under the operation of the Act of 1866, is entirely

due to the operation of that Act; the fact that the rate in the rest of England and Wales has largely increased, invests the facts to which we have called attention with an importance they would not otherwise possess. It should be borne in mind that the figures we have dealt with relate to the entire population living within the respective districts, in which the military or naval element is proportionally merged in the civil population; and if, as we have assumed, there is a constant relation between the number of deaths referred to syphilis, and the number of cases of venereal disease, the decline in the number of deaths from this cause at the eleven stations signifies a proportionally equal decline in the cases of disease occurring in the civil population. This is equally true whether the decline be due to the operation of the Act of 1866, or to any other cause which the ingenuity of the opponents to the Contagious Diseases Acts may enable them to discover.

MEDICAL OFFICERS OF HEALTH.

It is hardly possible to conceive any official position more unsatisfactory and unenviable than that now occupied by Medical Officers of Health to Combined Sanitary Authorities. To begin with, medical officers of health are officials without any legal or defined official status. As executive officers, their power is limited to seizing diseased meat, which function curiously is reserved to officers of health and inspectors of nuisances. A policeman, for instance, has no power to seize or stop diseased meat. With this pleasant duty, legislation has stopped short; and there the executive duties of medical officers of health begin and end. They can sign no notices, nor issue any orders, however urgent the case or circumstances may be. Even disinfection cannot be carried out without an order from the sanitary authority. A medical officer of health is graciously permitted to advise his authorities; but they are not compelled to follow or take any notice whatever of his advice. Indeed, it is only on sufferance that a medical officer attends any meetings of a sanitary authority; and some sanitary authorities, happily not many, never see their medical officer of health from year's end to year's end, and not a few content themselves with listening to the advice and then letting the matter end.

A medical officer of health has every inducement not to do his duty. His reappointment is in the hands of the very men on whose corns he is bound to tread; and a report inimical to their interests, or fancied interests, seals his fate. Travelling expenses also are paid out of the medical officer of health's own pocket; and here again, the less work done the greater the net income. No salary that we know of exceeds £800 *per annum*, and this sum generally represents districts at least forty miles from end to end or side to side.

Medical officers of health to combined districts are also subject to the Local Government Board; and here, again, sorrows and troubles surround them. They are in no way connected with the medical department of the Local Government Board; but are the servants, in very truth, of Mr. Secretary Lambert and his lay assistants. It will hardly be credited, but it is an actual fact, that no official communication exists, or has existed for years, between the medical officers of health and the medical department of the Local Government Board. It is just as bad a mess as if the medical department had the executive control of the navy and its officers. All medical officers of health have to make quarterly returns to the Local Government Board. These returns are kept in Mr. Lambert's department, and, although relating to purely medical matters, are handed to the lay inspectors who meander about the country on Poor-law matters. As a matter of fact, these returns are worthless for health or statistical purposes, and in settling their form the medical department, of course, was not consulted.

Combined sanitary authorities, when combination was first urged four years ago, combined for various periods of not less than one year and not more than five. Medical men competed for their appointments, believing that, at least, the Local Government Board would throw no obstacles in the way of their reappointment, but rather use the powers they possess to continue the principle of combination.

But, by all the means in its power, the Local Government Board has practically discouraged combination, and made the position of the officer of health seeking reappointment a most uncomfortable one. No attempt has been made to bring persuasion or pressure to bear on single authorities who retired from the original combinations, even when a large majority expressed a strong wish to keep up the old status; and every yard of red tape in Whitehall has been measured out before the remaining and still combining authorities have been allowed to carry out their wishes. It has not been, and is not, enough that both collective and individual resolutions have been passed reappointing the old officers of health. The Local Government Board insists that, first of all, the authorities must signify to them their wish to continue them; if the secretaries think fit, an order will be issued sanctioning such combination, and prescribing the manner, etc., of election and proportion of salary to be paid by each authority; and then, as a final stroke, the vacancy has to be advertised, and the medical officer subjected to the annoyance of competition, although the authorities may have expressed an unanimous determination to re-elect their old servant.

The Public Health Act of 1875, by an oversight, gave this power to the Local Government Board, or, according to Mr. Chadwick, the Minister at Whitehall, and they have not been slow to show their power. Before this Act was passed, reappointments were made without more formality than a resolution by the authorities, and that is all that should be required now.

It is to be hoped that Dr. Rogers's paper at the Sheffield meeting will open the eyes of our rulers to the chaotic state of sanitary misrule at which we have arrived. The sanitary service of the country might be efficiently and satisfactorily carried out at a very much less cost to the public purse than it is at present; but to do so, shoemakers must be made to stick to their lasts. At present, the same state of things prevails as might have been expected in the Channel Squadron, if Lord John Russell, instead of bringing in the Reform Bill, had taken the command.

THE PLAGUE.

WE ventured to express an opinion last week that the official returns of the mortality from plague in Mesopotamia probably did not represent more than one-half of the actual loss of life from the disease. We have since been favoured with information from a medical correspondent who has special knowledge of the localities lately infected with plague on the Tigris and Euphrates rivers, and of the recent prevalence of the disease there, which leads us to infer that the loss of life in this year's outbreak has been even greater than we surmised. He states that the disease has been more or less prevalent throughout the inhabited portions of a district which extends from Musseib on the north to Suk-es-Shinkh on the south, and from the borders of the Syrian desert on the west to the banks of the Tigris on the east. Within this district, it is believed on the spot that not less than twenty thousand persons have fallen victims to plague within the past six months. If this estimate be substantiated by the official inquiries now in progress, we shall better understand the uneasiness of the Russian and Indian Governments, and the necessity for the precautionary measures they have adopted in view of a possible extension of the disease beyond the limits of Turkish Arabia. The rumour as to the appearance of plague in Persian Kurdistan, south of Lake Uramiah, is confirmed, a serious outbreak having taken place in the district of Mukri. It was in this district that the circumscribed outbreak of 1871 took place, which has been described by Dr. Tholozan, and of which an account is given in a memorandum on Levantine plague published in Mr. Simon's Annual Report for 1875, which has just been published.

MR. EDMUND OWEN, Assistant-Surgeon and Lecturer on Anatomy, at St. Mary's Hospital and School, has been elected Assistant-Surgeon at the Children's Hospital, Great Ormond Street.

DR. FARRE continues, we are glad to say, to make satisfactory progress.

THE German Public Health Association held its meeting in Düsseldorf on Thursday, Friday, and Saturday, of last week.

DR. ERNST LEYDEN, professor in the University of Strassburg, has been appointed to fill the vacancy in the University of Berlin, caused by the death of Professor Traube.

THE International Sanitary Exhibition was formally opened on June 26th by the King of the Belgians and the Count of Flanders, honorary president. It is to remain open nine months. A congress in connection with the exhibition will commence on September 27th, and terminate on October 4th.

WHEN going to press, we received a fuller report of Dr. Lyon Playfair's speech on the second reading of Mr. Cowper-Temple's Bill, from which, it appears, that the reports published in the daily papers make him appear to say something very different from what he actually said. We shall refer to the subject more fully next week.

THE note which we published last week respecting Miss Martineau's posthumous autobiographical memoir, which appeared in the *Daily News*, has elicited a very interesting letter, which we have the pleasure of publishing, from Sir Thomas Watson. Such errors of fact and inference as the late Miss Martineau promulgated on the subject of the medical opinion and advice which she received are common enough. It is not often that they are so definitely made, and can thus be so accurately examined. Most of them would, we believe, turn out to have no more just foundation than this had.

A CONGRESS of the supporters of the system of cremation of dead bodies was held in Dresden, on June 7th, and was attended by about four hundred persons, including visitors from London, Paris, the Hague, etc., Herr Richard Schneider, engineer, read a report on the various systems of cremation, which he divided into three classes: 1. By direct application of material; 2. By burning gases; 3. By hot air. He expressed an opinion that the last-named method was to be preferred, and that Siemens's apparatus was the best for the purpose. The congress decided on the erection of a building for cremation in Gotha, and contributed 9250 marks (£453 9s.) for the purpose.

SIR WILLIAM FERGUSSON.

WE have the pleasure to report that Sir William Fergusson continues to make good progress and to regain strength. He now walks down stairs, and, weather permitting, he will be taking a daily drive.

MEDICAL MICROSCOPICAL SOCIETY.

AN interesting *soirée* was given by this Society in the rooms of the Century Club, Pall-Mall Place, on Friday, June 30th. The rooms were well filled, and numerous important pathological specimens, as well as new instruments were exhibited. Among the former were a series of twenty typical specimens of tumours, by Messrs. Needham and Pritchard; alveolar sarcoma, by Mr. Godlee; a tubercle of omentum, by Dr. Payne; absorption-spectra of bile, etc., by Professor Ray Lankester; micro-photographs, by Mr. Fowke. Among the instruments were a freezing microtome on a new principle, by Mr. R. C. Williams; microtomes on Rutherford's and Ranvier's principle, by Dr. Pritchard and Mr. Golding Bird; a micro-photographic apparatus for taking photographs without a heliostat, by Mr. Giles; improved form of Mr. Stephenson's binocular microscope, by Mr. Bevington; a "differential" warm stage, by Mr. Golding Bird; besides micro-spectroscopic apparatus by Mr. Browning; and microscopes by Beck, Pillisher, Verick, etc. The specimens occupied the attention of members and visitors till a late hour, and well illustrated the unostentatious activity of this very useful Society.

ROYAL COLLEGE OF PHYSICIANS.

DR. BROWN-SÉQUARD will deliver three lectures "On Paralysis as an effect of Brain-Disease" (by permission), on Monday, July 17th; Wednesday, July 19th; Friday, July 21st; at five o'clock.

ROYAL COLLEGE OF SURGEONS.

THE annual election of Fellows into the Council of the College took place on the 6th instant. The result was as follows:

Mr. Holden.....	140	including	10	plumpers
Mr. Simon	139	"	4	"
Dr. Humphry	130	"	1	"
Mr. Wheelhouse.....	116	"	22	"
Mr. Wm. Adams	64	"	8	"
Mr. Hussey.....	35	"	3	"

The President declared that the choice of the Fellows had fallen on Messrs. Simon, Humphry, Holden, and Wheelhouse, a result which our readers will have fully anticipated. That the retiring members of Council, who had done good suit and service in the College, should be re-elected was in the present case fairly due to those gentlemen; and their election, with that of Mr. Wheelhouse of Leeds, as successor to the late provincial representative, has, we learn, already given great satisfaction. We have seen with pain that the medical papers generally, as on the occasions of the elections of Mr. Southam and Mr. Baker, either directly opposed, or failed to give any support to, the provincial candidate.

THE BLANE MEDAL.

MR. ERRINGTON has given notice of his intention "to ask the Secretary to the Admiralty, whether, under Sir Gilbert Blane's bequest, any funds are available for publishing the successful essays for the 'Blane Medal'; if so, whether he will consider the expediency of publishing such essays; and, if not, of sanctioning their publication in the medical journals". Perhaps the honourable member is not aware that the sum left by the late Sir Gilbert Blane is only £300, which, according to the *Calendar* of the Royal College of Surgeons, yields a dividend of little more than £8. A few months since, two medals value £10 each, were awarded to authors of essays, so that there cannot be any sum set aside for this purpose from the Trust Fund in the possession of the College.

CROUP AND DIPHTHERIA.

THE sub-committee appointed by the Royal Medical and Chirurgical Society to inquire into the relations of membranous croup and diphtheria, are anxious to obtain the result of the experience and observation of medical practitioners throughout the country on the subject. They have, therefore, issued to the members a series of queries, as to the identity or non-identity of these diseases, for circulation among the members of the Society and other practitioners, who may have had such opportunities for observation as may render their experience on the question of special value. For the purposes of the inquiry, the following definitions are adopted. 1. Diphtheria is a contagious specific disease, which is accompanied by the formation of false membrane in the pharynx, air-passages and elsewhere. 2. Croup is a disease accompanied by the formation of false membranes (mainly in the larynx and trachea), the origin of which is in question. No case is to be spoken of as an example of croup in which false membranes were not observed either during life or after death. The questions proposed are as follows. 1. Is your field of observation situated in an urban or a rural district, or partially in both? 2. What is the nature of the locality as to climate, soil, elevation, proximity to the sea, or to a river; or as to the drainage or overcrowding of any part of your district? 3. Have any of these conditions appeared to you to exercise an influence on the prevalence of either form of disease? 4. At what seasons of the year does either form chiefly prevail? Do they prevail simultaneously, either sporadically or epidemically; or may epidemics of the one be distinguished from epidemics of the other? 5. In connection with what other diseases do they prevail; either with influenza and bronch-

itis, on the one hand; or with angina tonsillaris, or other forms of sore throat, measles and scarlatina, or other specific disease, on the other hand? 6. Have you observed cases of croup setting in with catarrhal symptoms, unattended by difficulty of deglutition, or by deposit of false membrane on the fauces, to be associated with albumen in the urine or followed by paralysis? 7. Have you seen in the same family at the same time, cases of croup in one member and diphtheria in another; and have you any evidence to show that membranous croup is contagious, and capable by its contagion of producing diphtheria? 8. Taking the pathological fact of false membrane limited, or chiefly limited, to the larynx and trachea, what evidence can you adduce as to its origin, on the one hand, in the specific poison of diphtheria, and, on the other, in a definite exposure to cold, or any other cause of ordinary inflammation? 9. If you believe the two diseases to be identical in nature, on what reasons do you chiefly rely in forming your opinion? 10. If you have any hospital experience, or experience derived from a large school, will you be pleased to give the Society the benefit of it? Replies are to be sent to Dr. Greenfield, the secretary of the Committee, at the Society's house, 53, Berners Street, Oxford Street.

ACCIDENT ON THE METROPOLITAN RAILWAY.

It is difficult to ascertain precisely the amount of personal injury sustained by the sufferers from this accident. Most of them are being treated at their own homes, only four having been removed to the Metropolitan Free, which is the nearest hospital. By the courtesy of Mr. Hamilton, the house-surgeon, we have been able to visit these patients, and find no serious casualty amongst them. Two men, who were in the second train, were rather badly bruised about the lumbar region and legs, and have symptoms of spinal concussion; one of these had a compound fracture of the nose. As the carriage in which they were seated reared up on end, they seem to have been thrown backwards and forwards and against each other. The two women, who were in the front train, are rather more hurt; one of them being much bruised about the body, and unable at present to walk; and the other having a rib broken on each side and evidence of cerebral concussion; both were nursing babies, one of which was bruised, the other quite uninjured. The husband of one patient was severely cut about the face by a lamp, and the broken carriage-seats have injured others. We have not heard of any casualties likely to be fatal; and, considering the circumstances, far less injury has been done than might have been expected. After the accident, most of the passengers had to walk to King's Cross, along the permanent way, with such light as lamps could lend, and with trains still running on one side of them. Many said, and thought at the time, that they were not injured, and did not feel their bruises, etc., until the following day. Captain Tyler will shortly hold an official inquiry into all the circumstances attending what might have been a most frightful accident.

THE VIVISECTION BILL.

AT the meeting of the Southern Branch of the British Medical Association held at Weymouth on June 28th, Surgeon-General Professor Maclean, C.B., resigned the chair to his successor, Dr. Aldridge of Dorchester, the President of the Branch for this year. Before retiring, Dr. Maclean briefly addressed the meeting, and, in the course of his speech, took occasion to make a few remarks on the Vivisection Bill, which, in its conception, wording, and penal clauses, he thought worthy of a less enlightened age. "Why, gentlemen," said the Professor, "one would think, from the clamour raised against us, that every spare moment of our lives was given up to torturing animals in the name of science; the truth being, that not one in a hundred of us ever even saw a physiological experiment performed on a living creature. I am not surprised that ignorant fanatics of both sexes should hound on our unscientific legislators to persecute that small body of scientific men among us who devote their lives to the advancement of physiology, which is the foundation on which scientific medicine must be built, and who, in the true interest of humanity, seek to extort secrets from

Nature in the only method by which she will reveal them." I am astonished, I say, at this; but I am surprised when I read in the public journals that a peer of the realm, a man of culture, a great lawyer, one of Her Majesty's judges, rises in his place in Parliament, and, on the authority of an anonymous slanderer who writes to his lordship from a London club-house, accuses our profession, or certain members of it, of being capable not only of torturing animals in the name of science, but of using the bodies of living men and women for the same purpose. If such a charge as this had been brought against us by some tear-mouth agitator, we could afford to treat it with the contempt due to such an utterance; but, when the Chief Justice of the Common Pleas so accuses us, we repel it with indignation as a calumny on a body of men whose lives are devoted to the too often thankless duty of alleviating human suffering and sorrow."

WORKHOUSE INFIRMARY MANAGEMENT.

MR. J. H. HILL writes to state that the report, which was published in the daily papers, and was reproduced from them in the JOURNAL of last week, as to the management of the lying-in wards of the St. Pancras Workhouse, was entirely unfounded. He states that he visits those wards invariably every day, and frequently more than once, and only leaves the ordinary cases of labour to the midwives, as he is compelled and authorised to do by the great stress of his work. We are very glad that Mr. Hill is able to answer so satisfactorily the statements of the guardians. Publicly made in the newspapers, they should be as publicly refuted. But it is really intolerable that public authorities should put forward against their officers statements which appear to be wholly unfounded.

UNIVERSITY OF DURHAM.

AT a Convocation held on June 27th, 1876, a grace was submitted and approved, giving the Warden and Senate power to institute a special examination with the view of affording to medical practitioners of fifteen years' standing the opportunity of obtaining the degree of Doctor of Medicine without residence.

PROSECUTION UNDER THE MEDICAL ACT.

A MIDDLE-AGED man named Walton, of 189, High Street, Shadwell, was summoned at the instance of the East London Medical Protection Association, for having falsely pretended to be a doctor of medicine and surgeon. Mr. Pridman, solicitor, appeared for the prosecution. Donald McKay, a detective of the K division, said that on June 26th, in company with detective Pansey, he went to 189, High Street, Shadwell, and took a note of certain inscriptions on the doors and windows. On the front door and on a board inside the window was painted "Dr. Walton". The defendant was not mentioned in the *Medical Register* for the present year. The defendant said his name was Thomas Spiller, but he represented a firm named "Dr. Walton". He contended there was no proof that he had called himself a qualified medical practitioner. The magistrate fined him £20, and £2 4s. 6d. costs.

THE CLAPTON AND DARENTH IMBECILE ASYLUM.

THIS asylum was opened rather more than twelve months ago by the Managers of the Metropolitan Asylums Board, for the education and training, under medical supervision, of the pauper imbecile children of London. It is the only public one in Great Britain supported by the rates, all others of the kind being chiefly supported by voluntary contributions. The first Annual Report, lately issued, gives an account of the steps which led to the formation of the asylum, and also an account of its working up to the end of December last. A large number of the children who are now under training in the asylum had formerly been under treatment in Leavesden and Caterham Imbecile Asylums, where, however, they laboured under the disadvantage of being brought into contact with adult imbeciles and harmless lunatics, for whose treatment these asylums had been opened. In addition, from the nature of these asylums, it was almost impossible to properly educate and train

the children. In order to remedy these defects, they were transferred from the Leavesden and Caterham Asylums to the Hampstead Asylum; but, this asylum also being found inefficient for the purpose which the managers had in view, the latter decided to erect a school-building capable of accommodating at least four hundred children; and, pending its erection, to hire a building temporarily in which to educate and train the two hundred and fifty children who were under their care. The building at Clapton, formerly known as the London Orphan Asylum, has been hired for three years; and a building has been designed by Messrs. Harston, to be erected at Darenth, near Dartford, Kent, capable of accommodating five hundred children, and provided with all the latest appliances for their efficient training and treatment. During the time that the asylum has been opened, three hundred and sixty children have been admitted; and on the 31st of December, 1875, three hundred children were resident in the asylum. Great improvement has already taken place in their mental and physical condition; those who are capable of it being employed in the schools, dormitories, and workshops, amusing themselves in play-hours in the different play-grounds. The development of the faculties of the weaker and more backward children is also attended to, and pleasing improvement has also taken place in this class. Two children have been discharged "recovered", and able to earn their own living. The structural nature of the building at present occupied is a great drawback to the full carrying out of the work; but this will be remedied in the new building at Darenth. Sir Edmund Currie is the Chairman of the Asylum; and the children are under the care of Dr. Fletcher Beach, the Medical Superintendent, who has been prepared for his work by experience gained at Bethlehem Hospital, and at the Children's Hospital, Great Ormond Street. His report contains an account of the working of the asylum from its opening. There is also a report of the schoolmistress; and appended are a report by the Commissioners in Lunacy of their inspection of Clapton Asylum, and a block-plan of the new asylum.

FREE MEDICAL SCHOLARSHIPS AT EPSOM COLLEGE.

AT the recent meeting of the South-Eastern Branch, the President, Dr. Monckton, made through Dr. Carr, the acting Treasurer of the Fund, a special appeal to the Branch on behalf of the free medical scholars of the Royal Medical Benevolent College at Epsom; Dr. Monckton heading the subscription-list by a donation of £10 10s. The amount contributed at the meeting was more than £100. Further contributions are needed to complete the Fund. They should be sent to Dr. William Carr, Lee Grove, Blackheath.

THE KEIGHLEY GUARDIANS AND VACCINATION.

THE guardians of the Keighley Union, who some time ago gained notoriety by refusing to carry into effect the law relating to vaccination, have fallen into trouble. On Monday last, in the Queen's Bench Division of the High Court of Justice, the Solicitor-General moved for a rule to be made absolute against eight of the members of the board for contempt of court, in consequence of their having rescinded the vaccination order which they had made in obedience to a *mandamus* issued on a former occasion. One of the defendants satisfied the court that he was not a guardian when the *mandamus* was issued, and that he had not been guilty of any intentional offence. The case on behalf of the others having been argued by their counsel, and the defendants having been heard, the Lord Chief Justice said that there seemed to be a mistaken notion that, when the legislature had enacted a law, that it was still competent to persons who disputed the policy of that law to discuss whether it should be put into execution or not. That was a state of things incompatible with the constitution and law of this country. Persons who disputed the policy of such legislation did their best, and were justified in doing so, to obtain the repeal or alteration of such law, but so long as it remained the law it must be obeyed by every one indiscriminately, and if not it was the business of the court of justice to enforce it by punishing those who broke it. The defendants had an opportunity of showing cause against the issue of the

mandamus, and now nothing remained but to see that it was obeyed. The defendants, from mistaken zeal, were induced to rescind the order and set the *mandamus* at defiance. They could not submit to have the jurisdiction and authority of their courts to be treated in that way, or they would never be able to enforce the law by *mandamus*. These persons, being in contempt, must be committed to prison.

DISTRIBUTION OF PRIZES AT ST. THOMAS'S HOSPITAL.

ON Wednesday afternoon last, Dr. J. Risdon Bennett, F.R.S. (President of the Royal College of Physicians), distributed the prizes to the successful students of the Medical and Surgical College, St. Thomas's Hospital. Dr. Bennett was supported by Sir Francis Hicks (Treasurer), Sir Thomas Dakin, Mr. Le Gros Clark, and a number of the professors of the hospital. Sir Francis Hicks said that one feature of the distribution to-day was the fact that, of the successful competitors, one came from Japan and another from China. He also remarked that, whereas last year the consulting surgeon of the hospital—Mr. Le Gros Clark—was elected President of the College of Surgeons, this year the College of Physicians had elected as their President Dr. J. R. Bennett, who was formerly physician to St. Thomas's Hospital.

DEATH OF EHRENBURG.

THE celebrated naturalist Christian Gottfried Ehrenberg, senior professor in the University of Berlin, died in that city on June 27th, at the age of 81. Ehrenberg was born at Delitsch in 1795; and in March 1827, having already made for himself a scientific reputation, he was appointed an extraordinary professor in the Berlin University. In 1829, he was selected by Alexander von Humboldt to accompany him and Gustav Rose in their expedition to Siberia. In 1839, he was appointed ordinary professor in the University of Berlin. Ehrenberg did much to bring the microscope into use as an instrument in scientific investigation. His great work on the *Infusoria*, the materials of which were collected during his travels with von Humboldt and Rose, is well known in the scientific world. Ehrenberg had for several years been disabled by illness and old age from performing his professional duties.

MEDICAL WOMEN.

It will be seen that Mr. Cowper-Temple's Bill has been wisely withdrawn. Lord Sandon, on behalf of the Government, expressed his assent to Mr. Russell Gurney's Bill, with the modifications suggested by the Medical Council; and Mr. Stansfeld, Mr. Bright, Lord Eslington, and Sir Henry Jackson, urged that it should be made a Government measure, and passed this session. The principle of admission of women to medical diplomas was opposed by Mr. Wheelhouse, Dr. Ward, and Dr. O'Leary, and supported by Mr. Playfair, Mr. Henley, Dr. Cameron, and Dr. Lush, in addition to the members before mentioned.

ALLEGED PERSONATION AT EXAMINATIONS.

JOHN SOUTHAN *alias* Southern, belonging to Wolverhampton, and Verdon G. S. Dearden of Sheffield, obtained the usual certificates of having passed the preliminary examination of the Faculty of Physicians and Surgeons of Glasgow, the first named in 1870, and the latter in the end of 1872. Both were registered as medical students, and have since been prosecuting their studies, Southan at Charing Cross Hospital and afterwards at Glasgow, and Dearden at the Sheffield School. Some time ago, circumstances occurred which gave rise to a suspicion that neither of these persons had appeared personally at the examinations of the Faculty, but that they were represented by a deputy. The Council of the faculty, thereupon, ordered a searching investigation to be made into the facts, and though placed somewhat at a disadvantage by the length of time which had passed since the cases occurred, they latterly obtained sufficient evidence to warrant them in placing the cases in the hands of the Procurator-Fiscal. A warrant was issued for the apprehension of the two students, and also of Nathaniel Hope Hay Arthy, a teacher in Sheffield, who is charged with fraudulently personating both the students at the examinations of the Faculty. Arthy and Dearden

have been committed for trial at Glasgow. Southan, for whose apprehension a warrant has also been issued, has hitherto managed to elude the vigilance of the police.

FOREIGN VISITORS.

DR. MARION SIMS of New York spent last week in London, and, besides taking a prominent part in many of the public and private professional entertainments, which were unusually numerous during the week, and where he was most warmly greeted, he assisted Mr. Spencer Wells at two ovariectomy cases. He also assisted at a case of excision of an hypertrophied spleen, which weighed between eleven and twelve pounds; and at the removal of an intrauterine fibroid tumour from a retroverted uterus. His help in diagnosis we have heard warmly acknowledged by Sir William Gull; and Mr. Wells has especially repeated his acknowledgments of the great value of the mode of plugging the uterine cavity with iron cotton, which Dr. Sims has recently introduced. This is undoubtedly a real advance in uterine therapeutics, which we hope to bring before our readers in detail in the words of the author. Dr. Sims will be present at the Sheffield meeting, when he has promised an important communication on the removal of portions of the uterus affected by epithelioma.

DISEASES OF TRADES.

At the suggestion of Dr. Chadwick, special prominence will be given in the Section of Medicine, at the Annual meeting this year, to the diseases of trades. A series of papers will be communicated, illustrating the effects of injurious inhalation, and the effects of the trades of Sheffield on the workmen employed in them. The first of these will be read by Dr. John Charles Hall, senior physician to the Sheffield Public Hospital. Dr. Peacock will read a paper on French millstone makers' phthisis, with illustrative specimens and cases, and a notice of a recent case with a portion of the lung; he will also exhibit a specimen of Cornish miner's lung, and a drawing of coal-miner's lung. Dr. Farquharson will present a communication, founded on materials kindly furnished by Dr. Richardson, on the measures introduced by him for the prevention of these industrial diseases, with a demonstration of his new fan-respirator. Dr. Elam will furnish a paper on the remarkable toleration by the lungs of inhaled irritations. The officers of the section hope to secure some communications from Scotch members of the profession on any recent case of colliers' black spit, or any reliable evidence that this disease is either entirely, or partially extinct, and would thankfully receive any evidence bearing on this interesting point. They are further exerting themselves to make the discussion complete; and we trust that their exertions will be successful.

METEOROLOGY IN INDIA IN RELATION TO CHOLERA.

AN interesting communication to the Meteorological Society by Colonel James Puckle, published in the Society's *Journal* for April, affords strong confirmation of the view that contamination of the water-supply is the most common cause of cholera-outbreaks. From Colonel Puckle's paper, we learn that several outbreaks of this disease occurred at Bangalore, which enjoys, for India, a temperate climate, and is situated 3,000 feet above sea-level, Toomkoor and Mysore. In all these instances, the rainfall had been unusually small previously, so that the mean humidity of the air of Bangalore for March, which is ordinarily 69 (saturation being 100), was only 43. In June and July 1874, there was but little rain, so that the wells and tanks were very low. The outburst occurred on July 10th; and the deaths increased up to August 3rd, then began to subside, and ceased early in September, after having caused 1,392 deaths. Rain fell plentifully in the middle of August, when the disease rapidly declined. The attacks in other years in Toomkoor and Mysore were attended with similar meteorological conditions. The peculiar habits of the people as regards the disposal of excrementitious matters are highly favourable to the spread of cholera or other similar disease, as it is an usual custom for the villagers to go into the adjacent fields, and to leave the

excrement uncovered, so that it is exposed to the wind and sun. As soon as it becomes dry, it is liable to be blown about as dust, and thus finds its way into the uncovered wells and tanks. In large towns, the inhabitants use waste sites and ruined enclosures for a similar purpose, so that it is not to be wondered at that, when the disease once occurs in a place, it speedily spreads. Colonel Puckle also mentions that, whilst whole villages remote from a town have been in some instances almost depopulated, adjoining villages have not suffered when all communication was cut off from the infected localities. Another attack at Bangalore was supposed to have originated from the effluvia given off by a most offensive ditch which ran through the centre of the town. A large number of labourers were, therefore, set to work to cover over the surface of the ditch, which varied from thirty to sixty feet in width; and not one of those so employed was attacked—perhaps because they obtained a greater quantity of and better food than usual. Colonel Puckle concludes by observing that the same progress, combination, decline, and attendant circumstances, occurred in all cases, with prolonged absence of rain and an abnormally high temperature; that it seemed most desirable that careful meteorological observations on an uniform plan should be taken in future with instruments which have been properly tested and compared with known standards.

SCOTLAND.

THE Committee appointed to make arrangements for the forthcoming dinner to the scientific staff of the *Challenger* is a highly influential one, including the names of the Lord Justice-General, the Principal of the University, Sir Robert Christison, the Presidents of the Royal Colleges of Physicians and Surgeons, Professor Huxley, and others.

MR. MCKINLAY of Lewis has instituted three scholarships, one of the value of £20, and two of the value of £15 each, tenable for three years, for young men natives of the Isle of Lewis intending to become schoolmasters, doctors of medicine, or ministers of the church of Scotland, for the purpose of assisting them to prosecute their studies at a training college or university. Candidates must have a competent knowledge of Gaelic.

ADULTERATION OF WHISKEY WITH SULPHURIC ACID.

A GREENOCK publican was recently fined £10 for selling whiskey adulterated with sulphuric acid to such an extent as to be, in the opinion of the local analyst, injurious to health; the report was confirmed by an analysis made at Somerset House. It was stated by the Procurator Fiscal that many complaints had recently been made regarding the quality of the whiskey supplied to sailors and marines at the shops in Greenock, and that lately several of the crew of H.M.S. *Aurora* had been taken seriously ill from the effects of drinking the adulterated liquor.

THE MORISONIAN LECTURES ON INSANITY.

THE Morisonian lectures on insanity at the Royal College of Physicians of Edinburgh are being delivered this year for the third time by Dr. Batty Tuke. The course consists of six lectures. In the outset, Dr. Tuke explained that he proposed to apply the subject matter of the two former series to the study of the medico-legal aspects of insanity, a subject to which he had of late been specially devoting attention, and on which he was preparing a work in conjunction with Mr. A. Gibson, advocate. He purposed to set forth, in as systematic a manner as possible, the reasons for believing insanity to be not a disease of the brain, but a generic term comprehending many diseases of the brain, severally distinguishable by their etiology, pathology, clinical history, and, in some instances, by their morbid anatomy. In any given case, if we limit for a moment the question to the clinical department, the question put before the expert was this. The subject of investigation has committed a crime; was he sane or insane at the

time? The moment the diagnosis was carried far enough to warrant the answer, yes or no, all legal interest in the inquiry ended; and, to the lawyer, the process by which the answer had been arrived at was of no greater importance than the "from information received" of the police officer. It was evident that, in order to make medical evidence of real value, it must be based not on abstract psychological conditions, but on concrete pathological conditions; the physician should be able to say, not that he believed the case to be one of insanity, but that he knew it to be such. Dr. Tuke then proceeded to criticise in an unfavourable sense the doctrine of the knowledge of right and wrong; and pointed out that, the application of this test had, in many cases, led to a miscarriage of justice, and that the influence of the medical profession had not been able to obtain its withdrawal. This was followed by a review of the progress of psychiatry in the successive epochs which might be designated the barbaric, the humane, the remedial, and the scientific; and, in conclusion, it was pointed out how little attention was paid by the teaching bodies to instruction in mental diseases, although the young graduate was armed with great legal powers over the liberty of the subject. In the second lecture, after repeating his definition of insanity as a morbid condition of the brain resulting from defective formation or altered nutrition of its substance induced by local or general morbid processes, Dr. Tuke went on to speak of idiocy, which he said was the insanity of non-development. The cases where medico-legal difficulties arose were those in which there was non-development of the moral faculties; where the intellect appeared to be in some respects not much below the average; and where the person was able to fulfil many, if not all, of his civil duties, but was prone to acts incompatible with the recognised laws of society. There were many forms and degrees of this condition. Given a child born under conditions adverse to the development of his brain, and who as he grew up evinced symptoms of not being as his fellows were in regard to his moral nature, although his intellectual faculties might be but slightly imperfect, was not the pathologist bound to connect such a peculiarity with the physical condition? The latter part of the lecture was devoted to the consideration of the causes and phenomena of idiopathic mania and melancholia.

IRELAND.

WE hear with pleasure that the scheme for a Conjoint Examining Board in Ireland is being revived in Dublin, with a good chance of success. It is not proposed to include the Apothecaries' Hall.

ATTEMPTED SUICIDE BY CHLORAL.

A GENTLEMAN named McMurray recently attempted to commit suicide whilst in a state of intoxication, by swallowing, it is said, two drachms of the hydrate of chloral, and was removed in an unconscious state to one of the Dublin hospitals, and will shortly be tried for the attempt on his life. The facilities for the public obtaining poisonous medicines, of which so many instances have lately occurred, ought to be curtailed; and the restrictions against the sale of poisons by druggists and chemists, save to responsible parties, require to be acted upon more stringently.

DRAINAGE OF PEMBROKE TOWNSHIP.

A PRIVATE meeting was held this week of the Pembroke Commissioners, who are the urban authorities of the township, for the purpose of considering a scheme for the main drainage of the district, which is considered necessary for the health of the residents in that locality. It is proposed, if the plan be approved of, to apply to Parliament for an Act enabling them to carry out the necessary works and to give them authority for defraying the expenses out of the rates authorised by the Special Act or by the Towns' Improvement Act, 1847; the scheme to be carried out either independently, or in conjunction with the Rathmines Commissioners. A public meeting will be held shortly to confirm the resolution adopted.

THE ANNUAL MEETING AT SHEFFIELD, AUGUST 1876.

THE profession in Sheffield are showing great activity and liberality in making the preparatory arrangements for the meeting in August next. A fund of £800 was within little more than a week subscribed to meet the expenses of the reception. A large number of members of the profession in the two Ridings, not previously members of the Association, have joined in the subscription, and expressed their desire to become members of the Association, in order to take part in the proceedings.

The list of papers is only just now commenced. We trust that, when completed, it will be found that the scientific character of the meeting will not be in any way inferior to that of recent meetings. The proceedings of the Medical Section promise, indeed, to be of unusual interest, as they will include a valuable series of papers specially illustrative of industrial diseases.

Placed in the vicinity of scenery of rare beauty, and contiguous to the famous "Dukeries", and itself the seat of marvellous industries, Sheffield can offer no small inducements to visitors during the hours and on the days devoted to relaxation. In its holiday aspect, the meeting is, therefore, likely to be as highly attractive as in its more serious respects. The following is the programme of excursions.

Wednesday, August 2nd.

3 P.M. Messrs. Cammell and Co. will roll a large Armour-Plate, and invite the Association to witness it, and afterwards inspect their famous works.

Thursday, August 3rd.

11 A.M. Thomas Firth and Sons will forge a large Gun, and afterwards show other objects of interest.

Friday, August 4th.

I. Excursion to Wortley by road. Lord Wharnccliffe invites one hundred members of the British Medical Association to lunch, and to inspect the Collieries, etc. (Under control of Dr. Watson, Wierfield House, Pennistone.)

II. Excursion to Wentworth House; by invitation from Earl Fitzwilliam. Wentworth is famous for its Pictures and Sculpture, Stud, etc. (Under control of J. Benson, Esq., Sheffield.)

Saturday, August 5th.

I. Excursion to Chatsworth and Haddon Hall, Derbyshire; by rail over the moors, sixteen miles. Invitation from the Duke of Devonshire for one hundred to lunch at Chatsworth at 1 P.M. Mrs. Wrench's Garden Party at Haddon Hall (by kind permission of the Duke of Rutland), from 4 to 6. N.B.—A train leaves Rowsley Station, two miles from Haddon Hall, at about 6 P.M., and reaches London at ten P.M. (Under control of Mr. Wrench of Chatsworth.)

II. Excursion by rail to Matlock and its neighbourhood. Invitation for limited number to lunch with Dr. Webb of Wirksworth. Dinner at New Bath Hotel. (Under control of Dr. Webb.)

III. Excursion by rail to Buxton, through some of the finest scenery in Derbyshire. Invitation for limited number to lunch from Medical Men of Buxton. Inspection of the Mineral Baths, Bath Charity Hospital, etc. (Under control of Dr. Robertson.)

Daily, in Sheffield.

From 2 to 5 P.M. Joseph Rogers and Sons invite inspection of their famous Cutlery works.

James Dixon and Sons invite inspection of their Electro-Plate works.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are ready to receive applications for grants in aid of such research, towards which an annual sum is voted by the Association. During the present year, three hundred pounds have been granted; and further applications for the sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the Office of the Association, 36, Great Queen Street, W.C. Applications should include details of the precise character and objects of the research which is proposed.

THE VIVISECTION BILL.

At a meeting of the Parliamentary Bills Committee, held on Monday, July 3rd, at 36, Great Queen Street, there were present; Mr. Ernest Hart in the Chair: Dr. Lauder Brunton, F.R.S.; Dr. Cobbold, F.R.S.; Dr. Duplex; Dr. Ferrier, F.R.S.; Dr. Henry; Mr. Holder (Hull); Dr. Pavy, F.R.S.; Dr. Pye-Smith; Mr. Rivington; Dr. Schäfer; Dr. Seaton (Sunbury); Dr. Sibson, F.R.S.; Sir Henry Thompson; Dr. Ward, M.P.; Dr. Wilks, F.R.S.

Letters urging further action were read from Professors Turner (Edinburgh), Sharpey, Cleland (Galway), and Burdon Sanderson, and Dr. Quain; and others from Dr. O'Leary, M.P., and Dr. Michael Foster, regretting their inability to attend.

The CHAIRMAN reported the proceedings at the recent deputation to Lord Carnarvon; and presented a copy of the Bill to amend the Law relating to Cruelty to Animals as passed through the Lords in an amended form. Lord Carnarvon had accepted the principle of the amendment, widening the sphere of research to all "physiological knowledge"; and similarly extending the range of experimental lecture demonstration; he had introduced a proviso authorising the use of cats and dogs under a certificate stating that they were needful for the purpose of the experiment; and had at the same time applied a similar provision to horses, asses, and mules: he had also inserted the proviso recommended which excluded the informer or the policeman from registered places of experiment.

The CHAIRMAN then read a draft Memorial, setting forth grounds for further considerable amendments if any legislation be persisted in.

The memorial was discussed in paragraphs, and unanimously adopted in virtue of resolutions moved by Sir Henry Thompson, Dr. Wilks, Dr. Ward, M.P., Mr. Holder, Dr. Pavy, and Dr. Duplex, in the form in which it appears in the Supplement of the JOURNAL.

It was further resolved to ask the Home Secretary to receive a deputation for the purpose of presenting the memorial and supporting its prayer; and also to circulate it as a petition for presentation to the House of Commons.

Mr. Cross has appointed to receive the deputation on Monday next, at 2.30 P.M. at the Home Office.

Our readers are earnestly requested to sign, post, and return the authorisation to append their names to the petition to the House of Commons, of which a copy is printed in the Supplement; and to write at once, enclosing the copy of the petition itself, to any member of the House of Commons whom they may be able to influence (or to their local member), asking his attention to the statements of the petition, and expressing the hope that he will in the House of Commons support the prayer of the petition on the second reading of the Bill; and, if it pass the second reading, subsequently during its passage through Committee.

HARVEY TERCENTENARY MEMORIAL.

A VERY earnest appeal is being addressed to the members of the profession and the public to raise funds for a tercentenary memorial to the illustrious Harvey. Strange to say, this country holds no public memorial of that great benefactor of mankind. It would be, perhaps, still more strange were it not that his labours were scientific, his profession that of medicine, and his services purely devoted to the saving and not to the destruction of life. But, even under these disadvantages and with these drawbacks, it may be felt something of a reproach that Harvey has no honoured place among those whom his country delights to remember with praise; and we, at least, of his profession may do our best by precept, influence, and example to assist the erection of a suitable memorial. Sir G. Burrows and Mr. Prescott Hewett are Honorary Treasurers; and Mr. G. Eastes, M.B., 5, Albion Place, London, W., is Honorary Secretary.

THE GENERAL MEDICAL COUNCIL.

THE Executive Committee of the General Medical Council met on Thursday, and are also in session to-day (Friday) to consider various subjects referred to them by the Council, the chief of these being the arrangements for the appointment of a Registrar in succession to Dr. Francis Hawkins, whose resignation will take effect from the end of November next. The office is a very important one; and no doubt every effort will be made to secure the best possible man for the post.

THE HUNTERIAN MUSEUM.

PROFESSOR FLOWER, the indefatigable conservator of this fine collection, has just made his annual report on the state of it, and of the many additions about to be made to it, and which have been on view during the past week in the theatre of the College.

Among the noticeable additions in the Pathological department is a remarkable example of a peculiar form of hypertrophy of several of the bones of the same subject, presented by Sir James Paget. A valuable specimen of recovery from a fracture of the upper lumbar region of the spine, which occurred twenty-seven years before death, lately presented by Mr. T. Carr Jackson, was not yet sufficiently macerated to be included in the list of finished preparations. Mr. Spencer Wells has also recently presented a considerable collection of pathological specimens.

In the Osteological collection, some important skeletons of animals have been presented, including a set of bones of the "solitaire" of the Island of Rodriguez, presented by the Royal Society. The visit of the Prince of Wales to India has also been the means of enriching the collection; specimens of skeletons of tigers and bears which His Royal Highness has presented will be found particularly acceptable, as the skeletons of these animals in the museum are individuals which died in captivity in this country, and, therefore, not very favourable examples for osteological comparison.

The collection of human crania has received many valuable accessions during the year, particularly in a series of ten skulls of natives of the New Hebrides Islands, lately rendered notorious as the scene of the lamentable death of Commodore Goodenough, R.N. Three of these skulls were collected by Dr. Corrie, Surgeon to Her Majesty's ship *Pearl*. Their anatomical peculiarities, which are very marked, have formed the subject of a memoir lately read at the Anthropological Institute by Mr. Busk.

The body of an ancient Egyptian mummy, of the twenty-sixth dynasty, about 400 B.C., which was unrolled in July last at Stafford House, has been presented by the Duke of Sutherland, and articulated as a skeleton. An account of the inscription upon the case of the mummy has been published by Dr. Birch in the *Proceedings* of the Society of Biblical Archaeology, to which Mr. Flower has added some valuable notes upon the skeleton.

Mention was made in the last year's report of the formation of a collection of the auditory ossicles of various species of animals. The subject was found to offer such a wide and nearly new field of investigation that Mr. Doran, one of the museum assistants, has continued to make it a speciality, and the collection has now become by far the most perfect that has been brought together. Not only have all of these minute but highly characteristic bones which have hitherto been hidden in the recesses of the crania of the specimens in the museum been extracted and displayed in such a manner as clearly to show their distinctive peculiarities, but other contributions towards the completion of the series have been made from the private collections of Sir Victor Brooke, Professor Parker, and Professor Garrod. With the view of making the results of his examination of these specimens more generally known, Mr. Doran has lately communicated to the Royal Society a memoir describing the peculiarities of the auditory ossicles of the orders primates, carnivora, rodentia, and ungulata, and has a description of the remaining orders in progress.

The additions to the Physiology and Normal Anatomy collection are fully equal to the usual average in number and variety. Among them may be noticed, on account of its rarity in collections (arising from the difficulty of extracting and preserving it in a perfect state), the brain of an adult Indian elephant. This was obtained from the animal which died in the Zoological Society's Gardens last summer. The series of normal human anatomy has been continued this year by several elaborate preparations showing the distribution of the nerves. All the above are the work of Mr. William Pearson. Some beautiful injections of the placenta of several animals, illustrating the views of the donor, as expressed in his lectures at the College, have been presented by Professor Turner of Edinburgh.

In Surgical Instruments and Appliances, Sir William Fergusson has presented, among other instruments of interest, a series of early forms of lithotrites, including some designed and constructed by himself.

The list of Pathological Specimens added to the museum since the last annual report is very meagre; and we think it much to be regretted that the Fellows and members of the College do not take a more lively and liberal interest in this part of the collection. The pathological collection of the Royal College of Surgeons of England ought not to be inferior to any in the world.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION
FORTY-FOURTH ANNUAL MEETING.

THE Forty-fourth Annual Meeting of the British Medical Association will be held at Sheffield, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1876.

President.—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S. Edin.

President-elect.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

An Address in Medicine will be given by E. H. SIEVEKING, M.D., F.R.C.P., Physician-Extraordinary to the Queen.

An Address in Surgery will be given by W. F. FAVELL, Esq., Surgeon to the General Infirmary, Sheffield.

An Address in Public Medicine will be given by ALFRED CARPENTER, M.D., Croydon.

The business of the Association will be transacted in Four Sections, viz.:—

SECTION A. MEDICINE.—*President*: Dr. Chadwick, Tunbridge Wells. *Vice-Presidents*: Dr. J. C. Hall, Sheffield; Dr. Law, Sheffield. *Secretaries*: Dr. Robert Farquharson, 23, Brook Street, London; Dr. Banham, Glossop Road, Sheffield.

SECTION B. SURGERY.—*President*: Jonathan Hutchinson, Esq., London. *Vice-Presidents*: C. G. Wheelhouse, Esq., Leeds; J. Barber, Esq., Sheffield. *Secretaries*: Dr. J. Hardwicke, Mitton Lodge, Rotherham; John Chiene, Esq., 21, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President*: Dr. Lombe Atthill, Dublin. *Vice-Presidents*: Dr. E. Jackson, Sheffield; Dr. Thorburn, Manchester. *Secretaries*: Dr. Wiltshire, 57, Wimpole Street, London; F. Woolhouse, Esq., Chantry Road, Sheffield.

SECTION D. PUBLIC MEDICINE.—*President*: Dr. J. B. Russell, Glasgow. *Vice-Presidents*: Dr. Eastwood, Darlington; Dr. F. T. Griffiths, Sheffield. *Secretaries*: Dr. H. F. Parsons, Goole; Dr. S. Drew, Chapeltown, Sheffield.

Local Secretaries.

Arthur Jackson, Esq., St. James's Row, Sheffield.

J. H. Keeling, M.D., 267, Glossop Road, Sheffield.

Tuesday, August 1st.

1 P.M.—Meeting of Committee of Council.

3 P.M.—Meeting of Council, 1875-76.

8 P.M.—General Meeting.—*President's Address*; Annual Report of Council; and other business.

Wednesday, August 2nd.

9.30 A.M.—Meeting of Council, 1876-77.

11.30 A.M.—Second General Meeting.

11.30 A.M.—Address in Medicine.

2 to 5 P.M.—Sectional Meetings.

9 P.M.—Soirée.—Weston Park Museum.

Thursday, August 3rd.

9 A.M.—Meeting of Committee of Council.

10 A.M.—Third General Meeting.—Reports of Committees.

11 A.M.—Address in Surgery.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner.

Friday, August 4th.

10 A.M.—Address in Public Medicine.

11 A.M.—Sectional Meetings.

1.30 P.M.—Concluding General Meeting.—Reports of Committees, etc.

Promenade Concert at the Albert Hall.—Visits to the Works.

Saturday, August 5th.

EXCURSIONS.—Chatsworth, Wentworth, Wharnccliffe, and other places.

PAPERS.—The following papers have been promised.

Allbutt, T. Clifford, M.D. On some of the Causes of Granulating Kidney.

Bantock, G. G., M.D. On the Treatment of Ruptured Perinæum.

Bradbury, J. B., M.D. A Case of Idiopathic Anæmia treated unsuccessfully by Phosphorus: Death: Necropsy.

Britton, Thomas, M.D. The Origin of Scarlatina.

Browne, Lennox, F.R.C.S. Ed. 1. Cases illustrating the successful Treatment of Suffocative Goitre without Excision of the Gland.—2. Observations on the Treatment of Postnasal Catarrh.

Bucknill, J. C., M.D. The Credibility of Medico-Legal Evidence.

Carter, C. H., B.A., M.D. On the Treatment of Ovarian Cysts by Drainage.

Chiene, John, F.R.C.S. Ed. Cases of Irreducible Femoral Hernia.

Collie, A., M.D. Remarks on Contagion and Contagious Hospitals.

Drysdale, C. R., M.D. 1. On Syphilitic Epilepsy.—2. On the Duality of the Chance.—3. Alcohol and Public Health.—4. Animal Vaccination.

Eassie, W., C.E. Mechanical Disinfection.

Eastwood, J. W., M.D.

Edis, Arthur, W., M.D. On the Influence of Posture in the Treatment of Uterine Displacements.

Foss, R. W., M.D. The Mortality of Ironworkers.

Foster, Balthazar, M.D. Note on Epidemic Cerebro-Spinal Fever.

Fothergill, J. Milner, M.D. The successful Treatment of Dilated Heart.

Fox, C. B., M.D. Dissemination of Zymotic Disease among the Public by Tradespeople.

Fox, J. M., Esq. Sewer-Ventilation.

Galabin, A. L., M.A., M.D. On the Mechanism of Extraction by the Long Curved Forceps.

Gowers, W. R., M.D. 1. The State of the Arteries in Bright's Disease.—2. The Diagnosis of Labyrinthine Vertigo.

Hall, John Charles, M.D. The Effects of Trades of Sheffield on the Workmen employed in them.

Hime, Thomas W., B.A., M.B. Hemiatrophia facialis progressiva.

Holthouse, Carsten, F.R.C.S. On Twelve Months' Experience of the Treatment of Inebriates at Balham.

Johnson, George, M.D., F.R.S. On Cases of Latent Peritonitis, with Copious Effusion into the Peritoneum.

Kerr, Norman S., M.D. The Medical Administration of Alcohol.

Lownds, F. W., Esq. Ought the Contagious Diseases Acts to be extended?

Monks, E. H., L.R.C.P. Ed. Jaundice occurring during Pregnancy, and its effects upon Mother and Child.

Rogers, Joseph, M.D. Chaos, as exemplified in Central and Local Sanitary Administration.

Routh, C. H. F., M.D. On Fibrous Tumours of the Uterus.

Sadler, Michael T., M.D. Obstruction of the Bowels from Enteritis: with Cases.

Sims, J. Marion, M.D. Epithelioma of the Cervix Uteri.

Squire, William, M.D. The Registration of Disease, and the Part to be taken therein by the Medical Profession.

Stainthorpe, Thomas, M.D. A Case of Puerperal Convulsions treated successfully with Hypodermic Injections of Ergotine.

Taylor, C. B., M.D. On the Principles that should guide us in selecting an Operation in Cases of Senile Cataract.

Thompson, J. Ashburton, L.R.C.P. A New Emetic Purge.

Vacher, F., Esq. Public Baths.

Yeo, I. Burney, M.D. The Results of Modern Research in the Treatment of Phthisis.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

THE ANNUAL MUSEUM.

The Ninth Annual Museum of the above Association will be held in the Church Institute, Sheffield, on August 1st, 2nd, 3rd, and 4th, 1876.

The Museum Committee will be glad to receive applications as early as possible from persons desirous of becoming exhibitors, and with such applications a statement of the amount of space required.

The fittings necessary for exhibiting the objects sent will be provided; but all expenses connected with packing and carriage, and all risk from injury or loss, must be borne by the exhibitors.

A printed or written description of all articles intended for exhibition must be forwarded for insertion in the Catalogue. All such descriptions must be sent to either of the Secretaries, on or before July 15th; and all articles intended for exhibition must be delivered (addressed "Museum Committee", Church Institute) on or before July 24th, 1876.

The name of the exhibitor should be written on the outside of each parcel; and, to facilitate the return of the articles, a card bearing his name and address should be enclosed.

All communications should be addressed to the Secretaries, from whom any further information can be readily obtained.

W. R. THOMAS, Norfolk Street, } *Honorary Secretaries,*
SIMEON SNELL, 17, Eyre Street, } *Museum Committee.*

The articles to be exhibited must be included in one of the following classes.

1. New Instruments and Appliances in Medicine, Surgery, and Obstetrics.

2. New Drugs, new Preparations, and new Articles of Diet for Invalids.

3. Pathological Specimens, with Photographs, Models, Casts, etc., illustrating Disease.

4. New Physiological Apparatus; Microscopes and Microscopic Specimens, Pathological and General. New Chemicals and other Appliances used in Histological Research.

5. New Inventions relating to Public Health.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, June 8th, 1876.

METROPOLITAN COUNTIES BRANCH.

THE twenty-fourth annual meeting of this Branch will be held at St. James's Hall, Piccadilly, on Friday, July 14th, at 4 P.M. precisely: President, ROBERT BARNES, M.D.; President-elect, JONATHAN HUTCHINSON, Esq.

Dinner at 6 o'clock precisely. Tickets, One Guinea each.

ALEXANDER HENRY, M.D.

ROBERT FARQUHARSON, M.D.

} *Honorary Secretaries.*

London, June 14th, 1876.

BATH AND BRISTOL AND GLOUCESTERSHIRE BRANCHES.

A JOINT meeting of the Bath and Bristol and the Gloucestershire Branches will be held at Berkeley, on July 18th.

Trains to Berkeley Road from Bath at 11.35; from Bristol, 12.35; and from Gloucester at 12.34. Leaving Berkeley Road for Bath and Bristol at 7.55; and for Gloucester at 7.41, or 9.14.

Special arrangements for seeing Berkeley Castle, and for dinner, will be announced hereafter. All members intending to join are requested to send their names to either of the Secretaries immediately.

DR. BATTEN, Gloucester.

E. C. BOARD, Clifton.

R. S. FOWLER, Bath.

} *Honorary Secretaries.*

Bath, July 3rd, 1876.

BORDER COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, July 21st, at One o'clock.

Gentlemen intending to read papers are requested to give early notice thereof to one or other of the Secretaries.

STEWART LOCKIE,

JOHN SMITH,

} *Honorary Secretaries.*

Carlisle, July 3rd, 1876.

WEST SOMERSET BRANCH.

THE annual meeting of this Branch will be held at the Clarence Hotel, Bridgwater, on Thursday, July 27th, at 2.30 P.M.

Dinner at 5 o'clock.

Members who may desire to bring any communications before the meeting are requested to give notice to the Secretary.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, June 19th, 1876.

SOUTH DEVON AND CORNWALL BRANCH: FIRST ANNUAL MEETING.

THE annual general meeting was held at the Athenæum, Plymouth, on June 27th, at 3.30 P.M.; P. W. SWAIN, Esq., in the chair.

Mr. W. J. SQUARE, the President-elect, gave a short address.

Mr. C. Bulteel was appointed President-elect for the ensuing year.

As the Branch was hardly in working order, it was determined to send no representative to Council until next year.

GLASGOW AND WEST OF SCOTLAND BRANCH: FIRST ANNUAL MEETING.

THE first annual general meeting of the Branch was held on June 23rd, at 2 P.M., in the Faculty Hall, Glasgow. Professor ALLEN THOMSON, the President, took the chair, and delivered an inaugural address. (See p. 35.)

On the motion of Dr. MORTON, a vote of thanks was given to Dr. Allen Thomson for his address.

Report of Council.—The SECRETARY read the report of the Council, which was as follows.

"In presenting their first report, the Council congratulate the Branch on the very favourable start which it has made, the numbers having already reached 130.

"It may be well here to say something as to the history of the Branch. It has been felt by many that advantages are likely to be gained by the association of members of the medical profession residing in the same district. There are matters occasionally coming up which interest the profession at large, and in which combined action is likely to afford good results. This has led in recent years to the formation of various associations in certain districts of Scotland. The usefulness of such associations will probably be more apparent to persons residing outside the large centres than to those within; but even the latter have, perhaps, few enough opportunities of meeting for the friendly exchange of ideas and for the discussion of matters of general professional interest. It is to the existence of some such feeling as this that the Branch owes its success. The Council is happy to say that this success seems to them secured by the large numbers who have already joined.

"The first step taken towards the formation of the Branch was the calling of a meeting of existing members of the British Medical Association to consider the propriety of moving in the matter. This meeting was held in the Faculty Hall, Glasgow, on November 30th, 1875, and it was there stated that at that date the Association numbered 86 members in Glasgow, and 75 in the counties of Ayr, Lanark, Renfrew, Dumbarton, and Argyle—in all, 161. The meeting unanimously adopted the following resolution: 'This meeting considers that, in view of the large number of members of the British Medical Association in the West of Scotland, it is advisable that they should be organised into a Branch. It is accordingly hereby resolved that such a Branch shall be formed, under the name of the Glasgow and West of Scotland Branch of the British Medical Association.'

"It will be in the remembrance of those who were present at that meeting that the question came up as to the kind of business which such a Branch should undertake. And it seemed agreed that, there being in Glasgow a sufficient number of purely medical societies, this Branch should endeavour to confine itself as much as possible to matters of general professional interest. At the same time, it seemed to be felt that circumstances might arise in which purely medical or scientific subjects could with propriety be introduced, and that there was, therefore, no need to lay down any absolute rule against them. It will be seen that in the laws ultimately adopted the general expression 'matters of professional interest' was used as indicating the business of the annual meeting.

"This meeting then appointed a provisional committee, with instructions to draw up a constitution and laws for the Branch, and to report at a future meeting. The Committee met on December 31st, and went carefully over a proposed set of laws and regulations. The members of the Association were again called to a general meeting on January 18th, 1876. This meeting completed the organisation of the Branch by adopting the laws and constitution as prepared by the provisional committee, and by electing the office-bearers for the year.

"These laws of the Branch were in due course approved by the Committee of Council of the Parent Association, and the Branch was thereby formally recognised.

"The Council would specially direct the attention of members of the Branch who reside outside Glasgow to No. XI of the By-Laws, by which it is enacted that members residing in any district may form themselves into a district society. Such local societies would probably meet occasionally to show interesting cases and discuss medical subjects. But they might also consider any professional matters specially concerning their district. By means of the Branch and the Parent Association, they would have an organisation to their hand for bringing before the profession and the proper authorities any matters which they might regard of sufficient importance.

"The Council would add that, in preparing the programme of this meeting, they have not thought it necessary to bring forward any special subject for discussion. They consider it more suitable that this first meeting should be rather of a preliminary and social nature, and pos-

sibly subjects may be suggested which will give material for action at future meetings."

The report was adopted on the motion of the PRESIDENT.

The Office-bearers for the ensuing year were then elected, with the following results:—*President-elect*: Dr. G. H. B. Macleod. *Vice-Presidents*: Dr. Grieve, Dr. Fraser. *Secretaries*: Dr. Joseph Coats, Dr. James G. Lyon. *Council*: Dr. W. T. Gairdner, Dr. McCall Anderson, Dr. Morton, Dr. Fergus, of Glasgow; Dr. Fairless of Bothwell; Dr. Macleod of Kilmarnock; Dr. Cuthill of Denny; Dr. Stewart of Greenock; Dr. Steven of Ardrossan.

Dinner.—At the conclusion of the business, a dinner was provided, to which about fifty sat down.

EDINBURGH BRANCH: FIRST ANNUAL MEETING.

THE first annual meeting of this Branch was held on Thursday, June 22nd; Sir R. CHRISTISON, Bart., President of the Branch, in the chair.

Officers and Council.—After the preliminary business had been transacted, Dr. Bishop was elected Treasurer, in the place of Dr. J. G. Sinclair Coghlin, resigned; and Mr. Annandale was elected a member of the Council, in the place of the late Dr. Warburton Begbie.

Admission of Women to the Association.—Mr. ANNANDALE, in the unavoidable absence of Mr. LISTER, moved the following resolutions, which were carried unanimously.

"That, in the opinion of this Branch, the introduction of women into the Association involves such a fundamental change in its constitution, that it was *ultra vires* of any Branch to admit women without the sanction of the general body."

"That a copy of the above resolution be transmitted to the Committee of Council, with the request that they will afford an opportunity of bringing it before the general meeting about to be held in Sheffield."

Legislation for Habitual Drunkards.—A petition in favour of legislation on the habitual drunkard question was allowed to lie on the table, as it was deemed an unfavourable time to petition, seeing that legislation on the subject could not take place this session.

SOUTH-WESTERN BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held on Wednesday, June 28th, at Exeter. Prior to the meeting, the President-elect, C. H. ROPER, Esq. (Senior Surgeon to the Devon and Exeter Hospital), most hospitably entertained the members at luncheon. The meeting was held in the Board Room of the Hospital. In the absence of the President, the chair was taken at 1 P.M. by Dr. BARHAM of Truro, who briefly introduced Mr. ROPER, who then took the chair, and delivered an able address.

Vote of Thanks.—On the motion of Dr. BARHAM, seconded by Dr. THOMPSON of Bideford, a cordial vote of thanks was passed to the President for his address.

Next Annual Meeting.—It was proposed by Dr. HARRIS (Redruth), seconded by Mr. ROLSTON (Devonport), and carried unanimously: "That the meeting in 1877 be held at Penzance; and that Dr. J. B. Montgomery be the President-elect."

Proposed Combined Meeting.—It was proposed by Dr. BARHAM (Truro), seconded by Dr. NANKIVELL (Torquay), and carried unanimously: "That the Council of the Branch be requested to communicate with the Council of the South Devon and Cornwall Branch, and ask if they can make arrangements for a combined meeting of the two Branches at Penzance next year."

A Vote of Thanks was passed to the retiring President, P. W. Swain, Esq.

Council of the Branch.—The following gentlemen were elected to fill vacancies on the Branch Council: C. Barham, M.D. (Truro), W. H. Dodge, Esq. (Penzance), H. Harris, M.D. (Redruth), R. S. Hudson, M.D. (Redruth), R. W. P. Kerswill, Esq. (St. Germans).

Representation in the General Council.—The following members were elected as representatives of the Branch in the General Council: C. Radclyffe Hall, M.D. (Torquay), H. Harris, M.D. (Redruth), R. W. P. Kerswill, Esq. (St. Germans), J. B. Montgomery, M.D. (Penzance), T. E. Owen, Esq. (Plymouth), C. H. Roper, Esq. (Exeter), Spencer Thomson, M.D. (Torquay).

The Secretary.—The Honorary Secretary, Mr. J. Woodman, having stated his intention to retire, a cordial vote of thanks was passed to him for his services during the past five years. Louis Tosswill, M.B., of Exeter was unanimously elected Honorary Secretary.

Parliamentary Bills Committee.—The Honorary Secretary (L. Toss-will, Esq.) was then elected to represent the Branch on the Parliamentary Bills Committee.

New Members.—The following gentlemen were elected members of the Branch and Association: L. R. Potter, M.B. (Collumpton), W. H. Heygate, Esq. (Crediton), F. P. Phelps, M.A. (Exeter), G. H. Whidborne, Esq. (Topsham).

The Branch Subscription was raised to half-a-crown.

Communications.—The PRESIDENT exhibited the following cases: Case of double amputation below the knee, able to walk well, fitted with artificial legs by Gillingham of Chard; three cases of excision of joints, hip, knee, and ankle.

Mr. CUMING, Mr. CAIRD, and Mr. BANKHART also showed cases; and Dr. HENDERSON one of successful ovariectomy.

A paper on Typhoid was to have been read by Dr. THOMPSON of Bideford, but time did not permit.

Mr. SOMER of Broadclyst exhibited an ingenious bed-lift for moving a paralytic patient in bed.

After the meeting, by kind permission of the Dean and Chapter, Mayor, etc., the Cathedral (just restored), the Guildhall, Albert Memorial Museum, and Gaol were visited.

Dinner.—The members then dined, fifty sitting down, the Mayor of Exeter being there as the guest of the President.

Conversation.—In the evening, a very successful *conversazione* was given by the Devon and Exeter Medico-Chirurgical Society, to which all the members were invited; thus ending one of the most successful meetings this Branch has ever held.

SOUTH MIDLAND, AND CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCHES: COMBINED ANNUAL MEETING.

A MEETING of the South Midland Branch, in conjunction with the Cambridgeshire and Huntingdonshire Branch, was held in the Board Room of the Harpur Charity Trustees, Bedford, on Tuesday, June 20th, at 3 P.M.; Present: H. W. SHARPIN, Esq., President, in the Chair, and forty members. About thirty gentlemen were previously entertained to luncheon at the President's house, at 1.30 P.M. The new President, Mr. Sharpin, was introduced to the Chair by H. Terry, Esq., ex-President.

Combined Meeting in 1878.—It was decided that a combined meeting of the above Branches with the East Anglian be held at Peterborough in 1878.

New Members.—The following gentlemen were elected: E. Hemsted, M.D., Wellingborough; Cottingham Johnson, Esq., Bedford; E. Hacon, Esq., Bedford.

President's Address.—The President read an address referring to the benefits of membership, also to the most important medical topics of the day, as Vivisection, Medical Education of Women, etc. A vote of thanks was proposed for the same by Professor HUMPHRY, and seconded by Dr. FRANCIS.

Papers and Cases.—1. Dr. PRIOR read a paper on the Bedford Experience of Puerperal Fever, with cases.

2. Dr. BRADBURY read a paper on Two Cases of Hydatid Tumour of the Liver, treated by operation successfully.

3. Mr. H. STEAR read a paper on Belladonna Poisoning (Liniment of Belladonna), treated successfully by evacuating the stomach—emetics, etc.—Dr. LATHAM related the case of a person who accidentally swallowed five or six drachms of solution of atropine. Immediately on discovering the mistake, warm water and salt were copiously administered, and copious vomiting quickly ensued. Morphia was then injected subcutaneously, and strong coffee administered internally. The patient made a good recovery.

4. Professor HUMPHRY made some remarks on the treatment of wounds, advocating stitching, and leaving without any dressing. He described and illustrated Lister's carbolic dressing; he also advocated a system of drainage, as the most efficacious known.—Dr. BUSZARD replied at some length, particularly as to the fault of wounds not healing by first intention.

Votes of Thanks were given to the readers of papers; to the President for his conduct in the chair; to the honorary secretaries; to the authorities for the use of the Board Room.

Dinner.—The members adjourned to an excellent dinner at the Swan Hotel, were twenty-four sat down. The Presidents of the Branches, Dr. Humphry and Mr. Sharpin, occupied the middle table, opposite to each other, with the Secretaries, Dr. Bryan and Dr. Brad-

bury, at the ends. The usual loyal and other toasts were drunk, followed by those for the continued prosperity of the British Medical Association, the Branches, the Presidents, the Secretaries, etc. The members departed about 9.30 after an agreeable and interesting meeting.

Officers and Council of the South Midland Branch.—The following have been elected. **President:** H. W. Sharpin, Esq., Bedford; **President-elect:** W. Moxon, Esq., Northampton; **Secretaries:** J. M. Bryan, M.D., and W. Moxon, Esq.; **Treasurer:** J. M. Bryan, M.D.; **Other Members of Committee:** F. Buszard, M.D.; C. J. Evans, Esq.; G. P. Goldsmith, Esq.; E. Lawford, M.D.; J. A. Macdonald, M.D.; C. E. Prior, M.D.; T. J. Walker, M.D.; R. W. Watkins, Esq. **Representatives in the General Council:** R. Ceely, Esq.; D. J. T. Francis, M.D.; J. A. Macdonald, M.D.; H. Terry, Esq.; J. M. Bryan, M.D., **Secretary.** **Representative in the Parliamentary Bills Committee:** J. M. Bryan, M.D.

REPORTS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, MAY 3RD, 1876.

J. D. GILLESPIE, M.D., President, in the Chair.

Tubercular Deposits in Spleen.—Dr. JAMES CARMICHAEL showed a spleen, in which were numerous milium tubercular deposits. It was taken from a boy, seven years of age, who died of meningitis. There were caseous deposits in the lungs, as well as small granulations on the pleura. The brain presented the usual appearances found in tubercular meningitis, with the exception that there were no small granulations on the pia mater, the whole of which, however, was intensely congested; the central space between the optic commissure in front and the pons Varolii behind being quite blocked up with sero-fibrinous lymph. The corpus callosum and fornix were softened.

Demonstration of Recent Brain-Lesions.—Dr. J. B. TUKE described Charcot's method of demonstrating recent lesions of the brain, which, though not exactly pathological, was yet of great interest. The brain to be preserved was steeped in nitric acid and water for about six weeks. By this, its size was much reduced, its colour altered, and it could then be preserved, without any further trouble, for the purpose of demonstrating brain-lesions. This method of preservation, he believed, to be both interesting and useful for teaching purposes.

Inguinal and Femoral Hernia on same Side.—Mr. ANNANDALE read a note of a large reducible inguinal and femoral hernia affecting the same side, successfully treated by operation. [A full account of this appeared in the BRITISH MEDICAL JOURNAL for May 6th.]—The PRESIDENT, having expressed the thanks of the Society to Mr. Annandale, said that, for his own part, he would like to see the patient again in about nine months, because his experience of radical operations had been that the hernia recurred. In Mr. Annandale's case, there seemed to be a fair prospect of success as to the inguinal hernia; but there was a slight recurrence of the femoral one. The latter probably, however, would not be so large as formerly, and might be restrained by a truss. He noticed, too, that, on the other side, the patient seemed likely to have another hernia, so that he might again require a similar operation for it.—Mr. CHIENE assisted Mr. Annandale at the operation, and had felt pleasure at the prospect. The methods of operating for the radical cure of hernia were chiefly three in number. Wutzer plugged the canal; Wood stitched the aperture; while others ligatured the neck of the sac with silk or silver wire. Wutzer's and Wood's plans generally failed in the long run. In Mr. Annandale's case, he believed the inguinal hernia would not recur. From 1867, he had been watching for cases of complete or partial closure of the neck of the sac. He had now observed two such, where the opening was partially closed. In the one, it admitted the little finger, and, therefore, a cure was going on owing to the pressure of the truss; while in the other, only the handle of a pen could be introduced. At the time of the operation, he felt sure that the result would be as good in the case of the femoral as of the inguinal hernia. He, therefore, believed that the true way to operate in such cases was that based on the pathological results of his cases, viz., that the sac-contents should be returned, and the neck of the sac ligatured; and that they should not attempt to cure by plugging the canal.—Dr. A. R. SIMPSON remarked on the absence of any distinct history in Mr. Chiene's cases.—Mr. BELL said that it would certainly be a happy consummation if a radical cure of hernia could be accomplished; but, along with the President and Dr. Simpson, he would have liked to see Mr. Chiene's cases during life. Professor Roser had found many hernial sacs after death without any contents; and his

theory, therefore, was that the sac was first formed, and, as it were, waited for the bowel to enter. This it might never do. He would, therefore, explain cases where the sacs were empty as being hernia at that stage where the bowel had not yet descended. In the absence of history in Mr. Chiene's cases, there was no evidence that they were not of this class. At present, he was watching the case of a little boy, a seven months' child, where there was a true umbilical hernia, and an inguinal on each side; one of these being probably double. By proper management with trusses, there was now no descent of abdominal contents; but, still, he could hardly venture to pronounce that the case was a complete cure. He had recently, in all his hernia operations, stitched up the necks of the sacs. He would refer to a case in which he had recently operated for strangulation. The patient was a woman, sent in by Dr. Affleck, where the bowel had been down for six days. She was very low, but he operated, and found the bowel dark-brown, though still lustrous. He returned it, but kept the sac out. The result was that the "sac" died; and now, four weeks after the operation, there was no tendency to protrusion, and a pretty deep sulcus remained.—After a few remarks by Drs. MILLER, CADELL, and SIMPSON, Mr. ANNANDALE thanked the Society for the kind reception they had given to his paper; Dr. Miller's case, of which he had seen a similar instance, he believed to have been hydrocele of the hernial sac. While he held that there was often cure of hernia, as Mr. Bell and Dr. Simpson had pointed out, he still thought that in many it was due to contraction of the neck. He had repeatedly seen cases of large sacs with partially obliterated necks; and it was this fact that led him to propose the operation he had just described.

Passive Cerebral Pressure.—Dr. ANGUS MACDONALD read a paper by Dr. TURNER of Keith on this subject, illustrated by one case of a somewhat ludicrous but interesting character.—The PRESIDENT and Dr. G. W. BALFOUR remarked on the interest of the case.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 25TH, 1876.

HENRY KENNEDY, M.B., President, in the Chair.

Perforating Ulcer of Duodenum.—Mr. W. STOKES exhibited the stomach and upper part of the intestinal tract of a young man, aged 18, who suffered from a severe burn of the face, neck, and arms, while in an epileptic convulsion. The burn was to the third degree of Hebra, or to the fourth degree of Dupuytren. He came into hospital collapsed, but rallied and went on well to the seventeenth day, when extreme hæmatemesis occurred, without mælena, however. Collapse and death rapidly followed. A large oval ulcer was found engaging the wall of the stomach, well within the pylorus. There was a large perforating ulcer of the duodenum, with several smaller non-perforating ulcers, oval in shape. Mr. Stokes drew attention to these points of interest in the case—1. The existence of a gastric ulcer; 2. The perforating duodenal ulcer; 3. The absence of any peritonitis.

Complications of Phthisis.—Dr. A. W. FOOT exhibited the viscera of a man, aged 26, who had succumbed to the complications of phthisis. The complications were lardaceous and fatty enlargement of the liver and lardaceous infiltration of the intestinal capillaries. The liver, which weighed six pounds five ounces, contained—the portion which was analysed—6.75 per cent. of fat. Its left lobe had so pressed the spleen against the left hypochondrium as to excite a local peritonitis of the latter organ recognisable by friction during life, and preceded by numbness and sensation of itching from pressure on the lower intercostal nerves. The severe pain and tenderness of the perisplenitis was at times further aggravated by the pressure of gastric flatulence, so that he begged to have the left side punctured. As he had frequently had intermitting fever in India, the extreme local distress, accompanied as it was by rigors, suggested the possibility of an abscess in the spleen, but careful percussion revealed the muffled resonance of the stomach, and the passage of a catheter down the œsophagus relieved the severe pain more than morphia injections or any other treatment. The spleen was sheathed on its outer aspect with exudation fibrine, weighed nine ounces, but was not so lardaceous as other organs. The large intestine was much more infiltrated with lardaceous matter than the small. Parts of the colon steeped in a weak aqueous solution of iodine and iodide of potassium—a diluted solution of liquor iodi of the *British Pharmacopœia*—exhibited the deep walnut colouration so as to resemble a piece of burned pancake. The diarrhoea had been profuse and of the watery serous character especially noticed when the mucous membrane of the large intestine is principally implicated. In connection with the lardaceous change in the liver, the great capacity of the patient for cod-liver oil was noticed; he had long been in the habit of taking three ounces a-day. The kidneys had suffered more from fatty than lardaceous dis-

ease; eight ounces of urine had contained .165 gramme dried albumen. The lung-disease had originated in a pleuro-pneumonia on the right side, which had amalgamated the organ into a contracted coherent mass of fibrous tissue, thickened bronchi, and tough walled cavities. In the opposite lung were nests of recent pseudo-tuberculous granulations from catarrhal pneumonia. The heart, which was much drawn to the right, was soft, pale, and weighed but five ounces. The duration of life was one year and nine months after the pleuro-pneumonia, which was contracted in India, when debilitated by a six months' attack of dysentery. His vital capacity three months before death, with Casella's spirometer, was but one-fifth of what it ought to have been.

Strangulated Hernia, with Cystic Mass in the Sac.—Dr. BENNETT showed the sac of a strangulated femoral hernia in a woman of middle age, who had worn a truss for many years. Examination revealed a small femoral hernia, hard, and tender on pressure. Taxis and other measures having failed to reduce the hernia, an operation was performed. Reduction not having followed the division of Gimbernat's ligament, the sac had to be opened, when a cystic tumour was found to protrude into it. This cyst burst, and discharged a few drachms of serous fluid. Peritonitis proved fatal two days afterwards. The case was like those described and figured by Scarpa, in which only the external coats of the intestinal wall were involved in the sac.

Resection of an Ankylosed Knee-Joint.—Mr. W. STOKES showed a wedge-shaped mass of firmly ankylosed bones which he had cut out in the case of a girl, aged 20, who had suffered a contusion of the knee-joint ten years previously. She remained ill for many weeks, but ultimately recovered with a greatly deformed limb, the knee being permanently bent at more than a right angle. A second injury led to the performance of resection, which was carried out *en bloc*, as recommended by Gurdon Buck. There was most complete bony ankylosis of the parts.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, MARCH 16TH.

J. M. TURNBULL, M.D., President, in the Chair.

Ether and Chloroform.—After the usual exhibitions of pathological specimens, the adjourned debate on Mr. Harrison's paper was opened by Mr. PUZEY, who said that he was not prepared to deny that at present the balance of opinion is in favour of the safety of ether. At the same time, he considered that ether had been of late unduly extolled, and chloroform correspondingly decried. We had not, as yet, sufficient experience ourselves to warrant the sentiments lately expressed on the subject, and, if we went to statistics, they were very unreliable. According to statistics obtained from different sources, the mortality from chloroform varied between 1 in 2,500 and 1 in 16,000. And, again, if careful examination of the reported deaths from chloroform were made, it would be found that many of these cases were not really due to chloroform. (In support of this view, he read notes of some extracts from medical journals.) On the other hand, he found that in cases of death during the administration of ether, every effort was made to attribute the fatality to anything rather than the anæsthetic. (He illustrated his meaning by reading notes of some cases.) He referred to the Report of the Boston Committee, published in 1861, with reference to forty-one cases of alleged death from ether; in which, arguing by a process of exclusion, it was stated that not one of these deaths was rightly attributable to the anæsthetic. He thought it probable that if the chloroform-deaths were discussed in the same spirit, the mortality would be found much less than generally stated. Years ago, deaths from chloroform were hushed up; now, they were made the most of. He suggested that history might repeat itself in the case of ether. He urged further consideration and abstention from giving reckless opinions on the subject for the present; this he did for two reasons:—1. Because, if some of the statements too frequently made on the subject became known to the public, the surgeon who, in the exercise of his discretion, used chloroform, and, perhaps, lost his patient, might find himself subjected to legal proceedings of some form or other; 2. Because a refusal to recognise the danger which had undoubtedly attended the use of ether in some instances, might, by inducing carelessness, lead to that very fatality which all surgeons were trying to avoid.—Mr. NEWTON deprecated the strong views which had been put forth against the use of chloroform as tending to produce a species of panic, which was most undesirable.—Mr. GEORGE WALKER referred to a recent case of dislocation of the shoulder, in which ether failed to overcome muscular resistance. He believed that its after-effects were more lasting than those of chloroform, and had met with patients who absolutely refused to take it a second time in consequence of the intense misery it caused them. He also referred to the effects of shock and its fatal results,

and reminded the members that this and not chloroform appeared to have been to blame in many instances.—Dr. WIGLESWORTH had seen one case of death, and several narrow escapes from the effects of chloroform, but he thought that in all these cases some blame might be fairly attributed to the administrator. He likewise spoke to the disagreeable after-effects of ether, and preferred chloroform.—Dr. BRAIDWOOD had investigated the particulars of a number of cases of death from chloroform, and was struck with the meagreness of the details; but he had come to the conclusion that many of the recorded deaths could not be fairly attributed to that anæsthetic. In some instances, it appeared to him that injudiciously applied efforts at resuscitation had tended to prevent rather than to assist recovery. He had seen the pulse fail under ether; and, on the whole, preferred chloroform.—Mr. BANKS, replying to some of the observations of Dr. Braidwood and Mr. George Walker, expressed his continued satisfaction with ether.—Dr. DICKINSON preferred the simple method of administration of chloroform practised in Edinburgh to the complicated apparatus used in many of the London hospitals. He considered that the dangers of chloroform had been of late much overrated.—Dr. CATON referred to Professor Schiff's experience of ether during experiments on animals, which corresponded with his own. During his own experiments on animals, his deaths were 1 in 5 from chloroform; and from ether only 1 in 40; and this last death he attributed to carelessness.—Mr. A. CAMERON thought that the long-continued use of chloroform should not be attributed merely to the reputation of the late Professor Simpson, but rather to the long, careful, and thorough researches which had been made on the subject. One reason why Simpson rejected ether from obstetric practice was that he considered it most injurious, sometimes even fatal, to the child.—After some observations from Drs. BAILEY and SHEARER, in which they expressed their preference for chloroform, Mr. HARRISON briefly replied.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: MICROSCOPICAL SECTION.

FRIDAY, MARCH 31ST.

J. F. WEST, Esq., in the Chair.

Recurrent Tumour of the Breast.—Mr. T. H. BARTLETT read a paper on this subject, illustrating the structure in section, and kindly undertook to prepare sections of the tumour treated by different dyes, for distribution at the next meeting.

Cystine.—Dr. BINDLEY showed specimens of cystine, and also showed specimens to demonstrate peritoneal epithelium.

Leucine and Tyrocin were shown by Mr. LAWSON TAIT from the urine of a puerperal patient.

Officers.—At this meeting, Mr. Lawson Tait was appointed President of the Section; Dr. W. Hinds was re-elected Secretary, with Dr. Warner; and Mr. Priestley Smith and Dr. Bindley were appointed Demonstrators for the ensuing year.

FRIDAY, APRIL 28TH.

LAWSON TAIT, Esq., in the Chair.

The PRESIDENT reported upon a tumour forwarded by Mr. J. F. WEST, which presented all the characters of a benign fibro-myoma. The specimens exhibited in illustration were stained with carmine and hematoxylin.

Spinal Cord.—Dr. RAPER exhibited a series of beautifully stained and mounted sections of the mammalian spinal cord, especially to show different methods of preparation. Dr. Raper considered that chromic acid brought out the nerve-fibres and processes from the ganglion-cells of the grey matter better than spirit. He described the method of hardening which, after many trials of various other plans, he had found to answer best. He entered into a description of the whole process of staining and mounting, describing the modifications required to bring out most effectively the ganglion-cells, nerve-fibres, and other structural features of the cord. A point of special interest was the relation of the ganglion-cells to one another and to the roots of the nerves. It seemed natural that these bodies, placed in the centre of the medulla and sending out processes in every direction, should be regarded as the media of communication between the different parts of the nervous system, between the afferent and efferent nerve-tubes, between the two sides of the spinal marrow, and between different nerves of the same side, and thus being the connecting links by which isolated movements were associated together and reflex phenomena produced. If this were so, numerous communications must exist below the individual cells, and branches ought to be traceable passing from the cells into the bundles of fibres that form the roots of the nerves, or *vice versa*.

Large Crystals of Oxalate of Lime.—The PRESIDENT exhibited various specimens of exceptionally large crystals of oxalate of lime mounted in balsam, from the urine of a patient suffering from anæmia perniciosa.

Glioma of the Optic Nerve.—Mr. EALES gave the history of a case of glioma, and showed a section of the optic nerve infiltrated with gliomatous cells. The case was one in which the eye was excised for an intraocular gliomatous growth, of about twelve months' standing. The patient was a child, three years old, and was admitted to the Birmingham Eye Hospital, under the care of Mr. Chesshire, with a tumour in each eye. There was great constitutional disturbance, and the right eye was excised.

FRIDAY, JUNE 2ND.

LAWSON TAIT, Esq., President, in the Chair.

Lymphoma of Stomach.—Dr. RUSSELL presented specimens of lymphomatous tissue prepared from a greatly thickened portion of stomach, and from a secondary tumour lying between the spleen and the last-named organ; also from secondary deposits in the diaphragm, liver, kidneys, and lung. He referred particularly to a specimen of a similar disease presented by Dr. Murchison to the Pathological Society (*Transactions*, vol. xx, p. 192).

Internal Parasites of Fish.—Mr. WRIGHT WILSON contributed observations with a view to elucidate some of the obscure points with regard to human and other mammalian helminthology. The specimens exhibited were—1. A nematoid worm from the fresh-water pike; 2. An echinorhynchus from the trout, and a very small nematoid worm described by Mr. Wilson in *Science Gossip* for January last, and which Dr. Cobbold has since provisionally named "agamonema Wilsoni".

Recurrent Warty Growths.—Mr. HILL NORRIS showed specimens of a case of this kind; and also exhibited a new form of microscopic turn-table propelled by blowing through a small caoutchouc tube.

Sections of Orbital Tumour.—Mr. EALES showed a tumour, which was removed by Mr. Chesshire, and was found, on microscopical examination, to be composed chiefly of large spindle-shaped cells, with a large admixture of myeloid cells of various shapes and sizes. These cells contained varying number of other cells in their interior, ranging from one or two up to twelve or more. The patient in this case was a chair-maker, aged 45. He was admitted to the Eye Hospital in November 1874, with all the signs of orbital tumour, which had grown from the posterior roof of the orbit. The globe was pushed downwards, forwards, and a little outwards. This growth had been steadily progressing for two years and a half, accompanied with shooting pains in the right temple. Previously to admission, the eye burst in the act of coughing, and the lens and vitreous humour escaped through the cornea, which had sloughed away.

BORDER COUNTIES BRANCH.

FRIDAY, MAY 5TH.

ROBERT TIFFEN, M.D., in the Chair.

On the Treatment of Neuralgia by Gelsemium Sempervirens, with Cases.—Dr. SMITH of Dumfries read a paper on this subject, which he intends publishing *in extenso*.

On Some of the More Common Forms of Deafness, and the Method of their Relief.—Dr. LOCKIE of Carlisle, having referred to the general neglect of the study of disease of the ear, and to the small provision made for the teaching of this subject in the medical schools, stated that the forms of deafness which he wished especially to bring before the Branch, and which he would illustrate by cases that had occurred in his practice within the last year, were mainly cases of catarrh of the tympanum, including within the meaning of the term "tympanum" the Eustachian tube with its faucial orifice. He dwelt on the use of the tuning-fork as a means of diagnosing tympanic disease from more deeply-seated affections. If the patient hear the sound of a vibrating tuning-fork placed on the vertex as distinctly as a person of ordinary hearing, and still more if he hear it more distinctly, we may be sure that the fault lies external to the labyrinth. He narrated two cases of simple obstruction of the Eustachian tube, in which the hearing was speedily restored by inflation by Politzer's method, and entered into an explanation of the mode in which deafness is produced in these cases. Notes of three cases of catarrh of the lining membrane of the tympanum were then read. The first was of a subacute character, and was treated by leeching and the local application of heat in various ways until the pain had subsided, and subsequently by inflation with Politzer's bag. The other two cases were extremely chronic, and in them inflation was

practised through the Eustachian catheter after fruitless endeavours to inflate the bag. Of these two, one was benefited, the other not. The subject of purulent catarrh of the tympanum, with perforation of the membrane, was illustrated by the following and other cases. M. M., a strumous girl, about fifteen years of age, was first seen on December 16th, 1875. She had had occasional discharge from the right ear ever since an attack of measles five years ago. The hearing distance for a watch on the right side was three feet ten inches. Hearing on the left side was perfect. The right external meatus was excoriated, and the membrane perforated. He could not inflate the tympanum by Valsalva's method. Politzer's bag was used. Warm water was forced, by the syringe fitting tightly to the meatus, through the tympanum and Eustachian tube into the nostril. She was ordered to have a warm solution of sulphate of zinc, two grains to the ounce, injected in a similar manner night and morning. The strength of this lotion was subsequently increased to five grains to the ounce; and, on January 1st, the hearing distance had increased to seven feet nine inches. On January 5th, the hearing distance on the right side was nine feet after inflation by Politzer's bag; the syringing had been discontinued for a few days, as the discharge had ceased. On the 6th, the hearing distance was eleven feet and a half after inflation; and on the 10th, fourteen feet, all treatment having been discontinued since the 6th. The patient was seen on April 30th. There had been no return of discharge, and the hearing distance was twelve feet and a half. Perforation of the membrana tympani may occur from without inwards, or from within outwards. When in the former manner, it is the result of purulent catarrh of the external meatus, which, extending to the membrane, produces ulceration and perforation, consequent on which the morbid process reaches the tympanic cavity. When it proceeds from within, it is generally the result of acute purulent catarrh of the tympanum, or otitis, which, previously to the membrane giving way, or to its being incised, produces acute pain in and around the ear, some degree of pyrexia, and occasionally, it is said, delirium. This ailment requires the most energetic treatment in the early stage by leeching and application of heat in various ways. If it do not yield to this treatment, the membrane should be incised. Afterwards, means should be taken to have the cavity kept cleansed from the pus. Ultimately astringents, such as sulphate of zinc, may be required.

On Puerperal Insanity.—Dr. CAMPBELL of Garlands read remarks on puerperal insanity, in which he discussed the question of home and asylum treatment in cases of puerperal insanity. He gave an analysis of the cases of puerperal insanity occurring within four or five weeks after confinement, which had come under his observation at Garlands, with an account of the treatment adopted, showing that, from January 1st, 1868, to January 1st, 1876, 33 cases of puerperal insanity had been admitted out of 922 cases of insanity. In 12 of the 33, the attack was after the first confinement. In 9 cases, the patients were unmarried. Of the cases, 23 were under thirty years of age. In 18, hereditary predisposition to insanity existed. In only 2 of the 33 cases was melancholia a prominent mental feature. Of the 33 cases, 29 were discharged recovered; 21 of the 29 were in the asylum for a period under six months; the other 8 for a period under eleven months. Of the 4 remaining, one was hopelessly demented, one might get well, and two were on the fair way to recovery. The rate of recovery in these cases had been 87.5 per cent. During the excited stage, iron and quinine were given, and great attention was paid to the feeding of the patient at short intervals, with easily assimilated food, stimulants being given with the food. Out-door exercise was insisted on, where the patient's physical state allows of it. Sleeplessness was treated by a small dose of chloral in sherry. More than thirty grains of chloral was seldom given, as it was simply intended to put the patient to sleep. No sedatives were given during the day. After the first excitement passed off, occupations and amusements occupied their proper position as adjuncts in the treatment. In certain cases, in which the bodily health was much improved, but where the patient was unaccountably wanting in nervous energy, and the mental faculties remained clouded, a cold shower-bath every morning gave good results. The treatment for the dispersion of the milk had been simply to give a dose of salts and senna, and to rub the breasts with extract of belladonna, mixed with glycerine. In a few cases, a bloody discharge, recurring at irregular intervals, and lasting for a day or so during the first and second months after confinement, was observed.

THE Public Analyst for Cambridgeshire, in his report to the Justices at the Midsummer Session, stated that no article had been submitted to him for analysis by any of the Inspectors during the past quarter; but a dead rabbit, supposed to have been poisoned, had been sent to him by the Chief Constable, in which, however, he could not detect any trace of poison.

CORRESPONDENCE.

THE LATE MISS HARRIET MARTINEAU.

SIR,—In the last number of your JOURNAL, you remark that the sketch of the life of the late Harriet Martineau, published in the *Daily News* of June 29th, "is not complimentary to our profession". You state also that "the fatal character of her disease of the heart was discovered in January, 1855".

On the last day of that month, she came for advice to my house, at the wish of Dr. P. M. Latham, whose patient she was, and whose *locum tenens*, by reason of some temporary absence or illness on his part, I then happened to be. She spoke of "intermissions of the beats, and subsequent boundings, of the heart, felt by her very disagreeably, with flutterings and bumps" of that organ, even when in bed, and of occasional shortness of breath.

Upon careful examination of her chest, I found the pulsations of the heart noisy, and audible over a large portion of the chest; but there were no murmurs attending its action, nor any other evidence of organic disease.

She was under the impression that her heart was incurably diseased, and that she had not long to live. So far from encouraging that impression, I endeavoured to remove it. At that time I was in the sixty-third year of my age, at what is called the climacteric period, and I had had sufficient experience, in my own person, of these disagreeable flutterings and intermissions of the heart and pulse, lasting sometimes for days together, but separated from each other by longer periods of complete freedom from them, to enable and to warrant me in striving to relieve her apprehensions. But she plainly distrusted, or rather she disbelieved, my reassurances, looking upon them, I fancy, as well-meant and amiable attempts to soothe and tranquillise a doomed patient. Now, of thus encouraging false hopes I have never been guilty. I have always thought it my bounden duty, when sure his disease was inevitably fatal, to disclose that fact, not indeed to the sick man himself, but to some discreet member of his family, to be communicated to him or not as might be deemed best. Every well informed medical practitioner knows that there are apt to be flaws in the mechanism of the heart, which, under careful management, are consistent with prolonged life. Such flaws I have, again, considered it an imperative duty to make my patients themselves aware of; because these are cases in which they may truly be said to carry their lives in their own hands. I have been in the habit of illustrating my cautions by likening the heart, so affected, to a china jar slightly cracked which, if carefully handled, may remain long unbroken, but which heedlessness or accident might ruin much more easily than if it were sound. But in Miss Martineau's case there was no such obvious rift, and I, therefore, affirmed to her that her life was in no immediate danger.

All this I distinctly recollect, for I was much interested in having before me a person so remarkable; and on referring to the short notes which alone, in the very flood tide of my business, I was able to take of her case, I have found my recollections very exactly confirmed.

I feel persuaded that she must have had a similar opinion from Dr. Latham, than whom no physician of that date was more competent to form a correct judgment about affections of the heart.

Of her previous illness at Venice, and long imprisonment to her couch, I knew nothing then, and I know nothing now. I decline to be responsible for any diagnosis or prognosis formed before I saw her, which was ten years later, and at a period of her life when the health of women is apt to be disordered.

There is probably some confusion and error in the statements of the *Daily News*, of which newspaper Miss Martineau told me she was at that time the *ad interim* editor.

I call to mind also some curious things which I afterwards heard from Dr. Latham, respecting this lady's supposed self-cure of an internal malady by mesmerism. But this has nothing to do with the misconceptions which I am desirous of correcting.

I am, etc., THOMAS WATSON.

Henrietta Street, Cavendish Square, July 3rd, 1876.

ABUSE OF PRIVATE LUNATIC ASYLUMS.

SIR,—Though sympathising with the object for which the article "Abuse of Private Lunatic Asylums" is written in your issue of last week, I cannot permit a paragraph, having reference to abuses in the Musselburgh Private Asylum, to pass unchallenged. In justice to relatives of my own, now in New Zealand, who were formerly proprietors of Millholme House Asylum, often called the Musselburgh Private Asylum, being the oldest and the largest in the town, I must give your statement an emphatic denial.—I am, sir, your obedient servant,

JAMES STOCKWELL, Medical Proprietor, Sanatorium for Gentlemen, Aughton Park, Ormskirk; formerly Clinical Assistant to Professor Laycock, Edinburgh, at Millholme Asylum, Musselburgh.

June 26th, 1876.

* * The recent facts to which our leader referred are stated in the evidence in the case of "*Crawford versus Goldie*", reported in the *Scotsman* of the 9th June; the earlier ones in the Report of the Royal Commission on Scotch Lunatic Asylums, published in 1856, and in the debates in the House of Commons previous to the passing of the Scottish Lunacy Act in 1857, as reported in *Hansard*. These facts we do not understand Dr. Stockwell to challenge, but that he intimates that they do not refer to any relatives of his—a statement on which we do not throw the least doubt.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Tuesday, July 4th.

Vaccination.—In reply to Sir Charles Forster, Mr. SCLATER-BOOTH said although his attention had not been called to the case of Sampson Benton, against whom proceedings had been authorised by the Guardians of Walsall Union after six previous prosecutions for non-compliance with the Vaccination Act, he frequently had his attention called to similar cases. The views of the Department had been expressed in a letter addressed to the Guardians of the Evesham Union, but the final decision must be left to the Guardians. After two convictions, they must consider the special circumstances of each case, whether they are likely by further prosecutions to effect the vaccination of the child. If that were likely to be the result, no doubt further proceedings should be taken, but whether the Guardians were justified in the present case depended on the circumstances.

Wednesday, July 5th.

Medical Act Amended (Foreign Universities) Bill.—Mr. COWPER-TEMPLE moved the second reading of the Medical Act Amendment (Foreign Universities) Bill, which proposed to open the medical profession to women in this country by providing that the production of a certificate or a degree from certain foreign Universities, of reputation in medical studies, shall entitle them to be registered as medical practitioners. Among other arguments in favour of the Bill, Mr. Cowper-Temple dwelt specially on the wide field open to women in India, where male doctors were not admitted to visit female patients. The rejection of the Bill was moved by Mr. WHEELHOUSE, on the ground that the medical career and the previous education were unfit for women; and Dr. WARD, who seconded him, speaking from his own experience, dwelt on the objections to the joint education of the youth of both sexes in such a study as anatomy. He showed also that the Bill gave no guarantee for a sufficient education. The Bill was supported by Mr. HENLEY, who thought that, as the population was increasing, the death-rate stationary, and the number of medical men decreasing, it was wise to take any steps which would give us a larger number of medical practitioners; by Dr. LUSH, who, though he did not believe that women doctors would ever come into general rivalry with men, was not disposed to resist the wish for the services of women; and by Lord ESLINGTON, who declined to be a party to closing any career to women. Dr. CAMERON and Dr. PLAYFAIR joined in urging the withdrawal of the Bill in favour of Mr. Russell Gurney's Bill, which it was understood the Government would support. Mr. STANSFELD expatiated on the advance of public opinion, and particularly on the fact that the Medical Council had declined to recommend the exclusion of women from the profession. Lord SANDON, who expressed his entire dissent from the objection that medical studies and practice would injure the delicacy, refinement, and higher feelings of women, intimated that the Government could not consent to a Bill dealing with foreign qualifications in the case of women alone. The Government had consulted the Medical Council and other authorities, including the few

ladies who are now practising, to whom he paid a high compliment, and they had come to the conclusion to give their support to Mr. Russell Gurney's Bill, permitting any of the medical bodies to admit female practitioners. Mr. BRIGHT and Sir H. JACKSON joined in urging the Government to take up Mr. Gurney's Bill this Session. Dr. O'LEARY spoke against the Bill, after which Mr. COWPER-TEMPLE intimated his willingness to withdraw the Bill, which was accordingly done.

OBITUARY.

WILLIAM TURNBULL, M.D.,

CONSULTING PHYSICIAN TO THE HUDDERSFIELD INFIRMARY.

DR. TURNBULL died at Huddersfield on June 30th, at the age of 82. He was born at Burnfoot, near Hawick, Scotland, and was son of Mr. William Turnbull, who was an extensive farmer at that place. Dr. Turnbull took his degrees as M.D. Edinburgh, and L.R.C.S. Edinburgh, in 1814, and came to Huddersfield on the 12th of August in the same year. By his genial disposition and professional skill, Dr. Turnbull early became a popular man in Huddersfield, and made many friends. In 1817 he was elected one of the physicians to the Huddersfield General Dispensary. Subsequently the Dispensary was merged in the Huddersfield Infirmary, and Dr. Turnbull, in course of time, became senior physician, which position he filled until the appointment of Dr. J. S. Cameron early in this year, although he had resigned the position a year or two before. Dr. Turnbull was from the first acknowledged to be a most diligent, skilful, and conscientious physician, not only by his patients, but by his professional brethren; and his extraordinary merits have been more than once publicly acknowledged in complimentary and practical forms, although no public civil position outside that of his profession was ever offered to him. In the board-room of the Huddersfield Infirmary is hung his portrait, forming a companion to those of many other worthies in connection with the Infirmary. A plate on the lower part of the frame bears the following inscription:—"William Turnbull, M.D., in testimony of his long and faithful services to the Infirmary. 1863." In 1867, a banquet was given to Dr. Turnbull to celebrate the fiftieth year of his connection with the Huddersfield General Dispensary and the Huddersfield Infirmary. It was largely attended by his professional brethren, and by the most influential inhabitants of the town and neighbourhood. On his formal resignation of the post of physician to the Infirmary, a handsome and valuable service of plate was presented to him at the annual meeting of the governors and subscribers. The latest illustration of the high estimate placed upon the services of Dr. Turnbull in connection with the Infirmary is to be seen in the erection of the medicated baths at the Infirmary. These have been attached to the Infirmary at a cost of £1,500 or £1,600, and upon a white marble slab placed upon the wall at the entrance, the following significant testimony to the worth of Dr. Turnbull is given:—"These baths, the gift of George Brooke, Esq., J.P., of Spring Wood Hall, were built by him for the alleviation of suffering and cure of disease, and in recognition of the eminent ability and unremitting services of William Turnbull, Esq., M.D., who for sixty years has held the office of Physician to this Infirmary. 1876."

For the last twelve months, Dr. Turnbull had been perceptibly failing in health. Several years ago, he expressed a desire to retire from his post of physician to the Infirmary, but as no successor was forthcoming, he consented to continue in harness until twelve months ago, when his exhausted energies compelled him, though reluctantly, to resign. Ever since that time he regularly visited the Infirmary, and continued practice. Up to a week before his death, Dr. Turnbull could be seen making professional calls.

Dr. Turnbull's only son, the Rev. W. S. Turnbull, M.A., is the vicar of Penistone, where his remains have been interred.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE Horsham Local Board have agreed with the Water Company to purchase their works for £7000.

THE proposal of the Haworth Local Board to extend the district by annexing parts of the Bingley and Oakworth districts, and absorbing the Oxenhope, has been negatived by the Local Government Board.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 29th, 1876.

Duke, Edgar, 321, Clapham Road
Snell, Edward Arthur, St. Wilfrid's, Mortlake
Southam, Frederick Armitage, Pendleton, Manchester

The following gentlemen also on the same day passed their primary professional examination.

Alford, Charles Edward, University College
Crick, Samuel Arthur, St. Thomas's Hospital
Jolly, Robert William, Charing Cross Hospital
Woodman, William Edwin, St. Thomas's Hospital

UNIVERSITY OF DUBLIN: Trinity Term, 1876.—At the examination for the degree of Bachelor of Medicine, held on Monday and Tuesday, June 12th and 13th, the successful candidates were placed in order of merit as follows.

Davison, Henry A. } equal
Wright, William, M.A. }
Blunden, William
Hamilton, Thomas K.
Benson, Arthur H.
Fullerton, Richard
Fitzgerald, Dudley L.
Gorman, Charles
Poole, Jonas S.
Maginniss, Robert M.
Conry, Walter
Taylor, Sidney H.
Kenny, William W.

Peyton, Jones L.
Cooper, Charles A.
Marshall, Joseph
Orr, David W.
Power, Edward
Biddulph, Richard E.
Dwyer, John H.
Sproule, Oliver G.
Hamilton, James A. G.
Whitaker, George
Lambert, William F.
Newell, Shapland H.
Comyn, George

At the examination for the degree of Bachelor in Surgery, held on Monday and Tuesday, June 19th and 20th, the candidates passed in the following order of merit.

Maginniss, Robert M. } equal
Peyton, Jones L. }
Poole, Jonas S. }
Fullerton, Richard
Fox, Charles
Gorman, Charles
Barrington, Harry E. W.
Sproule, Oliver
Fetherston, H. Charles
O'Carroll, Martin

The Medical Travelling Prize was awarded to Henry A. Davison. The Surgical Travelling Prize was not awarded.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, June 13th, 14th, and 15th, 1876, the following candidates obtained the Licence to Practise Medicine.

Armstrong, John }
Coyne, Francis Kennedy }
Fairelough, John James Kent }
Gould, Edward Gardiner }
Middleton, John Jameson
M'Nulty, John
M'Parland, Owen Aloysius
Ross, Charles Emilius

The Licence to Practise Midwifery was obtained by the candidates marked *m*, and by

Marks, Edward George Keighly

MEDICAL VACANCIES.

The following vacancies are announced:—

BURY UNION—Medical Officer for the First Tottington District.
CHARING CROSS HOSPITAL—Medical Registrar. Applications on or before July 12th.
CHORLTON UNION—Dispenser at the Workhouse.
CUMBERLAND INFIRMARY, Carlisle—Resident Assistant House-Surgeon. Salary, £60 per annum. Applications before July 12th.
FULHAM UNION—Medical Officer for the First District.
HANTS COUNTY LUNATIC ASYLUM—Two Assistant Medical Officers. Salary of Senior Officer, £150 per annum; salary of Junior Officer, £100 per annum. Each will have furnished apartments, board, etc. Applications on or before July 10th.
HOSPITAL FOR WOMEN—House-Physician. Applications on or before July 30th.
HOSPITAL FOR SICK CHILDREN—Medical Registrar. Applications on or before July 13th.
INFIRMARY FOR CONSUMPTION, 26, Margaret Street—Visiting Physician. Applications on or before July 20th.
MANCHESTER ROYAL EYE INFIRMARY—House-Surgeon. Salary, £70 per annum, with board, etc. Applications on or before August 1st.
MITFORD AND LAUNDITCH UNION—Medical Officer. Salary, £45 per annum. Applications on or before July 12th.
NORWICH MEDICAL INSTITUTE—Surgeon. Salary, £150 per annum. Applications early in July.
SAMARITAN FREE HOSPITAL FOR WOMEN—Physician. Applications on or before July 15th.
WARWICK COUNTY ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications to the Superintendent.
WELLS UNION—Medical Officer for the Fourth District.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BULL, Wm. H., M.R.C.S.E., appointed Surgeon to the Cottage Hospital and to the Provident Dispensary, Stoney Stratford, *vice* A. D. Mackay, M.B., deceased.

HETLEY, Henry, M.B., appointed House-Surgeon to the Leicester Infirmary, *vice* J. H. Hodges, L.R.C.P.Ed., resigned.
JOHNSTON, Arthur A., L.R.C.S.E., appointed House-Surgeon to the Bournemouth General Dispensary, *vice* Richard T. Hearn, M.B., resigned.
OWEN, Rayley, L.S.A., appointed Assistant House-Surgeon and Dispenser to the Kent and Canterbury Hospital.
SMITH, James Greig, M.A., M.B., appointed Assistant House-Surgeon to the Bristol Royal Infirmary, *vice* J. E. Shaw, M.B., resigned.
TAYLOR, John M., M.R.C.S., appointed Surgeon to the General Dispensary, Birmingham.
WILSON, J. Hamilton, M.B., appointed Assistant Medical Officer to the Ipswich Borough Asylum, *vice* J. I. Bowes, M.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATH.

GRAHAM.—On July 5th, at 59, Everton Road, Liverpool, aged 38, Susanna, wife of A. F. Graham, M.D.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

COMMUNICATIONS TO THE "JOURNAL".

We have again to impress upon our correspondents that as the bulk of communications addressed to the JOURNAL is considerably in excess of its space, the task of selection will be greatly facilitated by the observance of studied conciseness.

POISONING BY DECOMPOSED OYSTERS (2).

SIR.—Will any one of your readers kindly give me his opinion as to whether the following symptoms would be likely to be produced by eating decomposed oysters? G. G., aged 42, for the past three years has been affected with paraplegia and general symptoms of cerebral softening; lately, however, he has shown no symptoms likely to cause increased anxiety. His pulse was normal, and his appetite very good, until a few weeks ago, when, about ten minutes after partaking of four oysters for supper, he was suddenly seized with violent convulsions, twitching of the lips, rolling of the eyeballs, rigidity of the muscles (including those of the paralysed legs), violent eructations, and excessively swelled and tympanitic condition of the epigastric and abdominal regions. This condition having continued about half-an-hour, an enema of turpentine and soap-and-water was administered, when in a few minutes an enormous amount of flatus was expelled both by the mouth and anus. The symptoms rapidly subsided, simply leaving the patient in a somewhat prostrated condition, with a slight tendency to vomiting, which was soon combated by a mixture of bismuth, ammonia, and prussic acid.

As far as I can ascertain, the patient had taken nothing likely to interfere with the digestive functions, except the above-mentioned four oysters, which, it appears, had been opened a considerable time before being eaten. Were the above symptoms due to the oysters, or to the previously existing deranged state of the cerebral functions?—I am, sir, yours, etc.,

GEORGE GREENSLADE.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

PRIVATE FORMS OF PRESCRIPTION.

SIR,—I entertain a firm conviction, after reading Mr. Herbert Lucas's letter in your JOURNAL of Saturday last, that, excepting certain misstatements hereafter to be dealt with, the circumstance he relates occurred to me. At any rate, for all the purposes of this statement, I shall assume that I am the physician he alludes to, and, being so, I desire to place upon record the facts as they happened to me. On the 20th April last, Miss X. was brought here by her mother, who, in introducing the case, informed me that for a long time her daughter had been under the care of Messrs. Foster and Lucas of Huntingdon; that one of those gentlemen had strongly advised her to bring her daughter to town to obtain the opinion of Dr. —, but that, for reasons she detailed, she chose to get my opinion as to her daughter's state. On Monday, April 24th, I visited Miss X. at a friend's house near here, and I then prescribed for her: R. Mixture acid. nitro-hydrochlorici c. ferro et strychnia $\frac{ij}{j}$ (Kirby's); ter die. Rather more than a fortnight after this visit to the patient, Miss X. wrote to me from Folkestone, describing sensations which followed the administration of each dose of the mixture, and I then wrote (no second visit was paid for the purpose, as alleged by Mr. Lucas) and prescribed: R. Pilule tonici (Kirby's), xl; take one after meals, three times a day. So much for the facts; now for the explanation. Some years ago, I became impressed with the portability and elegance in administration of Messrs. Kirby's mixtures and pills—two important considerations, by the way, when ordering nauseous drugs for young people—and, after prescribing them for a time, I found my patients experienced the greatest difficulty in procuring the forms, very few dispensers keeping them in stock. To dispose of this difficulty, I called upon Messrs. Probyn of Grosvenor Street, and they very courteously undertook to keep ready for distribution such of Kirby's medicines as I suggested. Since then, when so prescribing, I have recommended the patients, for the reasons just stated, to go to Mr. Probyn's for these forms; and I have no doubt I did so in Miss X.'s case. Next for the comments.

1st. Mr. Lucas's statement that "I told the patient on each occasion that the medicine could only be obtained at one chemist's," I declare to be incorrect. Neither to this lady or any other patient who ever came before me did I ever make such a statement, or use any such language or expression.

2ndly. Mr. Lucas's letter is filled with an insinuation which, reduced to plain English, means this: that I, for a distinct money consideration, did induce Miss X. to take my prescription to Messrs. Probyn, in order that I might derive profit and advantage by her doing so. Now, sir, permit me very plainly and clearly to inform Mr. Lucas that *never* have I either taken or received, or permitted, or caused to be received or taken by any person or persons on my behalf, from any chemist or druggist, or any other person or persons, as a recompense or consideration for any prescriptions I may have advised to be given them for preparation, the value of one farthing.

3rdly. If, in prescribing for this case, I inadvertently omitted the word "Kirby's," I sincerely regret it. Happily, some hundreds of my prescriptions can at once be produced as a proof that it is my almost invariable custom to insert it; I say almost, because I learn that on three occasions—since June 1873, in the hurry of writing, or while writing and talking to my patient simultaneously, I have omitted the word "Kirby's."

Lastly. Those of my friends to whom I am known will acquit me without hesitation of the dishonourable conduct conveyed in the insinuation Mr. Lucas has written; but, having thus declared myself as the physician he charges with unprofessional conduct, it is due to the large number of your readers, to whom I am a stranger, that I should most emphatically express my abhorrence of the conduct contained in his insinuation.—I am, sir, yours faithfully,

JAMES PALFREY.

29, Brook Street, Grosvenor Square, July 3rd, 1876.

SIR,—Dr. Palfrey has called our attention to Mr. Herbert Lucas's letter in your JOURNAL of the 1st instant. We leave him to deal with the charge of unprofessional conduct; but, as we are involved with him in such charge, we ask you to permit us, in the strongest language possible, to entirely repudiate the insinuation contained in his letter. During nearly the half century this business has been conducted, our association with a large number of distinguished consultants has been of the happiest and most considerate nature, and never to any medical man have we dreamed of offering an insult of so gross and dishonourable a character as that implied in Mr. Lucas's letter.

Again, sir, Mr. Lucas's statement, that we pay the carriage for medicine sent to any part of the country, is absolutely wrong, and we challenge him to produce any letter, invoice, or other document, which for an instant justified him in making such a statement.

And, lastly, in simple justice to Dr. Palfrey, we must add that we know of no physician more rigidly punctilious in all that appertains to his professional integrity.—We remain, sir, yours very faithfully,

PROBYN & CO.

55, Grosvenor Street, (and at 7, Pall Mall East), July 2nd, 1876.

P.S.—Singularly enough, since writing the above, we have discovered that the first prescription for the mixture, written on the 25th April, was not dispensed by us until May 26th, the date on which the second prescription was written, thus showing that it was made up more than once by some other chemist.

THE INDEX to volume I for 1876 will be published with the JOURNAL of July 15th.

CONTAGIOUS DISEASES ACTS.

In the January number of the *Vierteljahrsschrift für Gerichtlich Medicin*, says the *Philadelphia Medical Reporter*, is a very able article by Professor Dr. E. Strohl of Strasburg. In concluding his article, Professor Strohl states that the evidence is complete that both the sanitary and moral interests of a community are benefited by the licensing laws. They should have, he goes on to say, a double purpose. They should prevent public immorality and the temptation of youth (of both sexes), and they should protect public health. The former he deems justly the more important. Any one who contrasts the streets of Berlin or Paris with those of even provincial English cities, will observe how vice flaunts publicly and unrestrained in the latter, while in the former its enticements are at least concealed. Last summer a year, the writer passed a few days in Paris; and shortly afterwards a short time in Norwich. The contrast was most unfavourable to the latter. A man is accosted a dozen times there to once in Paris. Yet this is the state of things these English visitors seek to foster in this country.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

THE NORTH STAFFORDSHIRE INFIRMARY.

SIR,—Under the head of "The Week," in your last number, you give a long paragraph, "The North Staffordshire Infirmary," which, as we think, fairly calls for a few observations. In a previous article you had already noticed the system adopted in that infirmary of obtaining support in the way of factory subscriptions, and it received your unqualified praise in that notice. The gist of my present communication is relative to a complaint in the paragraph in your last number, that injustice is done to the medical officers, in that they (the infirmary being partly so supported) receive no honorarium for their services. May it be long before they do, for such a remuneration would belie the name given to it. At present, they—or, as we may put it, the honorary medical officers of hospitals generally—are not without their reward over and above the luxury of doing good, and the honour of being selected to perform the most important duties—a pretty certain position in the van of their fellow-practitioners, and a consequent increase of the best and most lucrative practice afforded in the respective neighbourhoods. Indeed, in country districts a man must have unusual energy as well as professional ability to become distinguished as an operator or a physician, unless he is connected with such an institution. We may add to this, that in the case in point the physicians and surgeons all enjoy lucrative appointments, conferred upon them avowedly on account of the services in question. Their duties are lightened by two paid qualified resident officers; and it is not quite correct to conclude that the factory subscriptions virtually make the infirmary a great club, for no contributions of this character are received from individuals, no patients are visited at their own homes, no factory subscriber receives relief without a ticket or recommendation from the factory manager, and the relief is limited to those who actually subscribe. Practically many, probably the majority, of the contributors are, unless perchance, their handicraft is in an unusual state of depression, not in the habit of making application for infirmary relief.

Perhaps the preceding observations may lead to the conclusion that, so far, such arrangements are not commonly attended with any very great injustice. If such honorary medical officers are anxious for the practice and emolument which is afforded by the class of people in question—which, however, I think is seldom the case—they have at any rate abundant opportunity of pleasing them and insuring their being called in at their own homes. The case is different with such of their medical brethren as are not, nor likely to be, connected with the institution which honours and advances solely the practitioners attached to it. The gains of the ordinary general practitioner must, no doubt, be somewhat affected; but, as a set off, he has some advantages and conveniences: he is often the first to recommend application in accidents, in chronic cases, or when he sees little chance of remuneration for his anxiety and trouble; and, if he happen to be a club- or parish-doctor, the demands on him are appreciably rendered fewer.

The subject of pupils and their board is another question. No doubt the authorities would argue: "We find two resident medical officers, and first-rate nursing, with lady-superintendent, and the state of our funds is such as not to allow us to board pupils, which we can do without; at the same time we may remind you that you can make any arrangements you choose as regards pupils as *externes*, though as *internes* their board must be disbursed. We admit that the amount claimed betrays a wish on the part of the authorities to make a profit; it might certainly be diminished."

ROBERT GARNER, Stoke-upon-Trent.

C. H. B.—The fourth volume of Dr. J. Russell Reynolds's *System of Medicine* has not yet been published.

HAMMOCKS FOR THE TRANSPORT OF SICK AND WOUNDED.

MESSRS. SEYDEL AND CO. furnish us with the following copy of a report, by Surgeon-Major Porter of Netley, Surgeon to the Queen.

"Messrs. Seydel and Co.'s (Birmingham) cord-hammocks, as a means of transport for sick and wounded by rail, have lately been experimented upon by Surgeon-Major Porter of the Royal Victoria Hospital, Netley, the London and South-Western Railway Company having kindly placed at his disposal a passenger luggage-wagon and guard's van. Strong iron hooks having been screwed into the walls or temporary uprights, a hammock was slung in the usual manner, and several trips made up and down the line. The conveyance was found most comfortable, being free from shock or jerk. At first, there was some lateral motion experienced in the passenger luggage-wagon, but that was obviated by a piece of round stick being placed across the hammock under the knees; and, second, by two cords to the roof. This motion was not constant, only occurring at short curves along the line. In the guard's van there was no lateral motion, due probably to the springs being lighter.

"These hammocks of Messrs. Seydel and Co. appear to be well adapted for the conveyance of most cases of sick or wounded by rail, and would be found of great value in India, where the journeys are long and tedious, and, from the material of which they are made, would be found cool.

"It might be well worth while for the Government to consider the necessity of furnishing all parties of sick or wounded proceeding by rail with a supply of these hammocks, which, being of small bulk, are easily carried, are very adaptable to railway waggons or other conveyances, and are most comfortable and inexpensive."

FOOD-DISEASES.

SIR,—May I presume to trespass upon your courtesy to inform me whether there is at present, or has been in past, a specific disease prevailing in Ireland consequent upon the insufficiently nutritious properties of potatoes, the staple food of the Irish peasantry, and whether there is any medical work treating of or otherwise referring to the same? A friend of mine, an Italian physician, having been appointed to report on a dreadful specific disease called the "pellagra" (mainly attributable to the insufficiently nutritious properties of maize, the staple food of the Italian peasantry), is desirous of knowing whether and how a like subject has been approached and inquired into elsewhere, and more particularly in England.

Trusting that the nature of the present communication will excuse the liberty I have taken in thus addressing you, I have the honour to be, sir, yours very respectfully,

P. PIZZI.

* Some of our members in Ireland will perhaps kindly enable us to answer Signor Pizzi's question.

ANIMAL VACCINATION.

MEDICUS inquires: Can any of your readers inform me if vaccination, direct from the cow, is now practised? If so, by whom, and with what result?

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

"FOOLS RUSH IN."

SIR,—In the JOURNAL of to-day you refer, under the above heading, to a case in which a person, not a medical man, "bled one doctor with a lancet borrowed from a second, and in the presence of a third member of the profession, who looked on." It is not my intention to defend the action of the person who used the lancet with such ill-directed zeal on the occasion referred to; but I, for one, cannot hold the medical men who watched the proceeding blameless in the matter. It appears to me that, before placing a surgical instrument in the hands of a stranger, the house-surgeon referred to should have ascertained that the person who proposed to operate was a duly qualified surgeon. Until proof is forthcoming, we should not take for granted that every busybody who comes forward in a street or public place and undertakes the treatment of persons seized with sudden illness, is a medical man. One Sunday evening, not long ago, I was walking through a street in North London, when my attention was attracted by a crowd around a man lying on the pavement apparently in a fit. Elbowing my way through the crowd, I saw that a person in a black suit and with a white tie was feeling the man's pulse. For a minute or two I thought that the person was a medical man; but, seeing that his proceedings were not strictly professional, I ventured to ask him if he were a doctor. He replied in the negative, but stated that he knew a good deal of physic. I immediately sent a policeman for the nearest doctor, whose residence was within fifty yards, and told the amateur doctor (who, I learnt from a bystander, was a street-preacher), that he would earn a much higher reputation by attending to his own business than by interfering in cases of which he could know nothing whatever. Of course I did not disclose that I was a medical man, or he might have suggested that I was actuated by personal motives in objecting to his publicly exhibiting his medical knowledge.—I am, sir, your obedient servant,
London, June 24th, 1876.

ANTI-QUACK.

DR. M. G. EVANS (Cardiff).—We cannot find any record of the cases to which our correspondent refers.

ASYLUM MEDICAL ETIQUETTE AND THE RIGHTS OF PUBLIC OFFICERS.

SIR,—I do not deny the paramount rights of the superintendent while on the premises, but am not aware of a "rule" granting him absolute authority when one hundred and fifty miles away. Dr. Phillimore is well aware that the assistant medical officer, in the absence of the superintendent, is chief medical officer, performs the duties of the superintendent, is held responsible for the well-being of the asylum and its inmates, and is under the control of the Committee of Visitors. I shall not quarrel over the title of "deputy superintendent", which is a quotation in the present case from a testimonial written by Dr. Phillimore himself. I should like to know the "rule" that enables him to confer a title one day and revoke it the next. Such a deviation from authority is unaccountable in Dr. Phillimore's conduct, and surely demands a word of explanation. The apparent discrepancy in the dates is easily explained; for those in the "case-book" the nurse is in part responsible. The casual fall of this tottering paralytic did not merit a special examination for fracture; and, moreover, as the patient required assistance in walking before the accident, there was nothing to arouse suspicion until the nurse observed "the swelling". Then the limb was examined and put up. Therefore, the "dates in the case-book" are but an approximation to the truth, whereas those published express as accurate a clinical opinion as I could possibly give; consequently, Dr. Phillimore's indirect charge of negligence on my part, and his jubilee over the "dates", fall together.

Dr. Phillimore has at length admitted that he found the limb under treatment on his resumption of office; and since the method of procedure adopted by me remained throughout, it becomes almost superfluous to reassert that "the case, its treatment, and the notes taken, were legally and morally mine". So much for the "ethics and dates". The "result" was disposed of in my last letter.

The introduction of the *post mortem* question into this discussion was merely as an illustration of Dr. Phillimore's views on "public rights" *versus* "science", and as corroborative of the assertion in my first letter, that the "ground" on which "he withheld his consent" to the publication of a case was, that "public officers have no right to use their patients for scientific purposes". A look at Note B in the report—which, by-the-by, is the second you have been favoured with—will serve to confirm my statement, and show Dr. Phillimore's exclusive and antagonistic opinions. Publishing those opinions is submitting them to his brethren; and the Commissioners of Lunacy who issued the "circular" have already commented on his opposition. Nay, he goes further, and declares that it is equally illegal to "write about" the living, as to "cut up the dead"; and, doubtless, if the latter practice of "using patients for scientific purposes" be a breach of the "written law", the former is a violation of the *lex non scripta*, which is the basis of individual right. I hold that, if Dr. Phillimore will not admit his verbal argument, his *post mortem* manifesto covers and more than proves my original assertion. To admit this, however, would be disastrous to his cause, as he himself has published cases; therefore, I am forced to conclude that when Dr. Phillimore "withheld his consent" he had no object to satisfy such a personal whim.—I am, sir, your obedient servant,
Birmingham, June 26th, 1876.

ALEX. M'COOK WEIR, M.D.

NERVOUS SHOCK COMMUNICATED TO THE SUCKLED BABE?

SIR,—Permit me to give short notes of a case somewhat similar to that related by Mr. Blenkarne in your issue of last week. A healthy child of three months of age was brought by the mother to the surgery of the union medical officer in order to be vaccinated. During the time she was sitting in the surgery, a thunderstorm broke over the place. Whilst the child was being vaccinated, she gave it the breast; and the crying of the child during the little operation, together with the thunder and lightning, caused her much mental agitation. Soon after the operation was finished, there was a lull in the storm; but as it was still raining, she wrapped the child in a shawl, and, in order to keep it quiet, she allowed it to suck the breast, whilst she hurried to the railway-station, a distance of about three-quarters of a mile. On unwrapping the child at the station, to her horror she found it senseless; and, as my house was close to the station, a messenger was despatched for me, and I was in attendance without loss of time. The child, however, was dead, and, in Mr. Blenkarne's words, "it was perfectly pale, as white as marble, looked as if it were fast asleep, with a smile on its face, no lividity of the lips, no frothing at the nose or mouth, no appearance of its having had the least convulsive or spasmodic movement of any kind". So far, the cases are parallel in essential features. I was not, however, so fortunate as Mr. Blenkarne in having my opinion asked at the inquest. The coroner, who was not a medical man, directed the jury to bring in a verdict of "died from accidental causes", or "from the visitation of God", or some such absurdity, and the case was at once disposed of. Had my

opinion been asked, I should certainly have urged most strongly the necessity for a *post mortem* examination, and I think that such an examination would have helped me very much in forming an opinion of the cause of death. Surely the presence or absence of lesions in the brain, the condition of the lungs, and, above all, the condition of the heart with respect to the relative quantity of blood in its cavities, would have enabled me to judge whether death began in the brain, lungs, or heart; but in the absence of such evidence, I have the strongest possible conviction that, in her eagerness to protect the child from the rain, and in the subsequent forgetfulness caused by the agitation of her mind, the child was held so close to the breast as to have been smothered. The calm, peaceful, almost smiling, expression of countenance, just as if the person were in a happy sleep, is quite indicative of death by suffocation; nor does the marble pallor of the face immediately after death militate in the slightest degree against this opinion, though in such cases the face, after some hours, usually becomes more or less livid. And in Mr. Blenkarne's case I prefer to attribute the death to a similar cause, even although I place myself in opposition to the opinion of the coroner, and to that of the jury also, rather than make a gratuitous assumption of such a fictitious and altogether inadequate cause as "nervous shock through the mother".

I enclose my card, and remain, yours, etc.,
June 26th, 1876.

CAUTION.

DR. DRAPES (Enniscorthy).—1. Warburg's tincture is a preparation of a number of ingredients which has had much repute on the Continent for many years in malarious disease. Its composition was described some months ago by Dr. Maclean, in the *Medical Times and Gazette*. In the case in which A. does not present himself at the end of at least half-an-hour after the time appointed, we think that B. might see the patient; but that he should take the earliest opportunity of having an interview with A., and should in the meantime not interfere with the treatment, unless the urgency of the symptoms demand such interference. 2. Bigelow's book may, we believe, be procured from Trübner and Co., Ludgate Hill, London.

DOCTOR AND M.D.

SIR,—As the prefix "Dr." has been so freely adopted and placed on the door-plates of non-University men, is there any objection to my placing on my plate simply my name, followed by "M.D."? I really know no other means of letting the public know what I am; and, being a spade, I should prefer being known as such, and not by a name merely implying any sort of garden tool, for the term "Doctor" may now be said to be the common property of every practitioner. But I ask your advice, as I should not willingly offend those who, while claiming the title "Dr.", cannot, as I propose, put on their plates

PETER SIMPLE, M.D.

. We see no objection whatever, our correspondent being actually M.D.

A MEMBER (Strabane).—The form of printing the Reports to the Scientific Grants Committee has been adopted in order to facilitate their subsequent binding in a separate Volume of Scientific Reports, which will have a distinct value hereafter for reference, and as a volume of original research on physiological and therapeutic subjects. A legible and full-sized type has been purposely selected.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; etc.

. We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, &c., have been received from:—

Dr. Allen Thomson, Glasgow; Dr. Dickson, Constantinople; Dr. H. Charlton Bastian, London; Mr. J. Sampson Gamgee, Birmingham; Dr. George Johnson, London; Dr. Bradbury, Cambridge; Mr. Jonathan Hutchinson, London; Mr. C. H. Leet, Liverpool; Mr. W. H. A. Jacobson, London; Dr. Edis, London; Mr. Hartridge, Kendal; Dr. De Berdt Hovell, London; Dr. Beach, London; Mr. Garland, Yeovil; Dr. Sharpey, London; Dr. Rickards, Birmingham; Mr. W. B. Hemming, London; Mr. Board, Bristol; Staff-Surgeon R. Nelson, Plymouth; Mr. Torrance, Airdrie; Mr. Turner, Edinburgh; Mr. T. Spencer Wells, London; The Secretary of Apothecaries' Hall; Mr. Rayley Owen, Canterbury; Dr. Michael Foster, Cambridge; Mr. Lennox Browne, London; The Registrar-General of England; Mr. John Woodman, Exeter; Mr. L'Heureux Blenkarne, Buckingham; Dr. J. Milner Fothergill, London; Dr. Joseph Bell, Edinburgh; The Registrar-General of Ireland; Dr. Wm. Fairlie Clarke, Southborough; Dr. J. W. Moore, Dublin; Mr. Eastes, London; Dr. Cleland, Galway; Mr. T. F. K. Underwood, London; Mr. Turnbull, Huddersfield; Messrs. Probyn and Co., London; Our Edinburgh Correspondent; Mr. Edmund Owen, London; M.B.; Mr. Millikin, London; J. A. W.; Mr. C. Spurway, Paignton; Mr. W. Black, Edinburgh; Dr. Lindsay, Perth; Dr. Quain, London; Mr. Walter Rivington, London; Mr. Eddowes, Shrewsbury; Dr. Wilks, London; Mr. W. E. C. Nourse, Brighton; Dr. Vivian Poore, London; Dr. Russell, Glasgow; Mr. Sandberg, Harpenden; Dr. Wallace, Liverpool; M.D. Edin.; Sir-James Paget, London; Our Dublin Correspondent; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; Dr. Vernon, Southampton; Dr. D. W. Morris, Gosmont; Mr. Clement Walter, Dover; Mr. Nelson Hardy, London; Dr. Grainger Stewart, Edinburgh; Mr. R. Garner, Stoke-upon-Trent; Dr. Bodington, Kingswinford; etc.

BOOKS, &c., RECEIVED.

How to Use the Ophthalmoscope. By Edgar A. Browne. Trübner and Co. 1876.
The Nurse's Companion. By Chas. J. Cullingworth. London: J. and A. Churchill. 1876.
Practical Chemistry. By William Odling, M.B., F.R.S. Fifth edition. London: Longmans, Green, and Co. 1876.
Medicinal Plants. By Robert Bentley, F.L.S., and Henry Trimen, M.B., F.L.S. Part X. J. and A. Churchill. 1876.

AN ADDRESS ON THE HISTORY, CONSTITUTION, AND OBJECTS OF THE BRITISH MEDICAL ASSOCIATION:

AND ON MEDICAL ORGANISATION IN GLASGOW.

*Delivered at the First Annual Meeting of the Glasgow and West of Scotland Branch.**

By ALLEN THOMSON, M.D., LL.D., F.R.S.S.L. & E.,

Professor of Anatomy in the University of Glasgow; President of the Branch; etc.

ENGAGED, as many of us are, in promoting the best and highest objects of medical practice and teaching, we are too apt to allow our ideas to be magnified of what has been accomplished in both of these directions; and to shut our eyes to some of the shortcomings of our professional system—more especially, it may be, in our own case, to those which arise, not so much from any want of exertion or attention on the part of the members of the profession itself, as from the circumstances which are inseparable from the over-rapid changes occurring in a community and district like ours, where the population has of late years increased with transatlantic rapidity.

A glance at the progress of medical institutions in Glasgow will serve to show within how short a time the whole of the present system has sprung up; how much of it has been, in some measure, the result of accident and the force of circumstances; and how much, therefore, there might be to alter, modify, or arrange, were it in our power to do things in the way or to the extent which might appear most desirable.

In considering the present state of the profession, and the circumstances which may affect its welfare and progress, it is curious to look back from the stringent system of education, examination, and licensing of the medical practitioner, which has been introduced in our own time, to a period of three hundred years ago, when entire liberty seems to have prevailed in regard to medical or surgical practice, and nothing seems to have prevented the assumption of medical titles or duties, unless, perhaps, the discouragement arising from the absence of a sufficient number of patients desiring to avail themselves of the services of the intending medical practitioner. It is interesting also to turn from a time like our own—in which the inquiries of the profession and the community are directed with intense care and attention to every circumstance that can affect the conditions of public health, and when the crowding of human and animal life into narrow spaces opposes greater and greater obstacles in the way of securing proper sanitary conditions—back to the remoter period when diseases were left comparatively to themselves; and when the disinfecting and antiseptic powers of earth and water, in the larger proportion which they then bore to the sources of infection and disease, very generally proved in ordinary circumstances sufficient to diminish the virulence and check the ravages of epidemic diseases.

But, while we know that the proportional small number of the inhabitants secured to them some degree of immunity from the dangers which belong to the more crowded conditions of modern life, yet it is known that in many instances unchecked epidemics acted as scourges which almost exterminated large sections of the population; and it is undoubted that the rate of mortality from disease was much higher, in proportion to the population, than it is in our own time. And we have thus abundant proof that, as population increases, there is not only a decided advantage to the community from a fuller supply of regularly instructed medical and surgical practitioners, but there is shown to be an absolute necessity for these practitioners bearing a certain proportion to the community at large, in order to secure the measure of health and well-being which the other conditions of modern civilisation render possible.

In former times, it would appear that the magnates of our profession were for the most part graduates of foreign universities, and these were apparently received without much inquiry as to their credentials, or on their own assertion of their titles; and, when duly accredited, were regarded with honour as the possessors of all the scholastic learning of the profession which could emanate from famous universities, such as Leyden, Paris, or Bologna.

* Concluded from page 37 of last number.

It is curious to view the different position now accorded in this country to these degrees, which are generally looked upon with distrust, and are refused a place in the authorised *Register*, more immediately because they are not, as all our own licences are, under the control of regulation and inspection by the General Medical Council of the Kingdom, and more indirectly on account of the very loose manner in which degrees have been granted by some of the foreign universities, without the evidence of regular study and without examination.

Although in several of the Universities of Scotland a *mediciner* or medical professor may have existed from an early period, the office does not appear to have been maintained with regularity, and the degree of doctor of medicine was only occasionally and very rarely conferred. It need scarcely be said that in these circumstances there was no regular system of medical instruction pursued in the Universities. Even in Edinburgh, which in the middle and latter part of the last century acquired great renown and was much frequented as a medical school, it was only in 1726, or exactly a century and a half ago, that the medical school of the University came into operation by the first Monro, with his coadjutors, beginning to deliver systematic instruction within the precincts of the University. And in our own University of Glasgow, although the two chairs of Medicine and Anatomy were occupied from 1714 and 1718, the respective dates of the appointments of Dr. John Johnstoun to the chair of Medicine and Dr. Thomas Brisbane to that of Anatomy and Botany, yet it was not till 1745-6 that a regular course of instruction by lectures can be said to have begun in Glasgow, when Cullen undertook the first course of lectures on the Practice of Physic which was delivered in our city. And it shows how imperfect were the arrangements to form a school, that Cullen also taught *Materia Medica* and Botany along with Mr. Carrick, and for a time somewhat later conducted a class of Chemistry.

Dr. Johnstoun and Dr. Brisbane had, it is true, given occasional instructions in their respective subjects of Medicine, Anatomy, and Botany; but, in 1742, Dr. Robert Hamilton was appointed to the chair of Anatomy, and he appears to have conducted more regularly courses on the two subjects included in his commission.

It is, therefore, no more than one hundred and thirty years since the system of medical instruction by means of lectures took its rise in Glasgow.

The chair of Chemistry was occupied by Black, the celebrated chemist, from 1756 to 1766; and in 1756, when Cullen was transferred to Edinburgh, Robert Hamilton was appointed to the Practice of Physic chair, and his younger brother Thomas became the occupant of the chair of Anatomy and Botany. In 1781, he was succeeded by his son William at the early age of 23, a man of great ability, the father of Sir William Hamilton the metaphysician, and whose early death in 1789 alone prevented him from attaining to great eminence.

In 1788, Dr. Cleghorn, well-known as one of the earlier supporters of the University medical school, was appointed lecturer on *Materia Medica*, and three years later on Chemistry. But as yet there was no infirmary in Glasgow; and, for a time at least, the only means of public clinical instruction for the pupils of the nascent school was in the Town's Hospital or Poor's House, where a certain number of cases of disease were treated. Dr. Cowan has stated, in his introductory address to the medical students of the University in 1869-70, that he has in his possession tickets of admission to lectures on the cases of patients in the Town's Hospital delivered by Dr. Cleghorn in 1787-8. It was only in the latter year, or less than ninety years ago, that the proposal to establish an infirmary or public sick hospital in Glasgow was set on foot by Mr. Jardine, the Professor of Logic in the University. In this, he was ably assisted by Dr. Stevenson, the Professor of the Practice of Physic; and in 1794 the building was opened for the reception of patients.

At this time, it is deserving of note that the population of Glasgow was about 75,000, and the number of beds provided by the new hospital was 160.

The teaching of surgery was considered to belong to the chair of Anatomy, and it was not till 1815 that a separate professorship of Surgery was instituted. Physiology, though taught separately for some years by an appointed lecturer, was only erected into a separate professorship in 1839, when my colleague Dr. Buchanan was appointed to the office.

The first foundation of the chemical chair as a professorship took place in 1817, when Dr. Thomas Thomson was chosen to fill it, and gave all his ability and learning in teaching his science.

The Botany chair, with which the honoured name of Hooker is connected, was founded in 1818.

* I have heard my father, Dr. John Thomson, who was a student of William Hamilton's in 1787-88, speak with great delight of his instructions. He furnished his master with plants for conducting his botanical lectures.

But, although the formation of a medical school within the University has only been effected in the later times now mentioned, medical teaching was not entirely in abeyance in Glasgow during the previous century and a half; for the Faculty of Physicians and Surgeons, to which the profession in Glasgow owes a deep debt of gratitude, had as early as 1599 (as has been related in our excellent friend Dr. Weir's *Historical Sketch of the Faculty*) acquired its original charter granted by James VI to Mr. Peter Lowe the famous surgeon, and Mr. Robert Hamilton styled Professor of Medicine, giving to these gentlemen the right to examine all those intending to practise surgery and pharmacy in the town of Glasgow and counties of Lanark, Renfrew, Dumbarton, and Ayr. Thus arose the Corporation of the Faculty of Physicians and Surgeons, in whose hall we are now met—a body of men composed, as McUre in his quaint *History of Glasgow* says, “for the most part, of persons of singular ingenuity, candour, and integrity”, and which from the first has endeavoured to secure proper qualifications on the part of those to whom the care of the sick was to be committed—which for a considerable period provided the only medical and surgical education to be obtained in Glasgow, and which has steadily maintained the credit of the profession in this city and the west of Scotland.

The parallel body of Edinburgh, the College of Surgeons, was of earlier foundation, having obtained its charter from James IV in 1505, and had exercised the same influence in the capital in connection with the very incomplete medical education which the circumstances of the time required and deemed sufficient.

The charter of the College of Surgeons, from an extension granted, however, only so late as in 1695, gave an exclusive right of practice in surgery and pharmacy in the counties of the Lothians, as well as in Peebles, Selkirk, Roxburgh, Berwick, and Fife; while the rights of physicians or graduates to practise medicine appear to have been reserved.

These corporations, as is well known, were of the nature of burgh guilds, and they were both connected for a time with the barbers; though, as shown by Dr. Weir, that connection was not original in the case of the Glasgow faculty, and it was never very intimate in either of the bodies.

But, as medical education improved in modern times, and the scientific character of the profession became more and more established, the unsuitable nature of guild privileges and restrictions on practice came more and more to be felt; and, at the time of the reform of the Corporations, the College of Surgeons and the Faculty of Physicians and Surgeons ceased to belong to the City Corporations, and assumed the place and dignity of guardians of scientific professions. In our own time, as is well known, a very different kind of guildry or restrictive control of medical or surgical practice has arisen, by the endeavour to subject all registered practitioners to uniform and fixed rules of study and examination for qualification, an attempt which, in the estimation of some, may be carried to too great an extent, though we can scarcely now doubt the propriety of securing the full, and up to a certain standard, the equal education of all those who are recognised as qualified to practise under the Medical Act of 1858.

We know very little of the nature of the instruction given by the College of Surgeons or Faculty of Physicians and Surgeons in the sixteenth or seventeenth centuries. A great part was probably after the manner of apprenticeship; but, in Edinburgh, anatomical demonstrations were given for some time before the establishment of the University schools, as those by Mr. Alexander Monteith from 1694, by Robert Elliott from 1705, and by him along with Drummond from 1708; and later by Drummond and McGill from 1716, and by Alexander Monro, the famous anatomist, from 1720. Monro was named professor of the University in 1822, but did not teach within its precincts till some years later.

The apprenticeship system, to which allusion has been made, appears on the whole to have worked well; and, although, from the absence of regular courses, there was no attendance on lectures required, it appears from Dr. Weir's researches, that a long term of practical training, amounting to seven years, was insisted on; and as many as three examinations had to be passed at successive stages of the candidate's progress before he could be qualified to practise under the charter of the faculty. There can be no doubt that, if such a system of general and clinical instruction were faithfully carried out by a sufficiently informed and intelligent master, it might, in older times at least, lead to the very best results in the attainment of practical knowledge and skill. The progress of science in connection with medicine has rendered such a method of study altogether insufficient in our times, but its value in the clinical part would still be the same, and it is in some measure to be regretted that it cannot be more frequently pursued.

As licensing bodies recognised under the Medical Act of 1858, the

Faculty of Physicians and Surgeons and the University of Glasgow are equally subject, as regards the terms on which their licences and degrees are granted, to the control and superintendence of the General Medical Council; and I am happy to say that, whatever differences may have at one time arisen between these bodies from the University assuming the function of granting degrees in surgery, these differences have now entirely disappeared, and both bodies are earnestly bent upon securing the best mode of conducting their examinations, and testing the qualifications of candidates for licence to practise.

Of the medical schools of Glasgow, I think I may say that signs of increased vitality are visible, in the steady increase of the number of pupils which has occurred in recent years. In the University, the number of medical students enrolled in the past session was upwards of four hundred, being exactly double the number in the session 1851-2.

It is also a most favourable sign of the vigour of the school of Glasgow as a whole, that the managers of the Royal Infirmary, deeming that it would be advantageous to the institution itself, as well as to the medical profession and the public, that a larger number of students should avail themselves of the means of instruction afforded by the infirmary, have resolved to give accommodation to lecturers on the different branches in the medical curriculum within the infirmary buildings or others in the immediate vicinity. And I think we have reason to expect that the Glasgow school as a whole will gain in efficiency and reputation by the competition of new lecturers and the addition to the number of students which may be anticipated.

We can also look back to a period when other private schools existed in Glasgow; and several names known to fame in their respective departments could be mentioned as having taken part in the work of these schools. Among these I will only mention Allan Burns as one of the most accomplished anatomists of his time; and we are glad to acknowledge the benefits which have accrued to medicine and science, as well as to the University herself, from the spirit of rivalry excited, and from the original investigations and teaching of the occupants of chairs in Anderson's University, many of whom have, as is well known, been transferred to the University. It would be unpardonable to pass over in silence the names of Graham and Gregory as occupants of the Andersonian chair of Chemistry.

Nor can I omit here the mention of several societies which have exercised a beneficial influence on the spread of medical knowledge among the members of our profession, and among these the Medico-Chirurgical Society of Glasgow, which has existed since 1814, and has enrolled on its list of members all the leading medical men of Glasgow during the period. The Southern Medical Society and the Pathological and Clinical Society contribute their share to the progress of medical and surgical knowledge.

A medical journal has at various times been published in Glasgow, but not, I regret to say, continuously. In 1868, an Association of the profession was formed to maintain the present journal, and since that period, under a succession of able and zealous editors the journal has been published, as regards the number of subscribers with fair success, but, as regards its conduct and matter, with such cordial approbation of all good judges as may entitle it to expect a far wider circulation than it has yet enjoyed.

The establishment of a connection through our Branch with the main body of the British Medical Association, may be the means of aiding in the very desirable object of extending the usefulness of our valuable local medical record.

To the sanitary board, as medically represented by its able head, Dr. Russell, a reference will be made hereafter.

We have reason to be proud of our public hospitals for the sick. At the time when the Royal Infirmary of Glasgow was opened for the treatment of patients in 1794, it contained only a hundred and sixty beds; a larger proportion, however, to the existing population of the time (about 75,000) than at a more recent period, when the extent of its accommodation had been greatly increased. By that increase, going on from time to time, the number of beds has now reached five hundred and eighty.

The number of beds contained in the part of the Western Infirmary which has been constructed and which was opened in 1874, amounts to two hundred; the entire hospital, when completed, being planned for a service of three hundred and fifty beds.

These hospitals are entirely supported by voluntary annual contributions and donations.

The two hospitals for contagious epidemic diseases, maintained by assessment under the Glasgow Police Act for sanitary purposes, at Parliamentary Road and Belvidere, contain two hundred and fifty beds each, and in addition there is being now constructed at the latter place, in which spacious grounds have been secured, a small-pox hospital to contain a hundred and twenty beds. And to these is soon to be added a con-

siderable hospital of the same kind, which is being erected at Anniesland Toll, under the Partick, Hillhead, and Maryhill Combination of Joint Authorities.

Nor is this all; for, in connection with the City, in the Barony and the Govan Poor-Houses there are set aside wards for the sick and for lying-in women, which are, of course, available to the poor in the respective parishes.

The great Lunatic Asylum at Gartnavel is known to be one of the best in the kingdom; and, in connection with the several poor-houses, excellent lunatic asylums are provided, of which that of the City Poor-House and the beautiful new asylum of the Barony, now situated at Lenzie, deserve special mention.

Of smaller hospitals, the new Eye Hospital and the Lock Hospital may be added to the list of established infirmaries; and besides these, there are still other charities for the cure of the sick which I can do no more than name, such as the Skin Dispensary, the Ophthalmic Institution, the dispensaries for the Ear, the Chest and Throat, as well as those more important general dispensaries to which I allude hereafter in connection with the medical mission of Glasgow.

I must not forget that our Branch Association is not confined to Glasgow, but includes the neighbouring counties; and it is right, therefore, and I have the greatest pleasure to add to my enumeration of the institutions which combine charitable care of the sick with the instruction of the attending medical men, the admirably well-managed hospitals of Paisley and Greenock.

But while we have reason to congratulate ourselves on the efficient condition of such medical institutions as I have now referred to, and may think that, on the whole, much is doing for medicine in certain directions, we cannot shut our eyes to serious defects which may be detected in other aspects of the profession, more especially in that of its relation to the service of the sick poor in our city—defects in which the public or the community at large is more to blame than the members of the profession.

In the very able Report, recently made by our excellent Medical Officer of Health, Dr. J. B. Russell, on the large number of uncertified deaths in Glasgow, to which attention was called as early as 1871 by Dr. Fergus, the proportion of the medical men to the population is referred to in a most interesting manner, and much valuable information is collected, to which I cannot avoid alluding somewhat more at length on the present occasion, as it involves some of the most important topics which can come under the consideration of the profession.

Dr. Russell shows, in the first place, that there is throughout the country a well-marked proportion between the completeness of the registration of deaths and the extent and quality of the medical assistance obtained by the population in sickness.

Now, it appeared that in Glasgow, in the years 1872-3-4, with an average death-rate of 29½ per 1,000, as many as 22 or 23 per cent. of the deaths were uncertified. Of these uncertified deaths, fully a half were of children under five years of age; the proportions were greatest in the districts with the highest mortality, and they included a larger proportion of illegitimate than of legitimate children—thus showing, in Dr. Russell's telling words, page 11, "that the more dependent and helpless of itself the life is, the less attention it receives from those on whom it depends".

Taking the year 1874 for comparison, in Edinburgh the proportion of deaths which are uncertified is 6 per cent., scarcely more than one-fourth of that in Glasgow. In Liverpool it is only 4½ per cent., and in the worst districts of London it does not amount to 1 per cent.; while that in the worst part of Glasgow attains the enormous proportion of 44 per cent.

The unfavourable result of a comparison of Scotland and England, as regards the medical relief of the sick poor, has, however, been long known; for as early as in 1855 Dr. Stark, Superintendent of Statistics under the Registrar-General, gave the following view of the proportion of deaths, in the several cities of Scotland named, which appear to have taken place without medical attendance, viz.:

Leith	about 8 per cent.	Glasgow	about 20 per cent.
Aberdeen	" 10 "	Dundee	" 25 "
Edinburgh	" 12 "	Greenock	" 38 "
Perth	" 13 "	Paisley	" 40 "

While in London and Liverpool, three years later, the percentage varied only from 1 to 2 per cent.

If we consider further, that the numbers previously stated refer to deaths alone, and that each death may be held to represent the illness of from twenty to twenty-five other persons, who have not had medical aid, we may form some idea of the very large number of sick persons who have been left destitute of assistance in

various degrees of suffering. Time will not allow me to follow Dr. Russell through the very full and interesting statement by which he shows, in the most convincing manner, that in Glasgow there is some serious defect in the system of medical relief to the poor—statements which demand the most serious consideration by us all, and which will well repay the trouble of a most careful perusal; but I must hasten to the consideration of the circumstances which appear most immediately to lead to the defects so much to be deplored.

There can be very little doubt, from a comparison with other places, that one cause of the large number of uncertified deaths, and of the concomitant proved deficiency of medical relief to the sick poor, is to be found in the fact, that the number of medical practitioners, in proportion to the population, actually falls considerably below that which exists in most other places, and which, from experience, has been deemed sufficient for the supply of the medical wants of a community.

If, according to the census of 1871, we take the population of Great Britain and Ireland at about 31,500,000, and if we take the number of medical practitioners from the *Register of the Medical Council* at about 21,200, the proportion of medical men throughout the country to the general body of the population is nearly 1 to 1,486. But if from the whole number of registered practitioners there be subtracted the number of those residing abroad and of those employed in the military and naval services, amounting together probably to 3,500, the proportion of medical men to the population of the whole kingdom will be reduced to 1 in 1,780.

In London and in Edinburgh, the proportion seems to be as high as one medical man to 1,000 or 1,100 of the population. In Liverpool, it is about 1 to 1,500; but in Glasgow, it appears to be as low as 1 in 2,500, or even considerably lower.

Dr. Acland, the President of the General Medical Council, in his introductory address on May 24th, called attention to the inadequate supply of medical practitioners which appears to be taking place throughout the whole of the British dominions, and to the remarkable diminution in relation to the population which appears to be occurring in England and Scotland during the last twenty or twenty-five years. His attention was drawn to the fact, as regards England, by Dr. Farr referring him to the statement in the supplement to the Thirty-fifth Report of the Registrar-General, by which it appears that there is a medical man to every 1,276 of the general population of England; but in 1851 the proportion appears to have been 1 to 1,031, and in 1861 it had diminished to 1 in 1,205, and in 1871 to about 1 in 1,280.

In Scotland, the supply was more defective in 1851 than in England, being only as 1 in 1,388; in 1861, nearly as 1 in 1,640; and in 1871, as low as 1 in 1,900.

In Ireland, the supply was very defective in 1851, being only in the proportion of about one medical man to 2,500 of population; while in 1861 it had risen to 1 in 2,000, and in 1871 to 1 in 1,666.

It is not for me to enter into the consideration of the circumstances influencing these and other changes. I wish only to call your attention to the fact that the proportion is at its lowest in Glasgow; and that, while the population has been increasing with immense rapidity, so as to have doubled itself during the last thirty years, the number of medical men (as entered in the list of the *Town Directory*), has remained nearly the same during three decennial periods—thus making the proportion of the medical men to the population only a half of that which it was in 1845 or 1846. In round numbers, the proportions for certain decennial periods, extending back to 1841, during which the lists seem to be fairly comparable, are as follows:

	Population.	Phys & Surgs.	Proportion.
1841-2	280,000*	217	nearly 1 to 1,300
1851-2	360,000	230	" 1,600
1861-2	493,000	230	" 1,750
1871-2	566,000	236	" 2,400
1875	640,000	237	" 2,700

It does not appear probable that the place of regularly qualified men is, to any extent, supplied by irregular or unqualified practitioners; and if, as has generally been held, one medical practitioner to a thousand of the population be looked upon as any approach to the proportion required for the due care of the sick, no doubt can prevail that the supply is miserably deficient in Glasgow.

But besides the actual deficiency in the number of medical men in Glasgow, it would appear that there is also, as compared with other great cities, a want of the proper distribution of their services to the poor in the manner calculated to be most effective in the relief of sickness, as will appear from the subjoined extract from Dr. Russell's table of the comparative facilities for obtaining medical aid by the poor

* The above for Glasgow and suburbs.

in Glasgow, Liverpool, and Edinburgh, under the three heads of treatment in hospitals, at home, and in dispensaries, in 1874:

Number of patients treated	Glasgow.	Liverpool.	Edinburgh.
1. In hospitals	6,654	7,463	5,344
2. At home	1,556	20,575	9,234
3. In dispensaries	29,409	92,578	27,811
Total treated	37,569	120,616	42,389
Population*	525,448	510,640	211,691

Thus the proportion of the poor treated charitably to 1,000 of the population is 236 in Liverpool, 200 in Edinburgh, and only 72 in Glasgow, or a third of that in the other two cities.

Now, it may easily be seen that the inferiority of Glasgow does not lie in hospital treatment, which in the meantime may be considered as fairly commensurate with the wants of the community, but rather mainly in the absence or very defective condition of the home visitation and dispensary treatment of the sick poor.

Both of these forms of medical charities have long existed in Edinburgh and Liverpool; and in the first of these places, they have been found, not only most effective in the relief of the poor, but a very valuable aid also in instruction as connected with the medical schools. In Edinburgh and Liverpool the dispensary system has grown with the increase of the population; but in Glasgow, an enormous and rapid growth of the population has taken place without any corresponding extension of the means of affording medical relief of this kind to the poor.

A most praiseworthy attempt, no doubt, has been made to supply this want by the medical mission; but its powers are entirely inadequate to meet the exigencies of the case, and it is abundantly clear, that what is mainly wanted in Glasgow is a great development of the dispensary system, which, at a comparatively low cost, will provide in the various most convenient localities throughout the city the readiest access to medical and surgical advice, and, under certain restrictions, will afford medicines to the poor; and, through the same agency, the organisation of a system of home visitation, in which a number of the medical practitioners will take a part, and will be assisted, greatly to their own benefit, by a large number of the more advanced students from the different medical schools.

For the foundation of such dispensaries, something may be done by the Charity Organisation Society; and funds will be required to carry out a thoroughly efficient system. But when the urgency of the case is known, it is not probable that these will be long wanting. Several of the existing institutions may be made to subserve or assist in the establishment of the new dispensaries; and it is deserving of notice that this mode of medical relief of the poor is by far the most economical that can be adopted; while it is certain that it has not, in any of the places where it has been best carried out, had any tendency to increase pauperism. Nor has it interfered with the due exercise of their profession by medical practitioners, nor been productive of any other evils. On the contrary, it has everywhere been attended with the purest beneficial results.

With Dr. Russell, we must acknowledge the truth that Glasgow has in this respect entirely outgrown its charitable organisation for the sick; and this has taken place so rapidly that the inhabitants have not been aware of the deficiencies. It will be for the medical profession of Glasgow and the west to point out these defects and to indicate the nature of the remedies by which they can be removed. And I need scarcely point out to you that, in such a work, a Branch of an Association which forms so large a proportion of the whole profession in the kingdom, may expect important assistance from that combination of opinion and action which in a good cause is sure to lead to happy results.

Great as has been the liberality of some of the wealthier inhabitants of Glasgow and the west, these individually, but more especially the community at large, have yet to learn that greater demands will be made on their charitable contributions. The giving of such charity must not, as heretofore, be confined to the willing few, but must extend itself to every one who is able in proportion to his means; and if a sufficient response be not made to such appeals as the exigency of the circumstances demands, it will very soon become apparent that the deficiency must be supplied by the levying of a rate over the whole of the inhabitants. It is worthy of remark that the local authorities have all the necessary powers for dealing with the treatment of diseases which are infectious among the poor, and levy rates for the purpose. The epidemic hospitals already described are so supported; and, if needful, local dispensaries and home attendance and nursing could at any time be provided from the same rates for the same class of diseases. It well deserves consideration whether similar powers should not be ex-

tended to other diseases affecting the lower classes of society, which, when existing for any length of time, and allowed to run their course without medical aid, deprive the sufferers and their families of the means of support, tend to reduce them to indigence, and thus increase the rank of paupers in the country.*

There is another subject to which, in any combined movement of the profession for the improvement of attendance on the sick, whether poor or rich, it is most desirable that the attention of medical men should be directed, I mean the training of skilled nurses. Whatever may be our views upon the much debated question of the suitability of women assuming the functions of physicians and surgeons, and there is much room for difference of opinion on the subject, I presume we shall find entire unanimity in the view of the peculiar fitness of women for the business of sick nursing, and of the desirableness of substituting an improved system of training them to a knowledge of the best way of performing this service, in place of the altogether fortuitous and irregular modes of instruction which have hitherto prevailed.

It may be matter of consideration how far theoretical or preliminary knowledge ought to precede or be combined with the practical education of the nurse; but none can entertain any doubt as to the advantages of the regular system of practical training which is now being introduced in this and some other places. It seems scarcely to require any argument to prove that a good previous education will in regard to the acquisition of skill in practical details give the same facility of learning and completeness of knowledge which it lends to other kinds of study and acquirement. And more especially to those who are to be the instructors or trainers of others in the business of nursing, it will be at once admitted that higher qualifications will be most useful—indeed, essential to the success of their labours. For, to be an intelligent and successful teacher, even of the most mechanical art, it is of importance that the instructor should not only be thoroughly familiar with the practical details, but should also know something of the theory or the scientific principles on which the best practical methods are founded. Moreover, their influence with the pupils will be greatly aided by the superiority of intelligence resulting from a good general education. Together with the practical training, therefore, which is to be obtained by the actual service of nursing in taking care of the sick, under superintendence, in our hospitals and in private life, much good may be done by the combination of more systematic instruction from medical teachers, as is well shown by several interesting works on the subject which have recently appeared, and by such lectures on the duties and business of nurses as the experimental course of twelve lectures recently delivered with entire success by our friends Dr. Finlayson and Mr. William James Fleming, in the Western Infirmary.

I am persuaded that there is no matter so nearly affecting the condition of the sick which deserves, and indeed urgently demands, the united attention of the profession as this one of the training of good nurses; and I would fain hope that it may be one of the principal subjects to which the exertions of our Branch Association will be directed. The Nursing Institution in St. George's Road, and that in Sauchiehall Street, in connection with which Mrs. Higginbotham has distinguished herself, as well as the efforts now making in both our public hospitals, are all calculated to do much for the advancement of this cause.

The whole range of sanitary science and practice lies before us, with all its difficult but deeply interesting questions urgently pressing for solution, and this in an age of rapid scientific invention, and still more rapid increase of the causes of disease. There lies also before us, inviting our consideration, the whole range of our noble and self-sacrificing profession in its relations to science, in its moral, social, and political aspects; and, as we have met here to-day as a Branch of the Association which, through its existence of nearly half a century, has kept steadily before it the attainment of objects which affect alike the interests of its individual members and the good of the community at large, I trust that the success of our combination, either as a distinct Branch, or in co-operation with the main body of the Association, will be as great as in any other district, and that it will contribute its due share to the promotion of the welfare and credit of the profession.

* From a paper by Dr. Russell accompanying the Mortality Tables in the City of Glasgow for the quarter ending March 31st, 1876, and which has been published since this was written, it appears that a considerable diminution in the number of uncertified deaths has already taken place during this quarter throughout the city—mostly in those under five years of age, and more especially in those under one year; and it is suggested as extremely probable that this improvement is attributable to the operation of the Friendly Societies' Act of last session of Parliament, which has come into force this year, and which enacts that no society shall pay any sum of money on the death of a member unless on the production of a certificate of registration, and provides with peculiar stringency for the cases of death under ten years of age.

ABSTRACT OF RESEARCHES ILLUSTRATIVE OF THE PHYSICO-CHEMICAL THEORY OF FERMENTATION, AND OF THE CONDITIONS FAVOURING ARCHEBIOSIS IN PREVIOUSLY BOILED FLUIDS.*

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II.

Effects of liberating Oxygen by Electrolysis within the Closed Retorts.

—A few other experiments were made with retorts to which platinum electrodes had been fitted. These contained, as before, measured amounts of urine, together with liquor potassæ tubes. All the preliminary stages were similar to those of the experiments above recorded; but just before breaking the liquor potassæ tubes in these further experiments, oxygen and hydrogen were liberated from the boiled urine by electrolysis. The result in the few experiments made was very remarkable. Under the combined influence of liquor potassæ, oxygen, and the high temperature of 122 deg. F. (50 C.), the sterilised urine fermented and swarmed with *Bacteria* within the closed retorts in from 7-12 hours—that is, in a much shorter time than would suffice for the occurrence of similar changes in unboiled urine freely exposed to the air.

Behaviour of some specimens of unaltered Acid Urine under the influence of the High Generating Temperature of 122 deg. F. (50 deg. C.).—In the course of the previous experiments, it was found that occasionally a specimen of boiled urine would ferment at a temperature of 122 deg. F. without the addition of liquor potassæ. This was afterwards ascertained to occur invariably (with the urine experimented upon) when the acidity of the fluid was not higher than would be represented by six minims of liquor potassæ to the ounce (or about 1½ per cent.). Urines slightly more acid than this sometimes did and sometimes did not ferment without liquor potassæ; but when the acidity exceeded what would be equivalent to 2 per cent. of liquor potassæ, the fluid did not ferment under the influence of the high generating temperature alone. Urines of all degrees of acidity, however, were found to ferment under the combined influence of heat and liquor potassæ added afterwards in the manner already detailed.†

It was further ascertained that the acidity of some specimens of urine was lessened during the process of ebullition (owing to the deposition of acid phosphates); and such urines boiled for six minutes were found to ferment in a much shorter time than when they were only boiled for three minutes. The prolongation to this extent of the germ-destroying temperature actually hastened the subsequent process of fermentation.

Interpretation of Results.—The general received belief that all *Bacteria* and their germs are killed by exposing them even for a minute or two to the temperature of 212 deg. F. (100 deg. C.) has of late been strongly reinforced by Professor Tyndall. The fact, therefore, of the fermentation of some specimens of boiled acid urine, with the appearance of swarms of *Bacteria*, under the influence of the high generating temperature of 122 deg. F. (50 deg. C.), is inexplicable except upon the supposition that fermentation has in these instances been initiated without the aid of living germs, and that the organisms first appearing in such fluids have been evolved therein.

If the author's further position (*Proceedings of Royal Society*, Nos. 143 and 145, 1873), that *Bacteria* and their germs are killed in fluids, whether acid or alkaline, at a temperature of 158 deg. F. (70 deg. C.), be correct, then the occurrence of fermentation in the previously, neutralised boiled urine would similarly disprove the exclusive germ-theory of fermentation and establish the occurrence of Archebiosis.

Any difficulty which might have been felt by others in accepting the above interpretation of the results of these latter experiments—in face of the view held by M. Pasteur that some *Bacteria* germs are able in neutral fluids to survive an exposure to a heat of 212 deg. F. (100 deg. C.)—has been fairly met and nullified by the experiments (designed for the purpose) in which the urine was boiled in the acid state and subsequently fertilised by the addition of boiled liquor potassæ.

If we look at these latter experiments from an independent point of

view, it will be found that this fertilisation of a previously barren fluid by boiled liquor potassæ must be explained by one or other of three hypotheses.

1st Hypothesis. The boiled liquor potassæ may act as a fertilising agent because it contains living germs.—However improbable this hypothesis may seem on the face of it, it has been actually disproved by many of the experiments recorded in this memoir. These experiments show that boiled liquor potassæ will only act as a fertilising agent when it is added in certain proportions. If it acted as a mere germ-containing medium, a single drop of it would suffice to infect many ounces, a gallon, or more of the sterilised fluid. This, however, is never the case; it only fertilises the barren urine when it is added in a proportion dependent upon the precise acidity and quantity of the fluid with which experiment is being made.

2nd Hypothesis. The fertilising agent may act by reviving germs hitherto presumed to have been killed in the boiled acid urine.—The acceptance of this hypothesis would involve a general recantation of the previously received conclusion that *Bacteria* and their germs are killed by boiling them in acid fluids. But such a recantation would be scarcely justifiable or acceptable unless based upon good independent evidence.

The possibility, however, of accepting this second hypothesis is still further closed by the results of experiments in which a slight excess of liquor potassæ was added to the boiled urine. Such fluids invariably remained barren. Yet it can be easily shown that the mere development and growth of *Bacteria*-germs may take place both quickly and freely in boiled urine containing a very large excess of liquor potassæ.*

It would seem that this agent, mixed with boiled urine in quantity slightly more than is needed for neutralisation, prevents the origination of living matter therein, although even when in considerable excess the same agent affords no obstacle to the development, growth, and multiplication of germs purposely added thereto.

In the face of these facts, it would seem impossible to accept this second hypothesis, even if it had not been independently negated by the great mass of evidence—lately reinforced by the experiments of Professor Tyndall—to the effect that *Bacteria* and their germs are really killed in fluids raised for a few minutes to the boiling-point (212 deg. F.).

3rd Hypothesis. The fertilising agent acts by helping to initiate chemical changes of a fermentative character in a fluid devoid of living organisms or living germs.—If the cause of the fermentation of the fluids in question does not exist in the form of living organisms or germs either in the fertilising agent itself or in the medium fertilised, then it must be found in some chemical reactions set up between the boiled liquor potassæ and the boiled urine.

The experiments in which liquor potassæ is added to urine in definite proportions before and after it has been boiled with the result of inducing fermentation in the otherwise barren fluids, as well as those in which unaltered urine ferments under the influence of the high generating temperature of 122 deg. F. (50 deg. C.), all alike, therefore, point to the same conclusion. They show, as other experiments have done, that an exclusive germ-theory of fermentation is untenable; and they further show that living matter may and does originate independently during the progress of fermentation in previously germless fluids.

As a result of the fermentative changes taking place in boiled urine or other complex organic solutions, many new chemical compounds are produced. Gases are given off, or these with other soluble products mix imperceptibly with the changing and quickening mother-liquid, in all parts of which certain insoluble products also make their appearance. Such insoluble products reveal themselves to us as specks of protoplasm, that is of "living" matter. They gradually emerge into the region of the visible, and speedily assume the well-known forms of one or other variety of *Bacteria*.

These insoluble particles would thus in their own persons serve to bridge the narrow gulf between certain kinds of "living" and of "dead" matter, and thereby afford a long sought for illustration of the transition from chemical to so-called "vital" combinations.

* A mixture of one part of liquor potassæ to seven of boiled urine poured into a bottle which has been washed with ordinary tap-water, will, within forty-eight hours, swarm with *Bacteria* if it is kept at a temperature of 122 deg. F.

At Brompton, a meeting has been held for the purpose of considering the desirability of forming it into a Local Government District. A suggestion was made that it and Kilton should be annexed to Skelton; and, after considerable discussion, a deputation was appointed to confer with the Local Board at the latter place upon the subject, before taking definite action.

* Read before the Royal Society, June 15th, 1876.

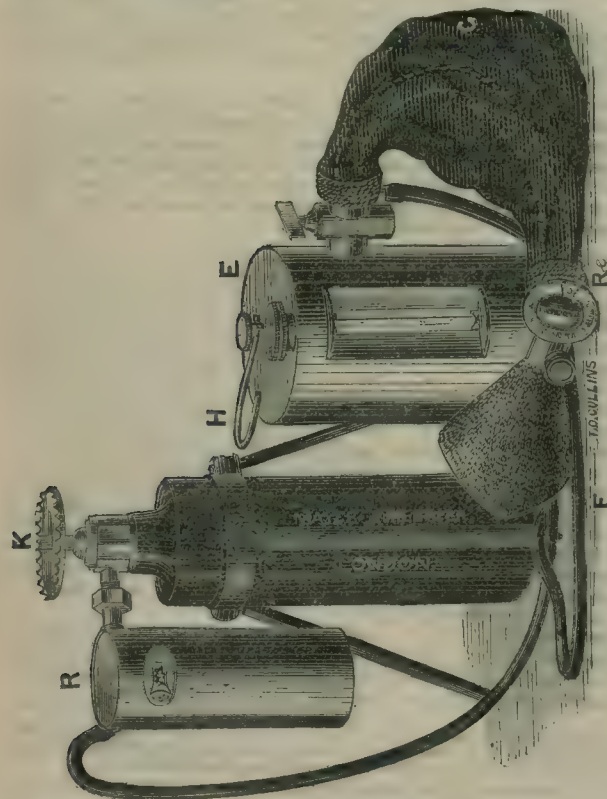
† In the urine of highest acidity with which experiment has been made, twenty minims of liquor potassæ to the fluid-ounce (about 4 per cent.) were required for neutralisation.

ON AN APPARATUS FOR ADMINISTERING NITROUS OXIDE GAS AND ETHER, SINGLY OR COMBINED.

BY J. T. CLOVER, F.R.C.S.

FOR several years, my attention has been directed to the improvement of the way of administering ether. At first, I spared the patient the unpleasant choking sensation of ether by first getting him asleep with chloroform. My next plan was to dilute the ether-vapour with a known proportion of air, the supply of ether-vapour being rendered more uniform by attention to its temperature, which was kept within limits by causing the expired air to pass through the ether-vessel in a kind of worm. I called this the double-current apparatus, and showed it at the meeting of the British Medical Association in London, in 1873. At the same time, I explained the two methods I had used for giving gas preparatory to ether. By the first plan, I simply exchanged the gas-inhaler for the ether-inhaler as soon as the patient was unconscious. By the second, I caused the current of gas to pass through a vessel of ether, after the first three or four respirations of pure gas had made the patient indifferent about its taste. This plan answered very well for cases not requiring more than three or four minutes' anaesthesia; but I found it difficult to supply sufficient air to prevent muscular twitching, without admitting enough to cause a return to partial consciousness.

The apparatus about to be described is, in principle, like the one shown at the Norwich Meeting in 1874, with some improvements. It has been used at St. Bartholomew's, University College, St. Mary's, and the Dental Hospitals; and I have myself placed under the influence of ether with it two thousand three hundred cases. The engraving represents the apparatus, taken out of a leather bag. I prefer keeping it in a tin-box, as the bottle is then fixed ready for use, and there is no need for a tripod.



F. Face-piece. Re. Regulator. G. India-rubber Bag. E. Ether Vessel.
H. Hook to attach the latter to a Strap passing round the Neck. K. Foot Key. R. Gas Rarifier.

The apparatus is made by Mayer and Meltzer of Great Portland Street, and consists of a thin bag, oval in shape and fifteen inches long; at one end connected with the ether vessel, at the other with the face-

piece. Inside the bag, there is a flexible tube, also connected with the face-piece and ether vessel. By turning the regulator (Re), the patient is made to breathe, either directly into the bag, or indirectly through the tube and ether-vessel. When the letter G is visible, the way to the gas-bag is open; when the letter E is visible, the only way to the bag is through the tube and ether vessel, so that the more the regulator is turned towards E, the more ether is given, and *vice versa*. The other vessel contains a reservoir of water, to prevent the temperature of the ether becoming too low. This is to be kept full. The ether vessel is to be rather more than half filled, the precise point being marked against the glass gauge; A thermometer inside this gauge tells the temperature of the ether. Before using it, the vessel should be dipped into a basin of warm water, and rotated until the thermometer stands at about 68 deg. If the room be cold, and if the patient have thin cheeks and large whiskers, the temperature may be 73 deg. It is important that the face-piece should fit closely against the face. Those made by Mayer, of solid leather frame-work supporting a collar of inflated India-rubber, are the best, but sometimes they require to be warmed before using.

For giving Nitrous Oxide only.—The regulator is turned to G. The stopcock of the ether-vessel is closed. This vessel is hooked upon the strap round the neck. The strap is adjusted so that the ether-vessel stands at a higher level than the face-piece. The gas being turned on, by rotating the foot-key with the foot, the gas-bag is kept filled as fast as it is emptied by the patient. When the latter breathes out, the supply of gas is stopped; and after the bag is fully distended, the escape-valve opens, and allows the expired gas to escape. If the shape of the patient's face prevent the face-piece from fitting closely, the escape-valve should be closed by pressing it with the finger. Enough gas will escape beneath the face-piece during expiration; but the bag, being slightly distended, will yield the gas so abundantly that no air will be drawn in at the same place during inspiration.

If Ether is to be used without Gas.—The gas-tube should be taken off the ether-vessel; the regulator should be turned to G, and the face-piece should be first applied to the face during an expiration, and be held rather closer during expiration than during inspiration. It is important not to oblige the patient to inhale after the bag is empty, because, the barometric pressure of air on the ether being diminished, the vapour would increase in strength, and make the patient cough, or perhaps vomit. The regulator is gradually turned towards E, and thus the way is opened to the inner tube. The air breathed through it carries vapour from the vessel into the distal end of the bag. As soon as one-half of the air passes through the ether-vessel, the vapour becomes strong enough to cause insensibility in about two minutes, usually without any coughing. As the movement of swallowing is excited by a too strong, although less pungent, atmosphere than is generally needed to excite coughing, it should be watched for, and the regulator slightly turned back if it occur.

By far the easiest and least unpleasant way of getting a patient ready for a surgical operation is to use gas and ether combined; the gas being given pure during four or five respirations, and the ether gradually added as above described. The supply of gas should cease when the ether is turned on; but if during the operation we have admitted so much fresh air that the patient seems conscious of the taste of the ether, we may, instead of increasing the ether, give a liberal supply of gas until the patient is tranquil. I find less sickness, and less complaint of the taste of ether afterwards, than when ether is used alone. In operations on the eye, the muscular twitching and the panting character of the breathing, during the first few minutes of insensibility, are objectionable; but if the operation be not commenced for five minutes, and the ether given as strong as it can be taken without exciting a cough, the patient begins to breathe stertorously, and now the face-piece may be removed every third or fourth inspiration, and, as the stertor goes off, the eye will become quite steady. I am, however, so well satisfied with a modification of my chloroform apparatus, by which I can give as much of ether or chloroform as I like, that, when I have a choice, I prefer using these for cataract operations, and for the ligation of deep-seated arteries, etc. With respect to vomiting, I think it most important that the patient should have an empty stomach, and prefer that neither food nor drink of any kind should be taken for from four to six hours beforehand. I see least sickness after operations done before breakfast.

In using this apparatus, as in using others, the breathing and the pulse should be kept under observation. Whenever we see a patient swallow, it is probable he is taking the vapour stronger than is necessary, and the regulator should be turned back slightly. If the patient cough violently, remove the face-piece, and be sure that the apparatus has not been overheated, or filled with ether above the proper level. As soon as any muscular twitchings, like those of paralysis agitans, are seen,

give about a fourth of an inspiration of fresh air, and do not keep the face-piece quite close to the face till the twitchings have nearly ceased. I have never seen any harm result from the condition which causes these movements. If air were not given, they would increase, and then stop; the respiration would become intermittent, and, some time after this, the heart would cease to beat. The fact that death may be produced, if signs of danger are disregarded, applies to all anaesthetics. Whenever the breathing becomes jerking, sobbing, or intermittent, the face-piece should be removed, but applied directly the breathing loses that character, unless the pulse is much depressed. It is much less important to watch the pulse whilst giving gas and ether than in giving chloroform, but it is desirable; for, when it decidedly loses power, we may safely admit a little fresh air, and thus anticipate the need of removing the face-piece to a greater extent on account of muscular twitching or stertor. If the finger be taken from the pulse to do something else, I would give a little air; unless the patient had only just begun to inhale, or was evidently but slightly under the anaesthetic.

Practical Suggestions.—As the apparatus would be injured by an excited patient taking hold of it, it is as well to be on our guard, by having an assistant near, in case of need. It is a good plan to place a handkerchief over a patient's eyes, and keep it there till he is asleep, and apply it again when he is about to awake. In operations on the rectum, it is desirable that the bandage required for keeping him on his side should be applied before giving the gas. Sudden distension and bursting of the gas-bag or gas-tube can scarcely happen when the gas-arefieri is used; but if this be not used, or if the gas-bottle have become frozen, it is desirable to warm the bottle, and in doing so the tap end should be more warmed than the other. Whenever there is much difficulty in getting the face-piece adjusted, it may be necessary to arrange a handkerchief or towel, so that the air drawn in under the face-piece may be nearly the same as that which was breathed out.

In conclusion, the advantages of the Apparatus are these:—1. It lessens the waste of ether, and consequently the odour of ether about the house. 2. The patient usually goes to sleep without any struggling, and is ready to be operated on in from one to two minutes. 3. The percentage of ether need not be so high as to produce coughing or swallowing, and it can be made stronger or weaker, as we wish, by merely turning a regulator. Lastly, patients recover rapidly, with less delirious excitement and less sickness, than if ether be given in the usual way.

CASE OF FICTITIOUS DUMBNESS.

BY STAFF-SURGEON ROBERT NELSON, R.N.,
Royal Naval Hospital, Plymouth.

THE following case may be of interest to naval and military medical officers, as illustrating a somewhat uncommon form of feigned disease, and the failure of a generally supposed detective.

F. T., aged 17, a boy on board of a royal naval training ship, who had previously a better position, and consequently found his newly adopted profession somewhat irksome, was sent to me in the sick berth one morning at 8 o'clock, and made signs that he was unable to speak. He appeared pale, nervous, and semi-hysterical; but no other objective symptoms of disease were detected. By gesture and writing, he complained that when mustered for drill, he had been suddenly struck dumb, and that he had great pain in the left side of his head, extending from the eye towards the occiput, and also some uneasiness about the throat. Deafness was not simulated. I had no acquaintance with the boy's history, nor with the existence of any motive for fraud; but from his anomalous symptoms, suspicion was at once aroused, although the acting was very perfect. After some sympathy with his condition had been expressed, he was placed under the influence of chloroform; and, although it was pushed almost to a degree of narcotism, I was somewhat surprised to find not the slightest sound uttered by him—a circumstance which I do not remember having previously met with in a patient under chloroform. Confessing myself somewhat disconcerted at the result, I had the patient placed in bed, and a strict watch kept over him, where he lay for twelve hours without touching either food or drink, moaning and pointing to his head, which, at the visits, he tossed on the pillow as if in great agony. At 8 P.M. I visited him, in company with another medical officer; and, as we both felt convinced of his shamming, I suddenly turned down the bedclothes, and gave him such a pinch on the upper and inner side of the thigh—a very safe but sensitive portion of the anatomy, by the way—as made him shriek for mercy. He was discharged from the sick berth, a very sulky prisoner; but next morning, under the influence of a sound flogging, he

made a complete recovery, the vocal organs acting as usual under the circumstances.

REMARKS.—That medical officers should never adopt harsh or arbitrary measures in doubtful cases of alleged disease, nor, indeed, apply any means which is inapplicable to a genuine case, is the dictum of all writers on malingering; but there are occasional exceptions which, if they do not prove, at least do not invalidate, the rule, and although no doubt whatever may exist in the medical officer's mind, yet a commanding officer or president of a court martial may require something more tangible than a mere opinion before he will convict a prisoner of malingering. We ought never to forget the risk run in attempting such demonstrations; and in dealing with a more experienced vagabond, such treatment is undoubtedly hazardous—the experience of many medical officers being that *le jeu ne vaut pas la chandelle*.

Feigned diseases now form a very small class of cases in Her Majesty's Navy compared with what we read of as having existed in former days. Skulkers, no doubt, exist in every ship; but systematic simulation of disease is remarkably rare, partly owing to our improved knowledge of diagnosis, but chiefly to the fact that the Admiralty now train their own boys, by which means they not only insure a better class of seamen, but also men with more *esprit de corps* than formerly.

EXTRACTION OF FOREIGN BODIES FROM THE EAR.

BY H. A. ALFORD NICHOLLS, M.D., M.R.C.S., Dominica,
West Indies.

IN THE BRITISH MEDICAL JOURNAL of March 18th, there is an article, by Mr. Rivington, on the extraction of foreign bodies from the ear, in which he impresses upon surgeons the usefulness of employing a stream of water in the removal of foreign bodies; and he points out the injuries that may be caused by the unskilful use of instruments in such cases.

Had Mr. Rivington contented himself with dilating upon these facts, he would have done good; but the case is far different when he advises that most useful instruments should be banished from the surgical armamentarium, and that, in all instances, the foreign body should be allowed to remain in the ear until syringing effects its removal.

Mr. Rivington says that a small pair of curved forceps may be employed. Surely as great an injury can be caused by these forceps as by a blunt eye. In unskilful hands, the forceps may lacerate the lining membrane of the canal; but, without using great force, it would be difficult to do so with the blunt instrument.

It is within the knowledge of all surgeons that syringing is efficacious in removing many foreign bodies from the ear; but, unfortunately, there are cases, such as the one detailed below, in which syringing will prove of no avail. There are also many instances in which delay may be advantageous, but the converse of this proposition holds equally good.

I have known cases in which a pea, left in the ear, has become swollen, and consequently firmly wedged in the auditory canal. Mr. Rivington would not expect to remove such a body by simple syringing. The imbibition of moisture by the vegetable cells would cause the obstruction, if anything, to increase; and by no means would it be good surgery to wait until the body becomes loosened by the decomposition of its substance. If then, in such a case, we are to discard the useful extracting instruments, because, in the hands of a bungler, they are capable of doing harm, and we find that syringing avail naught, we should be indeed upon the horns of a dilemma. And it would not be very gratifying to us, nor in any way tend to increase our professional reputation, if the patient be taken to another surgeon who, with an extracting instrument, easily removes the obstruction.

Before attempting to extract a foreign body, a surgeon should examine the ear carefully by means of direct light, and, if that fail, the ear speculum should be employed—Brunton's speculum is, I think, the best form made. Then, if nothing foreign be discovered in the ear, no surgeon in his proper senses would think of poking at the malleus.

It is expected, of course, that, in the use of all instruments, there shall be no bungling on the part of the operator, and no injury caused by unskilful manipulation. If proper care be employed, there is no more danger of injuring the ear with an extracting instrument than there is of making a false passage with a catheter. It is true that both these accidents have occurred; and, it may be said, that it is equally true that such accidents will occur again; but these facts do not justify surgeons in discarding instruments for the extraction of foreign bodies from the ear, any more than they justify surgeons in discarding catheters.

The following case, which is interesting in more than one particular, will show of what use an extracting instrument may be.

A coloured woman, twenty-two years of age, came to me, and desired me to take out from her ear a cockroach which, she said, had crawled into it during the night. This request seemed to me so strange that I was at first incredulous; but, upon examining her ear, I found that what she had stated was literally true; for, some distance up the auditory canal, was the greater portion of a medium sized cockroach. Seeing that this was a case for the use of instruments, I endeavoured to extract the body with a pair of forceps, but it was so firmly impacted that I did not succeed. I then used an earscoop—which is but a modification of the loop of wire—and, after some little difficulty, I removed *en masse* the head, thorax, wings, and the two anterior pairs of legs of a cockroach. I was at first much surprised at the size of the body; but, upon questioning the woman, I found that, in attempting to remove the insect, she had broken away the soft parts and pushed the hard chitinous mass, which I extracted, far into the canal.

Now, in this case, there can be no doubt that the instrument was of signal service; in fact, without it I doubt whether the foreign body could have been extracted at all. All the syringing in the world could not have shifted the mass in the slightest degree, and delay would have been highly dangerous, in consequence of the inflammation which the irritating body would have excited. In a similar case, therefore, the proper course is to try to extract with forceps, and, if they fail, then recourse must be had to the earscoop or some other extracting instrument.

After the perusal of this case, and upon reflection, I think that even Mr. Rivington must confess that, perhaps, he was a little too hasty when he wrote in such disparaging terms of so useful a little instrument as an earscoop. To Mr. Rivington's four excellent rules, which he advises to be observed in the treatment of all cases of foreign substances in the ears, I would add a fifth, viz.: If the foreign body do not fall out, after syringing has been fairly tried, and if delay in its extraction be likely to prove dangerous, do not fail to effect its removal by means of one of the instruments made for that purpose.

BICARBONATE OF SODA IN SUPPRESSION OF URINE.

By W. LEMON LANE, M.B., Dunfermline.

THE success of this medicine in suppression of urine due to renal disease is so great, that I think a few cases illustrating the good result following its administration well worth being recorded. I have used it in a great many cases of renal disease with success. I am, therefore, very pleased to find Dr. Dickinson speak favourably of it in his able lectures on albuminuria. "But it is worth mention," he says, "in relation to a rapidly fatal form of nephritis, in which the tubes become widely sealed up as if with molten glass by a pseudo-croupous exudation of fibrin, while the urine is loaded, not only microscopically but as a bulky precipitate, with large fibrinous cylinders, that all plugging from this cause can be prevented by alkalies."

CASE I. The first case in which I used bicarbonate of soda was one of acute nephritis, which I attended three years ago. W. M., aged 30, a healthy strong man of good family history, got wet while working. When I saw him, he was very feverish (his temperature was not taken), his face and extremities were oedematous; he complained of a sore back, and a constant desire to micturate; he passed very little urine, not exceeding a small cupful in the twenty-four hours; heat and nitric acid produced a large deposit of albumen. When the urinary sediment was examined microscopically, renal epithelium, tube-casts, and blood-corpuscles were seen. Treatment consisted of a warm bath every night, along with a diaphoretic medicine and half a teaspoonful of bicarbonate of soda three times a day; his diet consisting principally of milk and a plentiful supply of cold water. I will not give in detail the progress he made daily; it will be sufficient to say that, in five days from the time I first saw him, he had made great progress towards recovery. His urinary flow was normal in quantity, quite clear, and without any trace of albumen, and, I may say, it was alkaline in reaction, whereas, at the beginning of his trouble, it was acid. This patient is now quite well and strong.

CASE II. A man, aged 23, had suffered for the last three years from profuse suppuration, due to caries of the sacrum. His body had lately become considerably oedematous, while his urine had lessened greatly in quantity. I saw him on June 1st, when I found his urine highly albuminous, acid in reaction, and not exceeding six to eight ounces in the twenty-four hours. He was ordered to keep poultices to his loins, and to take a

diaphoretic powder, consisting of antimony and Dover's powder, every night; and to have milk and water *ad libitum*. Notwithstanding this treatment, his symptoms became aggravated, and a complication, oedema of the lungs, having set in, made his case a very serious one. I now (on the 6th) ordered half a teaspoonful of bicarbonate of soda thrice daily. The result following the employment of the soda was very satisfactory. On the 9th, his urine had increased very greatly in quantity, was alkaline, and free of albumen. His body is still oedematous, but not half so bad as it was on the 6th.

CASE III. This was a case of anasarca after scarlatina in a child three years old. His urine was highly albuminous, bloody and scanty. He complained constantly of a sore back, and had great nausea. The temperature was 103 degrees, and he had general anasarca. He took one-fourth of a teaspoonful of bicarbonate of soda three times daily, and was bathed every night. In exactly a week, he was quite well, although very feeble and anæmic.

These cases show how effectually we may employ the soda treatment in renal disease. In all these cases, especially the second, the patients were brought out of a very dangerous condition rapidly and most satisfactorily. In the first and third cases, the cure is complete; the second, although doomed to succumb to his intractable disease—caries of the sacrum and waxy kidney—owes his life to the soda treatment. It is useless for me to state that I have found nothing so useful in suppression of urine due to renal disease, as the remedy I have just mentioned.

CLINICAL MEMORANDA.

ON A CASE OF POISONING BY WHITE PRECIPITATE.

THE JOURNAL for June 24th contains a report of three cases of accidental poisoning by precipitate powder, which occurred in the practice of my friend Dr. Stephens of Ilminster. Having yesterday (July 3rd) been sent for to a very similar case, I have thought that it might be well to direct attention to the frequency of this accident, and to the desirability of including the hydrargyrum ammoniatum in the list of "Poisons and their Antidotes", published in Letts's *Medical Diary*, Meadows's *Prescriber's Companion*, and similar works. The patient was a strong young woman, deaf and dumb, and unable to read. Her mother, a very stupid old woman, had asked at the druggist's, according to her own account, for a penny seidlitz powder, and was asked by the assistant who served her whether she wanted it *white or red*. The daughter swallowed the whole pennyworth (half a drachm to two scruples); and it was only when, soon after she began to suffer from vomiting and severe pain in the stomach, that some of the neighbours discovered that the packet was labelled "white precipitate—poison". My treatment consisted in the administration of yolks of eggs and an emetic of ipecacuanha, with hot fomentations, and subsequently drachm doses of glycerine in water; and under this she recovered in the course of a few hours. The druggist informed me that, in spite of the greatest care, such instances were not at all uncommon.

H. NELSON HARDY, F.R.C.S. Ed.

CURE OF CONSUMPTION BY CLIMATE.

IN reference to a communication in the BRITISH MEDICAL JOURNAL of June 3rd, 1876, on Consumption, I beg to add that the proposal therein contained for the treatment by living in the open air, will probably permit others to confirm its efficacy by their experience. There are three cases occurring to my recollection that tend to illustrate the views above expressed, and to show that it is probable that open-air living has more to do with a successful treatment than mere change of climate.

One was that of an officer in a regiment, who contracted phthisis when stationed in the south of England. He was under medical treatment some time, and had the usual sick-leave, but, on his return to duty, got worse again in the same way. The next time, he was invalided with the upper lobe of the right lung seriously involved, in the third stage, with cavities; and he was examined by the usual Medical Board, and finally he sold out of the service and regiment. Under medical advice, he took to travelling about this country and the Continent, to riding on horseback instead of walking, and attending meetings of the hounds frequently. Two or three years then elapsed, during which his case was withdrawn from my observation; and I was then surprised to meet him one day in the summer at Lord's Cricket Ground, looking quite recovered.

Another case was of an officer in the Commissariat, serving at the

Cape of Good Hope, where he arrived with a left lung diseased, and, by medical advice, offered to do duty during the Caffre wars. The constant riding about in the fresh air and sunshine, camping out in the wilderness, and waggon-locomotion, effected, by the excitement and change of air and scene, a complete cure, and he returned to England a new man in appearance. I met him again in the Crimea during the war, but under different auspices. He had married, which did not appear to have benefited him; and the life in camp gradually undermined his previous stock of health. The confinement in a stationary camp, the wet and mud, and snow and frost, were very different from the former Caffrarian life, and so caused a return of the disease, for which he was at length invalided home, and of which, I heard, he eventually died.

The third case happened at the Cape also. The officer, whom I had known before in England as a healthy and robust-looking man, came out by steamer to Cape Town, and temporarily took rooms in an hotel, waiting for orders. A message was sent one morning to say he was taken seriously ill and could not go out; and, on visiting him, I was surprised to see a pronounced and alarming case of hæmoptysis, with irritating cough. He was removed to more suitable and airy quarters, and had the advice of the best men in the station; but he never again left his room. Dyspnoea of an aggravated form came on, and the hæmoptysis frequently recurred; but there was no emaciation. In the course of a month, the disease culminated, as it may be here termed, in death; and there never was a remission of the symptoms, to give the *vis medicatrix* the slightest chance of restoration of natural physiological action. The necropsy revealed general congestion of the lungs and air-passages, with universal spotting of both lungs with hard grey tubercles, so much so as to have increased their weight and bulk considerably. But few of the tubercles had softened; so that there were no cavities, and no excretion of purulent sputa, except what exuded from the congested bronchial mucous membranes. The hæmoptysis was not, therefore, due to rupture from degeneracy of vessels, but to the overflow of congestion from hyperæmia of the lungs, which caused also the dyspnoea by their being made too bulky for the costal capacity of the chest.

Here, therefore, change of climate either produced consumption *de novo*, or else developed it, if there had been any hereditary tendency previously; so that mere change of climate, in a passive sense, may not always be beneficial to such cases. Consumption, again, is common enough in South Africa amongst the Hottentots, in spite of the fine climate, and is ordinarily hereditary amongst them, so that children are born with well-developed signs and symptoms of tuberculosis. This condition of the Hottentots may be explained by their habit of living in close stuffy huts, which they overcrowd with their families, and share often with their domestic animals, both winged and quadrupedal; and, above all, by their dirty personal habits and want of cleanliness.

It is, therefore, highly probable that the proposition may be correct, that it is living in the open air in a fine climate that is really beneficial for the cure of consumption, and not the mere climate of itself.

W. T. BLACK, Surgeon-Major.

OBSTETRIC MEMORANDA.

MALFORMED FÆTUS.

MRS. A., aged 30, had had eight full-born children. On June 10th, I was asked by the midwife who had attended Mrs. A. to look at the body of a dead child of which she had just been confined. Upon examination, I found that there were six fingers on each hand and six toes on each foot. The socket of the right eye was empty, and, on lifting the left eyelid, the eye was covered with a membrane, suffused with blood. The right side of the face was much larger than the left, and quite out of proportion; but, no *post mortem* examination being obtainable, I cannot give particulars. There was an entire absence of the occipital bone; and, from the large aperture thus caused, protruded a quantity of cerebral substance, much congested. The development of the frontal bone was imperfect. The penis was extremely rudimentary; one testicle could be felt in the scrotum, the other was undescended. The child lived, uttered low cries for about an hour, when it expired. The mother last menstruated at the beginning of September 1875. No cause can be assigned for the malformation of the child.

CLEMENT WALTER, Dover.

DR. STEVENSON, the Public Analyst for Bedfordshire, reported to the Midsummer Quarter Session that he had analysed sixty-four articles during the quarter, of which forty-six were genuine.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

LOCOMOTOR ATAXY CONSEQUENT ON INJURY TO THE SPINAL CORD.

(Under the care of Dr. LOCKHART CLARKE.)

W. A., AGED 42, four years back, while in a state of robust health and working as a bricklayer, was getting into a railway-carriage in motion, with only one foot on the step, when the motion of the train twisted him round and threw him heavily on his loins across the edge of the floor of the carriage, into which he was instantly dragged by a companion. He was unconscious for a few minutes, was much bruised, and laid up for a month. At the end of this period, he began to feel numbness in his arms and legs, with considerable weakness of the latter, especially in the knees, and a difficulty of walking, when he lifted his legs very high, and came down heavily on his heels. He could not trust his legs unless he looked at them, and the ground felt soft and woolly. All these symptoms have been getting worse. From the first, he had darting and shifting "rheumatic" pains all over his body. There is now numbness of the feet as high as the ankles, and of the hands as high as the wrists. He stands with his legs wide apart; but after a few minutes would fall, unless he looked at his feet. There was no strabismus, nor amblyopia, nor diplopia; but dysuria and incontinence of urine occurred alternately. The pupils were of moderate size. Some sexual desire remained, but sexual power was entirely abolished. The patient, after attending three times, disappeared.

BOURNEMOUTH GENERAL DISPENSARY.

DEATH FROM INHALATION OF GAS.

(Under the care of RICHARD T. HEARN, M.B.)

As cases of poisoning by gas are not of very frequent occurrence, perhaps the following case may be of some interest. The following are the details, as given by the owner of the premises on which it occurred.

The deceased was employed as night-watchman on the premises. The owner, on going down in the morning to open the place as usual, found, on his entrance, a great smell of gas, and was rather surprised at this, as he had turned off the gas at the meter the previous night. On entering the kitchen (which is a room about 14 feet by 8 wide, with fixed ventilators in the glass), he found the deceased lying on a sideboard, breathing freely, and sleeping off a drinking fit, as he thought. On examining the meter, he found it turned full on, and the jet of gas supplying the stove also fully turned on, and one other burner partially on. He at once opened the doors and windows, letting in all the fresh air that he could. Not suspecting that the man's state was the result of the escape of the gas, he unfortunately took no further notice of him, thinking he would awake every minute. After waiting for five hours, and seeing the man getting worse rather than better, he sent for a medical man, who, seeing the true state of affairs, had him at once conveyed to the dispensary. He presented the following appearance on admission: profound coma; deadly pallor; pupils dilated and fixed; abdominal respiration; surface and extremities cold and clammy; pulse at wrist hardly perceptible; heart-sounds very indistinct and muffled; muscular relaxation, including the sphincters; and a distinct gaseous odour was emitted from his breath. The usual treatment in such cases was at once had recourse to, which consisted in artificial respiration, electricity, hot jars to the extremities, sinapisms, diffusible stimulants, stimulating enemata, cold affusions, etc. This treatment succeeded so far as to restore warmth to the surface and extremities. The chest began to expand; the heart-sounds became stronger, and the pulse at the wrist greatly improved in volume and strength; and he swallowed beef-tea, stimulants, etc., on their being put into his mouth. His temperature, taken at 11½ P.M. on the night of his admission, was 104.6 deg.; respirations 72; pulse 136.

May 3rd—the morning after admission. Temperature 103.6 deg.; pulse 130; respirations 66. In the evening, temperature 104.6 deg.;

pulse 140; respirations 80. Capillary bronchitis now set in, for which his chest was dry-cupped back and front; and poultices and turpentine stupes were applied, without any apparent good. He gradually grew worse, and died at 3½ A.M. on the morning of the 4th, nearly thirty-eight hours after his admission.

REMARKS.—It is rather to be deplored that medical aid was not sought earlier in this case. Five valuable hours were allowed to pass, where so many minutes were of the utmost importance. Had assistance been obtained on the landlord entering the premises in the morning, the result of the case might have been different.

HOSPITAL NOTES.

WE have commenced a series of "hospital notes", which will serve to record points in practice, clinical and therapeutic hints, and brief notes of interesting points in relation to the science and art of medicine observed in the current inspection of hospitals. Such "chips" are among the most valuable materials of the workshop, and are too often sacrificed because there is no appropriate place in which they can be garnered. Contributions from the provincial hospitals will be very welcome in this column.

ST. BARTHOLOMEW'S HOSPITAL.

Tracheotomy: New Tracheal Tube of India-Rubber.—A child about two years old was admitted twelve months ago with laryngeal catarrh and suspicion of syphilis. It recovered, and was readmitted six days ago with purpura and urgent laryngeal symptoms, which Dr. Southey considered to depend also upon some local purpuric condition. There was no rise in temperature, no evidence of false membrane; there was no cause for palsy of the larynx; and spasm of the cords was excluded by the fact that chloroform gave no relief. (Chloroform will most certainly relieve laryngeal spasm, at least for a time, and hence serves as a diagnostic.) The symptoms increasing in urgency, tracheotomy was performed a few days ago, and the case referred to Mr. Morratt Baker for further trial of his new tube. This is made of rather stiff but still elastic brown vulcanised India-rubber, and promises to supply a great desideratum in lessening the risk of ulceration, etc. It was used first twelve months ago at the Evelina Hospital, where Mr. Paley took much trouble in its adaptation, and Mr. Millikin in its manufacture. It is scarcely adapted for introduction immediately after operation, but is meant for continuous wearing. Mr. Baker showed us one which had been worn by a child for four months, and was but slightly altered. It was worn alternately with another and similar tube, to allow cleaning.

Spinal Irritation: Tonic Spasm.—A youth aged 18 had had lordosis from childhood, but worked until about three months before admission, when he found much aching and stiffness of the lower limbs. These are now stiffly extended, the muscles being hard. Sometimes twitchings occur. Reflex power is impaired; not so the sensibility of the skin. There is slowness in micturition. Dr. Southey considers the condition to be one of irritation of the membranes and surface of the cord, a result of the curved spine.—A similar case was in hospital some time ago, and got bromides and conium, which theoretically ought to relieve, but did not. It was curious that, by pinching and slapping the affected muscles, the lad was able to relax the contraction and bend the limbs.

Rheumatic Fever: Bronchitis: Nerve-Depression: Use of Opium.—A man aged 31 has been admitted with a second attack of rheumatic fever, having been ill now and under treatment six weeks. His countenance was dusky; the radial pulse scarcely to be felt. The heart was dilated; the bases of the lungs were congested; the joints were painful. He sweated profusely. In addition, there was great anxiety and fear of death. This condition was, in Dr. Southey's opinion, an indication for opium, though many would consider its use at least dubious with such lung-conditions. The man had first brandy, and ether and ammonia; and at night five minims of liquor opii, repeated next day every four hours with citrate of potash. He expressed himself as much better. The pulse and colour are improved, and the pain and anxiety less. There are still râles at the bases of the lungs. The sputum is white and frothy, not definitely affected by the drug.

Rheumatic Fever: Treatment.—In ordinary cases, Dr. Southey has had the best results from a mixture containing two grains of quinine and five grains of iodide of potassium, with a few minims of hydrochloric acid. Carefully prepared, this is clear, and agrees well. At the very commencement, if the tongue be coated and dry, a purgative and Carlsbad water, or citrate of potash, are advisable, but should soon be replaced by the iodised quinine mixture, which benefits under most complications as well as in simple attacks, relieves pain and

sweating, and especially brings about a convalescence less protracted than the alkaline treatment. Taking seven days as an average duration of severe symptoms in very favourable cases, and twenty-one or twenty-seven days in other cases, three weeks has been found the average total duration in one hundred cases treated by this plan. They are not blanketed; it is considered that this only bathes them in morbid perspiration. Perchloride of iron has not given satisfactory results; and blistering is often done to excess, and without any permanent relief. Tincture of iodine is, however, an useful local adjunct.

Carcinoma of Lung v. Fibroid Phthisis.—A man, aged 65, has dulness over the whole of the left chest, absence of respiratory movement, though crackling and creaking sounds are heard, and tubular breathing in patches; respirations 28. There is no hæmoptysis nor even expectoration; not a quick pulse, nor high temperature; no enlargement of the side, nor of the glands; no tenderness below the ribs, and yet, even with such absence of ordinary symptoms, the case is quite compatible with carcinoma. The alternative is fibroid phthisis; but the amount of emaciation is greater, and the duration of eight months is less than would be expected in that form of lung-disease.

Local Use of Digitalis.—In a case of inflamed leg, after an incision for the dropsy of Bright's disease, digitalis lotion was being used. Dr. Southey had seen good from this in local inflammations, and, in the present instance, benefit might be expected also from its diuretic action after absorption.

UNIVERSITY COLLEGE HOSPITAL.

Pleural Effusions: Treatment.—With Dr. Ringer, we saw a patient who, having had dysentery, was sent in as a case of hepatic abscess. It was probably an empyema, and being aspirated between the fifth and sixth ribs, and five pints of healthy pus being removed, the patient made a good recovery. On examining the present condition of his chest, we find breath-sounds over the affected side, but still dulness. Regarding this case, Dr. Ringer said: "Dulness often remains long, especially in the axilla; it does not of necessity mean fluid, but if there be doubt, a hypodermic syringe makes sufficient puncture for diagnosis. As to tapping, it was formerly reserved for extreme conditions, but now we aspirate either to assist absorption, or to save the lung. Hence it may be done early, say when the chest is half full of fluid. The febrile state may last twenty-five or thirty days, we need not wait till it is over. The effusion contains so much albumen as to be practically a bleeding, and should be stopped as soon as possible. After an early tapping, I have known fever continue a fortnight without fresh effusion. We may classify cases into those with simple serous effusion, and simple purulent effusion, either may be *with* fever or *without*, and all will probably do well with aspiration. Then there are cases where the pus is fetid; if there be no high fever, give these a chance with simple aspiration; and even if there be fever, though the case then is very grave, one trial should be given to the same plan before an incision is made, for I look upon the free opening of the chest as a very serious and risky affair. The case before us has done well with a single aspiration. Examining for the results, and judging of the amount of expansion of lung, beside auscultating, etc., we look at the angle formed by the costal arch in front; in health, the angle should be obtuse, and nearly equal on both sides, perhaps more obtuse on the right, owing to the liver, whilst, if the lung have not expanded, the arch will have sunk in somewhat, and the angle be more acute; the shoulder of the affected side will be lowered, and the spine, whilst often curved with convexity towards the same side during the stage of effusion, will have an opposite direction when the effusion has disappeared." Another case of pleuritis, in which five pints of serum had been removed by aspiration, was somewhat unusual, as being secondary to Bright's disease. In this form of malady, the progress is usually insidious, and yet the effusion rapid. We know, from the effect of blisters in such patients, how quickly effusion may be poured out in any part. Dr. Ringer does not think it necessary to stop the withdrawal at any definite quantity, nor does he consider cough an indication for withdrawing the needle, only if much pain be complained of, or if blood begin to come.

Phthisis: Temperature, etc., in a Middle-aged Man.—Observing very marked flattening under one clavicle, Dr. Ringer remarked, that it suggested fibroid phthisis rather than the ordinary form. It was not due to pleuritis, for that would affect the lower ribs; there was cavernous breathing, and dulness. It was a curious point, often noted by Dr. Walshe, that, as the disease advanced, and excavation occurred, the flattening might be less, so that simple inspection would lead one to think the patient improved. In a case of so-called phthisis, it was necessary now to ascertain the form of the disease, whether true tuberculosis, whether rather a catarrhal pneumonia, or fibroid; whether the malady tended towards arrest, or progress. As a rule, the physical signs were

behind the course of the disease. We were accustomed to rely more on temperature, expectoration, and the amount of bronchial *mucus*. In active stages, the temperature would surely be high, and, if not found so, it must be remembered the pyrexia came in exacerbations, and the observation might have been made in an interval. A common source of fallacy was placing the thermometer in the large axilla of a thin subject, when not proper contact was obtained. Temperature was usually a safer guide in the young than in older persons.

Hyoscyamine.—Dr. Ringer is making observations with the new crystalline hyoscyamine. Of a solution of 1 grain in 120 minims, a half minim had been dropped into the eye. In a quarter of an hour there was full dilatation of the pupil, which did not react to light. Twenty-four hours later, this effect continued.

Varieties of Rheumatism.—Dr. Russell Reynolds remarked as to subacute rheumatism, that it had a very different history from that of the typical acute disease. It had, of course, not the same pyrexia or sweatings, nor had it so much tendency to heart complications; on the other hand, it was liable to leave more joint trouble, and even ankylosis, and had a near alliance with rheumatoid arthritis. Iron, as a rule, did not do so much for these cases as for the acute. The patient before us, after using iron and quinine, was getting more benefit from ammoniated tincture of guaiacum.

Wasting Palsy: New Battery.—A widow, aged 30, after hard work and trouble, found, about six months ago, difficulty in using her fingers. At present, she cannot extend the two middle fingers of the right hand, nor use well the right shoulder-muscles, which are rather wasted. The left thumb-muscles are failing. This palsy is probably a central affection of the anterior spinal columns. It is curable in its early stages with well applied electricity. The battery used was a new one (Weiss) working with ammonium-chloride, and having an arrangement for rapid interruption. It remains constantly working for a limited time, and then is readily renewed. The current was acutely felt in the affected muscles, which reacted slightly to it when interrupted; the faradic current would be used later.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW VENTILATING COAT.

MESSRS. ANDERSON, ABBOTT, and ANDERSON, of Queen Victoria Street, have brought under our notice an improvement introduced by them in the manufacture of waterproof coats. The usual objection to these useful adjuncts to a travelling outfit is, that their impermeability to moisture prevents the egress of the perspiration in the same ratio as it opposes an obstruction to the admission of external moisture. By an ingenious arrangement of stuffed tubes over the shoulders of the coat, Messrs. Anderson, Abbott, and Anderson, have, however, contrived a series of air-channels, which carry off the insensible perspiration, and obviate the discomfort and unhealthy attributes proper to the waterproof garment or cloak made in the ordinary way. The outward appearance of the garment is not interfered with.

MEDICATED LAMELS.

OUR attention has been called to some new preparations of gelatine, which have been patented by Messrs. Savory and Moore of New Bond Street. The first of these is for internal administration; thin pliable sheets are impregnated with different medicaments, each sheet is accurately divided into squares by raised lines, and each square contains a dose of the medicine with which the sheet is saturated. We are of opinion that these gelatine lamels, as they are called, will prove an immense boon to the country practitioner, who, by this arrangement, can carry in his pocket the greater portion of the more active remedies for his surgery, with the advantage of being able to administer a remedy at the spot. In addition, a great deal of the repugnance exhibited by patients, especially children, to taking medicine will be avoided, as the lamels are tasteless when swallowed quickly with a little water, and do not excite the objections which are inseparable from the old-fashioned pill or powder.

Another of these gelatine preparations forms a clean, ready, and elegant method of producing a blister. This preparation has been devised by Messrs. Savory and Moore to do away, as they explain, with

the objections which are constantly being raised against the old methods of raising a blister. The *emplastrum cantharidis* is clumsy and dirty; and the liquid forms, unless carefully manipulated, are too apt to produce irritation over parts that they were never intended to act upon. The sheets are readily applied—as easily as a piece of sticking-plaster; the gelatine does not interfere with the vesicatory action of the cantharides, and there is no fuss to remove the sheet for the purpose of dressing the blister, so objectionable to nervous patients, as the gelatine itself is almost, if not entirely, absorbed.

We can recommend these gelatine preparations to the notice of the profession; and we shall be much surprised if their portability and handiness do not ensure for them a very extensive use, more especially as they are warranted to be unaffected by any climate.

SELECTIONS FROM JOURNALS.

MEDICINE.

THE OPERATIVE TREATMENT OF PLEURITIC EXUDATIONS.—From a series of observations made during fifteen years in Frerichs' wards, with special reference to operative interference, C. A. Ewald arrives at the following conclusions. 1. In cases of serous effusion in the pleura, puncture should be performed before the third week, only if life be in danger. 2. If puncture be made under exsolation of air and with previous disinfection of the instrument, no serous exudation becomes purulent. 3. The only means of determining with certainty whether a pleural effusion is serous or purulent, is an exploratory puncture. 4. Incision, with puncture, should be made as early as possible into purulent exudations. 5. The mortality after incision into purulent effusions is from 50 to 60 per cent. when they are treated according to the present plan (incision in the sixth intercostal space between the nipple and the anterior axillary line, washing out with disinfectants once or twice daily, a catheter being retained in the wound, or one or more ribs resected). 6. Sanguineous effusion (in which blood becomes mixed with the exudation in consequence of the dilatation of vessels, leading to their rupture) is always the result of malignant growths of the pleura. 7. Serous exudations do not exclude the presence of tuberculosis and cancer of the pleura.—*Annalen der Charité-Krankenhäuser*, 1876; and *Centralblatt für die Medicin. Wissenschaften*, May 27th.

THERAPEUTICS.

THE TREATMENT OF CHOREA.—Dr. A. W. Hamilton (*New York Medical Record*, Feb. 5th) writes:—The plan of treatment I generally employ is the following. Should the child be 'run down', as is generally the case, I begin with some preparation of iron, and administer at the same time cod-liver oil. As regards special treatment, I find strychnia serviceable carried up to the point where stiffness of the spinal muscles is arrived at. Next to this comes arsenic. It must be given in large doses. Occasionally digestive troubles are produced very quickly by this drug, and then strychnia may be substituted. Cold to the spine cannot be overestimated as a plan of treatment; either the ether-spray, or ice-bags every day, allowing them to stay on about ten minutes. Perroud, who has used the ether-spray, makes applications from four to eight minutes in duration every day. In thirty-five cases treated with the ether-spray, from fifteen to twenty applications produced permanent benefit. The spray should be directed to the upper part of the cord, over the upper cervical vertebrae. Eserine has been recommended, and Bouchut has given the results of 437 cases, 205 who took it in pilular form, and 232 hypodermically. The average dose was from two to five milligrammes. He obtained temporary benefit, which seemed to wear off; but when the drug was repeatedly administered he accomplished many cures. He reports twenty-three cures, by an average of seven injections. It is a dangerous remedy, however, and produces severe gastric symptoms. The salts of zinc have occasionally proved valuable in cases of this disease. Conium is occasionally efficacious, but its effects are temporary. I have found phosphorus, with cod-liver oil, to be a most valuable curative agent, and in cases where everything else failed it has succeeded. In some instances, nothing does good. Put them in a dark room, and keep them perfectly quiet. The diet should be regulated with judgment. Plenty of fresh air and sleep come next, and absolute mental rest must be enforced. The school-books and the school-room are to be parted from, and agreeable diversions planned. An excellent auxiliary to medication is the salt bath. A handful of rock-salt in the water, and the energetic use of the rough towel, will infuse a tone and vigour that will soon become apparent. Decided medication is useless in these patients when their personal habits are not looked after.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 15TH, 1876.

THE VIVISECTION BILL.

THE report of the proceedings at the deputation to Mr. Cross on Monday last speaks for itself. We, however, must earnestly congratulate the Association on the importance and weight of that deputation, and on the energetic manner in which it defended the character of the medical profession against the grossly insulting provisions of the Vivisection Bill. The protests of Mr. Simon and Sir William Jenner were echoed by ringing cheers. Mr. Cross, in reply, attempted no defence of the specific clauses attacked by the memorial, but contented himself by presaging worse things if these were not accepted. It must, therefore, be distinctly understood that the declarations made by the speakers at the deputation, the emphatic applause with which they were received, and the hostile attitude of the Government, together commit the profession and the Association to a very distinct position in this matter.

It has been put before the Government in the strongest manner, that the whole medical profession reject the "special certificate clauses"; and insist that a "licensed" person, having already a medical licence, shall be trusted, and not treated as a permanent object of suspicion. No Government can resist a profession united to resist unmerited indignity and insult. It was clearly intimated to Mr. Cross, on behalf of the medical profession, that we do not believe any Bill to be necessary; but, nevertheless, we are willing to submit to legislation in a form which should satisfy reasonable people. We are willing to submit to the Bill of the Royal Commission. This is not such a Bill; it is a Bill full of the extremest "fancy" clauses. The profession should show that it is of one mind, to support the views expressed by Sir William Jenner, Mr. Simon, and Mr. Ceely; they could not follow more reliable leaders. Sir William Gull and Sir James Paget have expressed their concurrence in our memorial.

But all this must not end in speaking, or we shall be beaten by votes. As Mr. Cross candidly told the deputation, the profession can throw out the Bill; but, to do this, every Branch should without delay meet and take steps to organise means for influencing the local members of all the boroughs and the counties to support our views. These meetings should be held at once, without any delay. The more freely they are reported in the local papers, the better. Every individual member of the Association should also at once write to his local member of Parliament urging him to oppose Mr. Cross's Bill in its present form, and asking for his support of the views expressed in our memorial. We shall be very desirous of hearing in the course of the week from members who may do so, and learning the replies which they receive. It is necessary that we should without delay instruct, drill, and number our parliamentary forces. There is no reason to suppose that success can be attained without considerable effort. We have, indeed, good reason to know that any lukewarmness in opposition may still be fatal, for the activity of the organised anti-vivisectionist party is much more vigorous and effective than it appears to be.

In the critical position in which this matter now stands, every indi-

vidual member of the profession should treat this Bill as one which affects his own personal honour, and bestir himself to oppose it. We earnestly appeal also to the Branches to take vigorous collective action, in order to second the action of the individual members.

THE REPEAL OR EXTENSION OF THE CONTAGIOUS DISEASES ACTS.

It is urged by the opponents of the Contagious Diseases Acts, as one of their strongest reasons for their repeal, that if they are not repealed their provisions will be applied to an extended area. This proposition can scarcely be rejected by any who have carefully considered the relative objections to which those Acts are doubtlessly open, and the hygienic advantages which as doubtlessly have resulted in those districts where the Acts have been in operation during a series of years. There can, therefore, be no practical advantage in shutting our eyes to the fact, that the real question raised by the agitators against the Acts, is not simply whether the Acts as they now exist shall or shall not be repealed, but whether we are to have repeal or extension. We have recently urged that the Army and Navy statistics are trustworthy in showing a marked decline in cases of venereal disease at the protected stations; and our more recently published statistics show that the death-rate from syphilis in the protected districts has declined twenty-one per cent. since the Acts came into operation, whereas it has increased twenty-one per cent. in the rest of England and Wales. If such are the results of those much abused Acts, if those Acts have really prevented "the spreading of certain contagious diseases in the places to which this Act applies", in accordance with the wording of the preamble of the Act, then not to support their extension to other ports and places which can be proved to be centres of infection for those contagious diseases, is simply to strengthen the hands of the opponents to the Acts.

On the 19th instant, a Bill for the repeal of those Acts is to be brought forward for a second reading, and it is therefore opportune now briefly to consider the history of the Acts as they exist, and of the opposition to them which has in recent years sought to obtain their repeal. For many of our facts, we are indebted to a paper which has been carefully drawn up with a view to urge the extension of the Acts to some of the more important of our seaports, but especially to Liverpool. The arguments of this paper are logically arranged, and lead to the inevitable conclusion that the supporters of the Acts must, in the face of their well organised opponents, be prepared either to surrender them or to urge the extension of their operation.

The extensive prevalence and virulence of venereal disease among the lower classes of prostitutes in certain seaports, garrison towns, and the neighbourhood of camps, had, in 1862, attracted so much attention that a special committee was appointed by Government to inquire into the prevalence of the disease in the army and navy, and their report was published in December of that year. The facts which came within the knowledge of this committee they pronounced to be "so appalling that they feel it a duty to press on the Government the necessity of at once grappling with the mass of vice, filth, and disease which surrounds the soldiers' barracks and the seamen's homes". The report of this committee resulted, after two years' deliberation, in the first Contagious Diseases Act of 1864; and in the same year that the Act became law, a commission, consisting of the most eminent physicians and surgeons in London, was appointed by the Admiralty to inquire into the pathology and treatment of syphilis, and to suggest practical rules for the prevention of venereal diseases, capable of being adopted by the naval and military authorities. The inquiry lasted nearly two years, evidence was given by all the most eminent members of the profession, and the report of the commissioners constituted the most highly valuable medical work of reference. The second Contagious Diseases Act of 1866 repealed the Act of 1864 (which was merely experimental, and in many respects imperfect), and was framed in accordance with the recommendations of this Admiralty commission.

This Act, with but slight modification, is the one now in force at a certain number of stations. These facts and dates are a sufficient answer to the charge of hasty and ill-considered legislation which is so frequently urged against these Acts. More than four years elapsed between the time when the legislature first seriously took this subject into consideration, and the passing of the existing Acts. The physical, social, and moral benefits arising from the operation of the Act of 1866 were considered so striking, that an association was formed in London to secure its general extension. The result of the efforts of this association was that, in 1868, a committee of the House of Lords was appointed to consider the subject of the extension of the provisions of the Act. This committee recommended the introduction of a Bill, at the earliest practical opportunity, giving to Her Majesty in Council power to apply the Act of 1866, first, to all military and naval stations; and, secondly, to any locality the inhabitants of which may apply to be included in the operations of the Act". In 1869, a committee of the House of Commons was appointed to inquire into the working of the Act of 1866, and "to consider whether, and how far, and under what conditions, it may be expedient to extend its operations". This committee, appointed nearly at the end of the session, commenced their report by stating, that although the Act had only been in operation two years and a half, both moral and sanitary benefits had already resulted from it; that "prostitution appears to have diminished, its worst features to have been softened, and its physical evils abated". The report of this committee concludes by recommending a further inquiry to ascertain the practicability and desirability of extending to the civil population "the benefits of an Act which has already done so much to diminish prostitution, decrease disease, and reclaim the abandoned". The reports of these two special committees of the Lords and Commons led to the partial extension of the provisions of the Act of 1866 by the Act of 1869.

The Acts of 1864 and 1866 passed with very little opposition, but the efforts of the association for promoting the extension of the Acts, and the report of the House of Lords' committee, gave rise to the first serious opposition to the Acts. This opposition gathered considerable strength when the recommendation of the committee of the House of Commons was adopted in the Act of 1869. In 1870, the first motion for the repeal of the Acts was made in the House of Commons. After a debate, which was held with closed doors, the motion was negatived by a large majority, a promise being made, however, by the Government to appoint a Royal Commission to consider the question in all its bearings. The Royal Commission consisted of twenty-five members, representing the clergy, the bar, the medical profession, the army, and the navy. The commissioners included supporters and opponents of the Acts, as well as a considerable proportion who might be regarded as neutral. The report of this Royal Commission speaks most decidedly upon the effect of the Acts in the reduction of the worst forms of disease among the lower classes of prostitutes, and acknowledges that they have both directly and indirectly promoted the objects sought to be attained by those Acts. "They have purged the towns and encampments, to which they have been applied, of *miserable creatures who were mere masses of rotteness and vehicles of disease*." Although the commissioners were by no means unanimous as to the expediency of the extension of the Acts to the general population, "they agreed that for the public good particular districts, which are from any cause peculiarly liable to contagious disease, should be subjected to special sanitary regulations". The general provisions of the Acts of 1866 and 1869 were approved by the Royal Commission, and the "good moral effects which these calumniated Acts have produced", are recapitulated under seven headings. Some few of the commissioners dissented from the report of the majority, and were in favour of the total repeal of these Acts. The report was issued in July 1871, and was shortly followed by an appeal to the Government signed by 2,500 members of the medical profession, expressing an earnest hope that, in any future legislation on the subject, the main provisions of the Acts of 1866 and 1869 would remain unaltered.

The second motion for the repeal of the Acts was made on May 22nd, 1873, and was lost by a majority of 123 in a House of 379 members. During the debate, "strangers were spied", and the press excluded. The repeal of the Acts was moved for the third time on June 23rd, 1875; and this time the debate took place in an open House. The motion was rejected by the increased majority of 182 in a fuller House of 434 members. Thus the decisions of the Select Committees of the Lords and Commons, and of a Royal Commission, have been supported by the rejection of motions for the repeal of these Acts on three successive occasions by increasing majorities. There is no reason to doubt that a similar fate awaits the motion for repeal which is again to be brought forward.

Having thus summarised the circumstances under which legislation on this subject was undertaken, modified, and extended; briefly alluded to the conclusions arrived at by successive Committees and Commissions appointed to consider the operation of the Acts; and traced the rise and progress of the opposition to the Acts,—we would wish, in conclusion, to notice a few of the facts brought forward in the paper to which we have alluded in support of the extension of the provisions of the Acts to some of the larger of our seaport towns, such as Liverpool, Bristol, Dublin, Hull, and Cardiff.

The extent of the prevalence of venereal disease in some of the towns in which the Acts of 1864, 1866, and 1869 were put into operation, may be inferred from the following facts. In 1864, of 331 women examined, 294 were found diseased in Portsmouth; and the whole of 202 in Devonport were found in the same condition. Under the altered provisions of the Act of 1866, 26 per cent. of the prostitutes examined in Dover in 1870 were found diseased, 21 per cent. in Gravesend, and 35 per cent. in Southampton. Judging by personal knowledge of the severity and frequency of the disease among women seen at the dispensaries, Lock Hospital, and workhouses in Liverpool, the author of this paper estimates the proportion of diseased prostitutes in Liverpool at not less than 40 per cent., and their number not far short of a thousand. The total hospital accommodation for the treatment of these diseases in Liverpool is but fifty beds, of which only twenty-five are for female patients. The effect of this proportion between diseased women and special hospital accommodation can better be imagined than described, although the paper before us gives much information bearing upon the terrible condition of the lower class of prostitutes in the town. Voluntary lock hospitals, even if there were any possible means of providing them in proportion to their need in Liverpool and other towns, although affording charitable and temporary relief to individual sufferers, have moreover been pronounced by the most experienced authorities to be, from a sanitary point of view, absolutely useless. Mr. James R. Lane, Surgeon to the London Lock Hospital, has also stated that to treat diseased women "as *out-patients*, which is now done on so large a scale at various hospitals and dispensaries, is a positive injury to the public health". Nothing but compulsory treatment can really ameliorate the condition of so large a proportion of the prostitutes of Liverpool; and compulsory treatment can only be obtained by extending to Liverpool the provisions of the Acts of 1866 and 1869. At Devonport, the cases of venereal disease treated at the Royal Albert Hospital declined, under the operation of the Acts, from 1,536 in 1869 to 466 in 1875; and the cases treated at the three workhouses of Plymouth, Devonport, and East Stonehouse, from 471 in 1864 to 12 in 1874. The mild character of the disease in cases of recent admission appears also to warrant the conclusion that the worst forms of the disease are being stamped out.

The effect of the great prevalence of venereal disease in Liverpool upon the health and efficiency of the mercantile marine is urged as one of the grounds for some measures being taken to reduce the disease and suffering of the degraded women who infest that port. Similar facts are produced in evidence of the condition of prostitutes and the proportion of disease in Bristol, Cardiff, Dublin, Glasgow, and Hull—facts sufficient to prove that these towns are undoubted foci of infection, indeed places that are, in the words of the Royal Commission,

"peculiarly liable to contagious disease, and should be subjected to special sanitary regulations".

The time appears to have come when the annual motion for the repeal of these Acts, which have already done so much to reduce the extent and virulence of this form of contagious disease in protected districts, should be met by a demand for a Select Committee of inquiry into the prevalence and severity of venereal diseases in some of our larger ports, with a view to extending the provisions of the Acts to those towns, if their condition in this respect be as bad as there is good reason to believe it to be. This proposition is strongly urged in the paper to which we have referred, and is worthy of the most earnest support of all those who believe in the efficacy of the Acts. Another suggestion is the compulsory examination of all merchant seamen on arrival and departure in and from these ports. This suggestion would not only materially increase the efficiency of the mercantile marine, but would even recommend itself to the opponents of the Acts, who object to the inequality of their provisions as regards the two sexes.

Supporters of the Acts from conviction of the hygienic advantages they have conferred upon the protected districts, are bound to promote their extension to districts where the same (or worse) evils exist as previously existed in the districts since protected. Any other course lays them open to the charge of being illogical and inconsistent, and thus indirectly strengthening the hands of the opponents of the Acts.

THE LUNATIC LAWS.

Two members of the House of Commons, Mr. Ramsay and Mr. Dillwyn, take a peculiar interest in lunacy, which in neither of them can be said to proceed from an intimate acquaintance with the scientific aspects of the subject. The former asks lunacy conundrums of essentially Scotch origin, and the latter makes lunacy statements that are at once vague and reckless. On the 7th instant, Mr. Dillwyn moved in the House of Commons, "That in the opinion of this house the existing lunacy laws do not afford sufficient safeguards against illegal incarceration and the maltreatment of lunatic patients". A trifling alteration in his motion, the substitution of the word "lunatics" for "this House", would at once secure for it general assent, as it is well known that insanity is not a self-conscious disease, and that those who suffer from it almost invariably believe themselves to be illegally incarcerated, and look upon those measures which are necessary for their own protection as the cruellest maltreatment. Mr. Dillwyn will, however, have some difficulty in persuading the House of Commons that these lunatic notions are well founded, or that there is any necessity for altering the law as it at present stands with reference to the incarceration of lunatics, which, in England at least, affords the most ample security against any unjustifiable interference with the liberty of the subject, or other abuse. Much might, indeed, be said in favour of the view, that any alteration of the law that is to take place should be in a direction the opposite of that which Mr. Dillwyn indicates, and should tend to the removal of some of the difficulties which it at present interposes in the way of putting a person of unsound mind in a place of safety. So numerous and complex are the safeguards of individual liberty now in operation, that many undoubted victims of mental disease are allowed to remain at large, and to ruin themselves and their families, when a little asylum treatment would restore them to rationality.

In bringing forward grave charges, Mr. Dillwyn ought to have been prepared to support his position by a weighty array of facts. His general impressions, and the results of his private inquiries, are not enough; had we are entitled to ask him to point to specific instances justifying his statement that our lunacy laws are inherently bad and defective, and that they are loosely administered. When recently attacking unreformed corporations, Sir Charles Dilke gave verifiable illustrations of every one of his statements; and in attacking our unreformed lunatic asylums, Mr. Dillwyn would do well to pursue the same course. Until he is able to do so, and to refer to specific cases of sane people being shut up as lunatics, or of recovered lunatics having been

detained in asylums, it is idle in him to talk of the facilities for improper incarceration which the law affords. The day for mere sensational asseverations, or wholesale invective, is gone by; and even private asylums, open to suspicion, and burdened by an evil history, as they are, will not be condemned, unless definite misdeeds can be proved against them. There are scattered throughout the country innumerable families, that in times of sad affliction have experienced benefits from these much traduced institutions; and these families form centres of confidences, from which radiate more just notions of what private asylums really are than are likely to be disseminated by Mr. Dillwyn. Then, the public are now well aware that the portals of these institutions are jealously guarded, and that their management is closely supervised. It is only by assuming the densest ignorance, or a criminal conspiracy involving two medical men, that we can conceive it possible that any not insane person might be imprisoned in one of them; and it is only by attributing dishonesty or incapacity to a number of officials and magistrates, that we can conceive it possible that any not insane person so imprisoned could be detained longer than for a few days. We know that the medical certificates which are required before a patient can be received into an asylum are only granted with caution and under a sense of serious responsibility; and we know that every asylum inmate has at all times free access to disinterested authorities, by whom every representation is promptly and minutely investigated. Why, if Mr. Dillwyn's statements are correct, have we not frequent actions for illegal detention brought against doctors who have signed certificates, and the proprietors of private asylums?

The only argument that Mr. Dillwyn adduces in support of his sweeping assertions is, that the number of lunatics throughout the country is increasing greatly. From this sure footing of facts, he springs by an inductive leap of stupendous extent to the conclusion that many sane persons are placed in private asylums; but, in doing so, he omitted to notice that the increase in lunacy is going on as rapidly in the pauper as in the private class; and of course it would be preposterous to suppose that sane people are kidnapped for the purpose of making them into pauper lunatics, or that the officers of public asylums could have any conceivable motive for retaining in them persons who were not suitable subjects for incarceration. Referring to public asylums, Mr. Dillwyn is pleased to say that they are "tolerably satisfactory"; and his praise, as much as his blame, reveals his ignorance of the subject on which he undertakes to enlighten the legislature. All competent critics are agreed that the public asylums of this country are not only unsurpassed, but unapproached, by any others in the world; and that for purity of administration and diligent fulfilment of those benevolent purposes that called them into being, they may challenge comparison with public institutions of any kind.

Mr. Dillwyn's suggestion, that the Commissioners in Lunacy, from being hospitably entertained by the proprietors of private asylums, are disposed to condone rather than to prosecute their offences—in other words, that the Commissioners are corrupt—ought not to have been lightly made. No member of the House of Commons should take advantage of his position to make imputations upon public officials—who are not so pachydermatous as they are generally supposed to be, although they are obliged to endure in silence—unless he is well assured that such imputations are deserved. We do not envy Mr. Dillwyn his reflections when he is informed that his insinuations, as regards the Commissioners in Lunacy, are absolutely unfounded. The fact is, as is well known, that the Commissioners in Lunacy, who are men of the highest professional standing and of unimpeachable probity, have always persistently declined hospitable entertainment from private asylum proprietors and officials. Their policy, in thus holding themselves aloof, which, it now appears, has been judicious, has sometimes subjected them to sneers at their official arrogance and isolation. The complaint has been that they have maintained an attitude of rather haughty reserve towards all connected with private asylums; and that their supervision over these establishments has been characterised by

unnecessary stringency. For our own part, we had felt inclined to sympathise with this view, as we could not discern any danger that was likely to accrue from social intercourse between the Commissioners and the proprietors of our high-class asylums, who are men of professional eminence and of some social distinction. Mr. Dillwyn's idea probably is, that private asylum proprietors are of the same class, with pawn-brokers and licensed victuallers. He is, doubtless, unaware that Dr. Conolly, Sir William Ellis, Dr. Forbes Winslow, and Sir Charles Hastings were private asylum-proprietors; and that, at the present time, Dr. Henry Monro, Dr. Harrington Tuke, Dr. Maudsley, Dr. Blandford, and Dr. Lush, M.P., are connected with such establishments. Despite, however, the eminence of these, and others who might be named, we now recognise the wisdom of the Commissioners in keeping themselves apart from all connected with private asylums; and in leaving no place for aspersions such as those which Mr. Dillwyn has not thought it beneath his dignity to cast upon them.

That private asylums are capable of improvement, we verily believe, and that the Lunacy Law is capable of amendment, we are well assured; but that either the improvement or amendment will come from Mr. Dillwyn, we very much doubt. It is creditable to the House of Commons that it gave him a minimum of attendance, when he was delivering himself of his views on the 7th inst., and that it was counted out when Sir E. Wilmot took up the romantic theme.

THE Dutch correspondent of the *Pall Mall Gazette* writes that some cases of Asiatic cholera have occurred in Holland—one in the village of Bussum, near Amsterdam, and two in the town of Zutphen.

THE annual general meeting of the Medico-Psychological Association of England will be held at the Royal College of Physicians, Pall Mall, London, under the presidency of William H. Parsey, M.D., on Friday, July 28th, 1876, at 11 A.M.

DR. B. W. FOSTER of Birmingham has been elected President of the Birmingham Medical Benevolent Society. Mr. C. W. Marriott of Leamington, Mr. William Joyce of Ashby-de-la-Zouch, Mr. R. Farncombe of Birmingham, and Dr. Robinson of Birmingham, are appointed Vice-Presidents of the same Society.

THE profession has to deplore the loss of a much respected and widely beloved practitioner, Mr. T. T. Griffith of Wrexham, who has for a long series of years enjoyed the unbounded confidence of his fellow practitioners and of a wide circle of the public in North Wales. We shall next week publish an obituary.—Sir James Lomax Bardsley, long an eminent and highly respected physician in Manchester, has also just died.

IN the case of the recent disputed will of the late Mrs. Nasmyth, the name of a Mr. Francis Mason was introduced. We are requested to state that the gentleman referred to was not Mr. Francis Mason, the well-known Assistant-Surgeon of St. Thomas's Hospital; although homonymous, he was not in any way connected with him.

Two vessels have arrived in the Mersey with yellow fever on board, the brig *Thomas*, from Demerara, and the *Anne Mary*, from San Domingo. The disease broke out on the voyage to Liverpool, but it was not known how many of the crew were affected. Both ships were on arrival at once placed in quarantine, and the port sanitary authority has taken the strongest measures to prevent the plague from spreading to the shipping in the port.

THE annual meeting of the governors and members of St. John's House for the Training and Employment of Nurses, was held on the 10th inst., at the offices of the institution, in Norfolk Street, Strand—the Dean of St. Paul's in the chair. The report testified to the success which had attended the efforts of its managers, particularly in the arrangement which was entered into in 1874, for the supply of a staff of nurses to King's College Hospital.

THE second congress of Austrian medical practitioners will be held in Vienna on July 31st, and August 1st and 2nd.

DR. FARRE.

DR. FARRE continues to make good recovery from his accident. At the consultation a few days ago, being a month from the time of injury, the condition of the limb was so satisfactory that it was decided not to disturb it.

THE PLAGUE.

WE are indebted to an esteemed correspondent for the following intelligence from Surgeon-Major Colvill. Mr. Colvill writes from Bagdad, under date June 14th, 1876.

"From the time I saw the disease till now, I have not had the slightest doubt as to its being true oriental plague. Every case I have seen, and all the cases recorded by the Sanitary Commission here in Bagdad—over four thousand in number—have had buboes externally. I have seen one or two cases where the glands of the mesentery would appear to have been enlarged; and these were cases where, from the peculiar expression of the countenance, one with a little experience would know that death was certain. For every case of plague in Bagdad, there have been, I should say, four cases of ague. Now, it is often impossible in the first twenty-four hours to distinguish between plague and ague. A physician here, who has reported on the epidemic, in treating all cases with quinine, considers that he is curing incipient plague, when it is only ague; and when buboes appear, he considers it is too late for treatment. In the military hospital, where ague and plague have been treated alike with large doses of quinine, the ratio of deaths of those cases of fever which had buboes, which alone have been recorded as plague, will be found the same as in the town. The Sanitary Commission in the beginning administered quinine to very many in large doses, not with any doubt as to the nature of the disease, but in the hope that quinine, not having before been tried, might prove beneficial in plague. It was, however, given up as useless; and I strongly suspect that it is, if anything, injurious, at least in the later stages. Because, within the last five or six years, the local swamp to the west of Bagdad has increased, the present disease is supposed to be due to it; but we must remember that plague did not arise here in Bagdad, but came to it as distinctly as if one had seen it on the road. I had almost forgotten to speak of the progress of the plague, for it has almost again become dormant. There are only one or two deaths a day from it now (June 14th) in Bagdad; but I fear we are now to have an epidemic of fever of a pernicious kind."

THE METROPOLITAN BOARD OF WORKS.

THE annual report is, as usual, very elaborate, and contains a full account of all the work done, as well as of the money raised and expended during the year. The immense sums which have been laid out on improvements of the metropolis, are such as would have astonished our fathers, or even ourselves a few years ago, and are very greatly in excess of the amount likely to be incurred for reconstructing the dwellings of the poor. The Embankment Approach has cost above £580,000, the Shoreditch improvements £606,000, the Oxford Street extension £621,000, and the Harrow Road improvement £123,000; whilst the cost of the Holborn scheme under the Artisans Dwellings' Act is limited to £64,000, and the Whitechapel scheme to £54,400. As the medical profession cannot be accused of under depreciation of the advantages of wide streets and suitable thoroughfares, we trust we shall not be accused of a retrograde action when we say that we shall be better pleased in future to see more money expended on the houses of the poor, and less on handsome streets, unless both can be satisfactorily carried out at the same time. There is also a very important measure which is conspicuous by its absence, viz., an amended Metropolitan Building Bill, which even the Board admits to be very much required. It would seem as though the time and attention of the Board and its officers are so much taken up with the costly metropolitan improvements that they have no time to devote to preventing the erection of the numerous fever-dens which have of late disgraced various outlying parts of the metropolis. We hope to see this speedily amended. There is no doubt that the report shows an immense amount of useful work, not

only in structural improvements of the metropolis, but in the by-laws of slaughter-houses and offensive trades; opposition to Gas Bills; objectionable features in Railway Bills; the extension and maintenance of the Metropolitan Main Drainage Scheme; the supervision of drainage plans from the Vestries and District Boards; the maintenance of the fire brigade, and the carrying out of the Metropolitan Building Act by the agency of the district surveyors. This Board has become an absolute necessity for the metropolis, and could not possibly be dispensed with, unless some other public body with similar powers should be constituted; and, although we have found fault with what we consider some of the shortcomings, we cannot but express our admiration at the manner in which their administration has been carried out. The estimated expenditure for 1876 is no less than £848,000; so that as only £401,938 will be derived from coal and wine dues, interest, etc., and balances, there will be nearly £450,000 to be raised by a rate probably of $4\frac{1}{2}$ d in the pound. The income in 1875 was £906,121, of which £735,000 were from rates, rents, coal and wine dues, etc. The current expenditure was nearly £600,000; the capital expenditure £1,123,500, which included a loan account of more than £310,000. This balance-sheet, more than anything else, shows the magnitude of the Board's transactions.

CHURCHYARDS.

THE Rural Sanitary Authority of King's Norton, near Birmingham, recently held a special meeting to consider a recommendation from their medical officer of health and their surveyor, that Moseley Churchyard should be closed, on the ground that its further use would be dangerous to health. It was stated that the vicar had announced his intention to use existing graves so long as the bodies could be buried four feet and a half from the surface. This arrangement would, it appears, sanction seven hundred and fifty additional burials, and keep the churchyard open for seven more years. Somewhat similar reports were made as to the condition of King's Norton and Northfield Churchyards, within the jurisdiction of the same sanitary authority. It is to be regretted that the Public Health Act of 1875 gave no power to sanitary authorities with reference to the control of churchyards. A representation, however, made by such authorities to the inspector of burial-grounds at the Home Office would doubtless secure an official inquiry. The further consideration of the alleged insanitary condition of those three suburban Birmingham churchyards was adjourned by the King's Norton Sanitary Authority.

A SOUVENIR.

AMONG the works of art exhibited at a loan collection, on view at the Hartley Institution in Southampton, is a relic of some historical interest to naval surgeons. It is a handsomely chased and highly ornamented large silver punch-bowl, presented by Queen Anne—what will the total abstainers think of such a gift from a lady?—to the London College of Surgeons, for conducting the examinations of the surgeons of Her Majesty's Navy. The bowl is not unlike a modern soup-tureen in general shape, but without a cover. It bears the following inscription:—"Societati Chirurgorum Londini, ob fidem et diligentiam in examinandis Chirurgis in Classe Regiâ meritis dono dedit Serenissima Regina Anna Principum optima 1704. Impetravit Carolus Bernardus, Arm., Chir. Reg. Pr., Hujus Societatis Magister."

MEDICAL INSPECTION OF BOARD-SCHOOLS.

A CORRESPONDENT in Liverpool writes to us: "A subject of much importance, connected with school-boards and compulsory education, has been taken up last week here very heartily by medical men, namely, the periodic medical inspection of all public schools, with a view to reduce contagion in epidemic times to its minimum. This is a subject which the BRITISH MEDICAL JOURNAL advocated on a previous occasion; and seeing that nearly all the leading medical men of this town have signed the memorial to the School-Board, the plan will probably soon be tried here."

MRS. ANDREW WYNTER.

MRS. WYNTER, the widow of a late editor of this JOURNAL, writes to us—

"Templecombe, St. Margaret's, Twickenham.

"I have been a long time wishing to thank you for your extremely kind notice of the death of my husband, Dr. Andrew Wynter, in May last; but it has not been from any want of gratitude, but that the sorrow and trouble I have had entirely prevented me. I have taken a house at Twickenham, where, as I am left with my four children dependent on my exertions, I intend to receive two or three invalids, as boarders in my family, who require care and cheerful society. The neighbourhood is very charming, and we are only ten minutes from Richmond. Should you have an opportunity of recommending any one, even for a short time, I shall be very glad; or if you could in any way make it known generally by a small paragraph in the BRITISH MEDICAL JOURNAL of my intentions, it may help me to establish myself, and I should feel it an extreme kindness. The house is detached, with garden, and the bed-rooms large and airy, as well as the reception rooms. The soil is gravel, and therefore very dry."

We think this simple and sincere letter will plead more eloquently for Mrs. Wynter than any paragraph from our pen. We need hardly commend her modest request to our associates.

ACTION FOR LIBEL.

ONE hundred pounds damages were, on Wednesday, given in the Common Pleas division in an action for libel brought by Mr. Payne, surgeon on board the steamship *Atalanta*, against Mr. Coathupe, captain of the *Africaine*, the jury finding for the plaintiff on all the questions put to them. Mr. Justice Archibald refused to stay execution, and certified for a special jury. The captain charged the surgeon with being in the cabin of a young lady passenger with the door locked.

UNCERTIFIED CAUSES OF DEATH.

THE Registrar-General remarks that it is unsatisfactory to have to note that the number of uncertified causes of death in London is increasing. In the March quarter of 1871, the proportion of uncertified deaths was 1.6 per cent.; in the last five weeks of 1875, it was 1.8 per cent.; and during the first six months of 1876, it further increased to 3.2 per cent. The death register is still by far more imperfect, in this respect, in South London than in other parts of the metropolis. The percentage of uncertified deaths during the past six months was 2.4 in the West, 1.3 in the North, 2.5 in the Central, 2.1 in the East, and so high as 6.0 in the South groups of registration districts.

SMALL-POX.

LONDON, the *Pall Mall Gazette* notes, appears to be threatened with another visitation of small-pox, and, although the circumstances are not such as to justify a panic, yet the aspect of affairs is sufficiently serious to render the utmost caution necessary to prevent the spread of the disease. At the meeting of the Metropolitan Asylums Board on Saturday, the report of the Stockwell Hospital Committee stated that fifty small-pox patients had been received during the past fortnight, of whom four had died, and twenty-four had been discharged. Attention was called to the very alarming increase of the epidemic during the past fortnight, the Chairman of the Committee saying, that "he had not had so serious a report to make since 1871". A fortnight ago, there were but forty-six cases; whereas, on Friday night, there were seventy in the hospital, and he had just been informed that six more had been admitted. The cases are chiefly from the south of London, and are, it was stated, of the most malignant type. It is evident from this statement, that we are in danger of a return of the epidemic of 1871, which caused such widespread desolation and misery, and it behoves the sanitary officers of each district in the metropolis to be on the alert with the view of discovering the existence of the disease in holes and corners where it may escape observation, and to take such steps as may be necessary to prevent the establishment of centres of infection. In the meantime, it may be well to note the particulars of a case heard at the Manchester City Police-court on Friday, in which a milk-dealer was charged with a breach of the Public Health Act, 1875, by not taking proper precautions to prevent the spread of an in-

fectious disease. The proceedings were taken under the third subsection of the 126th section of the Public Health Act, which enacts that, "if any person shall sell, or cause to be sold, any article from any place wherein a person is suffering from any infectious disease or other disorder, then he shall be liable to a penalty". It was proved that a young woman on the defendant's premises was suffering from small-pox, but that, notwithstanding a warning from the officer of health, he refused either to remove the patient, or cease selling milk from his shop. A penalty of ten shillings and costs was inflicted.

AN AUSTRIAN AMBULANCE TRAIN.

In the present threatening aspect of European politics, the following description, condensed from the *Daily News*, of an ambulance train in the Austrian Department of the Brussels Hygienic Exhibition, may not be without interest. The train consists of seven railway carriages, fitted up so as to form a perfect moving hospital, with stores, kitchen, and accommodation for surgeons and attendants, besides appliances of every sort for the conveyance and succour of the wounded. Along the middle of each carriage runs a gangway, and as there is a platform connecting each carriage with the one before and behind it, there is thus a passage running from end to end of the train. All the carriages and platforms are well lighted at night, and there is electrical communication between the different parts of the train. The first carriage is devoted to the commandant of the train, the sous-commandant, and two surgeons. The space on each side of the gangway is divided so that there are four small cabins, one for each of the four occupants. Each cabin is fitted with a seat, which also forms a bed, a flap table, and as many conveniences as can be crowded into the very small space available. The second carriage contains two officers' cabins and a number of cupboards for stores and provisions. The third is fitted up as a kitchen. The fourth is arranged for a refectory or dining-room, with tables and benches along the sides. The rest of the train consists of three ambulance carriages, each capable of carrying ten wounded men. The litters in which the men are brought to the train are lifted up and placed in a sort of rack, so that the litter when placed on the racks form the bed. There are six men on one side and four on the other, the litters being placed on two horizontal lines, one above the other, like the berths of a ship. All the arrangements, even to the minutest detail, are most complete, and the only question is whether they are not too elaborate to stand the rough work of actual service. This train is intended to be accompanied by a large number of field ambulances, whence the wounded would be transferred to the train.

DR. BRIDGES ON HARVEY.

THE July number of the *Fortnightly Review* contains an article on "Harvey and Vivisection" by Dr. J. H. Bridges, one of the Comtist brotherhood, and who, says the *Yorkshire Post*, from his connection with that fraternity, was made a Poor-law (he is now a Local Government Board) inspector when the last Ministry was in office. Dr. Bridges is an ardent foe of vivisection, the opposition to which several high medical and scientific authorities think has been considerably overdone. The anti-vivisectionists have been much exercised in their minds by the objection that, without the practice which they abhor, such a discovery as the circulation of the blood could not have been made; and it is to combat this notion that Dr. Bridges has taken up his parable in the current number of the *Fortnightly*. He appears to contend that Harvey, by mere meditation, and without experimenting on the living subject, might, could, and should have made his famous discovery. Harvey's own words, when telling the story of his great scientific triumph, seem to be conclusive against this view. "Devoting myself", he says, "to discover the use and utility of the movement of the heart in animals, in a great number of vivisections, I found at first the subject so full of difficulties that I thought for a long time, with Fracastor, that the secret was known to God alone. . . . Finally, from redoubled care and attention, by multiplying and varying

my experiments, and by comparing the various results, I believed I had put my finger on the truth, and commenced unravelling the labyrinth." This seems explicit and emphatic enough; but, strange to say, Dr. Bridges, when appearing to give this substance of this passage, carefully forbears to quote the words marked in italics, or to substitute anything synonymous with them.

THE WAR.

THE *Times* correspondent reports the existence of a considerable amount of typhus both in Cetigne and Grahovo, and at the latter place Dr. Polissadorff, the Russian physician at the head of the hospital, has died of it. It appears to result mainly from want of proper food.

THE LIGHT OF SCIENCE.

WE are very glad to see, from copies of local journals which have been forwarded to us, that Dr. J. G. Davey, of Northwoods, Bristol, and Mr. R. H. B. Nicholson, of Hull, have in their respective neighbourhoods bestirred themselves to correct misstatements as to the "cruelty and uselessness" of vivisection, and have, the first by a letter to the *Bristol Times*, and the second by a lecture at the local Athenæum, done something to set the facts in a true light before their fellow-townsmen. The public mind and the public press need information on the subject; and, when the whole subject is stated fairly and impartially, a strong reaction may be expected against those ignorant fanatics who are now spreading broadcast scurrilous and false libels on the professors of medicine. It must be borne in mind that this is only a new phase of an old and enduring fight—the fight against knowledge. Dr. Wilks touched the right key, when he said that this is a part of the anti-scientific movement which repeatedly makes itself felt as the observation-broadening frontiers of science from time to time alarm the party of ignorance. "More light" is needed. We trust that the members of the medical profession will make it their business to enlighten the public mind on this subject, and so good will be wrought out of evil. We strongly recommend our readers not to take their views from ourselves or from any one else at second hand, but to order for themselves copies of the *Report of the Royal Commissioners on Experiments on Animals*. It is a most highly interesting volume, and may be ordered through any bookseller for four shillings. It is full of instruction; and none can read the evidence, especially that of Professors Turner, Sharpey, and McKendrick, without adding materially to their knowledge. Really, no one is entitled to think himself fully informed on this important subject without reading this most interesting volume.

MANCHESTER ROYAL INFIRMARY: SMALL-POX.

AN occasional correspondent writes to us:—When the Conservatives of Manchester, whose motto, in regard to the infirmary, is the Walpolian one, "*Quæta non movere*", called in the aid of Mr. Netten Radcliffe, they little thought that they were invoking a power which would be exerted to shatter their pet idol. Yet so it proved; for the statements of the Medical Committee, condemnatory of the hospital, which were so severely criticised by this Conservative faction, were but as "moonlight unto sunshine, or as water unto wine", compared with the official report of Mr. Radcliffe. In this report, he not only confirms all that was affirmed by the Medical Committee, in regard to the faulty construction of the hospital, its inefficient ventilation, its bad light, its over-crowding, and general unfitness, but deals very specially with the drainage—stating, amongst other things, that the basement of the infirmary is at present a large cesspool, the drains opening through their reticulated sides freely into the subsoil, in consequence of the work of an army of rats which has made this its home. This cesspool varies in depth from two to six inches; but, owing to the intolerable stench, Mr. Radcliffe may not have sounded the depths and shallows of every portion. Strange to say, neither diarrhoea, typhoid, nor any allied disorders have yet prevailed in the hospital, though it cannot be doubted that, unless a change be made, the time will come when this open sewer will tell its tale in somewhat graphic style. It

may safely be stated, however, that the days of the infirmary are numbered; in the meanwhile, temporary measures are being adopted to lessen the evil state of things. Huts are being erected within the infirmary enclosure for a hundred beds, and thither a hundred patients will be drafted, thinning the beds in the hospital by that number. Another quite separate hut is also being constructed for the reception and complete isolation of all cases of erysipelas and septicaemia, which cannot be transferred to the suburban fever-hospital at Monsell. Of course, the most pressing question now before the trustees is where to build their future hospital. They will have probably something like three quarters of a million at their disposal, and where shall they decide to go with this goodly sum? Two sites are commonly talked of as the most suitable; one on the south and the other on the west side of Manchester. The latter, known as the Manley Hall Estate, has much to recommend it. About two miles due west from the present hospital, Manley Hall is situated in a pure and pleasant air, surrounded by a noble park, "deep meadow'd, happy, fair with orchard lawns", and beautiful gardens, laid out with much care and almost infinite cost by the recent owner, one of the great merchant princes of Manchester. The soil is sandy, and there is less smoke than elsewhere within the same distance of Manchester, as is evidenced in the abundance and beauty of the roses. If the trustees should decide to purchase this site, they would do a sensible thing in the opinion of the profession of Manchester, and a popular one in the eyes of the public. The epidemic of small-pox shows no abatement. It is wide-spread, and severe in character; in spite, indeed, of a stringent vaccination system, it spreads and destroys. One somewhat curious feature seems to be the frequency with which quite young children are attacked. I am personally acquainted with several cases of children, of four and five years of age, whose arms exhibit four good vaccination-marks, having contracted the disease, and that, too, sharply. It is thought by some that it would be wise to resort to the cow again, for a time, for our supply of lymph.

PARKES MEMORIAL: UNIVERSITY COLLEGE.

WE would direct attention to the public meeting to be held next Tuesday, at 3 P.M., Sir William Jenner in the chair, at University College, for the purpose of establishing there a museum and laboratory of hygiene in memory of Dr. Parkes. Are not the Committee wrong in deciding that the memorial should take so local a shape? Much greater support might have been expected for a proposition of wider scope. The general committee consists of men of great general eminence, and we would advise them to reconsider the subject.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual festival of the Fellows of the College was held at the Albion Tavern, on the 6th inst.; T. B. Curling, Esq., F.R.S., President, in the chair. There was a large attendance of metropolitan and provincial Fellows. In returning thanks for the military service, Surgeon-General Longmore paid a well-deserved tribute to the memory of the late Dr. Parkes. Among the other toasts were "The Medical Corporations", proposed by Sir Henry Thompson, and responded to by Dr. Risdon Bennett and Sir James Paget; "The Provincial Schools", proposed by Mr. Erichsen, and responded to by Mr. Reginald Harrison; "The Metropolitan Schools", proposed by Mr. Wheelhouse, and responded to by Mr. Callender; "The Visitors", proposed by Mr. Simon, and responded to by Dr. Russell Reynolds and Mr. Trimmer; "The Chairman"; "The Honorary Secretary, Mr. Allingham", etc.

THE WESTMINSTER TRAINING SCHOOL AND HOME FOR NURSES. At the annual general meeting of this institution, held at the Deanery, Westminster, on July 3rd, the Duke of Westminster in the chair, the following resolutions were carried unanimously: 1. That the memorial committee be authorised, in communication with the committee of management, to employ the funds subscribed, amounting to over £5,000, in the purchase of a freehold site, and to proceed in the erection of a home, to be called the "Lady Augusta Stanley Train-

ing School and Home for Nurses". 2. That, in view of further operations, the Duke of Westminster, Lord Hatherley, and Sir Henry F. Holland, be appointed trustees, in whom the freehold should be vested, with power to raise money on mortgage of the same. It was stated to the meeting by the chairman that, although the sum already subscribed fell considerably short of the amount that would be required to purchase a freehold site and build the home, the committee felt confident that more would yet be received; and they proposed making a further and earnest appeal to all the friends of the memorial institution and of training schools for nurses generally, to second their efforts to carry the present undertaking out successfully and with the least possible delay.

RECENT URBAN MORTALITY.

DURING last week, 5,549 births and 3,100 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living: in Nottingham it was 13; Edinburgh, Hull, Sheffield, and Norwich, 16; Plymouth, 17; Leicester and Brighton, 18; Dublin, Birmingham, and Bristol, 19; London and Portsmouth, 20; Glasgow and Bradford, 21; Leeds, Liverpool, Newcastle-upon-Tyne, and Sunderland, 22; Wolverhampton, 23; Manchester, 26; Salford and Oldham, 30. The annual zymotic death-rate ranged from 0.6 and 0.8 in Norwich and Newcastle-upon-Tyne to 7.1 in Portsmouth (scarlet fever), and 7.2 in Salford (small-pox). In London, 2,282 births and 1,322 deaths were registered; the former being 57 above, the latter 69 below the average of the week. The 1,322 deaths included 13 from small-pox, 25 from measles, 36 from scarlet fever, 9 from diphtheria, 26 from whooping-cough, 20 from different forms of fever, and 116 from diarrhoea; in all, 245 deaths, which were 78 below the average, and equal to an annual zymotic rate of 3.7 per 1,000. The deaths referred to diarrhoea, which had slowly increased from 13 to 49 in the five preceding weeks, rose to 116 last week, which were, however, 12 below the corrected average number in the corresponding week of the last ten years. These 116 fatal cases of diarrhoea included 93 of infants under one year of age, 20 of children aged between one and five years, and 3 of persons aged upwards of sixty years. The deaths of 4 infants were referred to choleraic diarrhoea. Two deaths from puerperal fever were recorded in Queen Charlotte's Lying-in Hospital. In greater London, 2,780 births and 1,525 deaths were registered; in outer London, the general and zymotic death-rates were 13.3 and 1.7 per 1,000 respectively, against 19.8 and 3.7 in inner London. At Greenwich, the mean reading of the barometer was 29.79 inches; the mean temperature of the air was 65.5 degrees, or 4.0 degrees above the average. The general direction of the wind was S.W. Rain fell to the amount of 0.18 of an inch. During the three months ending June 30th last, only 3.5 inches of rain were measured at the Royal Observatory, Greenwich, or 2.3 inches less than the average amount in the corresponding period of the preceding sixty years. Rain was measured on twenty-four of the ninety-one days in the quarter—1.3 inches on nine days in April, 1.1 inches on five days in May, and 1.1 inches on ten days in June. The rain-fall was about an inch below the average both in May and June.

SCOTLAND.

THE Local Authority of Creiff have decided to undertake the establishment of a thorough system of drainage for the borough in conformity with plans prepared by their engineer.

SOME public baths and washhouses have recently been opened in Glasgow, being the first institution of the kind in the city; they have been placed under the immediate direction of the authorities. A similar institution in another part of the city is expected to be ready by the end of the year.

In the Edinburgh Court last week, before Lord Rutherford Clark and a jury, a case was tried presenting an important aspect from a sanitary point of view. The Rev. P. F. Flemyng, some time ago, rented for two years from the defender, W. Menzies, who is a joiner, a house at Dunoon. At the time the lease was entered into, the defender informed the pursuer, as he says, that the house was thoroughly well drained and had an ample supply of water; but the pursuer found both to be insufficient, and his family consequently suffered greatly from sickness induced by the unhealthy condition of the house. He, on that ground, asked damages in respect of medical expenses and the cost incurred in removing and providing another residence for his family. The defender maintained that the house was in a tenantable condition when let to the pursuer, and did not become untenable from any cause for which he was responsible. The jury found a verdict for the pursuer, damages £150.

MORISONIAN LECTURES ON INSANITY.

In the third lecture of this course, delivered last week, Dr. Tuke discussed a case of idiopathic insanity which had come under his observation, and which he regarded as illustrating the sequence of mental and somatic symptoms; the class of cases to which it belonged warranting, in his opinion, the view that so called moral causes of insanity were in effect physical causes. He pointed out that it was an error to suppose that the chief symptoms of insanity were delusions; a point often unduly pressed in courts of law when insanity cropped up. In regard to what was spoken of as monomania, he remarked that the word, which was fast passing out of use, had been held to convey the idea that a person could be mentally sound on all points save one, but such a person had never yet been met with in practice. A delusion, which appeared to be single, could always, by careful examination, be found to exist along with others of an analogous nature, and it was important to remember this in testing a man who was suspected of simulating insanity. In passing to the subject of hereditary predisposition of insanity, Dr. Tuke remarked that, to make it of importance in the diagnosis of any individual case, two points had to be considered; first, the degree of consanguinity of the members of the family said to have been insane; and, second, the period of incidence and the nature of their insanity. The difference of practice in regard to this question between the Scotch and English Courts was then pointed out, and the opinion was expressed that the Courts were not justified in refusing such evidence altogether, because the transmission of insanity from father to son was a well ascertained fact in pathology. The legal objections to this evidence were both theoretical and practical. There was a growing conviction in the minds of jurists that the subject was one requiring careful consideration and revision. Any change, however, would have to be carefully guarded, for more miscarriages of justice might result from the admission of this class of evidence than from its rejection. But the evidence of hereditary predisposition to be valuable must be purely a medical question, the facts of which could not be eliminated by any process of examination or cross-examination of a witness in the witness box.

CERTIFIED CAUSES OF DEATH AND THE FRIENDLY SOCIETIES' ACT IN GLASGOW.

In Dr. J. B. Russell's report upon the health of Glasgow during the first quarter of this year, which has just been issued, he calls attention to a "sudden and decided diminution in the proportion of uncertified deaths" since the beginning of this year, when the Friendly Societies Act of 1875 came into operation. In a recent special report upon the large proportion of uncertified deaths in Glasgow, Dr. Russell showed that, during the three years 1873-4-5, it averaged 22 per cent., and ranged in the twelve quarters of those years from 18½ to 25 per cent. In the first three months of 1876, the proportion fell to 15½ per cent. This improvement in the certification of the cause of deaths is most marked among children under five years of age, and especially among infants under one year of age. Compared with the most favourable return in

any previous quarter, the return for the first quarter of the year shows an increase of 14 per cent. in the duly certified cases of infants under one year of age, of 4 per cent. among children between one and five years, and of 1 per cent. at all ages over five years. In explanation of this recent marked increase in the proportion of duly certified causes of deaths of children in Glasgow, Dr. Russell calls attention to the provisions of the Friendly Societies' Act of 1875. This Act, which applies to Scotland as well as to England and Wales, enacts that no society shall pay any sum of money on the death of a member, unless on the production of a certificate of registration; and as regards the deaths of insured children under ten years of age, it is provided that no certificate shall be granted unless the cause of the death has been entered in the death-register on the certificate of a coroner, or of a registered medical practitioner, or on the production of "other satisfactory evidence of the same". In reply to a circular letter addressed each of the Glasgow registrars, these officials are unanimous in attributing the decline in the proportion of uncertified causes of deaths of children to these provisions of the Friendly Societies' Act. The registrar of one of the Glasgow districts reports that more than 27 per cent. of all the deaths registered by him are of members of friendly societies; and that, whereas the cause of 91 per cent. of those deaths is duly certified, the cause of the deaths of less than 66 per cent. of persons not members of these societies is certified. The Friendly Societies' Act only came into operation on the 1st of January last, and Dr. Russell's facts only relate to the first three months of the year, but the decline in the proportion of uncertified deaths is too marked to be the result of accident; and the evidence adduced appears conclusively to connect it with the operation of the Act. With reference to the provision that in uncertified cases no certificate under the Act shall be granted except on the production of "satisfactory evidence" of the cause of death, stringent instructions have been issued by the Registrar-General of Scotland, requiring a declaration made before a justice of the peace or other magistrate, by a person not pecuniarily interested in the death. The necessity for this declaration in Glasgow is of very rare occurrence, in consequence of the increase in the proportion of certified cases. Dr. Russell promises further statistics upon this interesting subject based upon the figures for the first year's operation of the Friendly Societies' Act; and, it may be hoped, that we may also be favoured with some trustworthy figures showing the effect in England upon the certification of the deaths of children.

IRELAND.

PRESENTATION.

MR. O'BRIEN, now Inspector of the Dublin District under the Local Government Board, received last week an influential deputation on behalf of the medical and Poor-law officers of the North of Ireland, who presented him with an address of a complimentary character, accompanied by a valuable presentation of plate, on the termination of the lengthened official connection which had subsisted between them.

DEATH-CERTIFICATES.

THE new forms of medical certificate of the cause of death, approved by the Lord-Lieutenant in Council, have been issued this week, and are, we believe, identical with those at present used in England. This change has long been required, as practitioners objected to the previous form of certificate; and, indeed, some members of the profession refused to sign them at all, owing to the peculiar way in which they were worded.

HEALTH OF IRELAND IN 1875.

THE births registered in Ireland during the year amounted to 138,382, affording a ratio of 1 in every 38.4, or 26.1 per 1,000 of the population, against an average rate of 26.9 per 1,000 for the previous ten years. The number of deaths registered was 98,243, equal to a ratio of 1 in every 54.0, or 18.5 per 1,000, being 1.5 per 1,000 over the average

rate for the ten years 1865-74. Of these 98,243 deaths, 13,892, or 14.1 per cent., occurred in public institutions; whilst 13,135, or 13.4 per cent., were of children under one year old, and 39,450, or 40.2 per cent., were of persons aged sixty years and upwards. During the year, 11,379 deaths occurred from the eight principal zymotic diseases, being 11.6 per cent. of the total deaths, and equal to 2.14 in every 1,000 persons living. Of these, 543 were caused by small-pox, 792 by measles; 3,635 by scarlet fever, which was epidemic in Ulster, where 66 per cent. of the deaths caused by it took place; 468 by diphtheria; 1,356 from whooping-cough; 2,661 from fever; 1,877 from diarrhoea; and 47 by simple cholera. The average annual number of deaths from this class of affections, during the previous ten years, was 12,473, or 2.29 in every 1,000 of the population. During the past year, 2,707 inquests were held, or one inquest to every 36 deaths registered. The mean temperature at Dublin for the year was 49.6 deg. against an average of 49.5 deg. for the previous ten years; and the rainfall measured 32,825 inches, being 5,679 inches over the average for the ten years 1865-74.

PHARMACEUTICAL SOCIETY OF IRELAND.

LAST week, a deputation from the Chemists and Druggists' Association waited by appointment upon the Council of this Society for the purpose of obtaining their assistance to induce Government to amend the Pharmacy Act. The Chemists and Druggists' Association believe that, according to the thirty-first clause of that Act, it is illegal for them to make up cattle-medicines containing poisons. They also desired that all who were in business at the time of the passing of the Act, or had served an apprenticeship to the business, should be registered as chemists and druggists; and that, in future, persons should be permitted to carry on the business of chemist and druggist, and sell poisons, upon passing a modified examination; but not to be entitled to compound prescriptions. A discussion on these points took place, but the matter has been postponed until a future meeting.

OVARIOTOMY.

AT the last meeting of the Obstetrical Society of Dublin, for the present session, an interesting discussion, adjourned from previous meeting, took place, consequent on a case brought before the Society by Dr. Kidd, of ovarian disease (multilocular tumour) complicated with pregnancy, rupture of cyst, and peritonitis. Mr. Spencer Wells operated, but death resulted in a week after the operation. The question at issue was the advisability of operating during pregnancy, on which point the members were divided; the most influential and having the most experience, however, coincided in the belief that an operation in a pregnant woman should not take place unless grave symptoms arose. Mr. Spencer Wells has operated in six cases of pregnancy with success in all, and as Dr. Kidd's case would have terminated fatally if left alone, the operation of ovariectomy, giving her a chance, however slight, of her life, was undoubtedly necessary. Why the mortality in ovariectomy is so excessive in Dublin it would be difficult to explain; but, as one of the speakers pointed out, atmospheric conditions may have somewhat to do with the result; Mr. Spencer Wells, whose skill as an operator is unvalued, having, we believe, lost nearly every patient he operated upon in Ireland.

CANCER OF NAVEL.

AN instance of this rare disease has lately been published by Dr. Mac Munn, in which the affection was accompanied by retroperitoneal cancer. The umbilical tumour was true scirrhus, microscopic specimens yielding oval, tailed and angular nucleated cells, granule cells, and granular cells; the mesentery and omentum contained similar deposits. Death took place, Dr. Mac Munn considers, by uræmic poisoning, for, as the ureters became compressed by the cancerous masses, complete arrest of the urine ultimately took place, leading to hydronephrosis, and at length to uræmia, the immediate cause of death. The patient was a widow, aged 63, and had been ill for about two years. The liver, stomach, and pancreas were healthy, but the spleen contained a small nodule of cancerous growth.

THE GOVERNMENT AND THE VIVISECTION BILL.

A VERY large deputation, arranged by the Parliamentary Bills Committee of the British Medical Association, had on Monday last an interview with the Secretary of State for the Home Department. The deputation was so large that its members overflowed into the passages and over the stairs of the Home Office, whose apartments were evidently designed for deputations of lesser numbers than the Association can present upon a question of medical importance.

The deputation was introduced by Mr. ERNEST HART, Chairman of the Parliamentary Bills Committee of the Association, and there were present, in addition to Sir William Jenner, Bart., K.C.B., Mr. John Simon, C.B., Sir Joseph Fayrer, Mr. Mitchell Henry, M.P., and several other members of Parliament:—

James E. Adams, F.R.C.S., Demonstrator of Anatomy and Surgeon to the London Hospital; William Adams, F.R.C.S., Surgeon to the Great Northern Hospital; Stephen S. Allford, F.R.C.S.; W. H. Allhus, M.B., Senior Assistant Physician to the Westminster Hospital; William Allingham, F.R.C.S., Surgeon to St. Mark's Hospital; George Atchley, M.B., Lecturer on Physical and Comparative Anatomy in the Bristol Medical School, and Surgeon to the Bristol General Hospital, Clifton; Charles T. Aveling, M.D., Medical Officer to the City Union, Homerton.

George Granville Bantock, M.D., Physician to the Samaritan Free Hospital; Robert Barnes, M.D., Obstetric Physician to St. George's Hospital, President of the Metropolitan Counties Branch; E. Buchanan Baxter, M.D., Professor of Materia Medica and Therapeutics in King's College; W. C. Bingley, A.M., M.D., late Physician to the Middlesex County Lunatic Asylum, Hanwell; Henry Behrend, M.R.C.P.Ed.; Charles H. Bennett, M.D., Hammersmith; I. B. Berkart, M.D., Assistant-Physician to the City of London Hospital; Frederick A. Best, M.R.C.S. Eng., Medical Officer of Health, Walthamstow; T. K. Bevan, M.D., Peckham; W. Bowman, F.R.S.; J. S. Bristowe, M.D., Physician to St. Thomas's Hospital; W. H. Broadbent, M.D., Senior Physician to the Fever Hospital, and Physician to St. Mary's Hospital; Chas. Gage Brown, M.D., Examining Physician to the Crown Agents for Colonies; J. Mitchell Bruce, M.D., Assistant-Physician to Charing Cross and the Brompton Consumption Hospitals; John Bunton, M.D.; John M. Bryan, M.D., Northampton; John M. Butler, M.D., Woolwich.

Thomas Cahill, M.D.; Hamilton S. Cartwright, M.R.C.S., Professor of Dental Surgery in King's College; William Case, L.R.C.P.Ed., Fareham; Richard Caton M.D., Lecturer on Physiology in the School of Medicine, Liverpool; Robert Ceely, F.R.C.S.E., Surgeon to the Bucks County Infirmary and the Bucks County Gaol, Aylesbury; W. B. Cheadle, M.D., Sen. Assist-Physician and Lecturer on Pathology, St. Mary's Hospital; W. S. Church, M.D., Physician to St. Bartholomew's Hospital; Andrew Clark, M.D., Physician to the London Hospital; J. Lockhart Clarke, M.D., F.R.S., Physician to the Hospital for Diseases of Nervous System; Joseph T. Clover, F.R.C.S.; T. S. Cobbald, M.D., F.R.S.; George C. Coles, M.R.C.S. Eng., Senior Surgeon to the Islington Dispensary; A. Collie, M.D., Medical Officer to the Fever Hospital, Homerton; T. Cooke, F.R.C.S.E., Senior Assistant-Surgeon to the Westminster Hospital; Alfred Cooper, F.R.C.S. Eng., Surgeon to the West London Hospital; Frank W. Cooper, L.R.C.S. Ed., Leytonstone; W. H. Corfield, M.A., M.D., Professor of Hygiene and Public Health in University College; Wm. Cornick, M.D., Physician to the Imperial Court of Persia; Robert Cory, M.B., Assistant Obstetric Physician to St. Thomas's Hospital; Sidney Coupland, M.D., Assistant-Physician to the Middlesex Hospital; George Cowell, F.R.C.S., Surgeon to the Westminster Hospital; Edward H. Cree, M.D., Deputy Inspector-General R.N.; John Croft, F.R.C.S., Surgeon to St. Thomas's Hospital; Hugh Cuolahan, M.D., Medical Officer and Public Vaccinator to St. Olave's Union; J. Brendon Curgenven, M.R.C.S.; T. B. Curling, F.R.S., Consulting Surgeon to the London Hospital; John Curnow, M.D., Professor of Anatomy in King's College.

Frederick H. Daly, M.D.; James G. Davey, M.D., Bristol; John Hall Davis, M.D., Obstetric Physician and Lecturer on Midwifery at the Middlesex Hospital; Maurice Davis, M.D.; Richard Davy, F.R.C.S. Eng., Surgeon to the Westminster Hospital; Walter Dickson, M.D., Medical Inspector H. M. Customs; Horace Dobell, M.D., Consulting Physician to the Royal Hospital for Diseases of the Chest; Horatio Donkin, M.B., Assistant-Physician to the Westminster Hospital, and to the East London Children's Hospital; J. Langdon Down, M.D., Physician to the London Hospital; Thomas S. Dowse, M.D., Medical Superintendent of the Central London Sick Asylum, Highgate; Charles Drage, M.D., Hatfield; Chas. R. Drysdale, M.D., Senior Physician to the Metropolitan Free Hospital; Dyce Luckworth, M.D., Assistant-Physician to St. Bartholomew's Hospital; J. Gardner Dudley, M.D., Consulting Physician to the North London Consumption Hospital; Alfred B. Duffin, M.D., Physician to King's College Hospital; B. Arceadeckne Duncan, M.R.C.P.Ed.; H. M. Duncan, M.D.; Robert Dunn, F.R.C.S., Treasurer of the Metropolitan Counties Branch; George Duplex, L.R.C.P.Ed.; Arthur E. Durham, F.R.C.S. Eng., Surgeon to Guy's Hospital; Frederic Durham, M.B., Surgical Registrar to Guy's Hospital.

George J. Eady, L.R.C.P.Ed., Wandsworth; George Eastes, M.B., F.R.C.S., Deputy Medical Officer of Health to St. Pancras; Arthur W. Edis, M.D., Assistant Obstetric Physician to the Middlesex Hospital.

William Farr, M.D., F.R.S., Chief of Statistical Department, General Register Office; William F. Favell, F.R.C.S., Surgeon to the Sheffield General Infirmary; Stamford Felce, M.R.C.P.Ed.; David Ferrier, M.D., F.R.S., Professor of Forensic Medicine, King's College; George P. Field, M.R.C.S. Eng., Aural Surgeon to St. Mary's Hospital; Octavius A. Field, F.R.C.S. Eng.; John Forbes, M.R.C.P., Retired Inspector-General of Hospitals, Indian Army; M. Foster, M.D., Praelector of Physiology in Trinity College, Cambridge; Henry I. Fothergill, M.D., Physician to the Metropolitan Free Hospital; J. Milner Fothergill, M.D., Assistant-Physician to the West London Hospital; John Foulerton, M.D.; Robert Fowler, M.D., Member of the Court of Examiners of the Society of Apothecaries; Wilson Fox, M.D., F.R.S., Physician Extraordinary to the Queen, Holme Professor of Clinical Medicine in University College; John G. French, F.R.C.S. Eng.

Frederick J. Gant, F.R.C.S., Surgeon to the Royal Free Hospital; Septimus Gibbon, M.B., Medical Officer of Health for Holborn; S. Lawrence Gill, L.R.C.P.E., Eugene Goddard, L.R.C.P.L., District Medical Officer, Clerkenwell; Ashton Godwin, M.D.; J. A. Goodchild, L.R.C.P.L., Ealing; J. F. Goodhart, M.D., Demonstrator

of Morbid Anatomy in Guy's Hospital; R. M. Gover, F.R.C.S. Eng., Senior Medical Officer to Millbank Prison; W. R. Gowers, M.D., Assistant Physician to University College Hospital; T. Henry Green, M.D., Physician to Charing Cross Hospital; W. S. Greenfield, M.D., Pathologist and Lecturer on Morbid Anatomy and Practical Pathology to St. Thomas's Hospital; G. de Gorrequey Griffith, L.R.C.P. Ed., Senior Physician to the Hospital for Women and Children; John T. Griffith, M.D., Camberwell; W. C. Grigg, M.D., Assistant Obstetric Physician to the Westminster Hospital.

F. de Havilland Hall, M.D., Assistant Physician to the Westminster Hospital; H. Nelson Hardy, F.R.C.S. Eng.; Malcolm M. Hardy, M.R.C.S., Surgical Registrar Charing Cross Hospital; Charles J. Hare, M.D.; Ezra Harle, M.R.C.S. Eng.; E. Hartley, L.R.C.P. Ed.; Edwin Haward, M.D., Physician to the North London Hospital for Consumption; H. Howard Hayward, M.R.C.S. Eng., Surgeon-Dentist to St. Mary's Hospital, and Lecturer on Dental Surgery to St. Mary's Medical School; George V. Heath, M.B., President of the Medical College, Durham University, Newcastle-on-Tyne; Alex. Henry, M.D., Secretary to the Metropolitan Counties Branch; Arthur Hensman, L.R.C.P. Ed., Lecturer on Botany and Comparative Anatomy in the Middlesex Hospital Medical School; Graily Hewitt, M.D., Professor of Midwifery and Diseases of Women in University College; Berkeley Hill, F.R.C.S., Professor of Clinical Surgery to University College, and Surgeon to University College Hospital; Charles Hogg, L.R.C.P. Ed.; Jabez Hogg, M.R.C.S. Eng., Surgeon to the Royal Westminster Ophthalmic Hospital; William Holder, M.R.C.S. Eng., Honorary Surgeon to the Hull and Southcoates Dispensary; E. Holland, M.D., Assistant Physician to the Hospital for Women; H. G. Howse, M.S., F.R.C.S., Surgeon to Guy's Hospital and to the Evelina Hospital for Sick Children; F. H. Hume, M.R.C.S. Eng.; Francis Hutchinson, F.R.C.S. Eng.

T. F. T'Anson, M.D., Consulting Surgeon to the Whitehaven and West Cumberland Infirmary, Whitehaven.

Arthur Jackson, M.R.C.S. Eng., Surgeon to the Sheffield Public Hospital and Dispensary; Victor Jagiebleki, M.D., Physician to the Margaret Street Infirmary for Consumption and Diseases of the Chest; George Johnson, M.D., F.R.S., Senior Physician to King's College Hospital; C. Handfield Jones, M.B., F.R.S., Physician to St. Mary's Hospital; Edward Jones, M.D., Surgeon to the Sydenham Dispensary; Sydney Jones, M.B., Surgeon and Lecturer on Surgery at St. Thomas's Hospital; Thomas Jones, M.D., Senior Assistant-Physician to the Victoria Hospital for Children.

Norman S. Kerr, M.D., Medical Officer to Christ Church District Marylebone; Henry W. Kiallmark, M.R.C.S. Eng.

J. C. Langmore, M.B.; Thomas Langston, L.R.C.P. Ed.; John Langton, F.R.C.S. Eng., Assistant-Surgeon to St. Bartholomew's Hospital, and Lecturer on Anatomy in its Medical School; Henry Lawson, M.D., Lecturer on Physiology and Assistant-Physician to St. Mary's Hospital; Arthur Leared, M.D., M.R.I.A., Senior Physician to the Great Northern Hospital; D. J. Leech, M.B., Senior Assistant-Physician to the Royal Infirmary, Manchester; G. Lichtenberg, M.D., Surgeon to the German Hospital; W. J. Little, M.D., late Senior Physician to the London Hospital; S. G. Littlejohn, M.B., Resident Medical Officer Central London District School, Hanwell; Charles F. J. Lord, M.R.C.S. Eng., Medical Officer of Health, Hampstead; S. R. Lovett, L.R.C.P. Ed., Medical Officer of Health to St. Giles's; Benjamin Thompson Lowne, F.R.C.S. Eng., Lecturer on Physiology and Teacher of Practical Physiology in the Middlesex Hospital Medical School; R. Clement Lucas, B.S., M.B., Assistant-Surgeon to Guy's Hospital.

W. Mac Cormac, F.R.C.S. Eng., Surgeon to St. Thomas's Hospital; Robert McDonnell, M.D., F.R.S., Vice-President of the Royal College of Surgeons of Ireland, Dublin; P. H. McKellar, M.B., Medical Officer to the Stockwell Fever Hospital; S. Mackenzie, M.D., Assistant-Physician to the London Hospital; Edward Mackey, M.D., Physician to the Queen's Hospital, Birmingham; C. Macnamara, F.R.C.S. Eng., Surgeon to the Westminster Hospital; John McOscar, M.D.; Alexander Marsden, M.D., Consulting-Surgeon to the Royal Free Hospital; John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College; Henry Maudsley, M.D., Professor of Medical Jurisprudence in University College; George May, F.R.C.S. Eng., Consulting-Surgeon, Royal Berks Hospital, Reading; Alfred Meadows, M.D., Physician-Accoucheur to St. Mary's Hospital; Edward Meryon, M.D., Physician to the Hospital for Diseases of the Nervous System; William J. Mickie, M.D., Physician Superintendent, Grove Hall Asylum, Bow; John Millar, L.R.C.P. Ed., Medical Superintendent, Bethnal House Asylum; Henry Morris, M.A., M.B., Assistant-Surgeon and Lecturer on Anatomy at Middlesex Hospital; C. Murchison, M.D., F.R.S., Physician to St. Thomas's Hospital; J. T. Musgrave, M.R.C.S. Eng.

Edward Nettlehip, F.R.C.S. Eng., Surgeon to the South London Ophthalmic Hospital, Clinical Assistant to the Moorfields Ophthalmic Hospital; C. R. Nicoll, M.D., Resident Medical Officer, Chertsey House, Arthur Trevelyan Norton, F.R.C.S. Eng., Lecturer on Surgery at St. Mary's Hospital.

Herbert W. Page, M.B., Assistant-Surgeon to St. Mary's Hospital; Robert William Parker, M.R.C.S. Eng., Surgeon Registrar to the London Hospital; F. W. Pavy, M.D., F.R.S., Physician to Guy's Hospital; J. F. Payne, M.B., Assistant-Physician to St. Thomas's Hospital; Thomas B. Peacock, M.D., Senior Physician to St. Thomas's Hospital; Charles D. F. Phillips, M.D., Lecturer on Materia Medica and Therapeutics in the Westminster Hospital Medical School; F. M. Pierce, M.D., Physician to the Hulme Dispensary, Manchester; W. S. Playfair, M.D., Professor of Obstetric Medicine in King's College; James E. Pollock, M.D., Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton; Robert James Pollock, F.R.C.S. Eng., Wimbledon; E. Pope, M.R.C.S.; H. Campbell Pope, M.B.; R. Douglas Powell, M.D., Physician to the Brompton Consumption Hospital; Urban Pritchard, M.D., Aural Surgeon to King's College Hospital; Alfred Pullar, M.D., Physician to Kensington Dispensary; W. Laidlaw Purves, M.D., Aural Surgeon to Guy's Hospital.

Richard Quain, M.D., Consulting-Physician to the Brompton Hospital for Consumption.

C. B. Radcliffe, M.D., Physician to the National Hospital for the Paralyzed and Epileptic; W. F. H. Ramsay, M.D.; J. Randall, M.D., Lecturer on Hygiene and Forensic Medicine at St. Mary's Hospital; W. H. Ransom, M.D., F.R.S., Physician to the General Hospital, Nottingham; G. Owen Rees, M.D., F.R.S., Consulting-Physician to Guy's Hospital; John D. Roberts, M.R.C.S., Surgeon to the Royal South London Dispensary; Enoch Robinson, M.R.C.S. Eng., Surgeon to the Ashton-under-Lyne Infirmary, Dukinfield; W. R. Rogers, M.D., Physician to the Samaritan Free Hospital for Women and Children; C. H. Rogers-Harrison, F.R.C.S. Eng.; Henry E. Roscoe, B.A., F.R.S., Professor of Chemistry in Owens College, Manchester; H. Cooper Rose, M.D., Surgeon to the Dispensary, Hampstead; Charles Royston, M.D.; George P. Rugg, M.D.

A. Ernest Sansom, M.D., Assistant-Physician and Acting Lecturer on Thera-

peutics and Materia Medica to the London Hospital; E. A. Schäfer, M.R.C.S. Eng., Assistant Professor of Physiology, University College; Frank Schofield, M.D., Medical Superintendent, Camberwell House Asylum; C. Schorlemmer, Professor of Organic Chemistry in Owens College, Manchester; W. J. Scofield, M.R.C.S. Eng., Hampstead; John Scott, F.R.C.P.; Joseph Seaton, M.D., Sunbury; H. L. Sequeira, M.R.C.S.; Robert Settle, M.D., Honorary Surgeon to the Infirmary, Bolton; J. S. Sherratt, L.S.A., Warrington; Charles Shrimpton, M.D.; Francis Sibson, M.D., F.R.S., Consulting Physician to St. Mary's Hospital; E. H. Sieveking, M.D., Physician to St. Mary's Hospital, Physician Extraordinary to the Queen; Eustace Smith, M.D., Physician to the East London Children's Hospital; Gilbert Smith, M.D., Physician to the Royal Hospital for Diseases of the Chest; Richard T. Smith, M.D., Physician to St. Pancras Dispensary; William Squire, M.D., Physician to the St. George's (Hanover Square) Dispensary; G. Carrick Steet, F.R.C.S. Eng., Medical Officer Postal Telegraph Staff, G. P. O.; Thomas Stephenson, M.D., Lecturer on Chemistry at Guy's Hospital; Nowell Stowers, M.R.C.S. Eng.; Octavius Sturges, M.D., Physician to the Westminster Hospital; Sigismund Sutro, M.D., Physician to the German Hospital.

John Tanner, M.D., L.L.D., Senior Physician to the Farringdon Dispensary; Charles Taylor, M.D., Camberwell; Frederick Taylor, M.D., Assistant-Physician to Guy's Hospital; Llewelyn Thomas, M.D., Physician to the Royal Academy of Music; E. Symes Thompson, M.D., Physician to the Brompton Hospital for Consumption, etc.; John C. Thorowgood, M.D., Physician to Victoria Park Hospital, Lecturer on Materia Medica at Middlesex Hospital; Frederick J. Toulmin, F.R.C.S.; A. Tweedie, M.D., Consulting-Physician to the London Fever Hospital.

Edward H. Vinen, M.D.

Alfred Walker, M.D., Hertford; W. J. Walsham, F.R.C.S. E., Surgeon to the Metropolitan Free Hospital, Demonstrator of Anatomy at St. Bartholomew's Hospital; Stephen H. Ward, M.D., Consulting-Physician to the Seamen's Hospital; George Weller, M.R.C.S. Eng., Surgeon to the Merchant Seamen's Orphan Asylum, Wanstead; Thomas Wheeler, M.R.C.S. Eng., District Medical Officer and Medical Officer of Health, Bexley; John Lloyd Whitmarsh, L.R.C.P. Ed.; Samuel Wilks, M.D., F.R.S., Physician to Guy's Hospital; A. Wynn Williams, M.D., Physician to the Samaritan Free Hospital; C. J. B. Williams, M.D., F.R.S., Physician Extraordinary to the Queen; Charles Theodore Williams, M.D., Physician to the Brompton Hospital for Consumption; W. Rhys Williams, M.D., Resident Physician to Bethlem Royal Hospital; Erasmus Wilson, F.R.S., Professor of Dermatology in the Royal College of Surgeons of England; Alfred Wiltshire, M.D., Joint Lecturer on Midwifery at St. Mary's Hospital; W. I. Winterbottom, M.B., Surgeon to the Infirmary, Bridgewater; Samuel Wood, F.R.C.S., Senior Surgeon to the Salop Infirmary, Shrewsbury; W. Wood, M.D., Physician to St. Luke's Hospital; W. Bathurst Woodman, M.D., Assistant-Physician to the London Hospital.

I. Burney Yeo, M.D., Physician to King's College Hospital.

Mr. ERNEST HART, in introducing the deputation, said,—This deputation, Mr. Cross, is from the British Medical Association, and its object is to present to you a memorial which has been prepared by the Parliamentary Committee of the Association—a memorial, which, in the course of two or three days, has obtained nearly 2,000 signatures of members of the medical profession. This deputation, sir, consists exclusively of members of the profession. All the representative men in the profession are here, and we have letters from the one or two who are not, for whose absence, indeed, there are special reasons. Sir James Paget writes to say that he has represented to you points which he considers are identical with those we have to represent to you, and Sir William Gull speaks to the same effect. Sir Robert Christison, the President of the Association for the present year, has written a letter, which I shall be glad to read it if you have time, or I will hand it to you for your perusal. In this Sir Robert places in a concise form the views of the profession in Scotland, and it shows, too, the opinion of the medical faculty in Edinburgh upon the Bill. Presenting this memorial only, and without referring to any other letters, I will ask Mr. John Simon to address you.

Mr. SIMON, C.B.: It was only a minute ago that I was made aware that I was to be the first to address you, but whatever may be my shortcomings in consequence of this unpreparedness, others who follow me will make up for them. [*Hear, hear.*] The great interest which the profession takes in this question is shown to you by the numbers and quality of those who stand in and around this room; and I may say that the members of the profession could not have wished for a better opportunity of putting their views before Parliament, than by having the favour of your listening to them. [*Cheers.*] Now, sir, as regards the use of brute animals for purpose of experiment by the medical profession; undoubtedly the medical profession, or rather a small number of its members—at the outside twenty—who give up their minds to the study for the benefit of their fellow men—do to some extent sacrifice the lower animals to their pursuit of knowledge; but this sacrifice is not made without the utmost deliberation and a due sense of responsibility. [*Cheers.*] The researches for which the animal life is used are for the acquisition of knowledge of the utmost importance to medicine, which has its indispensable foundation in physiological research. As I said, the necessity of causing pain to the lower animals is only accepted after due deliberation and with a full sense of responsibility, and, I might add, causes even among those who accept it an abiding sense of sadness that the work is necessary. [*Hear, hear.*] But we cannot altogether spare the brute, without sacrificing interests which the common sense of mankind tells us ought to be deemed of higher importance. We are not responsible for the law of nature which universally compels the so-called struggle

for existence; but under that law neither the prosperity of man nor the prosperity of the lower animals, themselves can be got without certain sacrifices. [*Hear, hear.*] The enormous and, I am sorry to say the often, recklessly wasteful, slaughtering of animals for human food represents the sacrifice from one point of view; and the occasional deliberate use of animals in science—a use which sometimes involves death or pain to them—represents in another point of view the same struggle. Our use of animals represents one of the prices which has to be paid for the progress of man, and even, in some respects, for the progress of animals; and we of the medical profession, who are retained to promote the interests of human life, cannot do our duty except at that cost. [*Hear, hear.*] I am not thinking of English physiologists alone, and they would, I am sure, not wish to accept compliments at the expense of their fellow labourers abroad. I have heard atrocious things said against the physiologists of France and Germany, and it may be, that in France less importance is attached to physical life than is attached to it in this country. The pioneers of experimental physiology in France did undoubtedly sacrifice a great deal of animal life, but they were foremost also in jeopardising their own lives for the advancement of science by inoculating themselves with the plague, syphilis, glanders, and cholera [*hear, hear*]; and, as regards Dr. Klein, who very unfairly has been made the scapegoat for others in this matter of vivisection, I doubt if there is any English physiologist who in his principles and practice is more strictly economical in the use of animal life than is Dr. Klein. With regard to the Bill, there are points in it on which everyone will agree with the Government; for instance, everyone must agree with the motive which has actuated Lord Carnarvon in bringing in the measure, and we do not dissent from the motive of the intended restrictions. We recognise the moral obligation on ourselves of using very great care, in the experiments we perform on the lower animals, never to cause unnecessary suffering either in degree or duration. But when the question arises of converting this moral obligation into matter of police obligation—[*hear*—of putting physiological research under the Home Office, with a system of certificates as elaborate as if the professors were convicts on tickets-of-leave—[*hear, hear*—we feel obliged to protest against the proposed law as one by which an undeserved stigma would be cast upon the medical profession. [*Cheers.*] We protest against such fancy-legislation as that contained in the Bill. It has been said that there is a strong public feeling in favour of the Bill, and no doubt the public mind has been much affected for the time by the extremely exaggerated statements which have been put before it. The public has been moved by appeals of the most harrowing kind, often in great part false or one-sided. We hoped that against this sort of thing the Government would take the side of the profession. [*Hear, hear.*] The Bill of the Government, I believe, is unnecessary, and those who advocate it do not pretend to show a case for it in regard to any actual abuses. Their main argument is, that abuses might arise hereafter; and, because of this hypothetical, this conjectured possibility of the future, the medical profession are to be subjected to the kind of legislation I have described, and the Home Secretary is to be made responsible for every tadpole's tail scratched under a microscope. [*Laughter.*] I might suggest to the petitioners against vivisection—were it not that so many of them are ladies—that they should acquaint themselves with the antecedents of the mutton chop which they have for luncheon, not only as regards the mere throat-cutting of the sheep (which certainly is a painful operation not done under chloroform), but especially as regards the mutilation to which the animal was subjected three years before it is slaughtered, the tail-cutting and castration of the animal to make the sheep better mutton. Now, no one dares to say that it is necessary for human life that sheep shall be castrated and have their tails cut off; and it is not only sheep and oxen which are treated in this way, but beasts of draught and burden. Is it reasonable that the public should have power to do this without interference, and that a sentimental exception should be taken to the infinitely smaller inflictions of pain which are incidental to certain necessary studies of the medical profession? Is it reasonable that hare-hunting should be permitted, and that the cruel slaughtering of birds and animals should be permitted as mere amusement, by those who would forbid any painful use of animal life for purposes of science, except under licence and a system of certificates? The promoters of this legislation are endeavouring to pluck the mote from someone else's eye without giving the slightest consideration to the beam in their own. [*Hear, hear.*] If the Bill become law in its present form, it will be felt as an outrage by the medical profession, and the respect of the profession for the legislature of this country will be very seriously affected. [*Cheers.*]

Sir WILLIAM JENNER said: I raise my voice against this proposed legislation—legislation which is to place men of science under police supervision for inflicting what is called cruelty upon the lower animals,

when you see cruelty ten thousand times greater—I say this advisedly—inflicted by the very people who are trying to pass this measure. [*Loud cries of Hear, hear, and cheers.*] I say that to do this is to make the British legislature ridiculous and an object of scorn to all the people of Europe. [*Cheers.*] As evidence of the cruelty practised in sport by the men who engage in sport, let me refer to the picture of the "Otter Hunt", by Landseer. There, as you may remember, the huntsmen are spearing the otter while the dogs are pressing him around. Now this is a cruelty of which I, belonging to a profession against which you propose to legislate, would not be guilty. I would not even shoot a bird, while this, which is called "sport", and those who carry it on, are free. Yet we, if we want, as it has been said, to scratch a tadpole's tail in the name of science, must be licensed, certificated, and reported. If I want to drown a puppy, I may do it for a domestic purpose—that is, if I have too many of them; but if I want to drown the puppy for a scientific purpose, and draw out my watch to mark the length of time, that is scientific, and I want a licence for the act. Now, sir, these points illustrate the folly of sentimentalists and their proposed one-sided legislation; and I protest, with all my heart, against men of science being placed under a stigma, such as would be placed upon them by this Bill. [*Cheers.*]

Dr. S. WILKS said: I do not come here as a physiologist, but as the physician of a first-class hospital, and I say that it would be impossible for medical science to maintain its course if the actions of its teachers are to be fettered as it is proposed to fetter them by this Bill. I shall see presently—in my hospital, for instance—some cases of obscure nerve-disease, which I should not have known but for the labours of Bernard, the French physiologist, and his investigations by the means of animals. [*Hear, hear.*] The labours of Bernard enable the student to distinguish at once the nature of the disease and to suggest the remedy. We feel that, if this Bill should pass, and thus stop the labours of the physiologist, it would be impossible for us to teach upon a scientific method. We could not so teach unless we knew something of animals and of their organisation; and, having this knowledge, we should not use animals otherwise than as men of feeling. [*Hear, hear.*] But this, sir, is not merely a scientific question affecting all acquisition of knowledge in the medical schools, which it does. [*Hear, hear.*] I shall say a word about that, upon the part of a select body of men whose pursuits would be interfered with most materially by this measure. [*Hear, hear.*] Some of us belong to the Psychological Society, and we have a little serial called *Mind*, and the essays in this are all based upon physiological facts as well as all the topics discussed in the society. Then, sir, some of the leading philosophers of the day use the facts ascertained by the physiologists in the pursuit of their own investigations, and thus the knowledge of facts regarding men arises from the ascertained facts by physiologists from the investigations in regard to animals. The works of Herbert Spencer, of Bain, Carpenter, Darwin, and Lewes, are founded upon the knowledge elicited by the physiologists and by physiological research. The experiments by Ferrier, who, I am happy to say, is with us to-day—[*Cheers*—have thrown a new light upon particular branches of science. [*Cheers*—and I do not know what the works of Herbert Spencer would be without the aids he has had from physiological research; so, that if this Bill had been in operation in past times, these distinguished men would have been in happy ignorance of all the facts from which they have drawn these powerful conclusions, and this country would have had to take a lower stand in science, and, indeed, in the intelligence of the world. It is not merely as doctors that we address you, but we address you on behalf of the whole of the intellectual advance of the country. [*Cheers.*] They are stronger feelings than could be aroused by our professional views. This, sir, is a feeling of patriotism—it is that which animates us now, and we maintain that anything which retards physiological knowledge in this country would be a national disaster. [*Cheers.*] I say this is not purely a doctor's question, though there are many who try to make it so. [*Hear, hear.*] There are fanatics who decry our profession, and I am told that pamphlets cover your table from these people. I have seen many of them; I have been asked to speak upon them, but the falsehoods in them are so palpable, and the arguments so foolish, that the pamphlets answer themselves. [*Hear, hear.*] For instance, a Mr. Maitland says that we are not to rely upon facts, but we must go upon our imaginations, which are to lead us. [*A laugh.*] Now this is an instance of what these people are. We have been a long-suffering part of the community, and I do think that we are as good citizens as any in the State; and to bring this matter to an issue, if you ask my opinion—we have only one opinion—we do not want any legislation at all. [*Hear, hear.*] It is perfectly absurd to suppose—as ignorant people suppose—that students and all medical men are experimenting upon animals. Those of the profession who are doing so are eminent men of the highest

character, and the public confidence is not abused. [*Cheers.*] The utmost that should be demanded of us, in the name of truth, of justice, and of humanity, is, that those who carry out this work should be licensed as under the Anatomy Act. If what you propose to do in this Bill be carried, we shall be carried back into the dark ages so far as science is concerned; for the men we love and revere—men of European celebrity—[*cheers*—these men would have to be classed as criminals, and this, I say, would be a national disgrace. [*Cheers.*]

Mr. CEELY, of Aylesbury, then addressed the Minister upon the subject of the necessity of sacrificing animals for the purpose of discovery, and reported upon his own investigations in regard to the cow-pox and the small-pox, resulting in the discovery which Jenner suspected, that the cow-pox was really a modification of the human small-pox. He had to sacrifice many sheep in order to find whether or not a malignant disease with which sheep were afflicted was capable of modification by vaccination, and finding that it was not, it became necessary that the disease should be stamped out. Lord Palmerston requested that the experiments should be tried on a larger scale; but the request was refused by Mr. Ceely because it was felt that the trial would be useless—a fact which showed that the men of science did not wish to carry on experiments without a laudable object or beyond necessity. [*Hear, hear.*]

The HOME SECRETARY said: I do not wish to enter into a long controversy, and it would not be right to do so upon the present occasion. I am glad to see so large a body belonging to the medical profession before me to present their views upon a measure before Parliament. You say truly that there has been an agitation outside upon this question, but I think that you jump to a hasty conclusion that the Government acted upon that agitation—though, indeed, the action of the Government has not been alluded to in any form or shape. There were two Bills before Parliament last year; one brought in by a gentleman of the highest possible standing—a gentleman who could not be accused of acting without knowledge of your profession, or with prejudice against it—Dr. Lyon Playfair. He had a Bill before Parliament upon this subject—a Bill which, judging from the remarks of those who have spoken here, would certainly have been stamped with carrying the same mark of disgrace to the profession as, it was stated, the Government Bill carries. That Bill was solely brought forward by Dr. Lyon Playfair—a member of your own profession—and was not even alluded to by the speakers. The other was brought into the House of Lords, and the action of the Government was in this way—that they would not act upon the impulse of societies, or upon the exaggerations of facts stated in pamphlets, and they thought it a wise course to appoint a Commission; and yet neither the appointment of the Commission nor the report of that Commission has been the subject of remark here. [*Murmurs.*] It was a Commission of the highest standing; besides Lord Cardwell and Mr. Forster, it had upon it men of your own profession in Professor Huxley and Professor Erichsen. That Commission went elaborately into this subject, and certain facts were stated in the Blue-book which contained their report—an unanimous report. Now the Bill is framed practically in accordance with that report. [*General cries of "No, no."*] This is denied, but no member of this deputation has attempted to say where the Bill differs with the report of the Commissioners.

Mr. ERNEST HART: The memorial we have laid before you, sir, goes fully into that.

The HOME SECRETARY: Well, if the Bill was not framed in accordance with the report, it was altered to meet the views of the Commissioners as presented in the report. [*"No."*] I have had the honour of meeting a great number of persons in the highest ranks of society, and although objections have been taken from time to time to certain special points in the Bill, yet I have never had the distinct position—the stand which has been taken to-day—that practically you want nothing at all done. That is the main issue. You are not here to ask for any particular alteration, but you are here to say, "Let it alone." Now, let that be understood.

Mr. HART: Allow me to state that I laid the paper before you—the memorial suggesting alterations.

The HOME SECRETARY: I am referring to the views placed before me in the speeches.

Dr. SIBSON: The memorial contains our views.

Mr. HART: We had no time; we thought we should be taking up your time too much if we repeated the statements in the memorial.

The HOME SECRETARY: That is possible; but I am referring to the speeches. Now, allow me to say that the time of the Session is flying fast, and it will be well if the scientific world do not allow it to pass without something being done on this subject. My wish, and the wish of the Government, is that we should take the scientific world with us in carrying into effect a measure which shall show that they

all set their faces against cruelty. [*A Voice:* "We do so now."] I dare say that is true, but we desire that there should be a result to the Commission, and if this Bill should fall through until another Session [*hear, hear*], that would not be a cheerful prospect. You have said that the outcry was a sentimental one. [*"Yes."*] Well, that sentimentality will hold ever, and I wished to have a settlement of the question; and I am bound to say that Lord Carnarvon has desired to show every wish to meet the views of the scientific gentlemen, and that has been the object of the Government all through. It is the question for you if the Bill is to pass in this direction or to be left over for another year. That depends upon the line to be taken at the second reading and the action to be declared by you. As the Bill stands, I think the only person to be pitied is the Secretary of State. [*A laugh.*]

The deputation thanked the minister, and retired.

THE VIVISECTION BILL.

THE following Memorial (dated July 6th, 1876), to Her Majesty's Government, has been forwarded from all the members of the Medical Faculty of the University of Edinburgh, respecting the Earl of Carnarvon's Bill, entitled "An Act to amend the Law relating to Cruelty to Animals".

We, the undersigned, members of the Medical Faculty of the University of Edinburgh, beg most respectfully to represent to Her Majesty's Government, that the Bill, entitled "An Act to amend the Law relating to Cruelty to Animals", although it has been materially modified by the amendments which it has received in Committee of the House of Lords, would, if passed into law in its present form, still greatly interfere with the prosecution of physiological and medical researches in this country.

We venture to suggest, for serious consideration, whether the representations which have been made to the Government on the subject, by the various medical authorities throughout the British Islands, have not sufficiently indicated, on the one hand, the prevalence of a genuine and deep feeling of humanity towards the lower animals on the part of those engaged in physiological study; and, on the other hand, the great difficulty of framing any law which will not interfere with the progress of medical knowledge. But if the Government should think it desirable to persevere with the Bill, we would urge the importance of further amendments in accordance with the recommendation of the General Medical Council.

The General Medical Council, in their memorial, pointed out "that the word 'animal' is not defined in the Bill, and that, unless it is suitably defined, not only will physiological studies be embarrassed in a degree which the Council believe is not intended, but also the Secretary of State will be charged with responsibilities which he must find it difficult to meet, with regard to the various lower forms and lower states of animal life".

The progress of physiology in recent times has shown that, in the human subject, motion under the influence of stimulus is not necessarily accompanied by feeling, but is often merely mechanical, or "reflex"; and, further, that the lower we descend in the scale of animal beings, the more do the purely reflex functions of the nervous system predominate over sensation. The sea anemone in a pool on the shore clutches and swallows its prey with as much asacrity and apparent avidity as if it were both sentient and intelligent; and yet there is no reason to suppose that it is really more endowed with true feeling than the so-called sensitive plant. But the Bill would make it a criminal offence to perform an experiment on such an animal. Even in the lower vertebrata, the way in which a salmon pulls after taking the fly affords positive proof that the sensibility of the tongue and interior of the throat in such creatures is of an incomparably lower order than in ourselves. And the light of science reconciles us to practices which the progress of humanitarian sentiment might otherwise make us revolt at—such as the catching of fishes with a hook, or the piling them in masses to die of suffocation. And the same considerations which justify the catching of fish for human sport or sustenance, may surely teach us that it is not criminal to experiment, with far higher objects in view, on the closely allied frog, a glance at whose foot through the microscope will give the student more real knowledge regarding the circulation of the blood, or the nature of inflammation, than can possibly be conveyed by description. We would, therefore, suggest that the words "warm-blooded" should be introduced before "animals" in the Bill, so as to restrict its operation to the higher and more sensitive classes.

Another important suggestion of the General Medical Council is as

follows. "The limitation of all experiments to registered places, as proposed in sub-clause 2 of the first division of Clause 3, would not only tend to obstruct genuine scientific inquiry, but would also prove impossible in practice. The Council, however, would see no objection to the limitation being applied to such experiments as are performed for purposes of instruction. Physiological laboratories and other public institutions, in which experiments on living animals might be carried on for educational purposes, and in which by far the greater number of the original investigations contemplated under this Act would also be conducted, would thus, by a subsequent provision of the Bill, be subjected to visitation by inspectors; while private researches, which in competent hands might prove of the highest value to mankind, and ought to be by no means prohibited, would, by the system of personal licence and certificate provided for in other clauses, be restricted to individuals of assured character and attainments. The Council would accordingly suggest that the sub-clause be amended as follows: 'The experiment, *if for purposes of instruction*, must be performed in a registered place.'

This suggestion, we earnestly hope, will yet be acceded to by the Government. Many of the most valuable experiments upon animals, as regards the immediate improvement of the art of healing, have been performed by men, not professed physiologists, but engaged in the active practice of their profession.

A German surgeon has lately published an account of a case, in which he restored to health and usefulness a previously hopeless invalid by a operation which was only rendered justifiable by preliminary experimentation upon the dog. By the Bill, even in its amended form, experiments such as this would be practically prohibited, unless the practitioner happened to reside in the vicinity of a physiological laboratory. For, to have private dwellings registered and converted into public institutions, liable to inspection, for the sake of performing single or occasional experiments, would be so serious an infringement of private rights, that it would discourage the medical practitioner from trying experiments which might prove of the utmost service to suffering humanity.

We respectfully submit that the Government should foster rather than check such beneficent labours, which the engrossing character of medical and surgical practice makes only too rare. Even without registration, there is reason to fear that the necessity of obtaining the licence and double certificate required by the Bill might often damp the rising ardour of genius, and nip in the bud some fruitful idea. A grave responsibility would, therefore, be incurred by the Government, if, by insisting upon registration of all places where private researches were carried on, they should be the means of enacting a law which should altogether prevent such inquiries. Assuredly it would be as serious as it would be novel for the British legislature to treat as a high crime and misdemeanour, to be visited with severe penalties, conduct which is not only blameless, but in the highest degree meritorious.

With regard to Clause 5, forbidding experiments upon cats and dogs, the Bill goes beyond the recommendations of the Royal Commission on this subject. The weighty arguments urged by the General Medical Council and other scientific authorities against this clause as it stood in the original Bill, have indeed led, during the passage of the Bill through the House of Lords, to a relaxation which would be of great value, were it not that it is accompanied by such hampering conditions as to interfere greatly with its practical utility. And, further, animals not excluded from experiments in the original Bill, viz., horses, asses, and mules, have now been placed under the same restrictions as dogs and cats. We would respectfully urge that it would be greatly to the interest of the community that Clause 5 should be withdrawn from the Bill.

In conclusion, we venture to offer some general remarks regarding a misapprehension which seems to prevail in the public mind. The subject is often discussed in the interests of the animals themselves, as if the absolute amount of suffering occasioned by so-called vivisection were the essential element in the question. But, if we consider the pain involved in the operations performed upon the majority of male domestic animals, and many other instances in which man occasions suffering for purposes which are universally allowed to be legitimate, the whole pain involved in scientific experiments is relatively microscopic in amount, though the objects in view are of the highest importance. The wounding of pheasants in a single afternoon's shooting, on the battue system, causes more pain than all the vivisection in the British Islands in a twelvemonth. The true importance of the avoidance of needless pain in vivisection lies in the injurious moral influence which the exhibition or infliction of unnecessary suffering would be likely to have upon the student or the operator. As regards students, the evidence brought before the Royal Commission has shown that in this country they would not tolerate the exhibition of painful experiments; and, as regards the operator, the question is one of individual

motive and conscience, which we are happy to believe it is in this case as needless as it would be impossible to regulate by Act of Parliament.

R. Christison, Professor of Materia Medica; J. H. Balfour, Professor of Medicine and Botany; Thomas Laycock, Professor of Practice of Medicine; Douglas MacLagan, Professor of Medical Jurisprudence; James Spence, Professor of Surgery; William Turner, Professor of Anatomy; Joseph Lister, Professor of Clinical Surgery; Alexander Crum Brown, Professor of Chemistry; W. R. Sanders, Professor of Pathology; A. R. Simpson, Professor of Midwifery; Wyville T. C. Thomson, Professor of Natural History; William Rutherford, Professor of Institutes of Medicine.

THE HARVEY TERCENTARY MEMORIAL.

DURING the past week, the sum subscribed has exceeded £100. The honorary secretaries (Mr. G. Eastes, M.B., 5, Albion Place, Hyde Park Square, London, W., and Mr. W. G. S. Harrison, B.A., Town Clerk, Folkestone), will be greatly obliged if practitioners, desirous of co-operating and assisting, will kindly at once inform them. It is most desirable that the general public, as well as members of Harvey's own profession, should contribute, since all have benefited from Harvey's life-long physiological researches and his great discovery; all practitioners are consequently urged strongly, upon receipt of the circular that is being issued, to make an appeal for donations to their more wealthy patients. If this suggestion be generally adopted, a large sum will certainly be quickly raised, and the memorial become a national object. A meeting of the Committee will be held on or about July 26th, and steps will be taken to place the work in the hands of some distinguished artist.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION FORTY-FOURTH ANNUAL MEETING.

THE Forty-fourth Annual Meeting of the British Medical Association will be held at Sheffield, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1876.

President.—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S. Edin.

President-elect.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

An Address in Medicine will be given by E. H. SIEVEKING, M.D., F.R.C.P., Physician-Extraordinary to the Queen.

An Address in Surgery will be given by W. F. FAVELL, Esq., Surgeon to the General Infirmary, Sheffield.

An Address in Public Medicine will be given by ALFRED CARPENTER, M.D., Croydon.

The business of the Association will be transacted in Four Sections, viz.:—

SECTION A. MEDICINE.—*President*: Dr. Chadwick, Tunbridge Wells. *Vice-Presidents*: Dr. J. C. Hall, Sheffield; Dr. Law, Sheffield. *Secretaries*: Dr. Robert Farquharson, 23, Brook Street, London; Dr. Banham, Glossop Road, Sheffield.

SECTION B. SURGERY.—*President*: Jonathan Hutchinson, Esq., London. *Vice-Presidents*: C. G. Wheelhouse, Esq., Leeds; J. Barber, Esq., Sheffield. *Secretaries*: Dr. J. Hardwicke, Mitton Lodge, Rotherham; John Chiene, Esq., 21, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President*: Dr. Lombe Atchill, Dublin. *Vice-Presidents*: Dr. E. Jackson, Sheffield; Dr. Thorburn, Manchester. *Secretaries*: Dr. Wiltshire, 57, Wimpole Street, London; F. Woolhouse, Esq., Chantry Road, Sheffield.

SECTION D. PUBLIC MEDICINE.—*President*: Dr. J. B. Russell, Glasgow. *Vice-Presidents*: Dr. Eastwood, Darlington; Dr. F. T. Griffiths, Sheffield. *Secretaries*: Dr. H. F. Parsons, Goole; Dr. S. Drew, Chapeltown, Sheffield.

Local Secretaries.

Arthur Jackson, Esq., St. James's Row, Sheffield.

J. H. Keeling, M.D., 267, Glossop Road, Sheffield.

Tuesday, August 1st.

1 P.M.—Meeting of Committee of Council.

3 P.M.—Meeting of Council, 1875-76.

8 P.M.—General Meeting.—President's Address; Annual Report of Council; and other business.

To be Torn Out and Posted (unsealed).

British Medical Association.

FORTY-FOURTH ANNUAL MEETING,

AUGUST 1st, 2nd, 3rd, and 4th, 1876.

Members of the British Medical Association who intend to visit Sheffield during the Annual Meeting are requested to fill up the following form, and forward it as addressed on the other side.

It is my intention to be present at the Annual Meeting at Sheffield.

Name

Address

It is also my intention to be present at the Annual Dinner of the Association, on Thursday Evening, August 3rd.

Signature

Dinner Ticket, £1 1s.

To be Torn Out and Posted (unsealed).

ARTHUR JACKSON, ESQ.,

ST. JAMES'S ROW,

SHEFFIELD.

Halfpenny
Stamp.

British Medical Association.

FORTY-FOURTH ANNUAL MEETING.

SHEFFIELD—August 1st, 2nd, 3rd, & 4th, 1876.

List of Hotels and Lodgings at which Visitors can be accommodated.

Members intending to be present are requested to apply at once to the addresses given.

ADDRESS.	ACCOMMODATION.	CHARGES.	ADDRESS.	ACCOMMODATION.	CHARGES.
Andover Street. 42. Mrs. Jessop	1 sitting-room, 2 bed-rooms	£1 per week.	Havelock Terrace. 28. Mr. Morris	1 sitting-room, 1 bed-room	£2 10s. per week, including tea & breakfast.
Occupation Road. 179. Mrs. Savage 185. Mrs. Briggs	1 sitting-room, 1 bed-room 1 sitting-room, 2 bed-rooms	Terms on application. Terms on application.	Change Alley. King's Head Hotel	8 bed-rooms	Bed, breakfast, and attendance, 6s.
Station Road. Royal Victoria Hotel	28 bed-rooms	The usual charges of a first-rate hotel.	Havelock Square. 32. Mrs. Trown 61. Miss Webster	2 sitting-rooms, 3 bed-rooms 1 sitting-room, 1 bed-room	£2 12s. 6d. per week. £1 10s. per week, including breakfast and attendance.
Gell Street. 83. Mrs. Pattinson 139. Miss Naylor	1 sitting-room, 2 bed-rooms 1 sitting-room, 1 bed-room	£1 per week. £2 2s. per week, including breakfast	Upperthorpe. 99. Miss Dyon	1 sitting-room, 2 bed-rooms	£2 per week; breakfast, 2s.
Brunswick Street. 76. Mrs. Williamson	2 sitting-rooms, 3 bed-rooms	12s. 6d. per day each person, including breakfast.	Upperthorpe (Blake Street). 17. Mrs. Parkinson	1 sitting-room, 1 bed-room	30s. per week, including breakfast.
Upper Hanover Street. Sherwood Villas. Mrs. Thorpe	1 drawing-room, 2 bed-rooms	£1 1s. per day each person, including breakfast.	Angel Street. Angel Hotel	Several bed-rooms	5s. per night, including attendance; breakfast, 2s. 6d.
Hanover Square. 5. Mrs. Pfeilschmidt	1 sitting-room, 1 bed-room	16s. per week.	Banmoor. Chippendale Cottage. Mrs. Kay	1 sitting-room, 3 bed-rooms	31s. 6d. or 21s., according to size of room; breakfast, 2s. 6d. ea.
Havelock Street. 23. Mrs. Marsland	2 sitting-rooms, 2 bed-rooms	£2 2s. per week.	Alderson Road. 14. Mrs. Roberts Mrs. Booth	1 sitting-room, 1 bed-room 1 sitting-room, 1 bed-room	Charges on application. Charges on application.
High Street. George Hotel	8 bed-rooms, 1 private sitting-room	3s. per day, with attendance; tea or breakfast, 2s. Usual charges.	Castle Street. Imperial Hotel	15 bed-rooms	5s. per night, with attendance.
Star Hotel Clarence Hotel	Bed-rooms Bed-rooms	Usual charges.	Winter Street. 6. Mrs. Frost	1 sitting-room, 2 bed-rooms	£1 5s. per week each person.
Snig Hill. Black Swan Hotel	Bed-rooms	Usual charges.	13. Mr. Blyde	1 sitting-room, 1 bed-room	£2 2s. per week, including breakfast.
Waingate. Royal Hotel	30 bed-rooms	2s. 6d. per bed.	Clinton Place. 29. Mrs. Fox	1 sitting-room, 1 bed-room	£1 per week; breakfast 2s. 6d.
Fargate. King's Arms Hotel	Number of beds, uncertain	Usual charges.	Haymarket. Brunswick Hotel	1 large private sitting-room, 6 bed-rooms	2s. 6d. per night, with attendance
Norfolk Street. 52. Mrs. Edwards	1 sitting-room, 2 bed-rooms	£1 10s. for one person.	Ecclesall Road. Stanley Villas. Mrs. Clayton	1 drawing-room, 1 bed-room	£2 2s. per week; breakfast, 1s. 6d.
Nottingham Street. 140. (Augusta Pl.) Mrs. Verminski	1 sitting-room, 1 or 2 bed-rooms	£1 10s. per week; breakfast, 2s.	Monmouth Street. 90. Mrs. Berry	1 sitting-room, 3 bed-rooms	£2 1s. per week; breakfast, 2s.
Heeley. Albert Road. 113. Mrs. Leigh	1 sitting-room, 3 bed-rooms	£1 10s. for each person, including breakfast and attendance.	Ashdell Road. Mrs. Ratcliff	1 sitting-room, 2 bed-rooms	Terms on application.
Broomspring Lane. 178. Mrs. Hadfield	1 sitting-room, 1 bed-room	5s. per night.	Rotherham. Crown Hotel Ship Hotel	5 bed-rooms 3 bed-rooms	Usual hotel charges. Usual hotel charges.
Beauchief. Abbeydale Road Hotel	4 bed-rooms	2s. per night; breakfast, 1s. 6d.			
Highfield. Royal Hotel	5 bed-rooms	Usual charges.			

HUNYADI JÁNOS MINERAL WATER.

THE BEST NATURAL APERIENT.

Far the most valuable and most palatable of our aperient mineral waters. I have been most agreeably surprised with the result of a clinical investigation.

Professor MACNAMARA,

Professor of Materia Medica, Royal College of Surgeons in Ireland. Editor of "Nelson's Medicines, their Uses, etc., Seventh Edition."

Those who have used Pullna and Friedrichshall prefer the Hunyadi János water to either, because the bulk of the dose is less than either of those waters, and the action is less drastic, producing no distress or uneasiness.

Professor AITKEN, F.R.S.,

Professor of Pathology, Army Medical School, Author of the "Science and Practice of Medicine, Sixth Edition."

More frequently prescribed than any other by physicians in the General Hospital, Vienna; its taste being more pleasant than that of its rivals, while its efficacy as a purgative equalled or surpassed theirs.

Dr. T. LAUDER BRUNTON, F.R.S.,

Lecturer on Materia Medica and Therapeutics at St. Bartholomew's Hospital, Examiner in Materia Medica, University of London.

My firm opinion is that when the merits of this water are more widely known it will be largely employed in this country.

Dr. F. T. ROBERTS,

Assistant Physician to University Hospital, Author of a Handbook on the "Theory and Practice of Medicine".

A convenient and sure purgative, whose action it is easy to limit: such a medicine may come into play in the treatment of almost any affection.

Inspector-General MACPHERSON, M.D.,

Author of "Baths and Wells of Europe."

The Hunyadi János Waters are, in fact, the richest aperient waters known.

Dr. HERMANN WEBER, F.R.C.P.,

Physician to the German Hospital, London, Editor of "Braun's Curative Effects of Baths and Waters".

I have tried the Hunyadi János water on a large number of persons with invariably good and prompt success; a most valuable item in our Balneological Treasury of Remedies.

Professor VIRCHOW, Berlin.

I have prescribed these waters with remarkable success.

Professor BAMBERGER, Vienna.

I prescribe none but this.

Professor SCANZONI, Würzburg.

Leaves nothing to desire as regards certainty and mildness of action.

Professor FRIEDREICH, Heidelberg.

The dose required is only half that of other bitter waters.

Professor BUHL, Munich.

None so prompt, produce so little disturbance, and can be so well borne for a length of time.

Professor SPIEGELBERG, Breslau.

USES OF THE HUNYADI WATERS.

The Hunyadi János Waters are used with excellent results, according to the most eminent authorities:—

1. As a safe, ordinary, and gentle aperient.
2. For habitual constipation.
3. By persons inclined to inflammation, congestion, & gouty disorder.
4. In chronic affections of the organs of respiration and circulation.
5. In organic diseases resulting from fatty degeneration.
6. Against undue deposition of fat in general.
7. Against hæmorrhoids.
8. During pregnancy and in many female diseases.
9. In bilious attacks and disorders of the liver.
10. The evil consequences of indiscretion in diet.

Analysis by Professor BUNSEN, of Heidelberg.

	In 10,000 parts were found
Sulphate of Soda	225.514
" Magnesia	223.500
" Potash	1.206
Double Carbonate of Soda	6.760
" " Strontian	0.270
" " Oxyde of Iron	0.006
" " Lime	7.967
Chloride of Soda	17.048
Silicious Salts	0.106
Carbonic Acid, free and half combined	5.226

For ordinary aperient purposes a half wineglassful of the Hunyadi Water may be taken at bedtime, or a wineglassful taken in the morning fasting. It is most efficacious when warmed to a temperature not below 60°, or mixed with an equal quantity of hot water.

May be ordered of all Chemists and Mineral Water Dealers.

IN ORIGINAL BOTTLES, PRICE 2s. and 1s. 6d.

Wednesday, August 2nd.

- 9.30 A.M.—Meeting of Council, 1876-77.
 11.30 A.M.—Second General Meeting.
 11.30 A.M.—Address in Medicine.
 2 to 5 P.M.—Sectional Meetings.
 9 P.M.—Soirée.—Weston Park Museum.

Thursday, August 3rd.

- 9 A.M.—Meeting of Committee of Council.
 10 A.M.—Third General Meeting.—Reports of Committees.
 11 A.M.—Address in Surgery.
 2 to 5 P.M.—Sectional Meetings.
 6.30 P.M.—Public Dinner.

Friday, August 4th.

- 10 A.M.—Address in Public Medicine.
 11 A.M.—Sectional Meetings.
 1.30 P.M.—Concluding General Meeting.—Reports of Committees, etc.
 Promenade Concert at the Albert Hall.

PAPERS.—The following papers have been promised.

- Alford, Stephen S., F.R.C.S. On the Obstacles which delay our obtaining Legislative Power for the Protection and Treatment of Conformed Drink-cravers.
 Allbutt, T. Clifford, M.D. On some of the Causes of Granulating Kidney.
 Bantock, G. G., M.D. On the Treatment of Ruptured Perinæum.
 Bond, Francis T., M.D. On the Legislative Measures which are necessary in order to prevent the spread of Infectious Diseases.
 Bradbury, J. B., M.D. A Case of Idiopathic Anæmia treated unsuccessfully by Phosphorus: Death: Necropsy.
 Bradley, S. M., F.R.C.S. The Surgery of Syphilis.
 Britton, Thomas, M.D. The Origin of Scarlatina.
 Broom, John, M.D. A few Therapeutic Extracts from my own Practice.
 Browne, Lennox, F.R.C.S.Ed. 1. Cases illustrating the successful Treatment of Suffocative Goitre without Excision of the Gland.—2. Observations on the Treatment of Postnasal Catarrh.
 Bucknill, J. C., M.D. The Credibility of Medico-Legal Evidence.
 Carter, C. H., B.A., M.D. On the Treatment of Ovarian Cysts by Drainage.
 Cassells, J. P., M.D. The Etiology of Ear-Disease.
 Chiene, John, F.R.C.S.Ed. Cases of Irreducible Femoral Hernia.
 Collie, A., M.D. Remarks on Contagion and Contagious Hospitals.
 Diver, E., M.D. The Desirability and the Importance of a more Complete Recognition of our Profession by the State.
 Drysdale, C. R., M.D. 1. On Syphilitic Epilepsy.—2. On the Duality of the Chancre.—3. Alcohol and Public Health.—4. Animal Vaccination.
 Duncanson, J. J. Kirk, M.D. The Inflammations of the Middle Ear: a. Catarrhal; b. Purulent; c. Hypertrophic.
 Eassie, W., C.E. Mechanical Disinfection.
 Eastwood, J. W., M.D. On Life-Assurance and Suicide.
 Ellis, Arthur, W., M.D. On the Influence of Posture in the Treatment of Uterine Disorders.
 Elder, George, M.B. 1. On Hodgkin's Disease of the Glands: with a Case.—2. Amputation of the Cervix Uteri in Malignant Disease.—3. The Relief of Bladder-pain in the Female by Dilatation of the Urethra.
 Foss, R. W., M.D. The Mortality of Ironworkers.
 Foster, Balthazar, M.D. Note on Epidemic Cerebro-Spinal Fever.
 Fothergill, J. Milner, M.D. The successful Treatment of Dilated Heart.
 Fox, C. B., M.D. Dissemination of Zymotic Disease among the Public by Tradespeople.
 Fox, J. M., Esq. Sewer-Ventilation.
 Galabin, A. L., M.A., M.D. On the Mechanism of Extraction by the Long Curved Forceps.
 Gowers, W. R., M.D. 1. The State of the Arteries in Bright's Disease.—2. The Diagnosis of Labyrinthine Vertigo.
 Hall, John Charles, M.D. The Effects of Trades of Sheffield on the Workmen employed in them.
 Hime, Thomas W., B.A., M.B. 1. Hemiatrophia facialis progressiva.—2. Hysteria.
 Holthouse, Carsten, F.R.C.S. On Twelve Months' Experience of the Treatment of Inebriates at Balham.
 Hovell, D. De Berdt, F.R.C.S. On Treatment after the Operation for Strangulated Hernia.
 Hutchinson, Jonathan, F.R.C.S. 1. On the use of Lead Lotion in the Treatment of Wounds.—2. The Prostatic Catheter of the Future.

- Jackson, Arthur, M.R.C.S. Excision of the Hip-joint.
 Jessop, T. R., F.R.C.S. On the Use of Carbolised Catgut for Tying Arteries in their Continuity; illustrated by Cases in which the Subclavian, the Brachial, the External Iliac, the Internal Iliac, and the Femoral Arteries, have been tied.
 Johnson, George, M.D., F.R.S. On Cases of Latent Peritonitis, with Copious Effusion into the Peritoneum.
 Kerr, Norman S., M.D. The Medical Administration of Alcohol.
 King, Kelburne, M.D. Antiseptic Surgery as Practised at the Hull General Infirmary.
 Lawrence, A. E. Aust, M.D. The Treatment of Women after Labour.
 Lowndes, F. W., Esq. Ought the Contagious Diseases Acts to be extended?
 McGill, A. F., F.R.C.S. The Antiseptic Treatment of Wounds without the so-called Antiseptic Dressings.
 Monks, E. H., L.R.C.P.Ed. Jaundice occurring during Pregnancy, and its effects upon Mother and Child.
 Oxley, Martin G. B., L.K.Q.C.P.I. Case of Hysterical(?) Paralysis in a Girl aged 8 years, caused by a Thunder-storm.
 Rogers, Joseph, M.D. Chaos, as exemplified in Central and Local Sanitary Administration.
 Routh, C. H. F., M.D. On Fibrous Tumours of the Uterus.
 Sadler, Michael T., M.D. 1. Obstruction of the Bowels from Enteritis, with Cases.—2. Foul Air as a Cause of Enteric Fever.
 Savage, T., M.D. On Incisions of the Cervix in Uterine Hæmorrhage.
 Sims, J. Marion, M.D. Epithelioma of the Cervix Uteri.
 Squire, A. Balmanno, M.B. A Demonstration from Life of the Diseases of the Skin by means of the Dissolving-View Apparatus.
 Squire, William, M.D. The Registration of Disease, and the Part to be taken therein by the Medical Profession.
 Stainthorpe, Thomas, M.D. A Case of Puerperal Convulsions treated successfully with Hypodermic Injections of Ergotine.
 Taylor, C. B., M.D. On the Principles that should guide us in selecting an Operation in Cases of Senile Cataract.
 Thomas, Llewelyn, M.D. On the Necessity for Prompt Treatment of Deafness in Childhood.
 Thompson, J. Ashburton, M.D. A New Emetic Purge.
 Vacher, F., Esq. Public Baths.
 Walker, Bernard, F.R.C.S. On the Advantages of Ether as an Anæsthetic over Chloroform.
 Yeo, I. Burney, M.D. The Results of Modern Research in the Treatment of Phthisis.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

THE ANNUAL MUSEUM.

The Ninth Annual Museum of the above Association will be held in the Church Institute, St. James's Street, Sheffield, on August 1st, 2nd, 3rd, and 4th, 1876.

All communications should be addressed to the Secretaries, from whom any further information can be readily obtained.

W. R. THOMAS, Norfolk Street, } *Honorary Secretaries,*
 SIMEON SNELL, 17, Eyre Street, } *Museum Committee.*

EXCURSIONS.

The following is the programme of Excursions, etc., during the meeting.

Wednesday, August 2nd.

3 P.M. Messrs. Cammell and Co. will roll a large Armour-Plate, and invite the Association to witness it, and afterwards inspect their famous works.

Thursday, August 3rd.

11 A.M. Thomas Firth and Sons will forge a large Gun, and afterwards show other objects of interest.

Friday, August 4th.

I. Excursion to Wortley by road. The Earl of Wharnccliffe invites one hundred members of the British Medical Association to lunch, and to inspect the Collieries, etc. (Under control of Dr. Watson, Weirfield House, Penistone.)

II. Excursion to Wentworth House; by invitation from Earl Fitzwilliam. Wentworth is famous for its Pictures and Sculpture, Stud, etc. (Under control of J. Benson, Esq., Sheffield.)

Saturday, August 5th.

I. Excursion to Chatsworth and Haddon Hall, Derbyshire; by road over the moors, sixteen miles. Invitation from the Duke of Devonshire for one hundred to lunch at Chatsworth at 1 P.M. Mrs Wrench's Garden Party at Haddon Hall (by kind permission of the Duke of Rutland); from 4 to 6. N.B.—A train leaves Rowsley Station, two miles from Haddon Hall, at about 6 P.M., and reaches London at ten P.M. (Under control of Mr. Wrench of Chatsworth.)

II. Excursion to Matlock and neighbourhood. Invitation to luncheon at New Bath Hotel, Matlock Bath, by the profession of Derby, Wirksworth, Matlock, etc.—Objects of Interest: High Tor, Abraham's Heights, Caverns, Via Gellia, Willersley Castle Grounds (by kind permission of F. C. Arkwright, Esq.).—Members can leave Wirksworth after the Via Gellia excursion at 5.25, or Matlock Bath at 6, arriving in London at 9.50. (Under control of Dr. Webb, Wirksworth.)

III. Excursion by rail to Buxton, through some of the finest scenery in Derbyshire. Invitation for limited number to lunch from Medical Men of Buxton. Inspection of the Mineral Baths, Bath Charity Hospital, etc. (Under control of Dr. Robertson.)

Daily, in Sheffield.

From 2 to 5 P.M. Joseph Rogers and Sons invite inspection of their famous Cutlery works.

James Dixon and Sons invite inspection of their Electro-Plate works.

John Kenyon and Co. invite members to inspect their Steam-Saw Manufactory.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, July 13th, 1876.

BATH AND BRISTOL AND GLOUCESTERSHIRE BRANCHES.

A JOINT meeting of the Bath and Bristol and the Gloucestershire Branches will be held at Berkeley, on July 18th.

Trains to Berkeley Road from Bath at 11.35; from Bristol, 12.35; and from Gloucester at 12.34. Leaving Berkeley Road for Bath and Bristol at 7.55; and for Gloucester at 7.41, or 9.14.

Special arrangements for seeing Berkeley Castle, and for dinner, will be announced hereafter. All members intending to join are requested to send their names to either of the Secretaries immediately.

DR. BATTEN, Gloucester.

E. C. BOARD, Clifton.

R. S. FOWLER, Bath.

Honorary Secretaries.

Bath, July 3rd, 1876.

BORDER COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, July 21st, at One o'clock.

Gentlemen intending to read papers are requested to give early notice thereof to one or other of the Secretaries.

STEWART LOCKIE,

JOHN SMITH,

Honorary Secretaries.

Carlisle, July 3rd, 1876.

WEST SOMERSET BRANCH.

THE annual meeting of this Branch will be held at the Clarence Hotel, Bridgwater, on Thursday, July 27th, at 2.30 P.M.

Dinner at 5 o'clock.

Members who may desire to bring any communications before the meeting are requested to give notice to the Secretary.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, June 19th, 1876.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.

AT the annual meeting of this Branch, held at Bedford, on June 20th, it was unanimously resolved to hold the next annual meeting at Saffron Walden, under the presidency of H. Stear, Esq.

Representatives in the General Council.—The following gentlemen were elected:—D. B. Balding, Esq. (Royston); G. M. Humphry, M.D. (F.R.S. (Cambridge)); H. Stear, Esq. (Saffron Walden); and J. B. Bradbury, M.D., *Honorary Secretary.*

LANCASHIRE AND CHESHIRE BRANCH: NOTICE TO MEMBERS.

DR. STEELE, having resigned the office of Branch Secretary, requests that remittances and communications may be addressed to "Dr. D. J. LEECH, Honorary Secretary of the Lancashire and Cheshire Branch, 96, Mosley Street, Manchester".

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Mineral Water Hospital, Bath, on Thursday, June 29th; W. M. CLARKE, Esq., President, in the chair.

The minutes of the last annual meeting were read and confirmed.

New Members.—The following gentlemen were duly elected members of the Association and of the Branch: J. E. Shaw, M.B., Royal Infirmary, Bristol; N. Crisp, Esq., Keynsham; G. A. Imlay, M.D., the General Hospital, Bristol.

President.—MR. CLARKE, after a few remarks, resigned the chair to Dr. H. F. A. GOODRIDGE, who read a most interesting address.

MR. PRICHARD proposed, and Dr. SPENCER seconded, a vote of thanks to Dr. Goodridge for his able address, which was carried unanimously.

Report of Council.—The BATH SECRETARY read the following:

"Your Council, in issuing the thirty-fifth annual report of the Branch, congratulates the members on its continued prosperity. Thirteen new members have joined the Branch; while we have to regret the loss by death, resignation, and removal, of eleven members during the past session, leaving us a total of 207 at this date. We must deplore the loss by death of five members: Dr. Inman, Mr. C. S. Barter, Mr. C. Vicary, Mr. Cross, and Mr. Jones of Weston-super-Mare. Dr. Inman, though he had only recently joined our Branch on retirement from active practice in Liverpool, was a constant attendant at our meetings, and frequently enlivened them with his spirited remarks. By the death of Mr. Barter, the city of Bath has lost a very valuable medical officer of health, and the Royal United Hospital a most careful and painstaking curator of its pathological museum. Mr. Cross will be missed by a very large circle of friends, who will always remember his genial character. He was one of the oldest members of the Branch, and held a high position in the profession in Clifton. Mr. Vicary, who had been in active practice in Warminster, had lately retired and become a resident of Bath, where he was known as lending a ready hand to overworked brethren; and Mr. Jones was the son of an old practitioner of Weston-super-Mare, whose career was cut short by an attack of typhoid fever. Two members have resigned, and four have removed into other spheres of duty; they still remain members of the parent Association.

"Fifteen papers have been read during the session, and many of them have given rise to much interesting discussion, especially those subjects to which the entire evening has been devoted. The Council recommend that the plan which was provisionally adopted for the last session, of reserving two evenings for the discussion of special subjects, shall be continued.

"The financial report of the Branch is very satisfactory, and a balance of £28 10s. 10d. remains in hand. Your Council recommends that the donation of three guineas to the Medical Benevolent Fund be repeated this year.

"The scrutineers report that the following gentlemen are elected members of the several Councils:—for Bristol: Messrs. Leonard, Martyn, Prichard, and Steele; for Bath: Messrs. Stone, Stockwell, Falconer and Mason.

"Your Council also recommend that the suggestion of the Gloucestershire Branch, that there should be a friendly meeting of the members of this Branch with theirs, on some intermediate ground, should be adopted, and agreed that Berkeley would be a most suitable locality, and that Tuesday, July 18th, would best suit the convenience of Bath and Bristol members."

Resolutions.—The following resolutions were carried.

1. MR. DOBSON proposed, and Dr. SPENDER seconded, "That the report and financial statement now read be adopted."

2. DR. SWAYNE proposed, and Mr. STONE seconded, "That Dr. Henry Marshall be President-elect." Dr. Marshall expressed his pleasure in accepting the office.

3. MR. MASON proposed, and Dr. BEDDOE seconded, a vote of thanks to the retiring President, W. M. Clarke, Esq., for his able conduct in the chair during the past year.

4. DR. CHADWICK proposed, and Dr. BEDDOE seconded, a vote of thanks to the Council for their admirable arrangements.

5. Mr. WAUGH proposed, and Dr. E. L. FOX seconded, a vote of thanks to the Secretaries, coupled with the request that they would continue in office.

Public Health.—Dr. BEDDOE proposed that the President and Secretaries be authorised and requested to petition both Houses of Parliament on behalf of the Branch, on the subject of an extension to the Public Health Act of last session. This was seconded by Mr. M. CLARKE, and carried *nem. con.*

Representatives in the General Council.—The scrutineers of the voting papers declared the following gentlemen elected as representatives of the Branch on the General Council of the Association: J. Beddoe, M.D.; A. Carr, Esq.; W. M. Clarke, Esq.; J. G. Davey, M.D.; E. L. Fox, M.D.; H. F. A. Goodridge, M.D.; H. Marshall, M.D.; F. Mason, Esq.; A. Prichard, Esq.; T. G. Stockwell, Esq.

Vote of Thanks.—The meeting closed with a vote of thanks to the governors of the Mineral Water Hospital for the use of the Board-room.

Dinner.—The members afterwards dined together at the York House.

EAST ANGLIAN BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at the Masonic Hall, Lowestoft, on Friday, June 30th.

President's Address.—Mr. W. H. CLUBBE, President, delivered an address.

Place of Meeting and President-elect for 1877.—It was resolved that the next annual meeting be held at Diss, Norfolk; and that T. E. Amyot, Esq., be the President-elect.

Representatives in the General Council of the Association.—The following were chosen: T. E. Amyot, Esq. (Diss), F. Bateman, M.D. (Norwich), W. Cadge, Esq. (Norwich), C. M. Durrant, M.D. (Ipswich), R. Faircloth, Esq. (Newmarket), B. Chevallier, M.D., Honorary Secretary, Ipswich.

The Council of Branch and Honorary Secretaries were re-elected.

New Members.—James Worthington, Esq., of Lowestoft; and E. D. Wallis, Esq., of Leiston, Suffolk, were elected.

Cruelty to Animals Bill.—It was resolved, on the motion of Dr. BATEMAN, seconded by Mr. GIBSON: "That this meeting approve the resolutions passed at the Parliamentary Bills Committee of the British Medical Association, held on May 27th, 1876; and request the Secretaries to forward a copy of these resolutions to the members of Parliament for the counties of Norfolk and Suffolk and for the city of Norwich, with the request that they will support the principles enunciated in the aforesaid resolutions in the House of Commons when the Bill upon the subject is discussed."

Papers.—1. Dr. BEVERLEY read a paper on the Sanitary Dangers of Sea-side Resorts.—This led to much discussion on the part of Dr. Copeman, Dr. Latham, Mr. Crowfoot, Mr. Worthington, and Mr. Clubbe.

2. Dr. EADE read a paper on Two Cases of Paracentesis Thoracis.

3. The PRESIDENT exhibited a pathological specimen, illustrating a case of perforation of the left ventricle, in which life was prolonged sixty-four hours after the injury.

Dinner.—The members dined together at the Royal Hotel.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ORDINARY MEETING.

The ordinary spring meeting of this Branch was held at the New Inn Hotel, Pontypridd, on May 18th: S. H. STEEL, M.B., President, in the Chair. There were present thirty members and two visitors.

New Members.—The following gentlemen were elected members of the Branch: Richard Samuel, Llanelly; George Gibbering, Morriston; J. W. Davies, Pontypool; A. J. Shepard, Usk; J. T. Fry, Swansea; R. H. Leigh, Aberdare.

Specimens.—Mr. H. N. DAVIES (Cymer) showed the following: A Resected Head of the Humerus; a Polypus Uteri, which, when fresh, weighed seven pounds; Tumour attached to the Left Labium, weighing eight pounds and three quarters, of three-years' growth, successfully removed by incision; a Case of Hydatid of the Liver, which discharged itself through the lung, giving rise to abscess, and death from hæmorrhage and apnoea. The right kidney, through pressure on its artery, was atrophied, and the left compensatorily hypertrophied.

Papers.—1. Mr. H. N. DAVIES (Cymer) read notes of a Case of

Tetanus, with remarks. The treatment was by chloral-hydrate; 1,200 grains of which were given in eleven days. The result was recovery.

2. Mr. MILWARD (Cardiff) read a paper on the Physical Reactions of Emotion.

3. Mr. EVAN JONES (Aberdare) gave the history of Cases treated without Carbolic Antisepticism; but with careful Drainage. The first case was one of ankylosis of the knee-joint (the foot in walking came on the opposite toe), treated, first by extension, and subsequently by subcutaneous osteotomy of the femur, Callender's tube for drainage, and starched bandage; the result was cure without suppuration. The second case was one in which a man was crippled by the presence of osteoid growths in the knee-joint, both loose. The joint was opened, the smaller body found, and removed with much difficulty. In three weeks; the man was walking about; and had since made a perfect recovery. In this case, the treatment was rest, wet lint, and Callender's drainage-tube.

4. Mr. WATKIN RHYS (Treforest) referred to a case of damage to the integument, very obstinate in healing, caused by the use of stockings coloured by the use of aniline dyes.

Medical Defence Association.—A letter from Mr. J. H. Wathen (Fishguard) to Dr. Sheen; one of the honorary secretaries, was read, in reference to the formation of a Branch of the Medical Defence Association for South Wales. It was thought best to postpone the consideration the subject until Mr. Wathen was able to be present.

Dinner.—The members and their friends afterwards dined together, S. H. Steel, M.B., President, in the Chair.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Dr. de Wecker's Ophthalmic Practice.—*Dr. Decaisne on Spirituous Liquors.*—*Intemperance.*—*Poison in Preserved Meats.*

As the doors of the public hospitals in Paris are officially closed to specialists, the latter have their own dispensaries or "cliniques", where they not only afford gratuitous advice, but they deliver lectures, also gratuitously, to those who wish to attend. These *ex-officio* professors seem to spare no pains or trouble towards either patients or pupils, and they keep up their respective establishments at no small expense. Ophthalmic medicine and surgery is the specialty most in favour among the students, and, although there are at least four ophthalmic clinics worthy of note in Paris, they are all equally well attended both by patients and pupils. Dr. de Wecker, a well known ophthalmologist has, besides the usual dispensary, a private hospital, where those who can afford to pay are boarded and lodged at a trifling cost, but professional advice is given gratuitously. Even the operations are not charged for, and Dr. de Wecker deserves the highest praise for the manner in which every thing is conducted at this institution. Dr. de Wecker is very methodical in all he does, and he publishes annually the result of the operations and treatment practised at his "Clinique Ophthalmologique". I have now before me his annual report for 1875, and have much pleasure in submitting an analysis of it for the benefit of your readers. During the year, 265 operations were performed for the various forms of cataract, and the operation adopted was extraction, except in cases of secondary, congenital, and traumatic cataracts, in which discission was practised. Of these cataracts, 249 were of the simple form; of these, 48 were operated on after the method of von Graefe, 2 by simple linear extraction, and 199 by a periphtric flap (*extraction à lambeau périphérique*). Of the 50 cases that were operated on after the first two methods, the following were the results obtained. In 8 cases, S=1; in 15, S=2; in 6, S=3; in 6, S=4; in 3, S=5; in 5, S=6. The result is not given for the five remaining cases, as their visual power had not then been tested. In one case, there was an escape of the vitreous humour; in another, suppuration of the cornea; and in a third, panophthalmia.

The new operation, *extraction à lambeau périphérique*, was first introduced into practice by Dr. de Wecker about three years ago, and the advantage of the operation, which is a modification of Jacobson's sclerotic-corneal section, is that the iris is left intact, and this is of no small consideration, both in a practical and an æsthetic point of view. The other advantages of the operation are thus summed up by Dr. de Wecker: the flap thus formed affords greater facility for the extrusion of the crystalline lens, suppuration and other complications are less frequent, and the healing process takes place much more rapidly. Dr. de Wecker's operation consists in the formation of a flap with the upper

third of the cornea, the incision being limited to the junction of this membrane with the sclerotic, and differs from Jacobson's in that the sclerotic is left intact. Immediately before and after the operation, a drop of a neutral solution of the sulphate of eserine is dropped into the eye in order to keep the iris out of the way; and the visual power of the eye having been tested, a third drop of eserine is instilled into it before the application of the bandage. In comparing this new operation with the linear operation of von Graefe, combined with iridectomy, for the removal of cataract, Dr. de Wecker asserts that the results obtained by the *extraction à lambeau périphérique* are far more satisfactory.

Iridotomy was successfully performed in thirty-five cases, which include five simple and thirty double iridotomies, and the following are the affections for which the operation was practised. Simple iridotomy for zonular cataract, three cases; dislocation of the crystalline lens, one case; leucoma of the cornea, one case. Double iridotomy was performed in twenty-two cases for papillary occlusions and secondary cataracts, and in eight for traumatic cataract. Dr. de Wecker observes with satisfaction that the results obtained elsewhere confirm the advantages he had derived from the operation, which must soon occupy an important position in ocular surgery. Iridectomy was performed in 171 cases, 157 of which were for antiphlogistic purposes, and fourteen for optical. Conjunctival grafting was practised five times with the conjunctiva of a human eye, and the result obtained was the same as with the animal grafting.

Among the cases of foreign bodies in the eye, I may notice particularly two cases of cysticercus which were successfully treated by Dr. de Wecker. In one case, the tumour formed was situated in the upper lid of the left eye; in the other, the parasite was noticed in the vitreous humour, also of the left eye. Both the cysticerci were successfully removed, and the patients made good recoveries. In the second case, the sight was seriously compromised, the patient, a young man, being almost blind of the affected eye; but, after the operation, it was partially restored, and, when he left Dr. de Wecker's clinic a fortnight after the operation, he was able to distinguish the fingers by directing the eye downwards and outwards. The case is very interesting and instructive, and I would refer your readers to the *brochure* itself, as in it they will find it fully detailed.

Dr. de Wecker has recently introduced another new operation in ophthalmic surgery, which consists of a system of drainage effected by the introduction of a piece of gold wire through the membranes of the eye, which is so arranged that the patient is in no way inconvenienced by its presence. This new method, to which Dr. de Wecker has given the name of "*Anse à filtration*", is applicable to all cases in which the drainage of a liquid from the eye would be indicated, such as hydrophthalmia, staphyloma, detachment of the retina, absolute glaucoma, etc. The results obtained up till now are sufficiently satisfactory to induce Dr. de Wecker to persevere with this new method of treatment; but he must give it a further trial before he can pronounce as to its efficacy in the above cases.

Dr. Decaisne, who has published some very important articles on the dangers of the use, or rather the abuse, of certain spirituous liquors considered to possess aperitive properties (I use the adjective in the French sense, which means appetite-exciting), known by the names of "absinthe", "vermouth", "bitter", etc., is now waging war against a liqueur called the "*Grande-Chartreuse*", and an aromatic liquor called "*Eau de Mélisse des Carmes*", which latter is used only medicinally, but is so frequently resorted to, particularly by hysterical ladies, that Dr. Decaisne has thought proper to bring it to the notice of the Academy of Medicine, in order to warn both doctors and patients against its indiscriminate employment, as well as that of the above-named liquors. Dr. Decaisne considers these liquors as powerful stimulants; and that, from containing essential oils and alcohol in a concentrated form, they are more liable to produce alcoholism than the other ordinary spirituous liquors in common use.

The "*vin de quinquina*" (cinchona wine) is another medicinal preparation very much abused by the French, so much so that it came to be sold in the public-houses like ordinary wine, until the police had to interfere and put a stop to its being supplied by others than regular "*pharmaciens*". But the authorities might have gone a little further, by preventing the latter from dispensing the wine without a proper prescription. The *vin de quinquina* is much more commonly employed than is supposed, and constitutes one of the forms of voluntary or involuntary tippling resorted to in all classes of society, under the impression that they require the daily use of stimulants and tonics for their well-being; and the opinion is so general that most people make their own cinchona wine. According to the French *pharmacopœia*, the *vin de quinquina* is prepared with Bordeaux wine and a certain proportion of alcohol. It often happens that, after a certain time, the consumers of this preparation, finding the wine not strong enough to their taste,

gradually increase the quantity of pure alcohol, at the expense of the wine, until the mixture, instead of being a salutary wine, becomes a pernicious tincture, as large doses are continued to be taken, even in the latter form. No wonder, then, that symptoms of alcoholism, and even delirium tremens, are not unfrequently met with in persons belonging to temperance societies, or who persistently deny that they are addicted to the use of spirituous liquors in any shape or form.

My allusion to temperance societies recalls to my mind some remarks that were lately made, in a daily paper in Paris, with reference to the results hitherto obtained by the very laudable and philanthropic efforts of these societies, to stamp out the vice of drunkenness and its attendant evils from the midst of the great human family. The writer adduces the remarkable fact, that drunkenness is more rife in countries where temperance societies predominate, and quotes Great Britain as an example in corroboration of his statement. There is, perhaps, no other country in the world, adds the writer, where so many temperance societies abound, and yet where so much spirits are drunk, as in Great Britain, as was shown by the revenue returns of the kingdom for the year 1875-76, which amounted to upwards of £33,000,000 sterling. As a corollary to this startling statistical fact, the writer observes that the census, for the month of April last, fixes at 672,987 the number of paupers that were relieved in the United Kingdom. Rather a melancholy picture of the social aspects of the British Isles; and one cannot but be struck with the equally melancholy coincidence, as cause and effect, that drunkenness and pauperism go hand in hand.

Professor Bouchardat, in his capacity as member of the Council of Hygiene and Salubrity, lately brought to the notice of the authorities that certain preserved meats, imported from foreign parts, were not only unfit for human food, but that in many cases they were even positively dangerous, as they contain poisonous substances. Thus, in a report submitted to the Prefect of Police, M. Bouchardat pointed out that in a specimen of ham, said to be imported from Cincinnati, the ham was enveloped in a cloth saturated with a yellow substance. This yellow substance was proved to be composed of the chromate of lead, a most deadly poison. It was suggested by the report that particles of the yellow substance may become detached, and be mixed up with the alimentary substances vended by grocers and others, and thus run the risk of poisoning those who make use of them. By a decree from the police, the substances so enveloped were seized and buried underground, and future supplies are to be treated in a similar manner. M. Bouchardat suggests that, if the American purveyors prefer to have a yellow envelope around the alimentary substances they export, the chromate of lead may be substituted by any other yellow substance—turmeric, for instance, which is known to be entirely harmless.

CORRESPONDENCE.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—“The Council of the Royal College of Surgeons has determined to make considerable changes in the regulations for admission to the Fellowship by examination”; therefore I suppose it will avail but little that I pen this letter to attempt an answer to this passage in Sir James Paget's "*Annual Report*". But admitting that, and while paying a just tribute to one who, if he had been in Parliament, would have been a "*Rupert of debate*"; or had he chosen the Bar, would have made the prince of "*special pleaders*", and who is the most eminent scientific pathologist and surgeon of our day, I must ask your leave to advance a few considerations from the other side. The President admits "*that the original regulations have fulfilled the design for which they were devised so well*". But they have excluded some who have deserved the Fellowship, and might justly have been admitted to it. Mark the word "*some*". And then he goes on to specify the various classes under which the *some* have arranged themselves. Some who have, forsooth, been unable to complete the required *six years'* study in the schools and hospitals. In the name of fortune, why six years? Why not twelve, or, to be consistent, why any? Can it matter how long a man shall be in attaining to a given standard of knowledge which, come when it may, must submit to an examinational test? Can it, on the other hand, signify how a short time of study makes a man competent to fulfil the test? Again I ask, why six years? Let a man get the knowledge how and when he can, so that he can show the knowledge. But, it may be replied, the six years of study guarantee that suitable opportunity has been offered for the acquisition of the knowledge, and compensate for the, under present circumstances, inevitable want of sufficient depth and breadth in the examinational test. I always have thought that the object of an examination is to get out of a man what

he knows, not that he does not know. Therefore the remedy for the first objection is to do away with the required six years' study, and substitute a longer and more searching examination. To all the other classes, the Fellowship might be open by election as honorary fellows. This distinction, surrounded as it must be by suitable restrictions and guarantees, would certainly meet those cases also in which some of the best provincial hospital surgeons are not Fellows of the College, and would go far to meet the serious diminution in the elective body of the College. But under this should the elective body still grow too small in number, if not in intellect, let the members be enabled by charter to elect certain among their most eminent as delegate electors. "To give just weight to the value of high attainments in all departments of surgical study, the Council has decided," etc. What? To do an injustice to several hundreds of our most successful and valued Fellows, who have undergone the strain, mental and physical, of satisfying a test which, though not extensive enough, is still second to none in the kingdom for severity and necessity for conciseness! Again, to do away with what has been written upon for years on the one weak point in the examinations for admission to the profession; to lower the standard of elementary education, and to degrade the fellowship, the membership, *plus* the test which any schoolboy in a fourth form ought triumphantly to satisfy. Can anything be more reactionary, more unwise, or more undesirable? Then as to the difference in the kind of examination. What standard of comparison can be instituted which will warrant the grant of an equal status to two such unequally constituted classes of candidates? I say the thing is unjust and past argument. If such rules are brought into operation, as it is said they "will be as soon as the necessary changes in the by-laws can be effected", I say that the body of Fellows by examination will have been defrauded of brain and time by false pretence, and there will be practically no stimulus for students to work for a good sound examination, when they knew that ten years in practice as a member is to be considered an excuse for granting an equality of status to those who have failed, and would again fail, to fulfil the same test to which the student is subjected. Let me implore the Council of the College to desist from doing a grievous wrong. Let me beg that they may honour the "some" with their honorary Fellowship, and so confer a distinctive honour in place of a half-and-half milk-and-water position; and let me throw myself and the cause of the Fellows by examination on the sympathy and good feeling of the profession at large. The College of Physicians has the honorary distinction, 'tis true only for members, for they have a lower grade still: the licentiate. But make the membership examination of our College what it ought to be, a competent minimum examination, and maintain or heighten the standard of examination for the Fellowship, but on no account let us have injustice, and by no "special pleading" let us be undone in order to meet a temporary emergency. Who so fit to govern the College as its most enlightened *consocii*? And can we compare these in the case of the "some" prominent members to be likely to submit themselves to an examination test which will be, at the best, partial and unequal, and conducted by men of analogous position to themselves, and who will be personally known the one to the other. Pardon the length of this communication. I know that my views on this matter, if not too clearly expressed, are, in the main, approved and admitted to be sound by many of my brothers by examination, and I trust, for the honour of all concerned, that the Council will pause and reconsider this matter before finally committing itself to a policy which I venture to predict will recoil on it in every election from the date in which it finally so commits itself.—Your obedient servant,

FRED. E. MANBY.

SUBCUTANEOUS OSTEOTOMY.

SIR,—In a letter on the above subject, published in the JOURNAL of to-day (July 1), Mr. Gant discusses the relative value of the saw and the chisel, but apparently without any personal knowledge of the use of the latter. He says, "but the substitution of the chisel for the saw renders the osteotomy no longer subcutaneous, a very important disadvantage in point of surgical principle".

If the ordinary acceptance of the term *subcutaneous* mean primary healing of the skin-wound, and the absence of suppuration, that is the very result which I claim for the chisel; and it was illustrated by two out of the three cases shown at the Clinical Society in Mr. Gant's presence, while a more recent instance of primary union can at this moment be seen at Gloucester ward of the London Hospital, the operation having been performed more than six weeks ago.

He proceeds to state, "and I can conceive that the propulsive action of a chisel may prove to be a less safe mode of section, by splintering the bone or driving into the textures beyond".

If Mr. Gant will consult the JOURNAL of June 24th, he will there

find, which he must have overlooked, an account of a recent operation for the removal of the upper end of the femur of a lad, eleven years of age, where I demonstrated, in the presence of several of my colleagues and others, the effect of the chisel. It cuts through the bone without splintering it.

How far the chisel is a safe instrument, must be left to the judgment and tact of the surgeon using it, as with every operative proceeding.

Doubtless, a well planned and well executed operation will occasionally fail, and I do not expect immunity for the chisel; but the "miniature saw" must produce *débris*, a possible source of suppuration.—Yours, etc.,

C. F. MAUNDER.

Queen Anne Street, July 1876.

REGISTRATION OF FOREIGN DEGREES.

SIR,—I should like to make a few remarks on the letter of "M.D. Brussels" in your issue of July 1st. While agreeing in the main with his remarks, and fully recognising the excellence of the Brussels degree, I must point out that he is wrong in supposing that candidates are never rejected at St. Andrew's. On reference to the Report of the "visitors of examinations deputed by the General Medical Council" for 1875, I find the following statements, showing the number of practitioners examined, and the number who passed, from 1871 to 1875 inclusive. In 1871, ten were examined, and eight passed; in 1872, ten were examined, and ten passed; in 1873, eleven were examined, and ten passed; in 1874, ten were examined, and ten passed; and in 1875, ten were examined, and eight passed. Considering that all the candidates were practitioners of experience, and that the examination is not one for admission to the profession, I think the table shows a fair percentage of rejections.

While speaking of degrees, I think the University of Durham is to be congratulated for the readiness she has shown to accede to the wish of the profession by opening her doors to practitioners of fifteen years' standing. Doubtless this measure will do something to stop the rush of medical men to the Continent, as at Durham they will be able to obtain a respectable registrable English degree. Had the degree been thrown open to *all* registered practitioners, the boon would have been still more welcome; but, as it is, we must be thankful for small mercies.—Yours, etc.,

W. D. H.

July 1st.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE proposal of the Weymouth Port Sanitary Authority, that the offices of the Medical Officer of Health and Inspector of Nuisances shall be held by one person at £40 *per annum*, having been negatived by the Local Government Board, it has been decided to appoint a Medical Officer of Health at £30 *per annum*, and an Inspector of Nuisances at £10 *per annum*.

THE Keighley Urban Sanitary Authority, having failed to obtain a Medical Officer of Health at £50 *per annum*, or to effect a combination with the authorities of the adjoining Districts in making an appointment, have now offered £100 *per annum*.

THE Malton Urban and Rural Sanitary Authorities have, after further consideration, agreed to give the Medical Officer of Health £200 *per annum*, and the Inspector of Nuisances £150 *per annum*—three-fourths to be contributed by the Rural, and one-fourth by the Urban Authority.

THE Whittlesey Rural Sanitary Authority have followed the example of the Peterborough Rural Sanitary Authority, and intend to make a separate appointment of a Medical Officer of Health, instead of joining, as before, with the Caxton, Huntingdon, Peterborough, St. Neots, and Stamford Rural, and Godmanchester, Huntingdon, and St. Neots Urban, Authorities.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

HAVILAND, Alfred, M.R.C.S. Eng., reappointed Medical Officer of Health for the Northampton Sanitary District.
PORTHOUS, J. L., L.R.C.P. Ed., appointed Medical Officer of Health for the Western District of Dessart.

MILITARY AND NAVAL MEDICAL SERVICES.

IN the House of Commons on Thursday last, in reply to Mr. O'Leary, Mr. Hardy stated that the claims of no senior surgeon-major of the army, who possessed proper qualifications, would be passed over in the selections for promotion to the rank of deputy surgeon-general, but regard would be had, in granting promotion, to the cases of men who had displayed surpassing ability.

ON Thursday last, Mr. Hardy stated, in reply to Dr. Playfair, in the House of Commons, that he had no doubt the promised warrant for militia surgeons would be issued during the present session in time to receive the consideration of Parliament. It had been approved by the Treasury, and only awaited the signature of Her Majesty.

THE LATE ARMY MEDICAL WARRANT.

SIR,—Can you kindly inform me if we, the medical officers attached to regiments for five years, by the Warrant of 1873, are by this last one issued completely severed from that attachment, and permitted to become true component elements of the Army Medical Department? Does it, in fact, create us *bona fide* "departmental" officers? and, if such, are we now secured against that most flagrant of all the injustices inflicted on us by the Warrant of 1873—viz., the compulsory payment of mess and band subscriptions to the funds of regiments to which we did not belong, and in which we were not in any way recognised as regimental officers? Are we, sir, further entitled by this last Warrant to enjoy, as departmental officers, the common departmental right of drawing departmental pay and allowances? Or are all medical officers in future temporarily attached to regiments not only to forfeit those allowances whenever they are so attached, but also to pay a quarterly subscription, etc., in advance, in proportion to their rank, to the mess and band funds of those regiments to which they shall have the still more fallacious and fictitious honour of being but temporarily attached?

If you will kindly mention in your next issue any information you possess on those questions (which, I need not say, are of the most serious importance to the great bulk of our department), you will much oblige, yours, etc.,

EXTORTION.

NAVAL MEDICAL APPOINTMENTS.

EVANS, Staff-Surgeon Edward H., to the *Resistance*.
FINNICANE, Fleet-Surgeon Daniel, to the *Endymion*.
GALLOWAY, Surgeon W., to the *Raleigh*.
KNOTT, Staff-Surgeon Thomas H., to the *Fawn*.
MCCLENTON, Fleet-Surgeon William F., to the *Iron Duke*.
MACDONNELL, Staff-Surgeon Henry, to the *Plover*.
MCCORDY, Staff-Surgeon R. H., to the *Excellent*, additional, for temporary service.
RIDOUT, Surgeon C. L., to the *Hibernian*.
ROBERTSON, Staff-Surgeon George, to the *St. Vincent*, additional, for temporary service.
SCOTT, Staff-Surgeon A., to the *Aurora*.
THOMASON, Staff-Surgeon William J., to the *Asia*, additional, for temporary service.
TRIMBLE, Staff-Surgeon James, from the *Endymion* to the *Sirius*.
TROUSDALE, Surgeon Alexander R., to the Plymouth Hospital.
VOLLATTI, Surgeon W. J., to the *Asia*.
WALSH, Fleet-Surgeon James C., to the *Daphne*.
WHITNEY, Staff-Surgeon J. S., to the *Iron Duke*.
WODSWORTH, Surgeon William D., to the *Pallas*.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on the 10th instant; and, when eligible, will be admitted to the pass-examination.

Messrs. Isaac Holmes, Joseph Denison, and Alfred N. Young, students of the Liverpool School; Henry Evans; and Arthur M. Kavanagh, of the Dublin School; Francis N. French, and Walter Muir, of the Manchester School; Howell H. White, and William Bourke, of the Edinburgh School; Thomas Millar, and Joseph Alland, of the Glasgow School; William H. Wheeler, of the Bristol School; Walter H. Cheetham, of the Leeds School; Wm. Dales, of the Sheffield School; and Arthur Harding, of King's College.

The following gentlemen passed on the 11th instant.

Messrs. Thomas Bushby, Patrick Canavan, Walter T. Clegg, T. W. Owen Pugh, Walter O. Beckett, Alexander Faulkner, and Herbert Barron, of the Liverpool School; William J. Pegge, John Sutcliffe, Chas. P. Mitchell, and John H. Thompson, of the Manchester School; Frederick W. Storry, Walter H. Brown, and George H. Rowe, of the Leeds School; Spencer F. Beard, of the Sheffield School; Frederick J. Waldo, B.A. Cantab., of the Cambridge School; George M. Smith, of the Bristol School; William J. Lory, of University College; Thomas Spurgin, of Guy's Hospital; Robert S. Hawks, of St. Bartholomew's Hospital; and Herbert W. Thomson, of the Charing Cross Hospital.

The following gentlemen passed on 12th instant.

Messrs. Rees T. E. Davies, Neville S. Whitney, and Charles B. Hill, of University College; Charles J. Lathbury, James E. Nicholson, and John S. Walker, of St. Bartholomew's Hospital; Joseph S. Fallow, and Thomas G. Munyard, of the Westminster Hospital; George J. C. Thomson, and Arthur E. R. Bowen, of St. Thomas's Hospital; William A. Phillips, and Frederick B. J. Baldwin, of Guy's Hospital; William E. Dixon, of the Middlesex Hospital;

John H. Bertolacci, of St. George's Hospital; Thomas A. Colt, of the Bristol and Charing Cross Hospitals; and Edward S. Vachell, of the Bristol and London Hospitals.

Twenty-four candidates out of the seventy-six examined, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 6th, 1876.

Anderson, Charles Morton, Mowle, co. Donegal
Giles, Peter Broome, Staunton-on-Wye
Johnston, John, Ampton Place, W.C.
Paul, Reginald, Langport, Somerset
Robertson, George Scott, Dover Street, Piccadilly
Stacpoole, Charles Aitken, Stafford Place, W.

The following gentlemen also on the same day passed their primary professional examination.

Hearnden, William Frank, Guy's Hospital
Scriven, John Swain, St. Mary's Hospital
Rawson, Ernest, St. Bartholomew's Hospital
Vlieland, Charles James, St. Bartholomew's Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

AMERSHAM UNION—Medical Officer. Salary, £50 per annum. Applications on or before July 17th.

BIRMINGHAM FRIENDLY SOCIETIES' INSTITUTION—Surgeon. Salary, £180 per annum, with residence, etc. Applications on or before July 18th.

FESTINIUG UNION—Medical Officer. Salary, £60 per annum. Applications on or before July 24th.

FISHERTON HOUSE ASYLUM—Medical Officer. Salary, £100 per annum, with board and lodgings. Applications to the Asylum.

HOSPITAL FOR WOMEN—House-Physician. Applications on or before July 30th.

INFIRMARY FOR CONSUMPTION, 26, Margaret Street—Visiting Physician. Applications on or before July 20th.

KEIGHLEY—Medical Officer of Health. Salary, £100 per annum. Applications on or before July 25th.

MANCHESTER ROYAL EYE INFIRMARY—House-Surgeon. Salary, £70 per annum, with board, etc. Applications on or before August 1st.

MITTFORD and LAUNDITCH UNION—Medical Officer. Salary, £45 per annum. Applications on or before July 14th.

NORTHAMPTON FRIENDLY SOCIETIES' INSTITUTE—Medical Assistant. Salary, £120 per annum, out door. Applications on or before July 17th.

NORWICH MEDICAL INSTITUTE—Surgeon. Salary, £150 per annum. Applications early in July.

ST. GEORGE'S and ST. JAMES'S DISPENSARY—Physician. Applications on or before July 27th.

SAMARITAN FREE HOSPITAL FOR WOMEN—Physician. Applications on or before July 15th.

WORCESTER FRIENDLY SOCIETIES' ASSOCIATION—Medical Officer. Salary, £170 per annum. Applications on or before July 17th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CASSIDY, David M., M.D., appointed Medical Superintendent of the Lancaster County Lunatic Asylum, *vice* John Broadhurst, F.R.C.S. Eng., resigned.

FOSBROKE, F. J. R., L.R.C.P., appointed House-Surgeon to the Dewsbury Hospital and Dispensary.

HILL, K. Bryden, M.B., appointed House-Physician to the Hertford British Hospital, Paris, *vice* Dr. Baillie Cormack, deceased.

KING, William L., M.R.C.S. Eng., appointed Assistant Medical Officer to the Suffolk County Asylum.

MACPHERSON, F. A., L.R.C.P. Ed., appointed Assistant House-Surgeon to the Liverpool Dispensaries, *vice* W. Clibborn, M.B., resigned.

TATHAM, Garnett G., L.R.C.S.E., appointed Medical Officer to the Salford Fever Hospital.

WILLIAMSON, James M., M.D., appointed Resident Medical Officer to the St. Marylebone General Dispensary, *vice* T. W. Barron, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

WATSON.—On July 6th, at Tottenham, London, the wife of *W. Tyndale Watson, M.D., of a son.

MARRIAGES.

DAVIES—GRIFFITHS.—On the 11th instant, at St. John's Church, Bishop's Castle, Shropshire, by the Rev. W. M. Rowland, M.A., Vicar, assisted by the Rev. J. Rees, B.A., Pontypool, John W. Davies, L.R.C.P.L. & M.R.C.S.E., of Pontypool, Monmouthshire, to Helen Maria, youngest daughter of Thomas Griffiths, Esq., Solicitor, Bishop's Castle.

RÜCKER—HEATON.—On July 5th, at St. George's Church, Leeds, by the Vicar, the Rev. S. Adams, M.A., assisted by the Rev. C. L. Dundas, M.A., Vicar of Charlton-King's, Gloucestershire, Arthur William Rücker, M.A., Fellow of Brasenose College, Oxford, eldest son of D. H. Rücker, Esq., of Clapham Park, Surrey, to Marian, second daughter of *J. D. Heaton, J.P., M.D., F.R.C.P., of Claremont, Leeds.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY ... St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY ... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY ... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

LONDON HOSPITAL, Saturday, June 15th, 2 P.M. Subcutaneous Osteotomy of Femur: two cases with chisel. By Mr. Maude.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

COMMUNICATIONS TO THE "JOURNAL".

We have again to impress upon our correspondents that as the bulk of communications addressed to the JOURNAL is considerably in excess of its space, the task of selection will be greatly facilitated by the observance of studied conciseness.

SIR,—Can you, or any of your readers of the JOURNAL, inform me if and where I can obtain some plain printed directions to promote cleanliness of the person and home, for distribution among the poor?—I am, sir, yours respectfully,
31, Pembury Road, Lower Clapton, E., July 7th, 1876. Hy. APPLETON.

* * * Our correspondent had better apply to the Secretary of the National Health Society, 63, Berners Street, W.

TREATMENT OF CHRONIC ECZEMA.

SIR,—I would feel grateful to any of your readers who could suggest a remedy for a case of chronic eczema of the last two phalanges which has existed for about six months. The patient is a temperate man, forty-six years of age, corpulent, and otherwise enjoys excellent health. He has never been engaged at an occupation calculated to cause irritation of the fingers. It is his first attack. The medicines given internally have been arsenic and iodide of potassium: he is at present taking pitch pills. Locally, a weak alkaline lotion, applied on a thin film of cotton-wool, and covered with oiled silk, as recommended by the late Professor Bennett, gives speedy relief from the smarting, but exerts no curative effect on the disease.—I am, sir, your obedient servant,
L.R.C.P.

NON-PROFESSIONAL ADVERTISEMENTS.

SIR,—I enclose you a cutting from the *Westminster Gazette* of to-day. On referring to the *Directory*, I find his name there as a fully qualified practitioner. I intend bringing the matter before the College of Surgeons.—I remain, yours truly,
GUSTAVUS HARTRIDGE, F.R.C.S. Eng., L.R.C.P. Lond., etc.

Kendal, July 1, 1876.

"*Bad Legs*."—T. Clarkson, Esq., Surgeon, M.R.C.S., celebrated for curing bad legs. Marvellous cures after thirty years' suffering. Many hospital cases discharged incurable. References given throughout England. A few local cures from fifty others. Mrs. Hall, Catherine Holme; Mrs. Richardson, Great Ashby—both near Appleby; Mrs. Wilson, Ulpha, Grange over Sands; Mrs. Burrill, Winton, Brough; Mrs. Wilson, Cuswick Hall, near Kendal.—Mr. C. may be consulted at the King's Head Hotel, Appleby, on Tuesday, July 11th, from 12 till 2; and at the Old Crown, Penrith, from 3.30 till 5.30; and on Wednesday, the 12th, at the Rainbow, Kendal, from 10 till 12.—N.B. Being doubly qualified, he may be advised on any other case. Address—Darley, Ripley, Yorks."

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

NERVOUS SHOCK COMMUNICATED TO THE SUCKLED BABE.

SIR,—An instance of this nature came under my notice a few years ago. Two days after the birth of a healthy child, the mother, who is a lady of a refined and cultivated mind, was suddenly informed of the death of a little girl to whom she was greatly attached, and who had left her in perfect health a few days before her confinement. The infant was seized with epileptiform convulsions a few hours after being suckled; and the mother, of her own accord, referred the attack to the state of her own mind. The attacks frequently recurred, and one proved fatal when the child was about three months old.

The frequent occurrence of symptoms of disturbance of the nervous system in young children, clearly connected with the state of the maternal mind, fully supports the view taken by Mr. Benkenne of the case mentioned in the last number of the JOURNAL.—I am, yours faithfully,
ROBT. JAMES LEE.

SIR,—Allow me to inform your correspondent on this subject, Mr. H. Ernest Trestrail, that there is more than one genuine case on record of death under these circumstances. The cause of death is not suffocation, as he supposes, but alteration in the secretion of milk from adverse emotional influences. In a word, the quality of the milk becomes poisonous, instead of being nutritious. I have myself seen convulsions in the suckled infant thus produced, and, having thus seen the minor, I have no difficulty in believing in the major, effect. The case of a mother falling down in a fit without affecting her sucking child is not a parallel instance, because a fit is simply a physical condition, whereas, in the case of a sudden shock to the mother, it is the moral being that is primarily affected, the physical result being secondary. The want of distinction between these two circumstances causes disbelief in a known fact, and makes that which is capable of very easy explanation to appear incredible. Again, although Dame Cow may in one sense be said to be the wife of John Bull, the female animal is not so susceptible of emotional influences as the woman; and her pathology under such circumstances, like her anatomy, must be considered as comparative, and not identical. I will not undertake to assert that "the attacks of tireless dogs" would not affect the secretion of milk in the cow, but I am quite confident that they would affect the nursing woman in a much greater degree. This is not "a milk-and-water hypothesis." The profession is beginning to recognise that these and similar circumstances are worthy of careful and attentive consideration, if our patients are to be treated reasonably and properly, and not by jumping to wrong conclusions, "all of a whirl!."—I am, sir, yours obediently,
D. DE BERDT HOVELL.

Five Houses, Clapton, Middlesex, July 1st, 1876.

SIR,—Mr. Trestrail, replying to a letter by Mr. Benkenne on "nervous shock communicated to the suckled babe," says, "Who ever before heard of such a thing?" In answer to this, will you allow me to record a case which occurred in my practice some time ago?

Mrs. A. was sitting in her room suckling her infant, a healthy vigorous child aged four months. A neighbour ran in, exclaiming "Johnny (an elder child of Mrs. A.) is run over." The mother, greatly frightened, started up and ran to the door, still suckling the baby. In a few minutes, when order was restored, she looked down at her infant, and was alarmed by its death-like appearance. I saw the child within a quarter of an hour, and found it collapsed and almost pulseless. With difficulty some brandy was administered, and gradually, though slowly, perfect recovery took place.

If this were not a case of nervous shock communicated to the suckled babe, I should be glad to hear Mr. Trestrail's explanation of the symptoms I have described.—I am, sir, yours truly,
C. T. BROOKHOUSE, M.D.

POISONING BY VIRGINIAN CREEPER.

SIR,—The case (related in the BRITISH MEDICAL JOURNAL July 1st, 1876, p. 32) may be further elucidated by reference to the history of the natural order to which the plant belongs, the *Vitaceæ*, or Vine Tribe. Henslow says (ed. Masters, p. 249): "The sap of the stems and leaves generally of the order is sour, containing tartaric acid." Carpenter says *Vegetable Physiology*, art. Annelidae: "In the Virginian creeper there is a considerable amount of acid in the leaves, which causes them, when bruised and applied to the skin, to raise blisters; hence these plants have been used medicinally in some countries, but not with any peculiar advantage." Lindley says *Flora Medica*, p. 65 that two other plants of this order (*Cissus setosa* and *C. acida*) are exceedingly acid in every part.—I am, etc.,
W. E. C. NOURSE, F.R.C.S.

THE CASE OF MISS MARTINEAU.

The *Saturday Review* and other papers, in alluding to the death of Miss Martineau, take a sly slap at the medical profession as not giving credit to the cure said to have been obtained in her case by the use of mesmerism. They, however, quite mistake her case, and any one referring to the *Medical Gazette* for 1844 will there see that her case was not one of heart-disease; that it was one the nervous symptoms of which might be relieved by the soothing effect of so-called mesmeric passes operating on the periphery of the nervous system, but that the real disease was one gradually relieved by *bona fide* medical treatment, ultimately giving way to it, combined with rest and other hygienic treatment. The case came then before the public in a form that was to be lamented, and created much bitterness of feeling amongst her friends; but there is nothing in the case from beginning to end to cause anything but wonder that a woman of such a logical mind should have been so far led astray by the *post hoc* argument. I do not by any means wish it to be inferred that no treatment should ever be adopted unless we had good scientific evidence of its value. If mesmeric passes relieve suffering, adopt them by all means; but in placing value on their effects, be careful to discriminate between what we think has relieved us and what has real connection with the removal of the disease. Where Miss Martineau failed was in at once adopting the idea that her cure was the result of the mesmerism because she happened to obtain relief just at the period she adopted its use, whereas her medical attendant knew that just at that period the *real fons mali* was being gradually removed.

Cullen used to say that he found it as easy to throw dust in the eyes of learned judges and advocates in medical matters as in those of the weakest and most ignorant; and when we see learned prelates and statesmen faithful believers in homoeopathic globules, I fear that little progress has been made by the public at large in real scientific medical and surgical knowledge.—I am, sir, your obedient servant,
Portlaid, July 1876. JAMES MARTIN.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

XANTHIUM SPINOSUM.

SIR,—The parcel I send for acceptance is one of "*xanthium spinosum*", the specific against hydrophobia used by Dr. Grzymala of Krivoli Ozero, Podolia, and referred to in your JOURNAL. This reference was also noted in *Public Opinion*. The words on the official Russian seal (Krivoli Ozero) will vouch for genuine transit. Trusting the plant may be further instrumental, and hoping I am not doing wrong to trouble you, I am, sir, obediently yours,
W. E. MELLERSH.
Liverpool, July 12th, 1876.

* * * We hold this sample, which Mr. Mellersh has been so obliging as to forward, at the disposal of any qualified person who may have an opportunity of putting it to useful purpose.

ERRATA.—At page 7 of the JOURNAL for July 1st, column 2, line 12 from bottom, for "syphilitic," read "syphilitic"; and at page 2, line 25, for "cancer or diseased bone," read "cancer or diseased bone". At page 40 of last week's JOURNAL, column 2, second line of Dr. Grainger Stewart's note, for "December 24th," read "June 24th".

ANIMAL VACCINATION.

SIR,—"*Medicus*" asks (July 8th), "Can any of your readers inform me if vaccination direct from the cow is now practised? If so, by whom, and with what result?" In reply to this query, allow me to say that in Brussels vaccination from the calf is largely practised by the Belgium State Institute, managed by Dr. Warlomont. So successful is this method of vaccination found to be in Belgium, that Dr. Warlomont, in a pamphlet he has recently asked me to translate, informs us that, although the State Vaccinal Institute has been at work only some five years, out of 2,000 medical practitioners in Belgium, about 1,000 make use of animal vaccine points sent by him.

I take the liberty to enclose a little pamphlet on the subject recently published by myself, and remain, sir, yours, etc.,
CHAS. R. DRYSDALE, M.D.
17, Woburn Place, W.C., London, July 8th, 1876.

PRIVATE FORMS OF PRESCRIPTION.

SIR,—I read Mr. Lucas's letter in the JOURNAL of July 1st on "private forms of prescription," and it did not strike me that there was any ground for Dr. Palfrey's remark, that "Mr. Lucas's letter is filled with an insinuation which, reduced to plain English, means this, that I for a distinct money consideration, did induce Miss K. to take my prescription to Messrs. Probyn, in order that I might derive profit and advantage by the doing so." It seemed to me that Mr. Lucas very properly drew the attention of the profession to a form of prescribing by a London physician which would not enable an ordinary pharmaceutical chemist to prepare the drugs. The preparations ordered by Dr. Palfrey are, I presume, those numbered "81" and "177" in Dr. Kirby's syllabus: "81" pills are called pil. tonic, and are stated to be prepared as under.

R. Quinze sulph. gr. xij; ferri sulph. ex. gr. xij; ext. nucis vom. gr. vj; ext. quassia gr. vj. M. ft. pil.

I presume this mass of gr. 36 is subdivided, though the syllabus does not say so; nor am I responsible for the Latinity, as far as it goes (*quassia*).

I presume Dr. Palfrey's second prescription—R. *Misturae acidi nitro-hydrochlorici c. ferro et strychnia* ʒj (Kirby's); *ter die*—refers to formula 177, as it is the only formula I can find in the book at all corresponding; but Dr. Kirby calls it "mist. tonici acidi," and the dose is stated at two drachms diluted. If I am correct in my supposition—for which I give you data—there was an urgent necessity for such prescriptions to go to a chemist who knew Dr. Palfrey and his mode of prescribing. It is at best a very slipshod one, and nothing, in my opinion, can justify hurrying of prescribing, or, as Dr. Palfrey writes, "in the hurry of writing, or while writing and talking to my patient simultaneously, I have omitted the word 'Kirby'".

It was, I think, beneath Dr. Palfrey to write in the preamble to his letter about what Mrs. X. told him as to the long-continued attendance of the previous medical advisers; and I feel sure that, on reconsideration, he will much regret that Messrs. Probyn's laudatory letter ever saw the light. If Dr. Palfrey has so much to do that he must use formulae in his prescriptions, he might surely transfer some of his patients to some poorer brother, who can afford the time to write prescriptions which may be read by all chemists.—Your obedient servant,
M.D.

ETIQUETTE OF PRINCIPAL AND ASSISTANT.

SIR,—I have shown, by reference to Dr. McCook Weir's handwriting in the case-book, that on September 10th last, a female patient broke her thigh-bone in his presence, and that on the fourth day afterwards (the 22nd) he examined the patient for the first time, whilst in the BRITISH MEDICAL JOURNAL he alleges that she fell on the 22nd, and he attended to her next day. In your last week's issue, he tries to shift this inaccuracy upon the shoulders of a female nurse, who had nothing whatever to do with writing a history of the case, or in causing the discrepancy, and no interest in suppressing the fact of inattention for such a length of time. Dr. Weir's own version of this is, that "the dates in the case-book are but an approximation to the truth, whereas those published express as accurate a clinical opinion as he could possibly give". How a wrong date or any date could express an accurate clinical opinion, is a problem which I leave for your readers to solve.

As principal of this large medical establishment, I cannot allow it to go forth without a protest, that the recuperative powers of a person gradually dying of general paralysis, bed-sores, and diarrhoea, are illimitable, and that the same patient could dance a polka while suffering from an ununited fracture of the femur.

Dr. Weir claims vainly the title of Deputy Superintendent. It is true that he has occasionally performed my duties during my temporary absence, but the law does not recognise any other name for the person so acting than that of Assistant Medical Officer.

Dr. Weir's statement about myself, "that I have declared" (he does not say when or where) "that it is equally illegal to write about the living as to cut up the dead," is so preposterous as to carry with it its own refutation. A person must indeed be far gone in *caecothese scribendi* to pen such a proposition as that. One of Dr. Weir's countrymen, Sir Dominic Corrigan, gave some excellent metaphorical advice about five weeks ago, which I recommend Dr. Weir to lay to heart, "Don't put your poker into another man's fire". If, however, he should be tempted to do so, let him at least be courteous to his host, and be particular about the date and result of the transaction.—Yours truly,

W. P. PHILLIMORE, M.B., Superintendent.

County Lunatic Asylum, Sionton, Nottingham, July 10th, 1876.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, twelve o'clock.

THE USE OF THE GUM-LANCET.

"Convince a man against his will,
He's of the same opinion still."

SIR,—Notwithstanding the attempts of your correspondents to convince Dr. Robert Huntley as to the proper use of the gum-lancet, he seems determined, in his *furor scribendi*, to receive no other dictum than his own errors; but still he must be admired for his candour in trying to make the best of a bad matter. He took my letter, which appeared in the JOURNAL of May 13th, and made a nose-o'-wax of it—a lame endeavour to suit his own practice; but, finding himself balked in this, and unlike the humility of men willing to assert a conviction, he betakes himself to me for shelter, on the score that "ambiguity of expression" existed on my part. Is it not singular that, of all the correspondents referring to the case in point, he should be the only one who should find it so? Unfortunately, this is the only broken weapon he has for his defence; and I would here remind him that, even in the use of the gum-lancet, *artem discendi* is not *artem legendi*, and once for all, in most emphatic terms, assert that lancing the gums is a popular demand, much too frequently resorted to by many members of the profession. Has Dr. Huntley forgot that universal laws manifest themselves only by particular instances? for though lancing the gums is frequently needed, and the relief thus afforded is sometimes very striking, it is not a proceeding to be adopted irrespective of all other considerations, nor is it a "harmless operation, indispensable in the treatment of the ailments of children". Let me ask him, has he never been compelled to discontinue it on account of the pain and alarm which it excited, bringing on perhaps a violent spasmodic seizure? If not, let me warn him of this, and if he neglect it, he will not be erring "on the safe side".

Without any premises for an argument in favour of his practice in the treatment of such cases as the above, he attacks me for the use of the phrase "ancient Dr.", which, by the way, is merely a quotation from a letter by another member of the profession, which is not, however, my justification for using it. But what he finds fault with I am at a loss to know, for in his concluding sentence he admits that the word implies "age and experience, very respectable and valuable qualities", and I have no doubt that "*Arte non Vi*", with myself, heartily endorses the same.

I am, sir, yours faithfully,
Matfen, July 1st, 1876.

ROBERT TORRANCE.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Sir R. Christison, Bart., Edinburgh; Sir Joseph Fayer, London; Dr. Quain, London; Mr. Lister, Edinburgh; Dr. Andrew Clark, London; Dr. Heaton, Leeds; Mr. John Simon, London; Dr. Grainger Stewart, Edinburgh; Mr. W. Bowman, London; Dr. Lyon Playfair, London; Dr. Rutherford, Edinburgh; Dr. Drapes, Enniscorthy; Enquirer; M. H.; M.B., LL.M., M.R.C.P.; Dr. Eaton, Cleator Moor; Mr. Alfred Eddowes, Shrewsbury; Dr. Drysdale, London; Dr. Stewart, Barnsley; Dr. Cassells, Glasgow; Mr. Husband, Whitby; "Temporary Unattached"; "Extortion"; Mr. Clark, Pewsey; Dr. Dabbs, Newport, Isle of Wight; Dr. Ransom, Nottingham; Mr. George Eastes, London; Dr. B. W. Foster, Birmingham; Dr. James Sawyer, Birmingham; L.R.C.P.; M.D., M.R.C.P., London; Dr. J. Milner Fothergill, London; Dr. W. Fairlie Clarke, Southborough; The Registrar-General of England; Dr. Phillimore, Sionton; Mr. G. Rice, Manchester; Mr. Manby, Cambridge; The Secretary of Apothecaries' Hall; Mr. Williams, Liverpool; The Registrar-General of Ireland; Mr. T. M. Stone, London; Dr. Bradbury, Cambridge; Dr. Underhill, Edinburgh; Mr. Edwards Moss, London; Dr. Lownds, Egham Hill; Dr. J. W. Martin, Portlaw; Mrs. Wynter, Twickenham; Mr. Walter Lattey, Southam; Mr. Samuel Oldham, Burslem; Mr. Jonathan Hutchinson, London; Dr. G. H. Philipson, Newcastle-on-Tyne; Dr. Herbert Morgan, Lichfield; Mr. Berridge, London; The Registrar of the Royal College of Physicians; Dr. Leeson, Blackburn; Dr. Carson, Liverpool; Dr. Goldie, Leeds; Mr. Mellersh, Liverpool; Dr. Annington, Cambridge; The Registrar of the General Medical Council; Dr. M. G. Evans, Narberth; Mr. Francis Mason, London; Mr. G. Meadows, Hastings; Dr. Burdon Sanderson, London; Mr. N. Crisp, Keynsham; Mr. Balmanno Squire, London; Mr. Hodgson, Brighton; Dr. D. De Bert Hovell, Clapton; Dr. Lory Marsh, London; Mr. Wrench, Sheffield; Mr. Gornall, Warrington; Dr. Sharpey, London; Rev. Llewellyn Davis, London; Major Bethune, London; Mr. S. S. Alford, London; Dr. T. S. Cobbold, London; Mr. R. A. Gibbons, Ipswich; Dr. Thin, London; Mr. R. R. Lloyd, St. Alban's; Dr. R. Barnes, London; Rev. Lewis Carroll, London; Dr. Hime, Sheffield; Dr. Hutchinson, Scarborough; Dr. Wilks, London; Dr. Wiltshire, London; Mr. Ceely, Aylesbury; Dr. B. Roth, London; Mr. J. N. Radcliffe, London; Mr. J. T. Clover, London; Mr. T. H. Bartlett, Birmingham; Dr. Brown, Rochester; Mr. J. S. Gamgee, Birmingham; Dr. Braidwood, Birkenhead; The Secretary of the Obstetrical Society; Dr. Finlayson, Glasgow; Dr. J. W. Moore, Dublin; etc.

A LECTURE ON THE PROGNOSIS OF CEREBRAL HÆMORRHAGE.

By JULIUS ALTHAUS, M.D., M.R.C.P.,

Physician to the Hospital for Diseases of the Nervous System; etc.

GENTLEMEN,—Not fewer than twelve thousand persons die annually in England and Wales of cerebral hæmorrhage; and we may assume that at least twice as many people living in these parts suffer from the effects of it. It constitutes, after convulsions, the most fatal of all diseases of the nervous system, carrying off year by year, with unerring certainty, more victims than either paralysis, epilepsy, or insanity. If we consider it only numerically, therefore, cerebral hæmorrhage must be ranked with the most important diseases which we are called upon to treat in practice; but, as it threatens the life chiefly of the aged and the middle-aged, that is, practically speaking, the heads of families, its importance appears by this circumstance to be considerably increased, for the social position of entire families is often completely altered by its occurrence.

In spite of its frequency and importance, however, the anatomical and clinical features of cerebral hæmorrhage have only of late been more accurately ascertained. The old ideas about its being due to the rupture of an atheromatous blood-vessel are still found in the textbooks; and many highly significant symptoms, which are not only of great pathological interest, but also of considerable value for determining the prognosis of the affection, are not yet familiar to practitioners, from attention not having been sufficiently directed to their occurrence and meaning.

I have, on a previous occasion, fully gone into the anatomical part of the subject; and I will, therefore, now only remind you that cerebral hæmorrhage may take place—

1. *By rupture of the large cerebral arteries*, such as the middle cerebral and basilar, after these have undergone aneurismal dilatation.

2. *By rupture of the capillary vessels*, which is generally caused by injury to the head, either direct or by contre-coup; but also occurs in the course of that chronic inflammation of the grey matter which is found in some forms of mental disease; and may be consequent upon embolism and tumours which grow in the cerebral substance and corrode the coats of the blood-vessels. It is also occasionally observed in leucæmia, where it is owing to accumulation of white corpuscles in the capillary vessels, which thus gradually become distended, blocked up, and ruptured.

3. *In consequence of contracted granular kidney*, which leads to blood-poisoning, and consequent over-action and hypertrophy of the coats of the arterioles, and hypertrophy of the left ventricle. In cases where the hypertrophy of the coats of the cerebral arterioles is not sufficient to counterbalance the excessive impulsive force of the left ventricle, cerebral hæmorrhage from rupture of these arterioles may be the consequence.

4. *By far the most important form of cerebral hæmorrhage*, however, is that which occurs by rupture of the cerebral arterioles, after these have undergone the change known as miliary aneurismal dilatation. *Miliary aneurisms* were first described by Virchow; but their frequent occurrence, and their importance for the pathogenesis of the common form of cerebral hæmorrhage, was first pointed out by Charcot and Bouchard. It is this latter form, which occurs in the immense majority of cases of what is commonly called *apoplexy*, and constitutes a disease of itself, which has special clinical and pathological features. To be able to make a reliable prognosis in such cases is quite as important for the physician as it is to treat them; and this is absolutely impossible without knowing what significance to attach to certain symptoms, which, by their presence or absence, or their degree of intensity, will serve to render the prognosis hopeful or the reverse.

Your first duty, on being called to a patient suffering from the symptoms of cerebral hæmorrhage, is to make a diagnosis of the case, which in most instances is not difficult. Immediately afterwards, however, the question will be asked of you, whether the attack is likely to prove fatal or not; and, in case the patient should have recovered from the apoplectic condition which in general accompanies cerebral hæmorrhage, whether he is likely to recover the faculties of speech, motion,

and sensation, which may remain lost after the immediate danger to life has ceased, or whether he will remain in the condition of

"Paralysis, grim foe to men of mind,
That lies in ambush for them treacherously,
And lays them prostrate down, as with a mace."

The quantity of blood which may escape from one or several miliary aneurisms varies from a few drops to four and even six ounces; and the less blood is effused the better will be, *ceteris paribus*, the patient's prospects. Where the effusion is very small, the only symptom may be numbness, and some awkwardness in using the hand, and in walking; but, in the large majority of cases, so much blood is poured out into the cerebral substance as to cause the condition of apoplexy.

Cerebral hæmorrhage never kills with the same rapidity as some forms of heart-disease; and what French authors call "*apoplexie foudroyante*" does not really deserve to be compared with the rapidity of a lightning-stroke, for even in those cases which are most rapidly fatal, viz., where the bleeding takes place from the rupture of an ordinary aneurism of one of the basilar arteries, the least interval between the commencement of the symptoms and the fatal issue has been seven minutes, and it will commonly take from fifteen to thirty minutes. Compare with this the case of my late colleague at this institution, Dr. Thompson Dickson, who suffered from disease of the aortic valves, and who one day, while he was driving with his wife and talking to her, suddenly leant forward, and was found to be dead. Syncope, indeed, may kill as quickly as lightning, but you will see that the term "*apoplexie foudroyante*" is a misnomer.

In the large majority of fatal cases, from six to twelve hours elapse between the beginning of the illness and its end; and that this should be so is easily accounted for by the circumstance that the size of the miliary aneurisms is rarely above that of a pin's head, and that it is, therefore, physically impossible that a quantity of blood sufficient to kill should escape from them in a very short time. It is well known that the brain is able to bear the presence of a small quantity of blood in some of its parts, without resenting it violently; and the anæmia of the organ, which is caused by the hæmorrhage, must have reached a considerable degree before it proves to be incompatible with life.

A most important element in the prognosis of apoplexy is *time*; and although a number of cases only prove fatal on the fourth or fifth day after the commencement of the symptoms, either from collapse or from cerebral fever, yet it is the fact that, the longer the attack lasts without death taking place, the more hope there is for recovery, as far as life is concerned.

In cases which are to end fatally early, that is, within twelve hours from the commencement, you will be guided in your prognosis by the high degree of intensity of all the symptoms of apoplexy. Amongst these, I would direct attention, foremost of all, to those signs which are given by *thermometric observation*; and you should never be without your clinical thermometer at the bedside of such a patient. Quite in the commencement of the attack, and particularly where the hæmorrhage is not abundant, the temperature remains normal; but, after ten or fifteen minutes, the thermometer in the rectum or the arm-pit shows signs of falling. Respiration may still be quite regular, and the pulse may beat quietly at the rate of 70 or 76, yet you will see the mercury receding to 97 deg., 96 deg., and even 95 deg. Where this fall takes place rapidly, and reaches the lowest degree just mentioned, the prognosis is bad; while, if the fall is only slight, say one degree or one and a half, and is protracted in its production, the prognosis is generally favourable.

What is the cause of this considerable fall of temperature? Bournville and Charcot, who were the first to point out these changes, are quite silent on this point. I believe that we must look upon this fall as a symptom of irritation or spasm of the controlling centres of heat-production; and that it has the same clinical significance as convulsions and rigidity of the muscles of the extremities, and conjoint lateral deviation of the head and eyes, which are also prominent and significant symptoms of the apoplectic seizure. Where there are severe convulsive attacks, lasting for many minutes, and where the head and eyes are persistently turned away from the paralysed side, you may conclude that the hæmorrhage is progressing more or less rapidly, and that the blood is irritating and undermining the central ganglia, previously to its destroying their texture.

During this period of the attack, you have, therefore, partly symptoms of spasm and partly of paralysis—spasm where there is irritation, paralysis where there is compression or destruction of nervous matter. Consciousness and speech are at first impaired, but, after a time, lost; the energy of the special senses, and of common sensation, is diminished and gradually vanishes. A strong light, loud sounds, powerfully smelling or sapid substances, no longer convey any impressions to the anæmic brain, and the patient cannot be roused by any of the usual

modes of reviving consciousness. The face is distorted, and its expression utterly vacant; the pupil dilates; reflex action appears abolished, and the urine and feces are voided involuntarily. The sphincter ani does no longer offer any resistance to the introduction of a finger or an instrument. The automatic movements of circulation and respiration, which at first continued much in the same manner as they do during a heavy sleep, become affected in their turn. Inspiration is short, superficial, and irregular; the soft palate is heard to flap to and fro, producing stertor; and, from having been accelerated, respiration becomes retarded and intermittent. Mucus accumulates in the air-passages, and laryngeal, tracheal, and bronchial *râles* are heard. A frothy liquid, which is a mixture of saliva, buccal mucus, and air, is seen to run down the chin. The pulse is large, hard, and incompressible, more especially in the carotids—not from congestion, as has been erroneously supposed, but from the resistance encountered by the current of the blood, which cannot enter the intracranial blood-vessels, compressed as they are by the effusion.

Patients have occasionally recovered after presenting all, or nearly all, of the severe symptoms just mentioned; and none of them are, therefore, of the same prognostic importance as a great fall of temperature.

After a time, which varies from thirty minutes to thirty-six hours, the spasm in the centre ceases, either from the hæmorrhage being arrested, or from the blood breaking through into the lateral ventricles and into the fourth. The symptoms then become purely paralytic in their character; the lateral deviation of the head and eyes disappears; convulsions and rigidity cease; and the body-heat begins to rise more or less rapidly. Where this rise is extensive, it has the same unfavourable meaning as the fall in the commencement; and the mercury, now at 103 deg., 104 deg., or even 105 deg., corresponds in prognostic significance to the low readings of the first period. More especially where the temperature runs up rapidly, it is a sure sign of collapse, which is soon followed by death.

On the other hand, we find cases in which the thermometer, after a comparatively slight fall, rises only little, if at all, above the normal mean, but remains stationary at 98 deg. or 99 deg. This means that the hæmorrhage has been arrested; the opening in the military aneurism having been, as it were, sealed up by contraction of the clot, before the blood could have broken into the lateral ventricles. There is, therefore, now only a comparatively small cavity filled with blood, which may be expected, in course of time, to undergo its appointed changes. There is no lateral deviation of the head and eyes, no rigidity or convulsion of the limbs; the body does not appear so completely relaxed as before; the difference between the sound and the paralysed side—if there be paralysis—becomes more marked, one being quite relaxed, while the other offers some resistance on being moved, or carries out semi-voluntary movements; the patient begins to talk again in a dreamy fashion, and the coma gradually lightens into consciousness. The pulse becomes steadier, and respiration more regular, although the contraction of that side of the diaphragm which corresponds to the paralysed side is more feeble than that of the other side.

The prognosis in this stage, which may last for two or three days, still remains doubtful; for although the patient has escaped death from collapse, he is still liable to be carried off by the consecutive cerebral fever, which, in cases that are to end fatally, is apt to come on after the partial recovery just described has taken place. You have to be particularly careful, at this period of the malady, not to give too favourable an opinion about the prospects of the patient, for blame may be attached to you if you pronounce the patient out of immediate danger, and he die the next day of cerebral fever.

At this time, when the patient's fate hangs, as it were, in the balance, nothing will assist you more in forming a correct view of his condition than an *inspection of the nates*; for the first symptom of cerebral fever is almost invariably acute bed-sore in the buttock of the paralysed side.

An erythematous spot, or macula, appearing on the second, third, or fourth day on the part just mentioned, almost invariably heralds a fatal termination of the case; for this change in the nutrition of the skin and subjacent parts shows paralysis of the trophic intracranial centres, which precedes paralysis of the volitional centre only by a short time. The pathology of the process is the same as that of ulceration of the cornea after section of the fifth nerve. The cerebral macula has an irregular shape and varies in size; from being pink at first, it gradually changes into purple. Pressure will cause it to disappear, showing that there is only hyperæmia in the beginning. Probably, at your next examination of the parts, you will notice a great change; for rapidity of progress, a superacute course, is characteristic of this affection. The hyperæmia is succeeded by effusion of serum, and phlyctenæ are formed, which contain a liquid that is at first colourless, but shortly becomes sanguinolent and livid. The raised cuticle then gives way,

and an open sore is left, which has a scarlet surface, and appears covered with livid granulations. Gangrene is now fully established, and, if the patient survive long enough, inflammation sets in, by which the gangrenous parts are to be eliminated.

This acute bed-sore is quite different from that which occurs habitually, in consequence of prolonged pressure on the back and other parts, in the course of protracted disease, where the patients are bedridden, and where there is frequent involuntary evacuation of the urine and feces, which aids in the production of gangrene. Charcot, who has studied this condition more particularly, has found that it cannot be prevented by turning the patient over to the non-paralysed side, so as to avoid pressure on the buttock of the paralysed side; nor by frequent catheterism, whereby any contact of urine with the surface is avoided. Moreover, the bed-sore which occurs in protracted cases of spinal and other diseases, affects more the sacrum than the buttock, which constitutes another difference between the two.

In some cases, appearances similar to those just described are observed on the heel, ankle, and knee of the paralysed leg; and where the effusion has burrowed its way into the lateral ventricles, phlyctenæ may appear on both nates.

A rise in the temperature may be expected with certainty after the cerebral macula has begun to form; and the mercury will, in a comparatively short time, run up to 103 deg., 104 deg., and even 105 deg. At the same time, other symptoms manifest themselves which point to the impending dissolution. The patient throws himself about in a restless manner, and a low muttering delirium sets in, which is occasionally broken by loud moanings. The pulse becomes small and compressible, and runs up to 120 or more beats. Respiration is hurried and superficial, at the rate of 40 to 60 in the minute; and the abdomen is drawn in during inspiration, showing commencing paralysis of the phrenic nerve. The extremities become cyanotic, and completely relaxed. The face, and sometimes the whole body, is bathed in clammy perspiration; the neck is flabby, and the head will retain any position in which it is placed. Pulmonary complications sometimes set in a short time before death, and the temperature occasionally reaches its maximum shortly after the fatal issue.

Cerebral fever rarely occurs later than the fourth day of the attack; and if the patient, therefore, survive the fifth or sixth day without there being phlyctenæ and undue elevation of temperature, the prognosis as to the continuance of life becomes favourable. Nevertheless, you must impress the fact upon the patient's friends, that the condition of his arterial system renders further attacks probable; and it will depend upon the general features of the case, taken collectively, and your treatment of the case afterwards, whether such attacks are likely to come on sooner or later.

Amongst the various points which influence the issue of such attacks as just described, the *age* of the patient is a most important one. Clinical experience has shown that the young recover more easily from the complaint than the old; and the results of my researches on the mortality from this disease in England and Wales during the last forty years, enable us to give considerable precision to this point. A large number of infants die of apoplexy in the first year of age; but these are mostly cases of meningeal, and not of cerebral hæmorrhage. Of the latter, there are hardly any instances between the first and fifteenth year of life; after fifteen, they are "few and far between"; but at thirty-five there is a perceptible increase, and the numbers then gradually swell, until they reach an immense maximum between seventy and seventy-five years of age. Between seventy-five and eighty, the mortality from this complaint is still very large, while, after eighty, a rapid fall sets in; but, considering how few people are still alive at eighty, and the subsequent periods of life, the fatality of cerebral hæmorrhage does actually increase rather than diminish as age advances. I am, therefore, able to state in general terms that cerebral hæmorrhage is of slight significance up to thirty years of age; that its fatality increases *pari passu* with years; and that *the greater the age, the less is the probability of recovery from cerebral hæmorrhage*.

While, therefore, age must, in every individual case of this kind which may come under your observation, largely influence your opinion about the patient's prospects, you should know that *sex* has no such influence at all. It is true, that it has hitherto been generally assumed that males are more liable to die of apoplexy than females; but my investigations of this point have conclusively shown that such is not the case; that the sexes die in almost equal proportions of the disease; and that the slight excess which is found to exist is for women and not for men, the proportion in two hundred thousand consecutive cases being 1,000 for males to 1,009 for females. From this you will perceive that, for the purpose of prognosis, sex is devoid of practical importance.

The *constitutional condition* of the patient has, on the contrary, a

most important bearing on prognosis. Where cerebral hæmorrhage occurs from leukaemia or contracted granular kidney, the prognosis is unfavourable. Gout and syphilis are likewise undesirable complications, while the absence of constitutional faults will, *ceteris paribus*, render the patient's prospects more hopeful.

Finally, let me tell you that *treatment* may incline the balance towards recovery or death. The treatment by venesection, which was formerly much in favour, was thoroughly irrational, and generally followed by disastrous results; indeed, many patients have died of the remedy rather than of the disease. Venesection has lately fallen into disuse; but as it is still recommended in some text-books for this condition, I wish to impress upon you most strongly the fact, that the condition of the brain during cerebral hæmorrhage is not one of congestion, as was formerly believed, but of anæmia; that the organ not only loses blood largely, but is also, from compression of its arterioles through the clot, unable to receive a fresh supply of the reviving fluid; that death in this disease takes place chiefly from anæmia; and that, by resorting to phlebotomy, you simply increase cerebral anæmia still further, and thereby hasten the fatal result. *Eschew the lancet, therefore, as a deadly instrument in these cases.*

A simply expectant plan of treatment is recommended by the most recent writers on the disease; and there can be no doubt that abstaining from all active interference is far better than to bleed your patient. Molière, on his death-bed, cried out to his doctors: "*Laissez-moi mourir, mais ne me tuez pas!*" and the expectant plan of treatment certainly does not kill the patient, it only allows him to die. In spite, however, of recent authorities for doing nothing, a more active mode of treating cerebral hæmorrhage seems to me to be called for.

Your object must be to arrest the further effusion of blood from the ruptured coats of the milary aneurisms, by causing the vessels to contract. Now, many styptics must be inapplicable for these cases, because the patient cannot swallow, and even if medicines were introduced into his stomach, it seems most doubtful whether they would be absorbed. Nor can the rectum be used for the purpose of affecting the circulation, as there is frequently paralysis of the sphincter ani, and inability of the bowel to retain its contents. The hypodermic mode of administering medicines seems, therefore, to recommend itself, particularly in these cases; and the remedy I think most appropriate for them is ergotine.

There are two kinds of ergotine known to chemists, viz., Wiggers's and Bonjean's. The former is insoluble in water, ether, and dilute acids, but soluble in alcohol, strong acetic acid, and caustic potash; and, on account of these peculiarities, it is not suitable for subcutaneous injection. Bonjean's ergotine, on the other hand, is easily soluble in water, and it is this therefore which you should use. I am in the habit of injecting a grain of it every hour, or, where the symptoms are very urgent, even every half hour, into the subcutaneous cellular tissue; and although the experience of a single observer, in a disease like the one now under consideration, cannot count for much, yet I feel justified in recommending you to follow this practice, as being likely to save many lives.

The popular notion that *it is the third stroke which kills*, is quite fallacious, for, in a large number of cases, the first proves fatal; nevertheless, it is a fact that many patients succumb to a third attack. Others survive a third, and even further strokes, although in so enfeebled a state that they are left, as it were, only shadows of their former selves. There is gradual but plainly perceptible decay of the mental and physical faculties, owing to consecutive atrophy of the brain, and more especially of its cortical substance. Senile marasmus thus becomes established, and as there is much less resistance to injurious external influences than there was previously, a slight incident, such as a cold affecting the bronchial tubes, or intestinal catarrh, will rapidly destroy the patient's life.

It is impossible to answer the question definitively which will be sometimes asked of you, viz., when do you think that the patient will have another attack? A wide margin has always to be left here, and only the ignorant will speak with decision about this point. Where the patient at the time of the attack is still comparatively young and vigorous, he may still enjoy many years of good health afterwards, while no such prospect can be held out to the old and decrepit.

Do patients ever completely recover from an attack of cerebral hæmorrhage?

This question used formerly to be unhesitatingly answered in the affirmative. Even so recent an observer as Durand-Fardel states that, of twenty-seven cases of hemiplegia from hæmorrhage into the corpus striatum, which came under his observation, nine were cured, two nearly so, four remained weak in the affected limbs, one retained difficult articulation, one became imbecile, and ten remained hemiplegic. This proportion of recoveries, however, does not really occur; and if we were to accept

it without reserve, it would imply a far greater vitality of the previous generation, or more effective modes of treatment employed by our predecessors. You will be nearer the truth in assuming that our search for symptoms of disease is now keener than previously, and that we consequently discover them more frequently. Having had more than four hundred cases of hemiplegia, from hæmorrhage into the corpus striatum, under my care in hospital and private practice, I am enabled to state that complete recovery is the exception; and that even in those patients who professed to enjoy good health after a seizure, the memory was, as a rule, less ready, the speech less fluent, the power of application less enduring, and the sense of touch and the co-ordination of movements less quick than before the attack. Indeed, we must consider it highly gratifying if a fair amount of capacity for mental and physical exertion be regained by those who have suffered from the rupture of milary aneurisms in the cerebral substance.

Nor should it be a matter of surprise that such patients do not, as a rule, entirely regain their faculties. The blood which has been effused must, in the nature of things, destroy a number of nerve-cells which can never be regenerated, and whose place will ultimately be taken by connective tissue. The eventual loss of function will be proportionate to the extent and importance of the destroyed parts, and to the degree to which their place can be taken by allied structures in the neighbourhood of the lesion. A somewhat analogous case is that of a man who has had a portion of his lung consolidated by tubercular deposit, and who, although the activity of the disease may have been arrested, and retrogressive changes taken place in the tubercle which renders it innocuous to the system, can never be so strong as he might have been with the entire organ in full functional activity, although he may certainly enjoy a measure of health and strength.

The extent to which recovery of function may take place depends—

1. Upon the quantity of blood which has been effused. This varies from a few drops to several ounces; and the less escapes the better will be, *ceteris paribus*, the patient's prospects.

2. Upon the portion of the brain into which the effusion has taken place. Sensation is more easily re-established than motion; and hæmorrhage into the thalamus opticus seems to give better prospects of recovery than when the blood tears up the corpus striatum. Again, hemiplegia affecting the right side of the body is not only more serious in its aspect than that of the left, because it is almost invariably combined with loss or great impairment of speech, which, when lost, is never entirely recovered; but it also appears that patients recover the use of the left more readily than that of the right side of the body; to which must be added the circumstance that the left arm and hand are not nearly so essential to the patient as the corresponding limbs of the right side.

3. Upon the manner in which the effused blood is ultimately disposed of in the intracranial centre. You know that where the patient survives the stroke, the hæmorrhage is arrested after a variable space of time; the clot of blood contracts; the serum is absorbed; the solid parts shrink; and the vacuum which is caused by this contraction is filled up by the effusion of a liquid, which is at first homogeneous, but gradually assumes the characters of connective tissue, and ultimately forms a capsule which encloses what remains of the clot. Thus a kind of cyst is formed, which lies imbedded in the cerebral matter, and the size of which varies from that of a pea or cherry-stone to that of a small apple. The manner in which this apoplectic cyst is formed varies considerably, according to the constitutional powers of the patient; and a small clot in an aged person with enfeebled systemic energy, may cause more loss of function than a clot considerably larger in a comparatively young man of otherwise unimpaired vigour. In old decrepit persons, there is less contraction of the clot, and more liability to inflammatory irritation in the period of healing, whereby softening in the neighbourhood is induced, with its well-known consequences. In some cases, a subacute inflammatory irritation never completely subsides in the neighbourhood of the original lesion, and this is indicated by a high degree of rigidity and contraction of the paralysed muscles, with spasms and general systemic irritability, which is sooner or later followed by exhaustion and collapse.

In favourable cases, the formation of the apoplectic cyst is generally finished in about three months after the attack; and, in accordance with this, we find that the paralysis diminishes gradually up to that time, and remains more or less stationary after that period unless appropriately treated. In other cases, the paralytic symptoms increase, at a period varying from six to twelve months, and this must be looked upon as most unfavourable in a prognostic point of view; for it shows the commencement and progress of that peculiar form of granular disintegration of nervous matter which Türck and Cornil have shown to occur in the parts contiguous to the clot, and which may spread beyond the striated body and the optic chamber to the corresponding half of the

pons and the pyramid, down to the lateral column of the spinal cord. When this condition has been fully developed, no kind of treatment is of any avail; and it appears, therefore, for this reason alone, that your therapeutical efforts should not be postponed a day longer than you can help it. Ergot, in the form of the liquid extract, for the cure of any military aneurisms which may be in the process of formation; phosphorus, for improving the nutrition and function of the injured nerve-cells in the neighbourhood of the lesion; galvanisation and faradisation, for the stimulation of the paralysed parts, are our sheet-anchors in the treatment of this condition; and, if sagaciously used, will do infinitely more good than the merely expectant plan of treatment, which has hitherto been somewhat too much the fashion in these cases.

A FEW PERSONAL FACTS CONCERNING EXPERIMENTS ON ANIMALS OPPOSED TO THE FALSE FANCIES OF THE PERSECUTORS OF VIVISECTION.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.,

Physician Extraordinary to the Queen; Consulting Physician to the Brompton Hospital for Consumption from its foundation; Ten Years Professor of Medicine, University College, London; Late President of the Royal Medical and Chirurgical Society; and First President of the Pathological and New Sydenham Societies.

1. In February 1835, assisted by several able physicians and surgeons, I conducted an investigation of the causes of the sounds of the heart. Two young donkeys were the subjects of the experiments. They were killed by the insertion of woorara poison (twenty and fifteen grains) into a small wound in the thigh. When they ceased to breathe, and every sign of sensation and voluntary motion was extinct, the chest was cut open, and the heart was found still beating; by the aid of artificial respiration, it continued to beat regularly for upwards of an hour, during which time I made the series of observations on the sounds, and on the means of stopping or altering them, which gave the first complete knowledge of those sounds. This knowledge has ever since supplied the profession with the means of distinguishing the signs of the heart's action in health and in disease. It is difficult to overrate the value of this discovery in the practice of medicine; yet it was obtained at the cost of the lives of only two young animals, with only the suffering of a trifling wound, much less painful than one of the common blows with which these poor brutes are belaboured in their common work. The large dose of woorara destroyed all possibility of suffering; in fact, however doubtful may be the action of small quantities of this poison, it is certain that these animals were dead in all respects except the heart's action, and this was automatically sustained for awhile by artificial respiration.

2. In a series of researches, in which I proved the muscularity of the bronchial tubes and shewed the modes of acting on it in cases of asthma, I made use only of recently dead animals; and the intelligent physiologist knows that there are often residues of life which may be thus profitably questioned by experiment long after the cessation of all feeling. Yet, such cases are ignorantly or mendaciously branded as instances of animal torture.

3. In 1841, I was long engaged in studying the circulation of the blood in the web of the frog's foot; and, among other results, I was enabled to trace the process of determination of blood to enlargement of the arteries on the application of an irritant. Yet, so gentle were the means which I used, and so little hurtful to the feelings of the animal, that I needed no ligature to the toes, but simply spread the web on glass with a wet camel's hair brush; and, by patiently waiting, could best observe the size and current of the vessels during the periods of tranquillity when the animal seemed quite at ease. The nature of the inquiry excluded all strong or painful irritants, and the best results were obtained when there were no signs of uneasiness. These observations have been referred to by Professors Virchow and Burdon Sanderson as the first to demonstrate the true cause of determination of blood in health and in disease, a chief element in the processes of growth and inflammation.

These and other important results of investigation by a private individual, seeking after truth, with full consideration to brute as well as to human suffering, would never have been obtained had that law been in force with which it is now proposed to shackle and insult the members of an enlightened and humane profession.

ON VIVISECTION AND SCIENTIFIC SURGERY.

By SAMPSON GAMGEE, F.R.S. (Edin.),

Surgeon to the Queen's Hospital; President-elect of the Birmingham and Midland Counties Branch of the British Medical Association.

THE Parliamentary Committee of the Association has worked so well, in eliciting the opinion of the profession on the Vivisection Bill, and the eminent men who have spoken for us have done so with such weight of authority and discreteness of utterance, as to supply very convincing proof of the power to which the British Medical Association has attained.

Yielding to, none of my brother associates for sincerity in acknowledging the obligation imposed on us by those who have fought our battle, I submit that, in the contest for freedom of experimental investigation, the great influence which experiments on living animals have exercised on scientific surgery has been somewhat overlooked.

When Lord Cardwell* put the question "Have the great performers of these painful experiments on animals been generally great surgeons?" Sir William Fergusson is reported to have answered, "No, I am not aware of any great surgeons having been very great experimenters on the lower animals".

Omitting the obvious instance of John Hunter, and his immediate followers in this country, what were Scarpa, Dupuytren, Travers, Syme, Ribès, Jobert, Sédillot, and Porta, unless great surgeons, and great experimenters on the lower animals?

In the whole subject of the arrest of hæmorrhage by pressure, ligature, and torsion, in the selection of the best materials for sutures, in the treatment of wounds of the intestines, in the discovery and demonstration of the pathology of pyæmia and allied states of blood-poisoning, in the repair of tissues, experiments on living animals have preceded, and been the foundation of, progress in scientific surgery.

Some proof of this proposition is to be found in the Report of the Royal Commission on Vivisection, but much more evidence might be adduced. While the Hunters in this country were raising surgery towards the dignity of a science, the French school was labouring successfully in the same direction, through the happy coincidence which made Bichat the pupil of Desault, and the editor of his works. It is needless to say how the very brief and brilliant career of Xavier Bichat affected the sciences of anatomy and physiology. If any one doubt how directly his teaching influenced the study of surgery by experiments on living animals, and by clinical observation, let him consult such a work as that of his pupil Ribès' *Mémoires et Observations d'Anatomie, de Physiologie et de Chirurgie* (Paris 1841).

Dupuytren's clinique was one of the greatest schools of practical surgery the world has ever known; not merely pupils in the ordinary sense, but surgeons from all countries crowded round the great teacher in the Hôtel Dieu. Admitting the paramount influence of his intellectual endowments and of his iron will, there is no doubt that Dupuytren's success, as a promoter of surgical science, was largely due to the completeness of his medical education, particularly in anatomy, in chemistry, and in experimental physiology: he worked in Thénard's laboratory, and repeatedly had recourse to experiments on living animals.†

As a pioneer to new truths, as an anatomist and physiologist, as a draughtsman and linguist, as a dissector and a mechanic, as an operator and a clinical teacher, Antonio Scarpa has had few rivals in the history of medicine. What a school he was reared in! A favourite pupil of Morgagni, who, when stricken with blindness, made him his amanuensis, and closed his long and glorious life in his arms, Scarpa, as a pathologist, proved himself a worthy follower in the work *De Sedibus et Causis Morborum*. The pupil in Paris of Vicq-d'Azyr and Frère Côme, in London of Pott, the Hunters, and Cruikshank, the companion of Volta in his visit to the Universities of Germany when Wrisberg, Blumenbach, Gmelin, and Richter professed at Göttingen, Scarpa was educated in the highest school of science, and pre-eminently qualified

* Report of Royal Commission on the Practice of subjecting Live Animals to Experiments for Scientific Purposes. London: 1876. Question 1026, p. 49.

† *Eloge* du Baron Dupuytren in *Histoire des Membres de l'Académie Royale de Médecine*, par E. Pariset et E. F. Dubois; Paris, 1850, tome second, p. 102, et seq. See also *Parallèle* de Delpech et de Dupuytren in *Tribut à la Chirurgie*, par E. F. Bouisson; Paris et Montpellier, 1861, tome second, p. 1, et seq. *Propositions sur quelques points d'Anatomie de Physiologie et d'Anatomie Pathologique*, par G. Dupuytren, an. xii, 1803.

to become the head of a school of experimental, physiological, and scientific surgery. This is not the place to quote his many original works; but, if any one require proof of what experiments on living animals have done for scientific and practical surgery, let him consult *Degli Anestrisimi, Opera del Cavaliere Antonio Scarpa* (Pietro Vannoni edit.; Firenze, 1845).

The experiments therein related of ligature of the large arteries of horses, oxen, sheep, and dogs, were Scarpa's warrant in practising and teaching the surgery of the human body on a subject which he did as much as John Hunter to advance. To use Scarpa's own words, "The good results of my experiments on large animals give me courage in telling you with certainty. . . ."

No historical chair of surgery has ever been more worthily filled than was Scarpa's by Luigi Porta, whose great work on the ligature and torsion of arteries will go down to posterity as a type of what an able man can do by combining experiments on animals with clinical study, and by directing skilled hands with a well-stored brain.

Shipton's famous experiment on the healing of a dog's intestine after a portion of it had been removed,† bore little fruit for a century, but becoming, as it did, the incentive to Travers and Jobert's experimental inquiries, the surgery of intestinal wounds has in direct sequence become exact and safe.

After remarking that wounds of the intestine have always been considered as mortal (in the human subject) by the best surgical writers, Mr. Shipton proceeded to relate his experiment of cutting-out a considerable portion of a dog's ileum, and sewing the divided ends together with the Glover's suture. The dog recovered, became perfectly lively and healthy, and after some weeks was destroyed; the gut was healed, and Mr. Shipton, who had instituted the experiment on account of the invariable fatality of wounds of the intestine in the human subject under the then prevailing surgical treatment, inferred "that the experiment may serve as an encouragement to sew up wounds of the intestine wherever those parts become wounded in the human subject".

The inference eventually proved prophetic and humane; but it was not until 1812 that Mr. Benjamin Travers published *An Inquiry into the Process of Nature in Repairing Injuries of the Intestines*. Full of the results of experiments on living animals, and of clinical observations, Mr. Travers's classical monograph everywhere breathes the spirit of love for humanity and science. "I have endeavoured," said the author, "to ascertain the plan and limit of nature's operations in an important class of injuries, to compare the facts of history with the results of experiment, and from these sources to derive a rational and consistent theory of treatment". He goes on to say, "The benefit which of late years has resulted to practical surgery, from a diligent study of those secret processes by which nature accomplishes her operations, furnishes, I conceive, irresistible argument for the necessity of experiments on brutes". I had the good fortune of knowing Mr. Travers, and all who knew him cannot fail to remember the amiability of his disposition and his thorough kindness of heart. It was only the strongest conviction of their utility which could lead such a man to perform the experiments on living animals which led him to formulate new and reliable canons of surgical practice.

The experiments of Gaspard, and of Castelnau and Ducrest, on the injection of foreign substances into the blood, were the foundation of Sédillot's treatise on *Pyæmie*,‡ a work significantly proving the value of experiments on animals in explaining clinical facts and giving the key to preventive measures.**

No instrument has been invented by a modern surgeon of greater utility than the *écraseur*. Monsieur Chassaignac tells us,†† that he experimented with it on living animals in Flourens' laboratory at the Jardin des Plantes; and, in company with Charlier, at the Grenelle slaughterhouses, removing with it dogs' tongues and cows' ovaries. Contrary to preconceived opinion, he demonstrated the comparative painlessness of the crushing instrument, in consequence of its benumbing power; he also proved its safety in preventing primary or secondary hæmorrhage, when used on the human subject, with the regulated

slowness which the experiments on brutes showed to be necessary. The *écraseur* has since been generally adopted, and it is now one of the admittedly most useful instruments in the hands of surgical operators.

The resection of joints and bones, in lieu of amputation, is one of the glories of modern surgery, especially British. Lately, a distinguished surgeon of Lyons, Monsieur Ollier, has been instrumental in introducing a new practice at once scientific and safe. The power of the periosteum to form new bone is at the foundation of Ollier's work. His treatise* consists of two volumes, the first experimental, the second clinical. He dedicated them to Claude Bernard and Velpeau, in these words: "When I left experimental physiology for the practice of surgery, I wished to tread the path you have marked out, the one in determining the methods of scientific medicine; the other, in showing, during forty years, the fertility of its applications." In his introduction (p. 2) Ollier lays down that "experiments on living animals are of the greatest utility to surgery". The author's researches were a repetition and development of those of Duhamel, of Troja, and of Flourens. It is due to Mr. Syme, who more than any other surgeon is entitled to credit for generalising the excision of joints, to point out that, so far back as March 12th, 1837, he read to the Royal Society of Edinburgh, a paper "On the Power of the Periosteum to form new Bone".† In this memoir, the subject is treated with historical accuracy as to the prevailing knowledge at that date; and the Edinburgh professor relates the results of his experiments on dogs, proving the regenerative power of the investing membrane of bones. When the value of experiments on living animals is sustained on surgical grounds by Ollier, fresh from the physiological laboratory, it may be urged that the advocacy is influenced by predilection, and not balanced by sufficient experience. But when a man of Mr. Syme's humane temperament and ripe judgment, in the very zenith of his power and fame, addressed to the Fellows of the Royal Society of Edinburgh, a contribution to human surgery based on clinical observations and experiments on living animals, it is not to be doubted that he had full confidence in the justifiableness of his procedure, and in the safety of his counsel.‡

As a general proposition, it may be stated that the history of the progress of scientific surgery is closely interwoven with that of physiological and pathological investigation, by direct experiment on living animals. Not long ago, surgeons were the leading physiologists. Now, these are advancing boldly on their own scientific path.

Germany was backward in the surgical race; as Scarpa remarked with astonishment, Richter was for long a solitary light; but the names of Chelius, Dieffenbach, Stromeyer, Langenbeck, Pitha, Billroth, and a host of others have come to the fore, while the anatomists and physiologists of the Fatherland, who were always famous, have threatened to outstrip all competition. The revival of anatomy and physiology in Italy preceded the revival of surgery throughout the world; who knows, with the modern instruments and methods of precision, how the more recent revival of experimental physiology may influence the science of pathology, and tend for the benefit of the human race to the discovery of remedies for diseases such as cancer, tetanus, rabies, and a number of others, terrible in their relentless deadliness?

Who knows how largely the physiologists may repay the debt they owe the surgeons, who will fall back in the race unless they are true to the inspirations and traditions which made their predecessors glorious in the possession of learning and in the love of experimental science?

If the Bill now before Parliament be thrown out, the endeavour to pass some such measure will, in all probability, be renewed. It may then be worth while to make an earnest effort to prove, more completely than this sketch pretends to do, with the most friendly feeling towards the distinguished author of the error, that it was a great mistake to say that "great surgeons have not been very great experimenters on the lower animals".

* *Traité Expérimental et Clinique de la Régénération des Os et de la Production artificielle du Tissu osseux*, par L. Ollier. Paris: 1867.

† The paper was republished by Mr. Syme in his *Contributions to the Pathology and Practice of Surgery*. Edinburgh: 1848, p. 30, et seq.

‡ Mr. Ernest Hart informs me that, in his later years, Mr. Syme was proud of the paper in question, and claimed the priority over Ollier.

* "I buoni successi degli sperimenti da me fatti sopra grossi animali, mi fanno animo a dirvi con asseveranza . . ." *Op. cit.*, p. 739.

† Delle Alterazioni Patologiche delle Arterie per la Legatura e la Torsione. Esperienze ed Osservazioni di Luigi Porta, pp. 337, con tredici Tavole in Rame. Milano: 1845.

‡ Observatio de Portione intestini Canis feliciter abscissâ, in *Phil. Transactions*, vol. xxii, 1703.

§ *Op. cit.*, Preface, p. vi.

|| Introduction, p. 3.

¶ *De l'infection purulente ou Pyœmie*, par le Dr. C. Sédillot. Paris: 1849.

** An Experimental Inquiry into the Effects of Injecting Pus into the Veins of Animals, by J. Sampson Gamgee, *ASSOCIATION MEDICAL JOURNAL*, vol. i, p. 1079, et seq. London: 1853.

†† *Traité de l'Ecrasement linéaire, Nouvelle Méthode pour prévenir l'Effusion du Sang dans les Opérations Chirurgicales*, par M. E. Chassaignac. Paris: 1856.

INTERNATIONAL MEDICAL CONGRESS AT PHILADELPHIA.—The *New York Medical Record* mentions the following delegates among others: from the Medical Society of Copenhagen, Drs. Edmund Hansen (President), Carl Lange, and S. Engledst; from the Pathological Society of Dublin, Mr. Joliffe Tufnell and Mr. Wm. Stokes; from the Obstetrical Society of Edinburgh, Drs. Alexander R. Simpson (President) and Finlay. The following gentlemen are also expected: H. Power of London; J. A. Estlander of Helsingfors, and Alfred Havi-land of London.

CASE OF PLEUROPNEUMONIA FOLLOWED BY EMPHYEMA; TREATED FIRST BY PARACENTESIS, THEN BY INCISION OF THE CHEST: RECOVERY.

By C. S. TICEHURST, L.R.C.P.Lond., Bishop's Waltham.

A YOUNG lady, aged 28, with good family history, was seized with a most severe rigor on April 24th, 1875. She was seen by me eighteen hours afterwards, and at that time intense cutting pain was complained of under the left mamma. The breathing was hurried; there was constant cough, but no sputa; the countenance was anxious. The physical signs were dulness at the base of the left lung with slight ægophony and diminished tactile vibration; higher up, there were bronchial breathing and bronchophony. No rub could be detected. Decubitus was dorsal. Pulse, 114; temperature, 104.4 deg.; respirations, 40. The contents of the right side of the thorax were apparently healthy.

April 26th. Some urine procured to-day was found to contain no trace of chlorides and no albumen.

April 28th. There were well marked rusty sputa. A red patch existed over each cheek-bone. The pain under the left breast was still intense. The temperature had fallen. No sleep was obtained, except with a sedative draught.

April 30th. The physical signs were as follows. The left side was universally dull, with absence of tactile vibration. Tubular breathing was heard anteriorly at quite the upper part of the chest, and, posteriorly, close to the spine, nearly to the base. Elsewhere, the breath-sounds were distant. There was a crop of herpes about the nose and mouth. The heart's impulse was diffused; on the right side, there was supplementary breathing.

May 3rd. The chlorides reappeared in the urine on the 1st instant. The temperature and respirations had fallen (*see* Chart). The general condition was fair. Iodide and acetate of potash were being given, with two grains of pilula hydrargyri, night and morning, and the affected side was painted with tincture of iodine.

May 9th. Anteriorly, the breath-sounds were heard to the nipple, and not so tubular in character; the percussion-note was not so dull; tactile vibration was also slightly felt in this region. Below the nipple and round in the axilla, the signs of effusion remained as before. Posteriorly, the breath-sounds were not so markedly tubular. The sputa were white and scanty; there was diarrhoea, and the mouth was slightly tender. The effusion seemed to have slightly decreased. The pills were stopped.

May 14th. The temperature had shown an upward tendency, the evening exacerbations alternating with considerable morning remissions. Nightly perspirations were complained of, also a feeling like that of cold water down the back. The physical signs had not much altered since the last report. Inspection of the chest showed that the left apex "lagged" behind the right during respiration. The pulse was fairly strong. Plenty of nourishment was taken. The diarrhoea had nearly ceased. There were no sputa and very little cough. The apex-beat was felt at the sternum. The patient read with pleasure, and was not at all distressed by the amount of fluid.

May 26th. The chills and soaking perspirations had continued. The heart was now considerably displaced over to the right; its impulse could not be felt at all on the left side, which was absolutely dull up to the clavicle, with absence of all tactile vibration. The breath-sounds were very distant; there was also œdema of that side. The temperature curve at this date will be best seen by reference to the chart. This morning, the temperature had fallen to below normal. There had been an alarming threatening of syncope; and there was lividity of the lips, with great anxiety of countenance. The pulse was weak. Under these circumstances, it was evidently dangerous to delay the operation of paracentesis, and Dr. Butler of Winchester kindly saw the patient with me, and, bringing an aspirator with him, tapped the chest in the axilla, between the fifth and sixth ribs. Five pints of pus were by this means withdrawn. Great relief, both to the breathing and also to the pain in the side, which had been persistent throughout, followed the operation. Resonance was much altered, and was perceptible anteriorly down to the third rib; below that line, there was dulness on percussion, but the note elicited was not so "dead" dull as before. Tactile vibration was again present, and the breath-sounds were mingled with superficial pleural rub. There was no material difference as regarded the heart's apex; it was still felt beating on the right of the sternum.

May 29th.—The chills and perspirations, which had entirely ceased

since the operation, were again beginning. The temperature was also rising.

June 3rd. The chest was refilling. Bed-sores were forming, and were only kept under by most excellent nursing. The temperature was still rising, with considerable morning remissions. The chills and perspirations continued, and great pain was complained of in the back and side. There was intense thirst and restlessness, and the tongue and mouth were in an aphthous condition.

June 6th.—The temperature since the last report had gradually fallen; it was 98.8 deg., with pulse 97 and respirations 32. The whole of the left side of the thorax was now "dead" dull again, except immediately under the clavicle, where the percussion-note was somewhat "boxy" in character; tactile vibration was lost; the breath-sounds were heard, but appeared remote. The pleural sounds had disappeared, and the heart was much displaced over to the right. The intercostal spaces, instead of being hollow, were on a level with the ribs throughout. The left half of the thorax did not move during respiration. The base of the right lung, on examination, showed signs of œdema. The patient, especially since the tapping, had wasted very rapidly, and was now extremely emaciated; her general condition was very bad, and it was evident that she was in a very dangerous state. Dr. Butler again saw the patient with me. We had resolved, at our previous consultation, that, should interference again become necessary, we would open the pleura, according to the plan recommended by Dr. Bowditch of Philadelphia. Accordingly, I made an incision between two and three inches in length, between the ninth and tenth ribs, in a line with the inferior angle of the scapula down to the pleura, on opening which over six pints of inodorous pus escaped. A piece of lint was placed in the wound, and a large linseed-meal poultice applied over it, into which the pus drained, and which had to be frequently changed. The relief to all the urgent symptoms was at once apparent. It was noticed, as after the tapping, that the heart, although, to a certain extent, it was freed from its unnatural position, was not back in its place. A capital night was passed after the operation; and on the following morning all pain had gone, and the chills and perspirations had also ceased. The temperature (as will be seen) was 98.1 deg., the pulse was 97, and the respirations were 24.

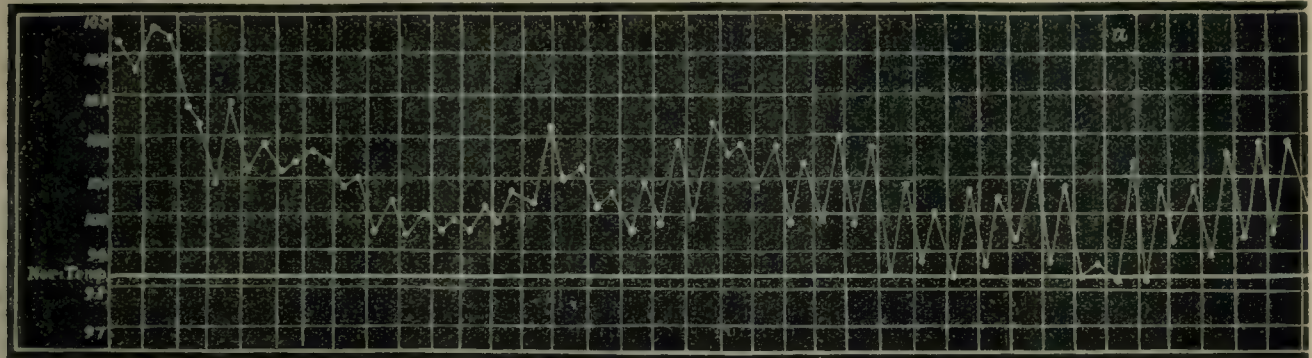
June 8th. The discharge had become very offensive. The cavity was washed out with Condy's fluid and water. There was already a considerable improvement in the patient's condition.

From the day of opening the chest, the patient slowly, but surely, progressed towards recovery. The bed-sores disappeared, as also the aphthous condition of the mouth. Flesh was gained, and it soon became difficult to satisfy the craving for food. The local treatment adopted was to wash out the cavity every other day with Condy's fluid; but, as its deodorising effect did not last long, tincture of iodine (one part to twenty parts of water) was soon substituted, from the time of using which not the slightest unpleasantness was perceptible either in the room or on dressing the wound, although a quantity of pus was continually discharging. Nothing could have been more satisfactory. This plan of treatment was continued for six weeks, and then there was evidence of iodine absorption in a severe rigor, high temperature (103.7 deg.), and sickness, which soon, however, passed off. For a time or two, water alone was used, and the washings out were finally discontinued the fourth week in July, at which period not more than a drachm of thin sero-purulent fluid was discharged during the twenty-four hours. On August 14th, in the tenth week after the operation, the wound was allowed to heal up, there having been no discharge for some days, whilst the temperature had been normal for a fortnight.

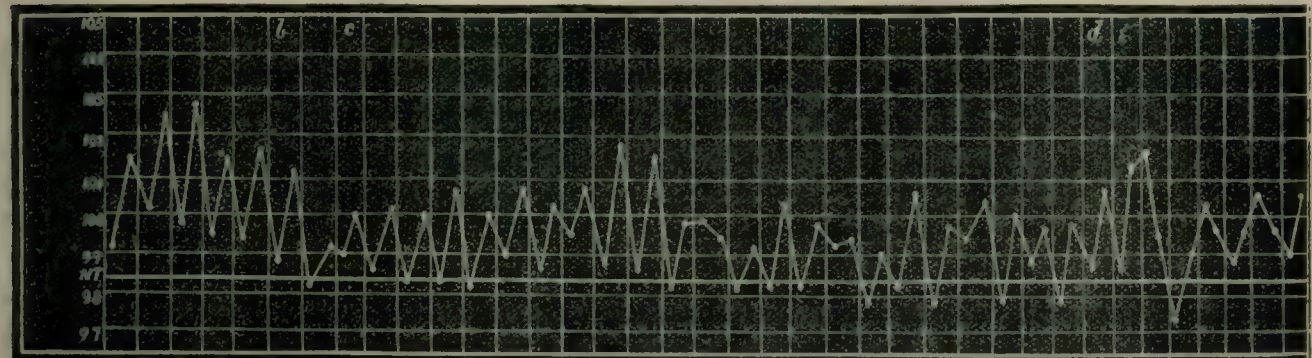
At this time, the left side was markedly distorted, the ribs touching one another all the way down. There was still dulness, commencing from below mamma and passing round into the axilla, which was probably due to a layer of lymph lining the chest-wall. Air could be heard entering the lung to a fair amount. Strength was soon gained, and the patient went away to the sea-side. On her return, a few weeks later, the improvement was great in every respect, especially in the gaining of weight; for, at my request, she had been weighed every week.

In November, the distortion, which was so noticeable in August, had gone. Instead of the ribs lying in contact, as above described, the intercostal spaces were well marked, and the side moved fairly well during respiration. The dulness remained about the same, and on auscultation plenty of breath-sounds were heard over the lung, which were slightly harsher than those on the right side. The general health was excellent; walks of some length were taken without much fatigue being induced, and scarcely a trace was shown of the severe ordeal through which the patient had passed.

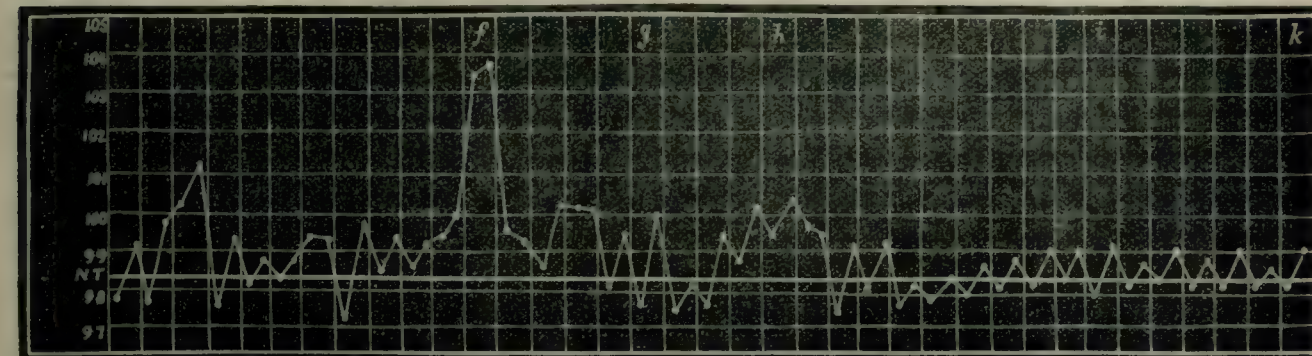
REMARKS.—The temperature was taken night and morning from the commencement of the illness to convalescence, a period of four months,



Day of Dis..	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
Pulse {	M..	106	110	112	110	110	113	110	104	102	103	100	93	107	102	109	109	105	102	109	110	114	105	108	109	98	96	109	104	92	113	100	105	97	107	96	99	99
	E..	100	106	110	112	120	112	104	107	107	100	97	96	100	109	111	104	110	111	110	109	112	112	110	113	103	105	105	106	110	114	106	101	98	104	103	107	112
Resp. {	M..	40	32	42	36	42	36	32	32	28	24	28	38	30	28	22	26	30	29	33	24	24	31	35	22	31	24	28	36	35	22	29	28	24	25	23	26	24
	E..		36	44	40	44	32	28	28	29	29	27	34	31	34	28	29	36	32	38	28	36	33	35	31	33	28	31	35	41	36	31	31	25	27	27	30	29



Day of Dis.	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
Pulse { M.	97	99	102	102	104	97	94	96	95	91	92	89	97	86	86	85	96	88	101	85	85	90	93	90	91	83	94	90	92	93	102	86	90	80	99	92	93	89
E.	112	112	109	110	109	106	104	104	99	100	106	109	98	104	106	108	105	101	99	95	100	93	93	97	102	96	108	96	100	95	112	90	96	115	98	96	100	107
Resp. { M.	26	26	31	32	34	32	22	24	26	23	30	24	26	22	21	22	19	21	20	18	20	21	19	23	17	24	23	22	27	17	19	20	21	14	23	19	24	21
E.	44	32	32	35	31	25	36	32	31	26	30	29	32	26	27	30	30	26	25	25	26	29	27	25	25	25	28	27	23	24	20	21	20	16	20	21	22	22



Day of Dis.	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113
Pulse { M.	91	83	95	82	87	86	85	82	89	83	86	103	88	87	98	83	80	71	71	78	75	91	80	68	74	66	63	61	62	59	64	65	63	60	60	58	76
E.	93	95	104	97	90	91	94	101	89	91	97	108	96	100	93	92	94	82	90	92	96	84	88	87	80	69	73	75	74	69	80	77	64	74	75	73	79
Resp. { M.	20	19	22	16	19	17	18	13	21	13	21	24	21	20	23	16	16	16	17	16	24	17	17	15	16	15	14	17	19	13	15	20	15	15	16	17	16
E.	21	18	24	19	17	19	19	21	22	19	18	26	20	22	19	23	22	18	16	(?)	20	18	18	17	16	17	13	19	15	17	17	15	16	16	18	19	17

a. Paracentesis. b. Incision of chest. c. Cavity washed out on alternate days. d. Patient sitting up a short time. e. Bilious attack. f. Iodine absorption.
g. Washing out of cavity omitted. h. Cavity washed with water. i. Patient left the house for the first time. k. Wound allowed to heal.

and the chart, on which its variations are depicted, will be found interesting. When the chest was full of fluid, the temperature was low; after the tapping, it rose again, with considerable morning remissions; and, as the cavity refilled, it went down gradually to normal, still with from two degrees and a half to three degrees of difference between the morning and evening temperatures. After the incision into the chest, anything like regularity in the chart-tracing was lost; but the morning temperature was frequently below normal, and twice was even down to 97.1 deg. Any little excitement or exertion during convalescence sufficed to send the temperature up. The heart did not return to its normal position for several days after the operation; it came back gradually, being evidently bound down by adhesions. There was at no time total absence of breath-sounds, but they were distant. The position of the wound was found to be no bar to the pleura being easily washed out, and naturally any accumulation of pus could not take place. A piece of lint inserted in the incision was sufficient to keep it open; after a time, a silver tube was worn, through which the discharge escaped.

It is only by experience that the best way of treating empyema can be satisfactorily determined, and the collection of individual cases must help to ripen that experience. In the case above related, it is eminently satisfactory to notice that, in the tenth week after opening the chest, the discharge had ceased entirely, the wound being then allowed to heal, and that recovery took place with no visible distortion of the affected side. The courage and patience exhibited by the patient throughout were beyond praise, and materially assisted, in my opinion, the happy termination of her trying illness.

ABSTRACT OF A CASE OF EMPYEMA.

By J. C. HORNSBY WRIGHT, L.K.Q.C.P., Surgeon-Major.

A MAN, aged 22, came under my care on December 7th, 1874, with pleural effusion on the left side. After a very short course of constitutional treatment, it was resolved to remove the fluid by means of Dieulafoy's aspirator. His condition before operation was as follows. The chest-measurement was, on the right side, 16½ inches; on the left, or affected side, 17¼ inches. The lung on the right side was healthy—perhaps a little loud, and rough as regarded the murmur. The heart pulsated 1½ inches to the right of the sternum. There was complete dullness over the whole of the left side; no vascular murmur, but bronchial breathing posteriorly and over the lower part of the lung. The intercostal spaces were obliterated; pulse 112; respirations 22; decubitus on the back. The operation was performed in the eighth intercostal space, with a medium-sized trochar and cannula, and 136 ounces of apparently healthy pus were removed. The pulse increased in volume, but fell in the number of beats to 98. The respirations rose from 22 to 40, probably from exhaustion. There was but little change in the chest-measurement. He progressed well until December 28th, when there were feverish symptoms with considerable reaccumulation of fluid. The operation was again performed with satisfactory results; 71 ounces of pus were removed.

On January 7th, 1875. There was no material change in the patient's condition, but, on this date, again a large amount of fluid was removed, viz., 50 ounces. On January 10th, 40 ounces were removed; and, on the 23rd, 37 ounces.

On the 30th, it was found that the fluid had accumulated rapidly. The dullness on percussion extended over to the whole side and up to the clavicle. The operation was repeated, and 120 ounces were removed in the same spot and with the usual relief. During the whole time since the first operation, the patient was holding his ground as regarded strength and weight; he was able to take and to digest a very large amount of most nutritive diet. It was now determined to establish a sinus, and with this view a catheter was introduced and allowed for the present to remain in the opening.

On February 4th, it being found that the fluid had ceased to flow by the catheter, the latter was removed, and a silver probe, curved into the shape of a hook, was introduced, with the object of establishing the opening. At this time, about 55 ounces of fluid escaped by the side of the probe; and, from this date, until February 13th, there was a constant draining of healthy-looking pus, which at the lowest computation may be put down at 12 ounces *per diem*, amounting, in the interval between the 4th and 13th of the month, to 108 ounces.

From February 13th to March 13th, the same treatment was followed, and the cavity was washed out and injected several times with a solution of nitrate of silver. During that time, the amount of fluid which escaped amounted to 360 ounces.

On March 13th, 20 ounces of purulent secretion were removed by means of a silver catheter attached to the exhausting apparatus of Dieulafoy's instrument. The latter expedient was adopted, owing to the impossibility of the cavity being completely emptied without means to reach its lowest level. The patient's breath was improving, but still there was no evidence of expansion of the lung.

On March 19th, 60 ounces of fluid were removed.

On March 24th, 53 ounces were removed. On this occasion, the operation was performed by Dr. Frazer of the Cavalry Depot. I find on this date a note by that gentleman: "Aspiration again resorted to and 53 ounces of pus removed. Patient feels very well, and no cough to speak of; functions normal; sleeps well. Temperature rises slightly in the evening, but is normal in the morning."

On March 27th, 10 ounces were removed. On April 4th, 70 ounces of fluid were removed, and a stimulating injection was resorted to. On April 15th, 50 more ounces were removed; on April 23rd, 80 ounces; on the 26th, 70 ounces; on the 28th, 30 ounces; on the 30th, 50 ounces; on May 3rd, 30 ounces; on the 5th, 4 ounces; on the 8th, 45 ounces; on the 10th, 12 ounces; on the 11th, 10 ounces; on the 15th, 20 ounces; on the 16th, 60 ounces; on the 18th, 10 ounces; on the 20th, 30 ounces; on the 23rd, 24 ounces; on the 26th, 10 ounces; on the 28th, 34 ounces; on the 30th, 24 ounces; on June 1st, 20 ounces; on the 3rd, 16 ounces.

From June 3rd to July 3rd, when the patient was removed to Shorncliff for change, the gross amount of fluid removed from this man's pleural cavity was 202 ounces. After removal to Shorncliff, the patient came under the care of Surgeon-Major T. R. Wilson, through whose kindness I am enabled to furnish the following notes.

The patient's aspect was pallid and cachectic. His weight was 8 stones 2 pounds. He was suffering from chronic empyema of the left side, from which about 15 to 20 ounces of pus were withdrawn every second or third day, from an opening beneath the eighth rib, by means of a catheter and tube. From this date, every second or third day, 10 to 18 ounces of pus were removed, which was at first fetid and turbid. The orifice used to close between these operations, and required dilatation before any matter could escape. His temperature was normal in the morning, but at night rose 2 or 3 degrees. He was treated by quinine successfully.

On August 11th, he had sharp fever; pulse 108; temperature 102.2 degs. Quinine was again successful.

On August 29th, I considered that an entire change of treatment was desirable, and on this date I injected an ounce of tincture of iodine with 6 ounces of water, and allowed the injection to remain in. The injection was performed by means of an ordinary enema-syringe, to which I attached India-rubber tubing and a silver catheter—taking care that the tube was full before introduction into the chest. Slight fever followed the operation, and iodine was detected in the urine. On the 31st, the pus removed was also discoloured with urine (8 ounces removed).

On September 2nd, 6 ounces of clear sero-pus were removed; and, until the 8th, no fluid whatever escaped by the catheter, and then there was only slight oozing.

On September 12th, I determined, as the matter was again being reproduced, to endeavour to convert the abscess as far as possible into an open one, and not having any drainage-tube available, I tried a small piece of gum-elastic catheter; but he was only able to wear this for two or three hours daily, as it caused much irritation. However, the desired effect of converting the fistula into an open one was produced, and with marked benefit to his general health.

On October 12th, I introduced a piece of drainage-tube, knotting it to prevent it from slipping in too far, and he is now (November 12th), I may say, quite convalescent. His breathing is easy and unembarrassed, and though there is necessarily some collapse of a portion of the lung, this is not material. He weighs 10 stone, and has thus gained very nearly 2 stones while under my treatment. Altogether, the case has been one of extreme interest, and in some respects almost unique. The chest walls have fallen in to the extent of 2 inches.

The following is a *résumé* of the amount of fluid removed.

	Ounces.
From December 7th, 1874, to April 23rd, 1875	1240
„ April 23rd to June 3rd	579
„ June 3rd to July 3rd	202
Total	2021
At Shorncliff. — Fifty-six days at an average of 12 ounces <i>per diem</i>	672
Total	2693

ON THE TREATMENT OF EMPYEMA BY LISTER'S ANTISEPTIC METHOD.*

By E. MARKHAM SKERRITT, B.A., B.S., M.D. Lond., M.R.C.P.,
Fellow of University College, London; Physician to the Bristol
General Hospital.

THERE have been, I believe, not more than three or four cases recorded in which Lister's antiseptic method has been applied to the treatment of empyema; and I cannot but think that its more extended use would result in substantial evidence of its value. My object in relating the details of this case is to call attention specially to the antiseptic treatment of this disease, and to point out what appear to me to be its peculiar advantages.

The patient was a boy, eight years of age, admitted on December 1st, 1874, into one of the children's wards in University College Hospital, under Dr. Sydney Ringer, who has kindly placed the notes of the case at my disposal. During the month of October previously, pus had been twice withdrawn from the left side of the chest by aspiration, with much temporary benefit. On admission, the ordinary signs of left pleuritic effusion were well marked; the heart's apex was at the epigastrium, the side was enlarged and dull throughout, and mucous rales and weak breath-sounds were faintly audible. Evening temperature, 98 deg.

Next day, December 2nd, I inserted the aspirator-trocar in the sixth interspace in the anterior axillary line, and withdrew twenty-eight ounces of greenish-yellow sweet pus. The apex of the heart came back to its normal position, the breath-sounds returned, and the boy was much relieved. The evening temperature was 98.4 deg.

In two or three days, however, the temperature became irregular, and examination of the chest showed that fluid was reaccumulating; and on the 23rd, three weeks after the previous aspiration, the heart's apex was to the right of the ensiform cartilage, and the whole left side was again enlarged and dull on percussion. On that day, I removed thirty ounces of pus by aspiration, and the heart returned to its normal position.

The boy was much relieved, but it was soon evident that the pleural cavity was filling again, and symptoms of hectic became marked; on several occasions there was a difference of about 4 deg. between the morning and evening temperatures, the highest temperature being 104.2 deg. on the evening of the 31st. By January 6th, the heart's apex was again to the right of the epigastrium, and the side was as full as ever.

Accordingly, on the 9th, at Dr. Ringer's visit, the patient was put under chloroform, and I inserted a drainage-tube in the sixth interspace in the anterior axillary line, letting out about twenty-eight ounces of pus. The operation was performed strictly according to the antiseptic method, and the usual dressing was applied. For several days, the free discharge of pus necessitated the change of the dressing morning and evening; but the amount of discharge rapidly decreased, and for the next week one dressing a day proved enough. After that, for the next sixteen days, the dressing was changed every other day only. As the discharge had now become very scanty, from this time to the removal of the drainage-tube on March 9th, the side was dressed once in every three or four days only. On the 17th, the wound had completely closed.

Thus the patient was cured in a little more than two months; and I believe that, in our anxiety to avoid the opposite error, we kept the drainage-tube in too long, and thus prevented the wound from closing before. During this time, the boy had been improving rapidly, gaining in flesh, and strength, and spirits; the symptoms of hectic disappeared directly the free opening was made; and from that time the temperature gradually fell, till, on the removal of the tube and the closure of the wound, it came down to normal.

I believe I am speaking in accordance with general experience, when I say that we have no evidence to lead us to hope that the absorption of pus from the pleural cavity can be obtained by any internal use of drugs or external applications alone; and nature herself indicates, by the establishment of fistulous communications with that cavity, that the fluid must be removed by some other way than by absorption. As it, therefore, seems that we cannot expect to cure empyema without effecting the escape of the fluid by operation, the question arises, What method is to be adopted in any given case for the removal of the fluid, and what line of after-treatment will give the best results?

There are two ways in which the fluid may be evacuated. The first is, by such means as to limit the escape of pus to the time of the operation

—the object being to prevent the entrance of air, and so guard against decomposition in the cavity.

The case that I have related illustrates what is well known—that tapping alone cannot be relied upon to effect the cure of empyema; the aspirator had been used four times in three months, each time with marked temporary benefit; but the repeated reaccumulation of fluid and the gradual onset of hectic, indicated that recovery, if it took place at all under this mode of treatment, would be very protracted; and that it was impossible to say how often the tapping might have to be repeated before that end was attained, and how great might be the drain upon the patient's system owing to the long-continued suppuration.

My experience, however, would not lead me to coincide with the opinion expressed by some writers of authority, that the *only* cure for empyema is a free opening. There have been a sufficient number of cases recorded to show that tapping alone may be successful; and this, as would be expected, is especially likely to be the case in children, in whom I have repeatedly seen recovery follow the use of the aspirator.

The *second* way in which the fluid may be evacuated is by the establishment of a fistulous opening in the chest-wall. It is to the mode in which this may be done that I wish specially to direct attention.

The method that has usually been adopted is to make an opening into the pleural cavity, through which pus and fibrinous coagula and caseous masses may freely escape, while no attempt is made in any way to alter the character of the external air which enters the cavity at each inspiration. A drainage-tube is generally inserted to keep up the communication. In some cases, no local after-treatment seems necessary, and there may appear to be no great harm done by admitting air freely into the cavity. It would seem that many cases do well thus. But there are other instances in which, as a result of the communication with the external air, there follow all the evil effects of the presence of putrid pus in the cavity, and its absorption into the blood; the temperature rises, and the symptoms of the septicæmic state follow in varying degrees of intensity. In these cases it is found necessary to wash out the pleura with some disinfecting solution, in order to keep the cavity sweet.

Trousseau gives the details of a case of empyema treated by injections, which he plainly considers evidence in favour of this method. The patient, a girl, six years old, was cured at last, after free suppuration for a year and eight months; as he himself says: "In this remarkable case, purulent effusion three times necessitated recourse to paracentesis; perforation of the lung took place; a solution of iodine was injected more than two hundred times, and there were nearly as many chlorinated and aromatic injections used; in the end, however, the cure was complete. Let me draw your attention to the extraordinary amount of the purulent secretion, which may be estimated at a daily average of two hundred grammes (about eight ounces) for about two hundred days, which is the enormous total of forty thousand grammes (more than eighty pints)." He very pertinently adds, "you can understand how essential was constant and copious nourishment to enable the child to struggle with this prodigious drain upon the system".

The question somewhat naturally arises, What effect upon the process of suppuration had all these more than four hundred injections? What would be the effect on any open suppurating wound of the diligent application of irritating washes? The idea cannot but suggest itself, that there may have been some association as cause and effect between this most diligent use of irritating solutions and the free and prolonged suppuration. And yet it was essential to keep the cavity sweet.

What does this process of washing-out entail, both to patient and to doctor? Either once or twice every day, the performance has to be gone through; there are the necessary preliminaries of arrangement of macintosh and various receptacles, and of the patient himself in a certain position with relation to these accessories; then follows the injection of the fluid, either through the drainage-tube or through a catheter, introduced with more or less pain to the patient; now and again the irritation of the pleura excites cough, which sends a volley of mingled injection and pus through the opening, to the discomfiture of the medical man, if experience have not taught him the precaution of "standing out of the line of fire". After all this, the patient and his surroundings have to be made clean and dry from the effects of both the injection and the cough.

Evidently this process, repeated once or twice every day, must have an injurious effect upon a patient whose condition is probably one in which it is important that all sources of disturbance, of local irritation, and of consequent exhaustion, should be carefully guarded against.

During the course of treatment, it will probably happen at intervals that, in spite of the injections, the discharge will putrefy in the pleura, or that some decomposing pus will be temporarily retained; when this occurs, the elevated temperature and the general condition of the patient

* Read before the Bath and Bristol Branch.

will at once indicate the absorption of poisonous matter; and immediate removal of the cause of the mischief is necessary.

In these cases, where a free vent for the pus is imperative, and where the ill effects of decomposition in the pleura have been manifested, we have had to decide between two evils: the evil of letting the patient alone, and the evil of adopting a mode of treatment that is disturbing and exhausting to him, and a source of irritation, and probably of increased suppuration as regards the pleura itself. As, however, the former evil is by far the greater, we have had to put up with the latter.

The problem is, therefore, set before us: How can we allow free exit to discharges, and, at the same time, prevent decomposition in the pleura? I believe that Professor Lister has found the solution of this problem for us in his antiseptic method.

To return to the case I have brought before you. Within three months more than ten pints of pus had been withdrawn from the chest, and the rapid reaccumulation of fluid, together with the onset of hectic, made it evident that there was no tendency to that speedy cure of empyema that sometimes takes place in children. The drainage-tube was then inserted antiseptically, and the details of the after-treatment were carefully carried out. The discharge, at first profuse, rapidly diminished, and in about two months the boy was practically cured. His general condition had, meanwhile, undergone the most marked improvement. There was no decomposition of the pus throughout.

What amount of disturbance did the treatment entail upon the patient? Simply the removal of the old dressings under the spray, and the substitution of fresh. No pain was given to the patient; at no time was it necessary to use any injections into the cavity, and there was no evidence of any irritation of the pleura. Thus the physical and moral disturbance of the patient was reduced to a minimum.

Contrast this with the treatment by injections that I have before described, and the result is surely favourable to the antiseptic method.

Again, whilst the injections have to be persevered in once or twice every day, the intervals between the antiseptic dressings gradually lengthen as the discharge decreases; at first, the dressings must be renewed twice a day, soon only once, then every other day, then once in two, three, or four days. The frequent repetition of injections is unavoidable, owing to the *rapidity of decomposition*; whilst the *antiseptic dressing* is renewed only when the *amount of discharge* makes it necessary—decomposition being excluded from consideration.

It appears to me that the antiseptic method is especially applicable to the treatment of empyema; in this disease, the conditions are much the same as in chronic abscess, as, for example, psoas abscess. In both the course of the disease is more or less chronic—in both there is a large suppurating surface, communicating with the external air by a small opening only, and it is specially easy, by the use of antiseptics, to guard this small opening against the entrance of the excitors of putrefaction, whatever they may be; in both, the large extent of internal surface and the small vent for discharges, make the presence of putrid matter proportionally dangerous; and in both will the antiseptic treatment ward off the constitutional disturbance that the absorption of septic matter is well known to produce, and which too often ends in the exhaustion and death of the patient.

There is yet another advantage that I would claim for the treatment I have advocated. We know now that thoracentesis is not the absolutely safe operation that it was once hoped to be. Every now and then we hear of a case where sudden death has occurred, either during or immediately after the operation, or during the after-treatment.

In the first class of cases, where death occurs either during the operation or immediately after it, the fatal result is evidently due, in one way or another, to the removal of the fluid; and against these cases the antiseptic treatment manifestly affords no safeguard.

In the second class, sudden death has taken place during the after-treatment; and, in a large proportion of the reported instances, this has occurred during or immediately after the washing-out of the pleura. We are, therefore, led to seek for an explanation of the causal relationship of the injection to the fatal result. As stated in the *BRITISH MEDICAL JOURNAL* of February 12th, the probable hypothesis is that the long-continued compression of the lung favours the formation of clots in the pulmonary veins or in the left auricle; and that, during the process of washing-out the pleura, fragments of these may be detached, conveyed into the left ventricle, and thence into the cerebral arteries. Vallin reports a case where this was probably the cause of death, but there was no autopsy. Dr. Balthazar Foster, in the *Medical Times and Gazette* for 1874, relates a remarkable instance that is strong evidence of the truth of this theory; in his case, after thoracentesis, gangrene of both legs set in, together with symptoms of suppression of urine. *Post mortem*, both common iliac arteries were found blocked by emboli, and similar obstructions existed in the kidney and spleen. On examination of the heart, a branched clot was found lying loose in the left ventricle,

and the mouths of the pulmonary veins were partially blocked by coagula, one of which hung down into the left auricle. The clots in these pulmonary veins were evidently the source of the emboli.

Hence the conclusion: if we avoid injections, we avoid the probable cause of so serious an accident as sudden death during the after-treatment of empyema. By adopting the antiseptic method, we avert the necessity for any disturbance of the pleura by injections.

To sum up: in all cases of empyema, where it is necessary to establish a fistulous opening, I strongly advocate a fair trial of the antiseptic treatment. To the objection, that many patients do well without any use of injections, I reply that, in a given case of empyema, it is impossible to say what will be the course of the disease after the opening is established—whether cure will be effected without any further local treatment, or whether a long course of injections will be needed; and that it is prudent to adopt that method which, while benefiting the simplest cases, will place the most severe under the best conditions for recovery.

The advantages of the antiseptic treatment are these.

1. A free discharge is allowed.
2. Decomposition and consequent absorption of the products of putrefaction are prevented.
3. The treatment is very much less disturbing and exhausting to the patient, both because the process itself is much simpler, and also because it is less frequently repeated.
4. There is no irritation of the pleura.
5. One, and perhaps the chief, cause of sudden death during the after-treatment is avoided.

In a word, by the application of the antiseptic method to empyema, we are enabled to secure all the advantages of a free opening, without any of its disadvantages.

NOTES OF A CASE OF EMPYEMA: THORACENTESIS: ALBUMINOUS EXPECTORATION.*

By DONALD FRASER, M.D., Paisley,
Fellow of the Faculty of Physicians and Surgeons, Glasgow.

THE following case of empyema presents a few points likely to be of interest to the members of this Society. The case was carefully watched throughout its course, and I had the benefit of repeated consultations with Dr. Gairdner.

The patient was a young married lady, living in the country, of active and healthy habits. Her health, prior to this attack, had always been good, though her appearance gave the impression of delicacy. Her family history was upon the whole good. A brother had died a few months before my attendance began, from heart-disease. Rather curiously, also, a married sister, while in attendance upon my patient, had a sharp attack of pleurisy of the left side, with well marked effusion, accompanied with rusty and muco-purulent expectoration. From this illness she made an early and good recovery.

On March 26th, 1875, after exposure to cold, my patient was taken ill with symptoms of a severe febrile attack, which in a few days declared itself as a pleurisy of the left side, which went on to effusion. The temperature in the axilla on the eighth day of the disease was 102.8 deg. Fahr. I need not weary you with the ordinary details as to physical signs and treatment. I may note, however, that a blister, applied, with the approval of Dr. Gairdner, gave rise to a severe strangury, with hæmaturia; the urine for a few days being highly albuminous, and showing abundance of renal epithelium.

On the thirteenth day, the evening temperature fell two degrees. On the fifteenth, a rise again took place, accompanied by rusty expectoration. From this time the fever increased, and maintained the character of hectic pyrexia; the average morning temperature being 100 deg. Fahr., the evening 103 deg. (see chart†); pulse between 120 and 130. An abundant frothy mucous expectoration, occasionally rusty, prevailed up to the thirty-seventh day. The effusion continued steadily to increase, pushing the heart more and more to the right side, till, by the twenty-sixth day, it was beating under the right nipple. There was complete dulness to percussion over all but the apex-region; no respiratory murmur, save in the same region, while in the infraclavicular space there was to be heard a mucous *râle*, with a suspiciously hollow sound. On measurement, the left side was found to be three-quarters of an inch greater in circumference than the right. The right lung remained free from any indications of collateral fluxion. There

* Read before the Glasgow Medico-Chirurgical Society.

† A chart, showing the temperature, pulse, and general course of the case, was handed round in the society.

was dyspnoea, though not to a distressing extent. As the disease progressed, it became a question whether there was not a tubercular element in the case. The continuance and character of the pyrexia, and the whole aspect of the patient, made it very probable that at all events the effusion had become purulent.

At a consultation on the thirty-sixth day of the case with Drs. Gairdner and Begbie, it was decided that paracentesis thoracis should be performed. This was done by Dr. Gairdner with a Bowditch's syringe; the puncture being made about the eighth interspace, and in the perpendicular line of the lower angle of the scapula, this being the usual situation recommended by Bowditch. The first few strokes of the piston brought out about a tablespoonful of healthy purulent fluid. No more could be obtained, and, after the use of as much force as could safely be applied, the cannula was withdrawn. Drs. Gairdner and Begbie recommended that, as soon as the patient had recovered from the effects of this interference, a free opening with antiseptic precautions should be made, and a drainage tube inserted. It was also suggested that she should have large doses of quinine. Two days afterwards (April 27th), I obtained the assistance of Dr. Hector Cameron, who made a free incision antiseptically into the chest-wall, a few inches further out, and in the interspace below that punctured by Dr. Gairdner. The old difficulty, evidently a mass of tough fibrine, was met with, preventing the exit of the pleural fluid. An aspirator-needle was introduced at this stage through the incision in the chest-wall; but we were unable to withdraw more than an ounce of fluid. I agreed with Dr. Cameron, that to pursue the attempt in that situation, and at that time, would be highly inexpedient. This particular locality, though recommended by Bowditch, is evidently not the best place for the puncture, because of the greater likelihood of finding an abundance of false membrane there.

Before another puncture could be made, there occurred a most interesting change in the case. Next day, I found my patient none the worse for the interference, and, on examination of her chest, was rather astonished to find that the area in which the respiratory murmur was audible had perceptibly, though very slightly, increased. I was informed that the expectoration, which throughout had been abundant, and of a frothy mucous character, had increased in quantity during the previous night. I found it to be still of the character already described, with the addition of a large quantity of clear translucent fluid; this fluid had begun to be expectorated a few hours after the puncture. The fluid, on addition of nitric acid, or on boiling, coagulated into an almost solid mass. On filtering, it gave the same reaction. Under the microscope, it showed an abundance of epithelial and pus cells. The second day after the puncture, my patient expectorated about a pint of mucopurulent matter. The albuminous fluid was very much lessened. I may here remark that this albuminous expectoration did not last much longer than this day (April 29th). Coincident with this increased expectoration, the area of respiratory murmur was increasing, there being obvious signs of increased expansion of the upper part of left lung. Dr. Gairdner, who saw her at this time, advised fresh delay as to repeating the paracentesis. April 30th, very little expectoration; pulse 130; respirations 30 per minute. May 1st, pulse 140; much coughing, and dyspnoea; the sputa were distinctly purulent. On percussion, the stomach-note was heard in the left axillary region, about the level of the left nipple. It was now certain that perforation of the lung had taken place, and that the empyema was discharging itself by way of the bronchi.

For the next twenty-one days, that is, from the forty-first till the sixty-second day of the case, she put up an average of a pint a day of purulent matter. After the latter date, the quantity gradually lessened, and ceased entirely on the one hundred and third day. With the view of obtaining even negative evidence of the condition of the lung, I, on one occasion, boiled a pint of expectoration with caustic soda, but was unable, on microscopic examination, to find any specimen of lung-tissue.

From the date of perforation, the temperature fell steadily, though, during the expectoration of the pus in large quantity, the evening temperature remained about 101 deg. Fahr. The temperature did not reach the normal permanently until the one hundred and thirteenth day. The measurement of the two sides was found to be equal on the forty-eighth day. The heart came back very gradually, and did not reach its proper position until the sixty-seventh day. Ten days after the perforation, there were indications in the posterior and middle portions of the left chest of limited pneumothorax, of a temporary character. I would find tympanic percussion over the part in question at one visit, and two days afterwards would find that it had disappeared.

I need only now record that my patient made a most excellent recovery, that she at present feels and looks remarkably well, and has come through some very unpleasant weather. The left lung has recovered to a wonderful extent, being certainly no worse than after many

ordinary cases of pleurisy, with effusion and absorption. The respiratory murmur in the apex-region is quite normal. There is still some dullness on percussion, and feeble respiratory murmur at the base. Three months ago (October 1875), there was a difference of three-quarters of an inch in the circumference of the two sides; this, of course, is due to the contraction of the affected side. It may be of interest to mention that twenty grains of quinine were given every day, for thirty-eight days, with great apparent benefit, and without causing the slightest gastric or other disturbance. She took, in all, 1,150 grains of quinine. On the only occasion on which we intermitted the quinine for a day or two, a rise of about a degree in temperature took place. I am persuaded that the quinine exercised, at the least, a slight apyretic influence. I have no doubt, further, that the excellent nursing and very favourable surroundings of this lady materially contributed to the successful result. From the date of the perforation till the time when the daily expectoration amounted to less than one ounce, she expectorated about twenty-five pints of pus. This discharge was immediately preceded, as already mentioned, by the expectoration of a considerable quantity of albuminous fluid.

There has been considerable controversy about this subject of albuminous expectoration following paracentesis, particularly in France. In further discussing this, I have to acknowledge my indebtedness to an excellent summary of the discussion among the French physicians, to be found in the *BRITISH MEDICAL JOURNAL* for October 1873.

This peculiar expectoration following paracentesis is comparatively rare. When it does occur, it generally comes on within an hour or so after the operation, in the form of a more or less abundant expectoration of what is essentially serous fluid. It is accompanied by dyspnoea, more or less severe, and by the physical signs of oedema of the lung. In a certain number of cases, the oedema is so intense as to cause death. A number of explanations have been brought forward as to the cause of this kind of expectoration. Passage of the pleural fluid through a perforation of the lung, by means of the trocar or needle of the operator, is one. This, by the way, is not an unlikely accident; but in most of the cases noted there was effusion in large quantity; so that the lung was well out of the way, and indications of such an accident were completely wanting. A second explanation is, that spontaneous perforation of the lung takes place. To this a number of weighty objections are urged. This expectoration, for instance, was found to follow four successive thoracenteses performed on the same patient; so that, if that idea be correct, perforation must have taken place each time. It has also been objected that spontaneous perforation, though occurring in empyema, is rarely, if ever, seen in serous pleurisy. A third explanation is that it is due to a species of transudation of the pleural fluid through the pulmonary vesicles into the bronchi, an explanation which most writers have considered thoroughly insufficient. The fourth explanation, and that usually adopted, is that the fluid expectorated is not of pleural origin, but the result of pulmonary oedema. Various explanations have been given of the cause of this oedema. First, it is supposed to be caused by the air suddenly entering the previously compressed lung, and leading, by its irritation, to congestion. Here the question arises, why has the air no such effect on the lungs of newly born children. Dr. George Johnson, dissatisfied with this explanation, maintains that it may be due to coagula in the pulmonary veins, leading to capillary stasis, and consequent oedema, a transudation similar to what occurs from the Malpighian capillaries in albuminuria. Another opinion is that it is due to vaso-motor paralysis of the vessels, said paralysis being due to the excessive pressure to which the lung has been subjected by the effused fluid, the inflation of the lung allowing the vessels to become overfilled. However we may seek to explain this fluxion to the lung, it is generally considered to be the most likely cause of the albuminous expectoration. At the same time, it appears to me that there is a confusion between cases of pulmonary oedema, such as may be induced by a variety of causes, and those cases directly due to operative interference. There are few physicians who have not seen cases of acute and severe oedema of the lung; such cases, by the way, brilliantly relieved by general blood-letting. I have no doubt, therefore, that many of the cases recorded, particularly of the more severe kinds, were due to fluxion to the lung, in whatever way that fluxion may have been caused. Making all due allowance for such cases following such interference as paracentesis, I am satisfied that a great many of the recorded cases are due to passage of the pleural fluid by perforation, either spontaneous or traumatic. It has been argued against this, that the expectoration has been known to occur in cases of empyema, where, if any fluid should pass, it ought to be pus. I have no doubt that these cases, at all events, were cases of filtration, through the lung, of the more fluid portions of the pus, as in my case. My impression is that the perforation which took place was precipitated by the operation. The removal of even a small portion of the pleural fluid by

paracentesis must necessarily affect the physical conditions of the lung. It seems as if the danger lay in the too free use of aspiration—in the attempt, futile though it must be, to exhaust more or less the pleural cavity of its fluid contents. The pressure, in such circumstances, upon the lung is very likely to lead, in a certain number of cases, to perforation into the lung, and passage of some of the remaining pleural fluid. Albuminous expectoration ought to occur much more frequently if it were due to the ordinary cause of pulmonary oedema. Why is it so rarely seen in cases of pulmonary oedema apart from thoracentesis?

Some of the difficulties surrounding this question will be cleared up as the operation of thoracentesis becomes more common. Meanwhile, I instance my case as one where albuminous expectoration occurred immediately after the operation of paracentesis, and under such circumstances as make it clear that it was not due to oedema of the lung. I have no doubt that many of the recorded cases can be explained in the same way.

[June 12th, 1876. Since the above was written, my patient has enjoyed excellent health, and has suffered from no chest-symptoms whatever.]

FREE INCISION, VERSUS THE ASPIRATOR IN EMPYEMA.

By ANTHONY BELL, L.R.C.P.,

Senior Assistant Surgeon to the Newcastle-upon-Tyne Infirmary.

HAVING always held a strong opinion regarding the vast importance of a free incision in empyema, and having treated several cases successfully by this line of treatment, perhaps a brief history of my last three cases may not prove uninteresting. I have never lost sight of my patients, and, upon inspection last October, found them in perfect good health.

CASE I. Mr. A., aged 19. On February 15th, 1869, I met his medical adviser in consultation. The patient had suffered from an attack of pleurisy of the left side. He was propped up in bed and gasping for breath. His pulse was 144; he was much emaciated, and troubled with a short dry cough. The left side was dull on percussion; the heart pushed to the right side. An exploring needle revealed pus. A free incision was made into the pleural cavity. No drainage-tube was required. The cavity was not syringed. The wound was poulticed; and it closed in about two months. The weight of the lad when he first went out was 7 stones. In October, 1874, his weight was 11 stones 11 pounds.

CASE II. Mr. W., aged 34, stated that he had been under treatment for a period of six months, and that his illness commenced with a severe pain in the left side, accompanied by cough and difficulty in breathing. He was emaciated and extremely weak. His weight was 8 stone. The whole of the left side of the chest was dull on percussion, and the heart was pushed to the right of the sternum. An exploring needle revealed pus. A free incision was made into the pleural cavity, and over 40 ounces of pus were evacuated. The cavity was daily syringed with warm carbolie lotion; no drainage-tube was required. The wound was poulticed, and the opening closed three months afterwards. In October 1874, his weight was 10 stones.

CASE III. On May 18th, 1874, I visited Mr. O., aged 36, and found him suffering from a smart attack of pleurisy of the right side. He was being treated by his medical adviser by hot applications, which were continued by myself. With my utmost efforts I failed to arrest effusion and produce absorption. On July 15th, he complained of shortness of breath and troublesome cough, with profuse expectoration. He was much emaciated, and suffered from night-sweats; pulse 104; temperature 98.3 degs. On inspection, I found the right side almost stationary. The intercostal spaces were flattened and somewhat widened; but there was no perceptible enlargement of the right half of the chest. Upon percussion, there was dulness in front from the liver to a little above the nipple, and behind from the liver to within an inch from the spine of the scapula. There was absence of respiratory murmur, vocal resonance, and vibration. The infraclavicular space of the same side was resonant, and there the respiratory murmur was harsh. The left side was normal. The aspirator-needle was inserted between the seventh and eighth ribs, and over 30 ounces of thick laudable pus were withdrawn. Great relief was afforded by this operation. A dose of chlorodyne was then given.

On July 16th, the pulse was 100; temperature 102.2 degs. He stated he could breathe with his right lung.

On July 17th, chloroform was administered, and a free incision made at the site of the puncture into the pleural cavity. More than 20 ounces of pus without odour were evacuated. A pad of tenax was applied. The chlorodyne was repeated.

On July 18th, the pulse was 100; temperature 98 degs. There had been no cough nor difficulty of breathing since the first operation. The cavity was syringed night and morning with warm carbolie lotion.

On July 20th, the opening seemed to be closing too quickly, consequently, a drainage-tube was inserted. Tenax was substituted for the poultices, as it was found lighter and cleaner.

On July 21st, there was a free discharge from the tube.

On August 7th, the patient was up. His weight was 8 stones 5 pounds.

On August 28th, only a little serum exuded from the tube in the morning.

On September 18th, he went down to the home.

On September 28th, the tube was removed. The wound then closed, and healed in three days. In October 1874 his weight was 10 stones 11 pounds. His weight in March 1875 was 12½ stones.

[Mr. Bell forwarded with his paper photographs of all three patients, taken in October 1874. The men were evidently at that time in good condition. In each case, the skin was puckered in at the site of the healed opening into the pleura; which, in every instance, was just below the anterior margin of the axilla, between the seventh and eighth ribs; and so situated, that the nipple of the same side lay about midway between the cicatrix and the middle line of the sternum. In Cases I and II, the puncture was made into the left pleura; in the third case, the opening was on the right side of the chest. The side which had been diseased seems at that date to have been no smaller than the opposite healthy side; and, altogether, upon paper, the results appear highly satisfactory.]

CLINICAL MEMORANDA.

EAR-DISEASE AND LIFE-ASSURANCE.

ERE the interest on the above subject, which was called forth by a communication in the JOURNAL on June 17th, by Dr. Thomas, passes away, and as he, as well as many others, may be under the impression that this subject has hitherto escaped notice, I ask the favour of space in order to say that this impression, if made, is erroneous. So long ago as 1860, Toynbee, in his work (p. 344), drew attention to it, but in the briefest possible manner; while, in January last, I read a paper On Unrecognised Ear-Disease in relation to Life-Assurance, at a meeting of the Medico-Chirurgical Society in this city, an abstract of which paper and the discussion that it elicited may be seen in the report of the meeting in the *Glasgow Medical Journal* for April. I cannot lay claim to priority in bringing this matter before the profession, but I do claim to be the first aural surgeon who has gone fully into the subject, more fully than any foreign writer, so far as I know; certainly more fully than either Toynbee or Dr. Thomas, who are the only English writers on the subject; whilst, in point of time, I have forestalled the last-named gentleman. Besides suggesting to the assurance-offices the pressing need of a direct question in their proposal-forms as to the past and present history of the organs of hearing, I have laid down principles to guide their referees in regard to cases of ear-disease; in fact, in that paper I endeavoured to exhaust the subject of "ear-disease in relation to life-assurance," and I believe I have done so. The paper, I may add, is based upon a wide and what, I think, is an unique experience of life-assurance ear-cases.

JAMES PATTERSON CASSELLS, M.D., Glasgow.

THERAPEUTIC MEMORANDA.

CUCUA.

I HAVE recently made several trials of this drug; and, although circumstances have prevented my undertaking such a crucial test as that detailed by Sir R. Christison, I am convinced that it greatly relieves muscular fatigue, though only for a limited time (between two and three hours). The first specimen I procured, although from one of the foremost metropolitan chemists, was absolutely inert; and I am afraid that most of the cuca at present sold in the shops is in like condition. Messrs. J. Bell and Co. of Oxford Street have lately furnished me with a much better sample; and, by comparing this with others, I conclude that good leaves have three distinguishing characteristics: a tea-like odour, a warm pleasantly pungent taste, and a dark green colour. In bad specimens, the odour is camphoraceous, the colour brownish grey, and the pungent taste wanting.

The bulk of the dried leaves is a great hindrance to a more general use of cuca, the ordinary dose of a drachm and a half being equivalent

to a good handful. I have found it convenient, before mastication, to soak the leaves in a little Tarragona wine, which rapidly deprives them of their pungency, and probably also of their active principle, though I have not yet proved this with absolute certainty. Some such vinous preparation or solid extract will be requisite, if the drug is to be used on an extensive scale.

HERBERT L. SNOW, M.D. Lond., Bayswater.

BICARBONATE OF SODA IN SUPPRESSION OF URINE.

DR. LEMON LANE'S cases, treated with the above, warm-baths and sudorifics, are satisfactory enough, but the patients were not in that immediate danger in which I have applied the following plan with very marked success in several instances. I allude to cases of complete suppression, with general dropsy, coma, and convulsions. Here an enema of half an ounce of acetate of potash in from one to two quarts of warm water, poultices (linseed or digitalis) to the loins, cold to the head, and sinapisms to the legs, have proved very successful. I presume the tubular exudation is albuminoid. Where there is much irritability of stomach in acute desquamative nephritis, this alkaline enema is a valuable adjunct to treatment.

W. J. WILSON, L.R.C.P. Ed., etc., Clay Cross.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

WE have commenced a series of "hospital notes", which will serve to record points in practice, clinical and therapeutic hints, and brief notes of interesting points in relation to the science and art of medicine observed in the current inspection of hospitals. Such "chips" are among the most valuable materials of the workshop, and are too often sacrificed because there is no appropriate place in which they can be garnered. Contributions from the provincial hospitals will be very welcome in this column.

LONDON HOSPITAL.

Osteotomy.—Mr. Maunder used the mallet and chisel to divide the femur below the trochanter in two cases last week. One was a girl, aged 17, in whom, from old hip-disease, the left hip was ankylosed, and the left thigh abducted and flexed on the pelvis at an angle of 118 degrees. No reduction could be effected under chloroform, and no improvement by six weeks of Thomas's splints. Mr. Maunder passed down to the bone a small double-edged bistoury, and, as he withdrew it, passed into the same incision a small chisel, both instruments dipped in carbolic oil. The limb being well supported from below, with a few strokes of the mallet, and occasional moves of the chisel, the operation was completed in two or three minutes, the wound closed, and the limb straightened on a splint. The other case, in which the thigh was also flexed on the pelvis, occurred in a robust seaman who, about eighteen months ago, had had gonorrhoea, and bubo in the left groin; and, whilst ill with fever at Hong Kong, had fallen, and probably dislocated his left femur. There were scars of abscesses on the side of the abdomen, and the hip-joint was ankylosed; on applying Nélaton's test-line between the tuberosity of the ischium, and anterior superior spine of the ilium, the top of the great trochanter was found to be two inches external to the line. The operation in this case was of the same character as the last, but required some seven minutes, and seemed rather more difficult. Mr. Maunder showed three other patients, in whom the operation had given excellent results. In one, a case of hip-disease with deformity of seventeen years' duration, two chisels had chipped, but the case had ended well after very slight supputation. The second case was that of a young girl, also with ankylosed hip; and the third was especially remarkable, because, before operation, the thigh was at right angles with the pelvis when the back was straightened. The patient, aged 24, had been lame from a fall at the age of seven, and had got about on crutches with his hand holding one knee. After a fair trial of Thomas's splint, osteotomy was performed eight weeks ago, and he was now able to walk with a straight limb.

Ether Administration.—Mr. J. E. Adams has introduced several improvements in this. The ether-reservoir (Hawksley's) is placed in a tin of hot water, kept to 100 degrees, so as to secure the boiling of the ether,

and by a tube arrangement carried above the heads of the assistants to a modified face-piece; the patient receives the ether-vapour, and the expired air is conveyed away by another valve. The plan does not seem to prevent all the troubles of ether-anæsthesia, but secures a proper temperature of the vapour, and economises time, we believe, and ether without doubt.

Thomas's Splint was being fairly tried in the wards. From the long back splint with limbs for thorax and thigh, Mr. Maunder had not had much good result in the old hip cases in which he had tried it, but he showed a case of "white swelling" of knee doing exceedingly well; it had been a severe well-marked case in a boy, and, after some rest, and cold, and pressure, and even division of the hamstring tendons, the knee splint had been applied. (This is the splint with two parallel irons taking support from the hip, and allowing the foot to swing between them, whilst the patient walks on the round end of the irons, having a patten of equal length on the sound foot—as introduced by Mr. Thomas of Liverpool.) The lad was now walking as described, so having the advantage of air and exercise.

Excision of Os Calcis was conveniently performed by incision along the outer side of the foot from the base of the little toe, avoiding a scar on the sole.

Treatment of Fistula.—After operation, plug with lint for twenty-four hours, afterwards let an oiled finger be passed daily; nothing more is required.

Hydrops Articularis.—In a chronic case, where rest and blistering had failed to cure permanently, iodine was being injected: two drachms of tincture to one ounce and a half of water had not produced irritation; and equal parts had been recently used without more than a moderate degree of inflammatory action. The joint was much improved, but later, the full strength tincture would be used, if required.

Leptandrin.—Dr. Feawick has found this a very useful cholagogue and alterative in grain doses. Two grains have an aperient action. It acts well combined with podophyllin in cases of bilious headache.

Diabetes: Effects of Iodide.—The patient, aged 40, and ailing, apparently, nine or ten months, got, on admission, a regulated diet excluding starch, and baths containing nitro-hydrochloric acid. After some days, he got also five grains of potassic iodide thrice daily; the amount of urine and of sugar immediately and progressively increased, and, on omission of iodide, immediately lessened; other treatment remaining the same.

Hydatids of Liver.—A sailor, aged 34, had liver-pain three years ago, but says he got well as an out-patient. Nine months ago, he noticed fulness over the liver, dyspnoea on exertion, and varying appetite. On admission, the diagnosis was made from the duration of symptoms without emaciation, or violent pain or jaundice or vomiting, and from the presence of an elastic tumour in the hepatic region. On tapping, sixty ounces of clear fluid containing cysticerci were withdrawn. This was followed by some localised pleurisy; and a second tapping on July 5th (evacuating forty ounces) is followed by a localised peritonitis. The man seems doing well; but the liver-fulness in front is still about twelve inches broad, though behind it is much less. Dr. Feawick has seldom or never before seen this malady in sailors. "They have no dogs on board; and this parasite must come from the fox, the dog, or the wolf. The constant association with dogs in Iceland explains the frequency of hydatid disease there."

Periostitis of Rib (syphilitic).—The usual site is above the left nipple. The present case has it affecting the seventh or eighth rib, at the angle. It was sent in as pleuritis.

Abdominal Cancer: Diagnosis.—"Always examine for enlarged glands in the skin of the navel; it is an early sign." The case before us has a growth near the pylorus. To ascertain its mobility and the outline of the stomach, the patient was desired to drink one or two tumblerfuls of soda-water. The gas, etc., distending the stomach, lowered the tumour by about an inch, and made it more prominent. "In another case, sent in as cancer of liver, we proved the non-adhesion of the growth by injecting the colon with soap-suds, and so pressing it forwards."

"The Devil's Chain."—A man, aged 32, lies in bed with general muscular palsy, affecting especially the extensors. He has now delusions, relating particularly the walks that he takes daily, the taverns he visits, and the money he has. His father was insane. He is himself an inveterate drunkard, accustomed to a pint of gin before breakfast. He has a history of syphilis and of excessive venery. His present condition, resembling in part ataxy, in part general paralysis—though there are no tremors—is attributed to exhaustion or atrophy of brain and cord.

* Is it quite certain that cysticercus is not a larval form of tænia solium? The two forms occur sometimes in the same subject—a case was recently reported by M. Broca.—*Ref.*

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 22ND, 1876.

THE CONTAGIOUS DISEASES ACTS.

THE Association for promoting the extension of the Contagious Diseases Acts have issued an interesting report for 1876, which we think it well to bring under the notice of our readers.

The Committee issued its last Report in June 1875, previous to the debate on the Bill for the Repeal of the Contagious Diseases Acts. The debate and division were, they observe, most satisfactory, and the House of Commons affirmed in the most decided manner the legislation of the two preceding Parliaments.

They had hoped that the result of this division would have induced the opponents of the Acts to refrain for the present from occupying the time and attention of Parliament; but this was not so, and on Wednesday evening last a debate once more ended in decisive defeat of the advocates of repeal—the total number of supporters being only 102.

In the last Report, they felt it their duty to call special attention to the frightful amount of disease existing in some of our large seaport towns, and to the consequent evils arising in the mercantile marine of this and of other countries. Further inquiries convince them that unsound crews are, no less than unsound ships, a frequent source of disaster, and that early legislation is required to repress an increasing evil.

On the subject of prevention they would, at the present moment, when the attention of Parliament is drawn to the subject of better legislation for the mercantile marine, call attention to the concluding passage in the Report of the Medical Committee appointed by the Government in 1864, which is as follows.

"They cannot ignore the existence of a fertile source of disease in the seaport towns, which the Contagious Diseases Prevention Act, even as proposed to be amended, would still leave untouched, viz., that which is introduced by sailors of the merchant service of our own and other nations. These men, it is well known, are frequently diseased, and often remain for a long period without any kind of treatment. This involves so many important considerations, that the Committee only venture to call serious attention to the subject."—p. xxxiv.

They also call attention to a very able and exhaustive pamphlet just published by Mr. F. W. Lowndes of Liverpool, showing from the statistics of disease in that and other large seaport towns, the urgent necessity of preventive legislation in this direction, which we last week noticed.

They rejoice that, in the United States, in Australia, and elsewhere, the attention of statesmen and philanthropists is being more and more directed to the subject, and we look forward to the day when all nations shall combine in endeavouring to stamp out disease by measures which may at the same time promote social and moral improvement.

Sir Harcourt Johnstone's Bill for the Repeal of the Contagious Diseases Acts was rejected in 1875 by 308 votes against 126, showing a majority of 182. The division indicated that these Acts, as they become better understood, are steadily advancing in public estimation, and that the fallacies contained in the sensational statements put forth by their opponents are becoming more correctly appreciated. In 1873, the motion for their repeal was rejected by 251 votes against 128. The division of 1875, therefore, showed an increase in their favour of

57 votes as compared with 1873. This is the more significant when it is remembered that, at the late general election, the most strenuous efforts were made by the opposing Associations to induce candidates to pledge themselves to vote for repeal; while Dr. Birkbeck Nevins's version of the returns in the *Army and Navy Medical Reports* had been widely circulated; and an ex-Cabinet Minister, who, to use his own words, had "given himself up unreservedly to this agitation", had been making sensational speeches in all the principal towns in the country, an abstract of which had been extensively distributed in the form of a pamphlet by the Repeal Association.

Colonel Alexander and Mr. Cave, who defended the Acts, had little difficulty in demonstrating the sanitary advantages which they had conferred on the army and navy, and also the moral benefits which had indirectly accrued in the districts under their operation, by affording the women facilities for reformation, by the suppression of juvenile prostitution, the diminution of disorderly houses, and of disorderly conduct in the streets.

Mr. Gathorne Hardy, in reply to Mr. Stansfeld, declined to accept the statistics put forward by that gentleman on his own *ipse dixit* in preference to the official returns of the Army and Navy Departments and of the Commissioners of Police, the authors of which he warmly defended from the unfair aspersions which had been cast upon their accuracy and good faith. With reference to the suggestion of Sir H. Johnstone and Mr. Stansfeld, that voluntary hospitals for the treatment of these diseases should be supported by the Government, Mr. Hardy remarked: "If it were right for the State to subscribe to voluntary hospitals for the suppression of such diseases, how could it be said that the State was violating its duty in taking hold of women who were going about spreading pollution and death in our midst?"

At the close of his speech, Mr. Hardy made the following earnest appeal to the ladies who have devoted themselves to the task of agitating for the repeal of these Acts: "If you are so strongly convinced of the degradation which you say is imposed by these Acts upon the polluted and degraded, what do you think must be the effect of putting into the hands of young girls the horrible literature which has been circulated in connection with this agitation? Has not that literature been doing something towards polluting the minds of young girls, who lived in ignorance of these things, and who ought to be allowed to live in ignorance of such matters, and who are growing up in that innocence and that purity which is their beauty and their grace? We implore these ladies, if they are opposed to these Acts—if they think it right to agitate this question—that they will, at all events, leave our children in peace, and not pollute their minds by issuing any more of this literature."

But it seems useless to argue with the opponents of these Acts, who, while loudly denouncing them as immoral because they render vice easier and safer to men, yet wish for the establishment by Government of voluntary lock hospitals and lock wards, which, if they proved equally efficient, must obviously be attended by the same result; who, while stating that the Acts render vice easy and safe, declare almost in the same breath that they are hygienically a failure, and that wherever they have been in operation disease has increased instead of diminished; who, while charging them with all sorts of pernicious and degrading influences, yet deny them any credit for the collateral benefits which they have been shown to have produced; who denounce them as unwarrantably interfering with individual liberty, on account of their compulsory clauses, and yet would not object to the compulsory detention of women in hospital until cured, provided they were left to apply voluntarily for admission. How, they further ask, if the present system is an infringement of personal liberty, is that principle less infringed if the compulsion is removed from one end of the procedure but retained at the other? Surely if compulsion is unjustifiable, it should be abolished altogether; but if it is to be retained at all, it should be retained in the form which has been found most effectual; and the evidence of those most competent to judge shows that the early detection of disease in public women by periodical examination is essential to the efficiency

of the system. Even the Royal Commission, who, in deference to the strong objections which had been urged against these examinations, recommended their discontinuance, were constrained to say, "We are satisfied from the evidence that the frequent examination of women is the most efficacious means of controlling the disease". It is not less important in the interest of the unfortunate women themselves, who obtain the immense advantage that their disease is discovered and treated at the earliest possible period, so that while they are prevented communicating it to others, they are themselves saved from all the serious and painful consequences of neglect.

The Report of the Assistant Commissioner of Police on the operation of the Contagious Diseases Acts during 1875, states, "that though the average number of periodical examinations has slightly increased, the women have attended the medical examination with even greater regularity than in 1874".

Of thirty-three hundred individual women who attended for examination in 1875, it was necessary to obtain a magistrate's compulsory order for the insignificant number of twelve persons only. The police employed to carry out the Acts have discharged their duties most satisfactorily; indeed, only a single charge of improper or unnecessary interference has been made. Investigations into this case were most searching, the result whereof showed that, instead of excess of action on the part of the police, the error was on the side of caution, as the women in whose behalf complaint was made were ascertained to be practising open prostitution. While fully enforcing the Acts, "the police have been frequently assisted by some of the most influential authorities of the towns in which the Acts are in operation in carrying out the law".

Though fourteen hundred women, coming chiefly from unprotected districts, were registered during the year, the number of those who have left has been larger still, hence the total number remaining on the register at the end of 1875 was one hundred and sixty-five less than at the end of 1874. The opposition to the Acts, stimulated chiefly by strangers, not inhabitants of the districts, is gradually dying out. The people are becoming aware of the great benefits they receive in the suppression of open solicitation and disorderly houses; of the latter, six hundred and eighty-three have been suppressed since the Acts came into operation. Further, "the aid of the police is being constantly invoked by parents and guardians for the recovery of young women who have fallen into bad company".

In the Report of 1874, ample details are given of the excellent deterrent effect of the Acts. One hundred and ten girls, between twelve and eighteen years of age, and ninety-two above eighteen, have been rescued from houses of ill-fame, before being in any way submitted to the regulation of the Acts. The Association quote two examples of the many narrated in the Report:—

"Louisa R—, 16, was a servant, who had left her place at Gosport, and had come to seek a situation at Portsmouth. She had been enticed into a house of ill-fame by an immoral woman, where she was found by the police. Having only a few pence, and no friends, she did not know what to do. The constable took her to his inspector, who, ascertaining that the girl's mother lived at Winchester, despatched her home by the next train, and received a letter of hearty thanks for his kindness. The girl subsequently was heard of in a respectable situation.

"A servant girl of seventeen, who had been induced to remain all night out of her master's house, and had been left in a house of ill-fame, was restored in two and a-half hours after application was made to the police. Her master, a clergyman, in expressing his thanks to the police, testifies to the beneficial working of the Contagious Diseases Acts."

Besides these, one hundred and seventy-two other women, ninety-eight of whom were under twenty-one years of age, were rescued after they had commenced a life of vice without being enrolled in the register. Thus, three hundred and seventy-four women were restored to respectable positions, the greater part before they had actually fallen, the rest when only beginning an evil course.

The proportion of diseased among the new comers from unprotected districts remains about the same as in previous years, namely, 33½ per cent., or 1 in 3. Contrasting strongly with the proportion of diseased among those regularly examined, namely, 6¼ per cent.

At Sheerness, every woman attended regularly throughout the year, and at the end of 1875, not a single woman was in hospital.

The Report states that, if the Acts could be extended to the whole of South Devon and Cornwall, the existing hospitals would be amply sufficient, owing to the great diminution of disease in the present districts, while the large towns of Exeter, Torquay, Truro, and Falmouth would be prevented fostering the growth of disease as they do now.

Dartmouth, when included by the last Act of 1869, was much infested by disease, yet during the whole of 1875 not one of the women of this district was sent to hospital. One woman who arrived from London was at once examined, and, being diseased, sent to hospital. During the last three years, no case of disease contracted in Dartmouth has been entered on the sick list of the crew of the *Britannia* stationed there.

CORONERS.

WE are glad to perceive, from the annexed letter addressed to a daily contemporary, that Mr. Sergeant Cox has taken the initiative in reference to a reform in the mode of appointing coroners and in the holding of inquests. Thus he says—

"It is agreed that the coroner must no longer be an 'elected' judge. A difficulty is found in whom to vest the appointment. Mr. Cross declines the patronage for the Home Office. Why? It would not average six *per annum*. The only alternative is the Lord Chancellor. But the Home Office is more accessible to public opinion, and more likely to choose well. The coroner should be paid by salary, and not by fee. There should be no inducement to hold unnecessary inquests. On the other hand, some provision must be made for due diligence. To secure both of these objects, I suggest that, in all cases of sudden death, the officer of health for the district should be required to attend and make inquiry into the supposed cause of death. Where he finds it to be clear, as it is in the vast majority of cases, his certificate to that effect should render an inquest unnecessary. If he entertains any doubt, he should give notice to the coroner to hold an inquest. Power might also be given to the coroner to hold an inquest on his own view, or on written requisition from some local authority. But such power would be very rarely exercised. By this simple plan, at least four-fifths of the present needless inquests would be avoided. Thus restricted, I doubt if it would be prudent to dispense with a jury altogether. But the number might be limited to five, taken from the jury-list of the parish in which the inquest is held."

We quite agree in his view, that the antiquated system of entrusting the selection of these responsible officers to an ignorant and independent mob of electors, should be at once abolished.

Beyond doubt, the patronage of making these appointments could not be better placed than in the hands of the Secretary of State for the Home Department. Under limitations, to be presently mentioned, he should have the power of appointing and removing these officers.

The question here arises, By what class of persons are such offices in future to be filled? At present, an auctioneer, or a house-agent, or an attorney in want of practice, may, if sufficiently popular with the county constituency, receive the appointment, and perform its duties with that amount of officiousness, indiscretion, and ignorance, of which we have lately heard some striking examples. We can imagine the Home Secretary's dismay in having to make a selection from a motley group of candidates, medical and legal, or of neither profession, with nothing to guide him as to their qualifications or competency. Surely the proper course would be to insist upon some tests of a knowledge of the duties of the office, before allowing any man to offer himself as a candidate.

There are examining boards for persons claiming civil and military appointments; and we do not see why such a board might not be constituted for the purpose of testing the qualifications of a man desirous of obtaining the office of coroner. Such a board might be constituted

of a legal member, acquainted with the law of coroners, and of a medical member, skilled in a knowledge of the causes of death, as well as in those medico-legal subjects which usually give rise to inquiries at coroners' inquests. To these might be added a lay assessor, if necessary, to see that no undue favour is shown to candidates of either profession. The appointment should not be one of profession, but of competency to deal with all matters demanding inquiry.

If the Home Secretary were aided by a board of this kind, he would have no difficulty in making the appointments. In our opinion, Sergeant Cox's plan, as it stands, makes no provision for appointing efficient men; and we cannot be surprised at the Home Secretary declining the so-called patronage. The same objection would apply to the nomination of coroners by the Lord Chancellor, with the certainty, as a rule, that the appointments to these offices would be confined to members of the legal profession.

We quite approve of the suggestion, that power should be given to the district officer of health to attend and make inquiry into the causes of death, when sudden or not satisfactorily explained, and, if any doubt should exist, the officer should give notice to the coroner to hold an inquest. This would put a check upon unnecessary inquests, and prevent indiscreet intrusion into a house of mourning, whether the deceased belonged to the poor or to the wealthy class. Officers of health should, of course, be adequately paid for these additional duties. In the mere matter of dispensing with unnecessary inquests, there would be a saving of expense, which would cover any additional cost on this ground. A power should, as suggested, be given to a coroner to hold an inquest on his own view, or by requisition from competent authority, but only after a consultation with the medical officer of health. The necessity for an inquest is really not dependent on any legal but strictly on medical grounds, where the cause of death is in question.

The dispensing with a jury, or a limitation of the number to five, would also be a great improvement in carrying out this reform.

THE library of the Obstetrical Society of London will be closed from Monday, July 31st, to Saturday, August 12th, both days inclusive.

THE following three Fellows have been appointed to act as delegates of the Medical Society of London at the Philadelphian Medical Congress: Mr. William Adams, F.R.C.S., President; Mr. Richard Davy, F.R.C.S., Senior Secretary; and Dr. T. Lauder Brunton, F.R.S.

AT the last meeting of the Council of the Royal College of Surgeons of England, Mr. Prescott Hewett was elected President of the College, in succession to Sir James Paget; and Mr. Birkett and Mr. Simon, Vice-Presidents.

MR. QUAIN, having resigned his post of representative of the Royal College of Surgeons in the General Medical Council, Sir James Paget has been appointed in his place. Sir James Paget's presence will be a sensible contribution to the authority and debating power of the Council, both of which have greatly profited by recent appointments.

A MEETING of the Society for the Abolition of Vivisection was called on Wednesday, under an order made by Vice-Chancellor Malins, to receive a statement of accounts from Mr. Jesse, and for appointment of a committee and other business matters. It was given in evidence before the Royal Commission on Vivisection, that the Society had never been convened; nor had the committee been called together, nor any general meeting held, nor their sanction obtained for the published statements made; nor had any accounts been presented. It has at last been thought necessary to obtain an order from the Court of Chancery to compel Mr. Jesse to go through these customary formalities. The accounts showed a total subscription of £2,270 for the year, of which £852 had been expended, leaving £1,418 in hand. There was much

confusion and recrimination at the meeting. Ultimately, a committee was appointed under the order of the Court, and the meeting dispersed.

SIR WILLIAM FERGUSSON.

WE are happy to be able to report, that Sir William Fergusson continues to improve and to regain strength. All who have recently seen him are struck by his greatly improved appearance. He drives out daily, and, at the end of the month, he will start for his home in Scotland.

MR. JOHN SIMON.

WE are requested to state, that a testimonial to John Simon, Esq., C.B., M.S., late Medical Officer of Health to the Privy Council and the Local Government Board, in recognition of his eminent services in sanitary science, is now being promoted by a Committee of Medical Officers and others formed for that purpose. The co-operation of persons interested in the organisation and administration of the sanitary laws is invited. It is proposed the testimonial should take the form of a scholarship and medal; but suggestions on this point are invited from subscribers. Mr. Alfred Haviland, Medical Officer for Northampton, has undertaken to act as Honorary Secretary.

MEASLES.

DR. DUDFIELD, in reporting on the prevalence of measles in the parish of Kensington, for which he is medical officer of health, adds some remarks of public interest. The five district medical officers have, he says, attended fifty-three cases (about forty of them north of the Uxbridge Road), and the deaths have been two. The cases in private practice have been numerous—1,250, probably, in three months; for, when the disease has made its appearance, it has generally run through the family, the necessity and even the desirability of isolation of the sick not being an article of the popular faith. It is a common practice, indeed, to expose all the children to the infection when one is down with it, that they may get over what is looked upon as an inevitable trouble of childhood. The disease, therefore, when once it gets a footing in a locality, is apt to spread till most of the susceptible children have had it; and then a period of comparative immunity ensues. Thus, for example, a severe epidemic commenced at the end of 1873, which killed 148 children in seven months. It then ceased, and the deaths from this cause in the next nineteen months were only 37 in a population of 138,000. The present epidemic is less severe; for, though the population is much larger, the fatal cases in six months have been only 103, as compared with 107 in five months in the previous outbreak. Measles is not admitted into the Metropolitan District Sick Asylums; and in many of the houses of the poor it would be impossible to isolate the sick, even if the necessity or desirability of so doing were recognised by heads of families. The numerous deaths from measles in the last four weeks (32 above the average), and from whooping-cough (13 above the average), account for the excess of deaths (52) over the corrected average number, and for the high rate of mortality in young children, the deaths under five years of age being nearly 53 per cent. of total deaths.

HOT NIGHTS.

THE recent unusually hot weather has been felt keenly by all. During the day, it is borne with more or less resignation; but the hot nights are found most trying, the sleep being broken, fitful, and unrefreshing, and altogether insufficient to fit the person for the toil of the next day. In order to remedy matters as far as possible, the windows should all be widely opened after sundown, so as to cool the heated house as far as may be. On retiring to bed, a full and free current of air through the room (not a small "draught") should be cultivated, so that the lack of cubic space may be compensated by a frequent renewal of the air. There is little fear of catching cold during the present sultry nights. In addition to these measures, it is well, especially if the room face the morning sun, to sprinkle the floor liberally with water.

In its evaporation, much coolness is produced; and, with dry air, the moistness so brought about is very grateful. This measure, of course, is more effective during dry heat than moist heat. At the same time, it is well to wrap the water-bottle in a clean napkin wrung out of cold water, fastening it with a safety-pin. By this means, a draught of comparatively cool water is secured, especially if the bottle be placed where a draught will catch the damp napkin.

THE HEALTH OF HASTINGS.

A CONSIDERABLE amount of public excitement has existed lately at Hastings on the subject of obtaining an increased water-supply; one, the most numerous, party being in favour of bringing it from Glynde, a distance of several miles, at an expense of from £150,000 to £200,000; the other, of obtaining it on the spot from deep wells, at, perhaps, a tenth of the cost; the quality of water being, according to some opinions, quite as good, and, according to others, even better. The acrimony of feeling between the opposing parties is so strong that it has, we understand, given rise to law proceedings. But the subject of the water-supply is less pressing than a statement that typhoid fever was endemic in Hastings. This brought down an indignant denial from eighteen of the medical practitioners of Hastings and St. Leonard's, including the medical officers of health for both the urban and rural sanitary districts; and the medical officer of health for the urban district, in his report to the authority for the quarter ending June, states:

"The past quarter has, therefore, been a very healthy one; and I cannot refrain from expressing my disapprobation of the actions of those who have recently circulated untruthful reports respecting the prevalence of fever in this borough. These damaging and scurrilous reports have been made without any justification; and I have much pleasure in informing you that the few cases of infectious disease reported to me officially have been less in number during the quarter than usual. There is no town in England naturally free from some kind of infectious disease during a period of three months; and at the date of this report to you (so far as my own knowledge is concerned), the borough has not a single case of infectious disease, either within its municipal or parliamentary boundary. The death-rate for the past quarter amounts to 16.4 per 1,000, against 17.7 in the quarter ending March; this in itself is a clear proof that the sanitary condition of Hastings and St. Leonard's is good, and can be equalled by few other towns in England."

We think all this effectually disposes of the existence of "endemic typhoid fever"; and we cannot but think that a little forbearance on the part of the local rival parties would soon dispose of the water question in an equally satisfactory manner. The moderate party, if we may so term them, say that they have obtained within three years a supply of pure water from deep wells sufficient for half the population, and that they will do so for the whole within another two years. As far as we can understand, the water-supply has hitherto been a little deficient in quantity as compared with some towns, though better than in most, but not impure; that the water which has been alleged to be impure is not now used; and that the works in progress will make the water-supply what Mr. Ashenden, the medical officer, reports the town-drainage to be—"the most perfect in England".

SUNSTROKE.

CONSIDERING the excessively long period over which the present sultry weather has extended, we have had wonderfully few deaths by sunstroke. Only one death by that cause is recorded in the last week's return of mortality in London; although there were two deaths by it, and many cases of the disease, among the soldiers under canvas near Guildford. Sunstroke is peculiarly an affection of soldiers, and is by no means limited among them to the troopers, for some of the worst attacks of it have occurred among officers of the Prussian and Belgian troops during the exercising season. But, although we hear most of *coup de soleil* among soldiers, it may strike any one down of either sex and of any age. It may be said that there is direct and indirect *coup de soleil*; many suffering from the effects of heat, who have not been exposed directly to the rays of the sun. It has frequently occurred in European women in close barracks, and the frightful mortality of the Blackhole of Calcutta was

caused by heat-apoplexy, induced by vitiated and unremoved air of a tropical temperature. Those who are most likely to be attacked are such as are of full make, or of intemperate habits, or where bowels are confined; those who are exhausted by labour in the sun, or who sleep in close chambers or the forecastles of vessels when there is no current of air, and those who have tight clothing about their necks or chests. This being the case, the prophylaxis naturally follows. Soldiers must not be kept out too long in the morning, or marched over close sandy plains in close sultry weather. Sailors, too, cannot bear, when in harbour, an amount of exposure to the sun which they could bear with impunity at sea. The head should be well protected, while the action of the throat and chest should be free. Men, whether suffering from the effects of heat or of intemperance, must not be allowed to lie down in the sun. Free ventilation indoors is of paramount importance. We need not enter into the pathology or symptoms of sunstroke, further than to say that nervous exhaustion from the direct action of the sun, or congestion of the lungs with weak heart may predominate. The symptoms, at first sight, are like those of syncope, or of apoplexy, only accompanied by a burning skin. Although the old treatment by blood-letting may still be in a few instances advisable, the ordinary treatment is now almost universally followed, and, for practical purposes it may be said to be this: to remove the patient out of the sun, and to endeavour to place him in a current of air; to practise cold affusion on his head and chest; to administer diffusible and other stimulants; to apply mustard poultices to the extremities; to give purgatives; quinine by the mouth, or in subcutaneous injection, is often very valuable. Cases must be treated according to the symptoms that may be found. But all the good measures indicated above must be had recourse to at once. In such a disease, any delay proves fatal. Cases of it, for which nothing is done on the outset and that are merely sent off to hospital, become hopeless on the way, and rarely recover.

WESTMINSTER HOSPITAL.

THE governors of this institution have resolved to carry out at once the many sanitary improvements the urgency of which has been acknowledged. The sculleries and water-closets are to be removed from the wards; bath and lavatory accommodation is to be supplied to each set of wards; the operating-theatre is to be improved; delirious and infectious wards are to be built on the roof; nurses' dormitories are to be added; and a free supply of fresh air and water will be guaranteed, by Tohn's system of ventilation and by a proper erection of hydrants. The hospital is also to be thoroughly painted and put in order. These works will shortly commence, and it is hoped that the hospital will only require to be completely closed for two months in 1877.

THE PROSECUTION OF PRESCRIBING DRUGGISTS.

WE have postponed from week to week, under pressure of other matter, the notice of an action brought in the name of the Apothecaries' Company of London, but at the instance, we believe, of the Medical Defence Association, against a certain Mr. Young of Chelmsford, for practising as an apothecary without holding a certificate from the Society. The prosecution was conducted by Mr. Pridham, of the firm of Green and Pridham, 6, John Street, Bedford Row, London. Mr. Pridham's opening sets forth the law which governs this class of action, very clearly; and as it may be useful to many of our associates to have before them such a statement, we reproduce that part of the report from the *Essex Herald*.

"Mr. Pridham said: This is an action to recover a penalty of £20, which we allege to have been forfeited by the defendant for practising, as an apothecary without the necessary legal qualification from the Apothecaries' Society. The precise offence which we impute to the defendant by our particulars is, that he, not having been in practice as an apothecary prior to the first of August, 1825, which is the day mentioned in the Apothecaries' Act, has practised as such without having a certificate of qualification from the Court of Examiners of this society. The statute under which this action is brought is a

statute passed in the fifty-fifth year of the reign of King George III, chap. 124, commonly known as the Apothecaries' Act. The fourteenth section enacts that, to prevent any person from practising as an apothecary without being properly qualified, from and after August 1st, 1815, it shall not be lawful for any person, except persons already in practice, to practise as an apothecary unless he shall have been examined by the Court of Examiners of the Apothecaries' Society, and have received a certificate of qualification from them. Well, then, the twentieth section enables the recovery of a penalty of £20 from any person committing this offence. Although, your honour, the twentieth section of the Act does not mention the County Court, yet actions of this kind have been brought in the County Court, and judgments have been recovered for the penalty. The case of the Apothecaries' Company *v.* Burt, reported in the 1st of Loundes, Maxwell, and Pollock, page 405, has settled that these penalties can be recovered in county courts. The next point which I shall have to define to your honour is, what constitutes the practice of an apothecary. The duties of an apothecary have been defined by Mr. Justice Cresswell in the case of the Apothecaries' Company *v.* Lotinga, reported in 2 Moody and Robertson 495, where the learned judge said he apprehended that an apothecary was a person who professed to judge of internal disease by its symptoms, and applied himself to cure that disease by medicines, and if the jury were of opinion that the defendant had acted in that way, he recommended them to find a verdict against him. That was a case where a surgeon had stepped out of his province and acted as an apothecary. A chemist was one who sold medicines that were asked for, whereas an apothecary selected the medicines. The first point I shall establish in each case to-day is the nature of the disease; next that the defendant selected medicines for cure or relief; and then that such selection was with a view to gain."

The facts having been proved, and Mr. Young having pleaded in vain that he was a "registered chemist", the judge gave a verdict as follows.

"His Honour: I give a verdict for the plaintiffs for the amount claimed. If there had been a jury I think I should have summed up to them in the words of Baron Bramwell, in the case of the Apothecaries' Company *v.* Nottingham, which Mr. Jones has been kind enough to hand up to me, for I don't know that there could be a more sensible and useful summing up in such a case either for the public or for the persons who bring themselves under these Acts. Baron Bramwell said: 'You have to find a true verdict on the evidence whether you like the Act or not. Perhaps you may think that a person has a right to practise as he likes, whether qualified or not; or on the other hand, you may think that, whereas the poorer classes have no opportunity of judging of or ascertaining the qualifications of the persons to whom they resort for medical advice, the legislature should require such persons to possess proper skill and knowledge, and to obtain a certificate thereof. No doubt some people like to go to unqualified practitioners so as to get advice cheap; but there is the law, and we have to observe it. If you think this man has "acted or practised as an apothecary", then you must find your verdict for plaintiff. Indeed, I feel some little difficulty in putting the case to you, for, on the defendant's own admission, he says he prescribed, and that, if a person brought a child to him suffering from, say diarrhoea, and asked what was good for it, he gave the medicine; if, however, the case was serious, he sent it to the doctor. Surely, that is acting and practising as an apothecary within the meaning of the Act. [His Lordship then adverted to the evidence.] Possibly, if on some one or two occasions a customer had gone to the shop and asked for medicine, and the defendant had said it was good for his complaint, that advising might be too trivial to be worth taking notice of by suing under this Act, but here the defendant admits that he dispensed, and at the same time advised, medicine habitually. I have drawn attention to that summing up because it shows the abundant wisdom of this statute. I have nothing to do but to administer this statute, and I am obliged to say that you, Mr. Young, must pay the penalty of £20.—Mr. Young: Baron Bramwell's Act was evidently an insane act [laughter]. According to that, no man can go into a chemist's shop and ask for a blue pill or black draught without being fined £20. I am in the position of the Irish Church, *disestablished and disendowed* [laughter]. I had better pack up my traps, pay my money, and go [laughter].—Mr. Pridham asked that payment of the penalty, together with the costs of himself and three witnesses, might be ordered to be made forthwith."

The costs were allowed, Mr. Young observing: "The meanest artery in the body has three coats, but, good God, if you mean to go on in this way, I shan't have one soon." Mr. Young's sense of humour enlivened the whole proceedings very much. His objection to the dis-

endowment and disestablishment of prescribing chemists is very easily understood. It appears to be more or less shared by "the trade" generally, judging from some recent utterances at a meeting at Birmingham, but this case is full of instruction to members of our profession in rural districts, and in poorer parts of large towns. It is obvious that they have at command very efficient means of stopping the illegal practices of prescribing druggists, and it is in their own power completely to abolish a practice which is dangerous to the community, and injurious to the interests of practising medical men.

THE USE OF ALCOHOL IN INFIRMARIES.

THE annual conference of guardians of the poor of the metropolitan parishes and unions was held at the office of the London School Board, Mr. W. E. Forster, M.P., presiding. The conference included the reading and discussion of Dr. N. S. Kerr's paper on the use of alcoholic stimulants in workhouses and infirmaries, and generally for the sick poor. According to the *Daily News* report, the paper proceeded to condemn the use of alcohol in sickness as having been proved by actual experiment to lower instead of raising the temperature of the body, for which latter purpose it was medicinally administered. The reader then pointed out the great discrepancy that existed in the wine and spirit accounts of various parishes, and, in conclusion, expressed his own opinion that alcohol was injurious in health, and of less medical value in disease than milk, meat-extracts, and other harmless prescriptions.—Dr. Bridges said that as to the inexpediency of giving alcohol to healthy paupers there could be but one opinion, namely, that it was inexpedient; but the question had also its medical aspect, and it must be admitted that there was a great difference of opinion amongst the highest medical authorities as to the propriety of administering alcohol in disease. He hoped that the question would not be discussed merely from a financial point of view. He would not include alcohol in the items of out-door relief, as he knew of several instances in which the wine distributed in out-door relief was drunk by the strong husband instead of the sick wife or child. When it must be given out, he would recommend its being so prepared as to be unpalatable except to sick people.—The Chairman: How would you make the wine nasty?—Dr. Bridges: Mix it with a little sal volatile, and it won't be very palatable.—Colonel Fremantle (St. George's) was not opposed to the judicious use of alcohol, but objected to its being distributed to healthy paupers as payment for work done. In his union it was extensively given as wages.—Mr. Suffield (Woolwich) moved a vote of thanks to Dr. Kerr for his paper, but recommended that the matter should be left to the medical officers. From the financial point of view, he would mention that wherever the use of alcoholic drinks was abolished the consumption of milk was enormously increased.—Mr. Kemp (Hackney) said that in his Union the distribution of alcohol as wages had been entirely discontinued.—The Chairman complimented the reader on his interesting paper, and said that whatever other differences of opinion might exist, there could be no doubt as to the inexpediency of giving alcohol to the healthy pauper in the way of outdoor relief.—The vote was agreed to.

THE CASE OF CHARLOTTE HAMMOND.

THE conclusions of the Local Government Board, consequent on the official inquiry into the case of Charlotte Hammond, whose reputed death from starvation caused much sensation some time since, has just been forwarded to the Guardians of the St. George's Union, and we, on the whole, feel that this time at least the inquiry appears to have been an exhaustive one, and the decision to be just. There can be no doubt that a mistake was made when it was alleged that this woman was in want of the necessities of life, and we quite concur in the opinion of the board, that the earnings of the husband and children were amply sufficient, not only to provide her in her fatal illness with all that she could properly take, but that the case was one where the assistance of the Poor-law Medical Officers ought not to have been invoked; but we contend that, under the circumstances,

Mr. Fenton was fully justified in ordering for his patient medical comforts, and resenting it when the relieving officer refused to supply them; he had good grounds for supposing she was in absolute need, seeing that he had been required to attend her as a pauper. As regards the failure in judgment by the medical officer in directing that the woman should be sent to the workhouse, it is easy for the Department to come to the conclusion it has done, seeing that the woman shortly afterwards died; but her condition at the time such certificate was given might have fully justified the step Mr. Fenton took. The case has, however, ended as we from the first expected it would; the guardians are exonerated, the relieving officer's conduct is described as lax, and that of the medical officer as reprehensible—a gradation of opinion which has arisen probably from the belief that the doctor, having fewest friends, may be kicked with impunity.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A QUARTERLY Court of the Directors of the Society was held, by the kind permission of the Royal Medical and Chirurgical Society, in their rooms, Berners Street, on Wednesday, July 12th, at 8 P.M. The President, Sir George Burrows, Bart., was in the Chair. The sum of £1,271:10 was voted to sixty widows and twelve children, divided according to the exigency of each case. The expenses of the quarter amounted to £44. Two fresh applications for assistance were admitted; and two new members elected. The Directors, acting under a special by-law, recommended that, at the next general meeting in October, a grant of £20 should be made to the daughter of a late eminent physician (formerly a member of the Society), in great distress from loss of income, and suffering from incurable diseases.

VACCINATION STATISTICS OF ANTI-VACCINATORS.

AT the hearing of the case of the Queen *v.* the Guardians of the Keighley Union, at the High Court of Justice, Westminster, on the 3rd inst., Mr. Milner, the Chairman of the Guardians, addressed the Court at some length, and somewhat tried the patience of the Lord Chief Justice, by persisting to argue the inefficiency of vaccination as a protection against small-pox, although again and again reminded that the merits of the Vaccination Act were not under discussion, but only the refusal of the Guardians to obey that Act, and the *mandamus* which had been issued. One statement made by Mr. Milner is worth mentioning, as an example of the way facts are distorted by anti-vaccinators, and the ignorant are thus mischievously deceived. He stated that the recent epidemic of small-pox at Keighley had convinced the inhabitants that it was "increased by vaccination, because the death-rate was 60 per cent. of those vaccinated, and only 37 per cent. of those unvaccinated". We can scarcely believe that even Mr. Milner meant what these words appear to signify; but, in order to show the utter recklessness of the statement, it is worth while to turn to the report of the results of the small-pox epidemic at Keighley, prepared by the late local medical officer of health, Mr. M. W. Hilles. Of 393 persons attacked with small-pox within the Local Board District of Keighley during the first six months of 1875, 193 were vaccinated, 187 unvaccinated, and 13 were doubtful cases. The proportion of mortality among the vaccinated persons attacked, was 8 per cent.; whereas, among the unvaccinated, it was so high as 47 per cent. In other words, of those attacked, six deaths occurred among the unvaccinated to one among the vaccinated. It would be amusing, if not instructive, to know the line of argument by which the anti-vaccinators in Keighley have, from those facts, become convinced that the fatality of small-pox was increased by vaccination.

INFANTILE DIARRHOEA IN LONDON.

THE recent hot weather has caused a large increase in the fatality of diarrhoea in the English urban population of about seven millions, for which the Registrar-General publishes weekly mortality statistics. According to the last weekly return, relating to the first week of July, the deaths referred to diarrhoea in twenty of the largest English towns

had increased to 188; whereas, in the four preceding weeks, they had slowly risen from 39 to 88. Although this increased number compares favourably with that returned in the corresponding week in most recent years, the first appearance of epidemic summer diarrhoea is worth a passing notice. The increase was much more marked in London than in the nineteen other towns, the aggregate population of which is about equal to that of the metropolis. The diarrhoea deaths in London rose from 49 in the last week of June, to 116 in the first week of July; in the nineteen other towns, the increase was from 39 to 72. In the first week of July, the annual death-rate from diarrhoea was equal to 1.7 per 1,000 in London, and did not exceed 1.1 in the nineteen other towns. There is one feature in connection with the marked increase of fatal diarrhoea that calls for attention. The death-rate from diarrhoea in the whole of London averaged, as we have seen, 1.7 per 1,000; but this diarrhoea-rate varied to a remarkable extent in different parts of the metropolis. In East London, the 46 deaths referred to diarrhoea during the first week of July, showed an increase of 32 upon those in the previous week, and was equal to an annual rate of 3.6 per 1,000; whereas, in the four other groups of registration districts, the death-rate from diarrhoea averaged only 1.3 per 1,000, and ranged from 1.1 in the west and north, to 2.6 in the central groups of districts. This excessive fatality of diarrhoea in East London, compared with that which prevailed in other parts of London, should be investigated. Epidemic diarrhoea is almost exclusively fatal among infants. The 116 in London, during the week under notice, included 93 of infants under one year of age, 20 of children between one and five years, and 3 of persons aged upwards of sixty years. The deaths of four infants were also referred to choleraic diarrhoea.

THE COMMITTEE OF COUNCIL: BRITISH MEDICAL ASSOCIATION.

THE five new members of Committee of Council nominated for election for 1876-7, are—Dr. Eastwood, Darlington; Dr. Holman, Reigate; Mr. Arthur Jackson, Sheffield; Mr. R. H. B. Nicholson, Hull; Dr. Sieveking, London. They are nominated to fill the places of Dr. J. M. Duncan, Edinburgh; Dr. A. T. H. Waters, Liverpool; Mr. Holmes, London; Dr. Quain, London; and Mr. Humphreys, Shrewsbury, who retire, and are at present ineligible for re-election.

LEADERS OF MEDICINE AND SURGERY.

WE have received from Messrs. Barraud and Jerrard a framed copy of a very numerous portrait-group of "leaders of the profession in 1876". The portraits are chiefly those of metropolitan men; and even here there are one or two notable exceptions, as of Liebreich and Prescott Hewett—the one among the first of living ophthalmologists, the other the President this year of the Royal College of Surgeons of England. The portraits of nearly two hundred prominent medical men, including all the best known metropolitan physicians and surgeons, are here; and the picture is one of extraordinary merit and interest. The likenesses are without exception good—most of them admirable. There is not one which cannot be instantly named by any one acquainted with the persons. The grouping, lighting, perspective, and artistic effect, are admirably managed. The difficulties which usually prevent such groups from being either artistic in effect or lifelike in detail are admirably surmounted. No one who has any respected friends among the staffs of the metropolitan hospitals will fail to be pleased with this picture; and it is so excellently rendered, that its value as a work of art equals its interest as an historical record or a personal *souvenir*. Of course, among such a group, there are many whose claim to be leaders is only prospective, or has not been realised by the progress of time; many who have all their lives been too glad to play "follow my leader", and are never likely to take any other part in the game. None the less, this picture is one which all will like to see, and which very many will, we imagine, be happy to possess.

SCOTLAND.

A WOMAN was accidentally poisoned at Dumfries on Saturday, July 8th, from swallowing a quantity of a liniment used for a sprained foot, in mistake for spirits. Medical aid was promptly at hand, but failed to save her.

THE summer session in the Edinburgh School of Medicine came to an end on Friday, July 21st. The medical and other degrees in connection with the University will be conferred on Tuesday, August 1st, when an address to the new graduates will be delivered by one of the professors.

It is stated that a woman died last week in Kirkcaldy who had reached the age of 101 years. Up to within a few days of her death, she was able to go about her household duties. She has left no fewer than one hundred grandchildren and great-grandchildren.

THE mortality of Edinburgh for the week ending July 15th is returned at the low rate of 61, equivalent to an annual mortality of 14 per 1,000 of estimated population. The week previously, the total deaths were 60; only three deaths from zymotic diseases, two being from scarlatina and one from fever, and all occurring in the Old Town.

A PETITION recently presented to the Sheriff of Renfrew by the Local Authority of Eastwood shows a shocking state of overcrowding. The petition was against the owner of a house at Pollokshaws, and praying the sheriff to declare the tenement a nuisance under the Public Health Act, and unfit for human habitation. The petition set forth that there were in the tenement twenty-nine houses of one and two apartments, occupied by one hundred and thirty-nine persons. Dr. Walker described the houses as "loathsome, disgusting, and unhealthy." One or two of the residents were examined for the defence, their evidence being to the effect that they and their families had enjoyed good health during their residence there. The hearing of the case was adjourned.

GALASHIELS.

At the last meeting of the Town Council of Galashiels, it was announced that the Municipal Extension and Water Bill, having received the Royal assent, would come into operation on August 1st, with the exception of the roads section, which is not to be acted on until May next. The Bill Committee recommended that the engineers be instructed to prepare plans and obtain estimates for carrying out the water supply. The medical officer of health reported that there had been seventy-two deaths within the quarter, being thirty in excess of the corresponding quarter of last year. The mortality among children had been very high.

FORFARSHIRE MEDICAL ASSOCIATION.

THE eighteenth annual meeting of this Association was held on the 13th instant at Montrose. Members arrived at Dalton by the morning trains, and went to Sunnyside, where, by the kindness of Dr. Howden, they had an opportunity of seeing the asylum and grounds. Afterwards, the members returned to town, where a business meeting was held in the Council-room. The annual report was approved of, and the members subsequently dined together. Dr. Lawrence occupied the chair, and was supported by Professor Stephenson (Aberdeen), and Surgeon-Major Drs. Joseph and John Johnston. Dr. Howden was croupier. The meeting was a great success.

HEALTH OF DUNDEE.

THE following is extracted from the Report of the Medical Officer of Health for the month of June. Two hundred and forty-seven deaths have occurred in Dundee during the past month, as against 326 for the previous month, and 285 for June 1875; showing a death-rate of 21.18 per 1,000 per annum of estimated population, or 1 in every 47 indi-

viduals. This low death-rate corresponds with a comparative immunity from epidemic trouble; the successive outbreaks of measles and scarlet fever having now almost subsided. Zymotic diseases produced 33 deaths, of which whooping-cough (12) claims by far the largest proportion; chest affections, 112 deaths, against 140 in the previous month. Of the total deaths, 97, or 39 per cent., were of children under five years of age. The births were as follows: males, 228; females, 209; total, 437; showing an excess of 190 over the deaths.

IRELAND.

THE Earl of Bective has promised £500 towards the building of the "Madeline Wing" of the Adelaide Hospital, Dublin.

THE election of a coroner for Thurles, which has been now vacant nearly two years, will take place this week. We hear that there are two candidates for the post, one being Dr. Cahalan of Thurles.

ST. MARK'S OPHTHALMIC HOSPITAL.

At a meeting of the Board of this institution on last Monday, Mr. Henry Wilson, Professor of Ophthalmic Surgery to the Royal College of Surgeons, was appointed senior surgeon to the hospital; in the vacancy caused by the death of the late Sir William Wilde; and Mr. Rainsford junior surgeon.

DR. JAMES HENRY.

THIS gentleman died on the 14th instant at Dalkey, of paralysis, after a short illness, aged 77. Dr. Henry was the third in seniority of the Fellows of the King and Queen's College of Physicians, having obtained the fellowship so far back as 1826. The deceased, who was an extensive traveller, published a volume of poems in 1854, and numerous pamphlets at various periods.

SMALL-POX.

At a meeting of the guardians of the South Dublin Union held last week, a letter was received from the Local Government Board drawing attention to the presence of small-pox in London, Manchester, and Liverpool, and stating that, as it seemed probable that the disease might be imported into Ireland as it was in 1871, the Board considered that the intercepting hospital-ship was applicable to the reception and treatment of small-pox cases arriving by sea. It was proposed at the meeting that the guardians should purchase certain sheds at Kilmainham, in case the epidemic should arrive; but the majority believed that the floating hospital could accommodate any cases coming into port, and that the workhouse could be available for any local cases that might arise.

HEALTH OF IRELAND.

THE eleventh detailed annual Report of the Registrar-General for Ireland for 1874 has but recently been published, a general abstract having been presented to Parliament in the session of 1875. During that year the births registered amounted to 141,288, being at the rate of 1 in every 37.6 of the population, and the deaths to 91,961, or in the ratio of 1 death to every 58 persons; the cause of death being not specified in 2,901 instances. During the ten years 1864-73, the average annual number of deaths from zymotic diseases was 16,850, affording an average annual rate of 304.80 per 100,000 of the population; in 1874, the number of deaths from this class of diseases was 17,057, or 320.93 in 100,000 inhabitants. In 1874, the deaths from measles amounted to 667; scarlet fever, 4,034; diphtheria, 565; quinsy, 291; croup, 1,799; whooping-cough, 2,029; fever, 3,149; erysipelas, 292; puerperal fever, 333; influenza, 100; dysentery, 294; diarrhoea, 1,671; simple cholera, 1030. Constitutional diseases caused 15,723 deaths, which includes phthisis, 9,416; mesenteric disease, 1,174; hydrocephalus, 1,015; scrofula, 942; gout, 14; cancer, 1,768; dropsy, 1,206. The deaths from diseases of the nervous system were 1,206.

vulsions, 4,016; paralysis, 1,441; apoplexy, 926; cephalitis, 560; epilepsy, 330; insanity, 190; chorea, 5; from diseases of Organs of Circulation: heart-disease, 2,582; pericarditis, 76; aneurism, 99; from diseases of respiratory organs: bronchitis, 8,279; pneumonia, 1,692; asthma, 398; pleurisy, 271; laryngitis, 110. Of the violent deaths registered, 1,867 were accidental, 100 were homicidal, 99 were suicidal, and 1 execution was registered during the year.

HEALTH OF DUBLIN: QUARTERLY REPORT.

THE number of births registered in Dublin during the quarter ended July 1st amounted to 2,272, being equal to an annual ratio of 1 in 35, or 29 in every 1,000 of the population; and the deaths to 2,040, affording an annual ratio of 1 in 39, or 26 per 1,000. The deaths from zymotic diseases during the quarter numbered 300, or 14.7 per cent. of all the deaths, and equal to an annual ratio of 3.8 per 1,000 of the population. Scarlet fever caused 42 deaths, fever 50, measles 40, croup 18, whooping-cough 37, erysipelas 12, diarrhoea 30, and simple cholera 5. To convulsions, 134 deaths were attributed; bronchitis proved fatal in 299 instances, pneumonia in 76, and lung disease unspecified in 37. Phthisis proved fatal in 261 cases, mesenteric disease in 44, hydrocephalus in 45, cancer in 33; whilst the deaths from violent causes amounted to 62, of which 52 were accidental, 1 homicidal, 7 suicidal, and 2 not classed. The mean of the mean weekly temperature for the quarter was 51.2 deg., and the rainfall for the thirteen weeks measured 5.326 inches.

THE VIVISECTION BILL.

MOVEMENT OF THE BRANCHES OF THE BRITISH MEDICAL ASSOCIATION, AND OTHER BODIES.

A MEETING of the Metropolitan Counties Branch of the British Medical Association has been summoned for 8 P.M. on Wednesday, July 26th, at 11, Chandos Street, Cavendish Square, to consider the provisions of the Cruelty to Animals Bill. Mr. Jonathan Hutchinson, Senior Surgeon of the London Hospital, President of the Branch, will take the chair. Among the speakers, it is expected, will be Sir H. Thompson, Dr. R. Barnes, Dr. Andrew Clark, Dr. Pavy, etc. The following resolutions will be proposed:

I. That this meeting, although fully recognising the improvements effected in Lord Carnarvon's Cruelty to Animals Bill in its latest form, is still strongly of opinion that, should it become law, the progress of science will be most seriously hindered, and the interests both of animals and of men much prejudiced.

II. That this meeting would urge upon the promoters of the Bill that legislation on this subject should be abandoned for the present session.

III. That in the event of its being thought necessary to propose legislation on this subject in the future, this meeting would suggest as alternative measures (1) an act of simple registration of persons licensed, on the plan of Dr. Lyon Playfair's proposal; or (2), which would be much preferable, an Act in extension of Martin's law, applicable to cruelty of all forms to all animals, but exempting, under certain regulations, experiments performed solely for the advancement of science.

At the annual meeting of the Midland Branch of the British Medical Association, held at Nottingham, June 29th, 1876, the following resolution was proposed by Dr. Ransom, F.R.S., seconded by Mr. Stanger, and unanimously adopted:

"This meeting desire to express its hearty approval of the course of action which has been taken by Mr. Ernest Hart and the Parliamentary Bills Committee towards the amendment of the Bill relating to experiments upon animals.

"While congratulating the Committee upon the measure of success which has attended their efforts in the interests of scientific truth and of true humanity, this meeting trusts that those efforts will be continued until the Bill is so amended that it will secure for society at large the full benefits which attach to the progress and diffusion of biological science, as well as such securities against possible abuse of the power of man over animals as are consistent with equitable legislation between man and man.

"This meeting does not consider that legislation equitable which

makes penal a given action done for the purpose of acquiring knowledge, while it permits as lawful a similar action done by the same or another person for profit or amusement. It would, however, consider the injustice of the present Bill in this respect removed, were a clause introduced limiting its operation to those animals which either now are, or may hereafter be, included in the operation of Martin's Act.

"In the opinion of this meeting, the Bill, as it stands, punishes, not the infliction of pain, but the pursuit of knowledge, and, by reason of its unequal treatment of different persons for similar actions, will fail to commend itself to the consciences of those who are affected by it."

A special meeting of the Birmingham and Midland Counties Branch has been called for the consideration of the Bill on Thursday afternoon, Dr. G. F. Bodington, president of the Branch, in the chair.

A special meeting of the Staffordshire Branch is also to be held.

The Medical men of the Stewartry of Kirkcudbright have prepared a petition against the Cruelty to Animals Bill, for which the support of their local members will be requested.

At a special meeting of the College of Physicians of London on Tuesday last, the Vivisection Bill was brought under discussion. The President stated the present position of the Bill. Sir William Jenner, Dr. Wilson Fox, Dr. A. P. Stewart, and other Fellows of the College, expressed strong indignation at the indignity which the Government had put upon the medical profession by introducing a measure so offensive; and at the injustice and hypocrisy of this kind and form of legislation directed against the studies of the profession which is, above all others, humane, and devoted to the alleviation of pain and the prevention of suffering. Dr. Wilson Fox analysed the Bill, and pointed out its most objectionable clauses. The President and Censors were appointed to wait upon the Home Secretary, and to express the objections which the College entertain to the Bill.

We last week suggested, that members of the Association should communicate with their representatives in Parliament, or with members of the House of Commons with whom they are acquainted, on the subject of the Cruelty to Animals Bill, asking for their support to the memorial laid before Mr. Cross by the recent deputation of the British Medical Association. Dr. Quain, London; Mr. Jabez Hogg, London; Dr. Peart, Shields; Dr. Dodgson, Cockermouth; Dr. Murray Lindsay, Mickleover, Derby; Mr. Biddle, Kingston-on-Thames; Mr. Holder, Hull; Dr. Newman, Stamford; Mr. G. May, Reading; Dr. Bree, Colchester; Mr. J. G. Brown, Llanfyllrill; Dr. Webb, Wirksworth; Mr. Miles, Bath; Mr. Hatherley, Nottingham; Dr. Sullivan, Cork; Mr. Stephen Alford, London; Dr. Haviland, Cheltenham; Dr. Lynch, Blyth; and Mr. Leeds, Sheffield, have communicated to us letters, or extracts from letters, from members to whom they have written. These letters indicate that, if the Bill go into Committee, many of its provisions will receive a strong opposition from influential members on both sides of the House. We shall be glad to receive further communications of similar nature. The result of the deputations in enlightening, and, therefore, in completely altering public opinion on the subject, has been very remarkable. Not one article in any metropolitan organ of public opinion has come under our notice which does not warmly approve the views of the memorial, and sympathise with the indignation of the speakers.

Whatever the fate of the Bill—and its fate now lies very much in the hands of the profession—great good has already been done by the public and powerful protest of the profession against the imputations which the Bill implies, and which were favoured by the statements of those who promoted and of those who supported the Bill in the House of Lords. In that protest, we have the almost unanimous support of the intelligent classes of the community; and the more they learn of the facts, the more earnest and active that support will be. The anti-vivisection movement has been aptly described by Mr. Simon as "a case of hysterics founded upon calumny". The remedy is "more light". That light every member of the profession has it in his power to diffuse.

MR. LOWE ON THE VIVISECTION BILL.

THE following is an extract from a letter addressed by Mr. Lowe to one of his constituents in the University of London, who had written to him on the subject of the Cruelty to Animals Bill, suggesting acceptance of the Bill if it were considerably modified in its details.

"I don't agree with you that, as things stand now, you ought to

submit to any legislation. The law is this : any person may inflict any pain short of torture on any domestic animal, and any torture he pleases on any non-domestic animal ; so long as the law stands so, it is a gross insult to the medical profession to single them out as the only exceptions to these general rules, and I would advise them not to submit to it. The proper course would be for Parliament to make a law prohibiting torture or unnecessary pain, and then to make an exception in favour of physiologists under whatever conditions Parliament may think right. There is all the difference in the world between allowing yourselves to be singled out as the only people whose dealings with animals non-domestic require regulation, and being made an exception to a general law of mercy on account of the benefit you confer on mankind. People are very often taken at their own valuation ; and I would never admit that you are the only persons with whose liberty it is necessary to interfere."

MR. ROEBUCK ON THE VIVISECTION BILL.

MR. ROEBUCK writes to one of his constituents at Sheffield : " I entirely agree with the deputation of the medical profession, and sympathise with their indignation at the indignity sought to be imposed on them. With indignation, in my mind is joined wonder, at the folly and weakness of those of the peers who support this piece of legislation."

THE SUFFERERS FROM THE "THUNDERER".

THE casualty by explosion of a steam-boiler on board H.M.S. *Thunderer* in the afternoon of the 14th instant involved seventy-eight persons killed and severely injured, and many others slightly scalded. Fifteen were brought out dead from the stoke-hold in which the boiler burst, being mostly mutilated, some frightfully so, blackened by smoke and much vesicated. There is reason to believe that not a single person in the stoke-hold escaped immediate death. At the present moment, the scene of disaster on board H.M.S. *Thunderer* resembles that of a railway accident, inasmuch as every passage is obstructed by huge fragments of iron, from under which human remains were extricated with a rapidity that speaks well for the discipline of the crew, who worked zealously to release their shipmates, alive or dead, from superincumbent plates and bars of iron. This comprises what may be defined as the first act of a dreadful tragedy ; but, before the scene of recovering of remains was enacted, another intervened, and prostrated the larger number of those who were brought away alive from the ship. It happened that five of her eight huge boilers were in superheated action, for the speedy production of high pressure for the trial trip about to take place. These boilers all intercommunicated with the boiler that had burst, and into it their steam was poured so soon as it found the retaining force broken down at that point. First had come the explosion, like the firing of her largest cannon, with the outrush of steam, which had not yet found exit into the open air above, when there began the hissing and seething of the collected steam from four boilers through one, pouring in one blast through every crevice of the stoke-hold. Then it was that those in the engine-room, the breastwork, the 'tween decks and galley, were blown away and strewn in every direction, and a few were thrown into contact with the engines. The rushing steam is said to have torn the garments off the persons of some ; but, without that, wherever it touched, it scalded deeply through every covering, and vesicated the cuticle, so that it peeled off in wide rolls, and left the naked dermis of a blue hue. Some men had not a patch of the surface whole ; in others, also, the steam had penetrated the air-passages, and had scalded the corneal and conjunctival coverings of the eyes. Of these the sufferings were such as Dante alone has ever attempted to depict, and their moanings and groanings till death closed the scene were those of the most pitiable tortures. By midnight these were translated to another world, and were released from their sufferings. Milder in degree than this was the condition of others, who lingered on the scene, but eventually succumbed, after a longer or shorter period of incoherence or of restless delirium, in which they would have torn every particle of dressing from their trunks and limbs, finally lapsing into coma, with lividity of surface. It may be said that, where one-half the surface was excoriated, death had taken place at the end of the third day. Of the survivors after that, some are simply following more slowly the same track, either to die before suppuration sets in, or

to encounter the secondary risks of extensive superficial suppuration ; much appearing to depend on whether the anterior or the posterior surface of the body be most implicated, the latter being the most favourable. No symptom of gangrene and no indications of sloughing of integuments have as yet presented ; but several have signs of tracheal and bronchial congestions, and some have suppurative ophthalmia that ends in suppuration. Of thirty-eight survivors on Thursday morning, five seemed to our special correspondent to be in extreme, and nine in more remote danger ; while twenty-five were doing well. A dozen of them, with masked faces, and with swathed hands and forearms, were walking about their wards, talking of the affair, when questioned, with less intelligence concerning it than is displayed by their questioners, who are instructed by the daily papers.

The services of the medical staff of Haslar Hospital have been such as to call for the thanks of the service and to merit the approbation of the highest personages in the country. The resources of the hospital, severely tasked as they have been by this terrible emergency, have proved equal to all demands, and nothing has been omitted which skill, tenderness, and thoughtful energy could devise for the relief of the sufferers and the consolation of the mourning friends who thronged the hospital and its offices.

THE ROYAL NAVAL HOSPITAL AT HASLAR.

THE late calamity on board H.M.S. *Thunderer* demonstrated, in a very marked manner, the great advantages of the administrative system which is now in force in the hospitals of the Royal Navy. It may be remembered that the appointments of superintendents, or commanders of naval hospitals with their staffs, were discontinued a few years ago, and that the whole authority within the hospital was vested in the principal medical officer, he being subject only to the control of the admiral commanding on the station. The absence of the old dual system of administration proved an immense benefit on the terrible strain which was put upon the personnel, and certain parts of the material of Haslar Hospital, by the sudden admission of more than fifty men together, all labouring under scalds of the severest description. Inspector-General Dr. Smart, the Principal Medical Officer of Haslar, instead of submitting advice to a superintendent, or making requisitions through him for stores required in the emergency, himself gave all the necessary directions ; and these being at once complied with, every possible attention was given to the sufferers without the slightest delay or conflict of authority. The fact of Sir A. Armstrong, the Director-General of the Naval Medical Department, happening to be at Portsmouth at the time the calamity occurred on board the *Thunderer*, facilitated additional medical officers being sent from other quarters immediately to Haslar.

MR. GLADSTONE AT THE LONDON HOSPITAL.

A NUMEROUS company assembled at this hospital last week, when the prizes were distributed by Mr. Gladstone. The meeting was held in a marquee near the school, where Mr. Gladstone was received by Sir John Currie, Sir Fowell Buxton, Dr. Andrew Clark, Dr. Down, Mr. Hutchinson, and other members of the committee and the staff.

In opening the proceedings, Dr. CLARK remarked that the common thought connected with an hospital was only of its being a home for the sick ; but a most important part of its function was also the making of doctors. In the year 1740, medical education consisted rather in hearing diseases described than in watching their course, and students listened to arguments about fractures rather than learnt to set them. In 1755, some of the London hospital staff first gave clinical lectures ; and in 1785, a medical school was regularly established. This went on till 1854, when the present school building was built. They had continued their work with varying numbers, till now, in 1876, they had determined on a great effort and a thorough reconstruction. A new joint "College Board" had been formed, including members of the lay committee, as well as of the professional staff, and a large sum had been set aside for furnishing most complete means of instruction ; and he looked upon, as a happy augury, that this, the first public action of the new board as such, was to be presided over by Mr. Gladstone. He might say there were two ways of approaching knowledge—by one, men commenced with theory, and passed afterwards to practice, a doubtful and often a long process (for how, for instance, could any one learn what "blue" was by description, and without seeing it ?)—and by the other, practice was first essayed, and theories formed after. The latter plan was the one they wished especially to impress upon their stu-

dents. Amongst medical schools, some gave more special attention to the scientific aspects of medicine; now, whilst giving every honour to science, they looked upon the scientific spirit as only a means to an end, and he claimed for the London Hospital students that they were always good practical men. The immense field of work prevented their continuous attention to abstract studies, and, no doubt, this had some effect on the honours-lists of universities; but he contended that honours-lists were no real test of the true worth of men, and that, in the emergencies which called for practical skill—in the times of pestilence and of war—the London Hospital men were always well to the front.

The prizes were then presented by Mr. GLADSTONE, who was very warmly received, and who afterwards gave an address. He dwelt mainly on the increasing social influence of the profession, and the increased amount of respect which it commanded on account of the skill and earnest devotion of so many of its professors. He considered there was a large field still before it in influencing modern developments of speculative thought. The besetting danger of the age in this direction was, he thought, what was professionally called "specialism", and, in the world of industrial production, "division of labour". These were excellent things, but still they had a tendency to dwarf and narrow the mind, which required to have exercise for *all* its faculties. His audience would find it necessary to become students of the mind, as well as of the body. They would find patients affected by causes that had their root, not only in the material structure, but in human hopes and fears; through human appetites, and passions, and affections, and the strength of human will, human fancies, and human caprices. The right honourable gentleman concluded a most thoughtful address by an eulogy on the breadth of view displayed by Aristotle.

Several of the subsequent speakers took the opportunity of acknowledging the immense services rendered to the Charity by Mrs. Gladstone and the Convalescent Home.

By the courtesy of Dr. Down, we had an opportunity of inspecting the new wing, to which the Grocers' Company have contributed so generously. It is well built; the wards are long and large, not lofty, but well ventilated. There is a large louver at the top of each window. The fireplaces are in the walls, are large and handsome, with hot-air chambers, and with a central tube in the chimney for the smoke, and side-channels for the air to descend from above, on Jennings's principle. Tobin's tubes are also introduced. A pleasant as well as clean effect is produced by opaque glass tops for the side-cupboards and fixtures. Between the closets and wards there is a cross draught. The *post mortem* room is the largest in London, and an excellent microscope and examining room is connected with it. We were struck also with the complete arrangements in the outpatient department, which is, as is well known, very large indeed.

The system of cards and prescription-books is carried out. There is a central consulting-room, with dressing-room on either side for males and females; in each dressing-room, two laryngoscopes, ophthalmoscopes, double stethoscopes etc.; all arrangements on a liberal scale. The staff is large; and their services are recognised by an honorarium, which, if not very large, at least recognises an important principle.

With all these advantages, with its eight hundred beds and its very able staff, and also the improved facilities of access by rail, we cannot but think that a great future is before the London Hospital as a medical school.

UNIVERSITY COLLEGE: PARKES MEMORIAL.

A PUBLIC meeting was held at University College, Gower Street, on Tuesday, the 18th instant, to further the establishment at that institution of a permanent memorial of the late Dr. Parkes. The Chair was taken at 3 P.M. by Sir WILLIAM JENNER; and among those present we noticed Dr. Sieveking, Dr. Sibson, Dr. Carr of Blackheath, Dr. Hare, Dr. Wilson Fox, Dr. Tilbury Fox, Mr. Berkeley Hill, Mr. John Marshall, Dr. William Farr, Mr. Erichsen, Dr. Russell Reynolds, Mr. Symonds of Oxford, Mr. Marcus Bell, and others.

The CHAIRMAN, in opening the proceedings, feelingly alluded to the association of Dr. Parkes with University College. His fame was to a great extent made at the College; and, although his work at University College had mainly been in the direction of clinical medicine, it had nevertheless been thought advisable to perpetuate his memory there in relation with the subject with which he had been latterly identified, viz., hygiene. The Chairman hoped that, whatever form the memorial took, it would be permanent; and that Dr. Parkes's name would be as well known in that College five hundred years hence as it is at present. A museum which should facilitate the practical study of

hygiene was no doubt needed; but any museum, in order to be properly kept and properly replenished, must be endowed; and he therefore trusted that the public would subscribe largely, in order that the necessary endowment might be forthcoming. After alluding to the great necessity for the practical study of hygiene, the Chairman called upon the Secretaries to make their report.

Dr. GOWERS read many letters expressing approval of the scheme, and notably one from Miss Nightingale, in which she spoke in terms of warm approbation of Dr. Parkes, and of the manner in which it was proposed to perpetuate his memory. Sir William Gull, Dr. Wilks, Professor Aitken, Mr. Rogers Field, and others, also spoke approvingly of the idea of establishing a museum.

Dr. POORE gave details of information he had collected relative to museums of hygiene existing elsewhere. He had lately visited (on his own responsibility, and in no way as the Secretary of the Fund) the museum and laboratory at Netley, and the International Exhibition at Brussels. At Netley, he found that Dr. Parkes's teaching had all been of an essentially practical kind; and that great use was made, for teaching purposes, of the laboratory and museum there existing. One great feature at Brussels was the wealth of architectural plans; and it was evident that hygiene was a subject susceptible to some extent of comparative study, and that one nation might learn much from another nation whose conditions of existence were different. A museum should contain (1) a library of hygienic literature; (2) chemical, physical, and meteorological apparatus; (3) a collection of foods and their adulteration; (4) architectural and engineering plans and models; (5) models and samples of sanitary appliances; (6) objects illustrative of industrial hygiene and the disease communicable from animals to man, etc.

Dr. RUSSELL REYNOLDS proposed, and Dr. CORFIELD seconded, the first resolution: "That it is desirable that the memorial take the form of a museum of hygiene"; and, in doing so, both these gentlemen dwelt upon the necessity of the practical study of hygiene. The resolution was carried *nem. con.*

Dr. SIEVEKING proposed, and Mr. SYMONDS of Oxford seconded, a resolution to the effect that the Executive Committee should consist of the Professors of Hygiene (Dr. Corfield), Medicine (Dr. Reynolds), Surgery (Mr. Marshall), Architecture (Mr. Hayter Lewis), Engineering (Mr. Kennedy), and Chemistry (Dr. Williamson); with Sir William Jenner as Chairman, Mr. Erichsen as Treasurer, and Dr. Gowers and Dr. Poore as Secretaries.

A vote of thanks to the Chairman was proposed by Mr. ERICHSEN.

Dr. GOWERS announced subscriptions to the amount of £577. These included £52 10s. from Mr. C. H. Parkes; Dr. Quain, £21; Duke of Westminster, £20; Mrs. W. Paget, £25; James Booth, Esq., £20; £10 10s. from each of the following: Lord Derby, Lord Granville, Lord Belper, Marquis of Ripon, Mr. Gathorne Hardy, Sir William Jenner, Sir James Paget, Sir William Gull, Sir Thomas Watson, Sir H. Thompson, R. Quain, Esq., Mr. Erichsen, Dr. Reynolds, Dr. Wilson Fox, Dr. Hare, Dr. Bucknill, Dr. Sankey, Mr. Prescott Hewett, Dr. Weber, Mr. Erasmus Wilson, Mr. F. Symonds (Oxford), Mr. John Fowler, C.E. The list also included donation from Sir Thomas Fairbairn, Dr. Sharpey, Dr. Sanderson, Miss Nightingale, Mr. Rogers Field, Dr. Sibson, Dr. Sieveking, Dr. Wilks, Dr. W. Farr, Mr. George Dixon (Birmingham), Dr. Aitken, Dr. De Chaumont, and others.

PARKES MEMORIAL FUND AT NETLEY.

THE appeal for subscriptions to this fund is meeting with a fairly liberal response. The memorial at Netley will not only serve to perpetuate Dr. Parkes's name in the place where he passed the last sixteen years of his useful life, and where his great renown was won as Professor of Hygiene, but the Parkes scholarship which it is proposed to found at Netley will be open to the competition of representatives of all the medical schools in the United Kingdom, for there is no medical school of importance which does not send pupils from time to time to enter one or other of the branches of the public medical service through the Netley Medical School.

THE CONJOINT SCHEME IN IRELAND.

THE College of Physicians have appointed Dr. Gordon (President of the College), Dr. Hayden (Vice-President), and Drs. Little and Grimshaw, to confer with the representatives of Trinity College on the subject of a conjoint examination for Ireland. As regards the College of Surgeons, although the Council may appoint delegates to act with

the University and the College of Physicians, yet no definite result can for the present be expected, as we believe the matter must be brought before a special meeting of the Fellows before the Council can proceed further with the subject.

ROYAL COLLEGE OF SURGEONS OF ENGLAND: EXAMINATIONS.

THE annual report from the Court and the Board of Examiners of the number of candidates who have presented themselves for the primary and pass examinations for the diploma of member of the College during the year 1875-76, showing the number who have passed and have been rejected from each medical school during that period, has been presented to the Council, and will be read with some interest by provincial and metropolitan teachers. The following is the result of the primary examinations.

Medical School.	Totals.	Number passed.	Number rejected.	Proportion of rejections.
St. Bartholomew's	98	73	25	1 in 3.96
Guy's	87.50	60	27.50	3.18
University College	78.50	45	33.50	2.34
St. Thomas's	57.50	35.50	22	2.61
London	48.68	20	28.66	1.70
King's College	37.50	26	11.50	3.26
St. George's	33	20	13	2.53
Middlesex	18.50	14	4.50	4.11
St. Mary's	16.50	10	6.50	2.33
Westminster	16.66	8.83	7.83	2.17
Charing Cross	9.50	4	5.50	1.72
Manchester	32.50	21	9.50	3.04
Liverpool	25.66	13.83	11.30	2.20
Birmingham	24	19.50	4.50	5.33
Edinburgh	19.66	13	6.66	3.05
Leeds	19	10	9	2.11
Newcastle-on-Tyne	13.50	9.50	4	3.37
Dublin	11.83	6.66	5.50	2.15
Bristol	9	1	8	1.12
Toronto	8.50	7.50	1	8.50
Cambridge	8	6.50	1.50	5.33
Glasgow	5.50	3.50	2	2.75
Sheffield	4	2	2	2.00
Aberdeen	3.83	2.50	1.66	2.87
Montreal	3	3	—	0.00
Melbourne	2.50	2.50	—	0.00
New York	2.50	—	2.50	1.00
Bombay	2	2	—	0.00
Galway	1	1	—	0.00
Caracca	1	—	1	1.00
Cork	.50	—	.50	1.00
Totals	700	433	257	2.72

The following is the result of the pass-examinations.

Medical School.	Totals.	Number passed.	Number rejected.	Proportion of rejections.
University College	78.91	66.58	12.33	1 in 6.39
Guy's	77	59	18	4.37
St. Bartholomew's	63.75	49.75	14	4.55
St. Thomas's	44.41	35.58	5.83	7.10
King's College	34	18	16	2.12
St. George's	27.50	22	5.50	5.00
London	21.50	16.50	5	4.30
St. Mary's	18	12.50	5.50	3.27
Middlesex	15	10	5	3.00
Charing Cross	11.50	8.50	3	3.83
Westminster	3.66	2	1.66	2.20
Edinburgh	17.50	14	3.50	5.00
Manchester	15.50	10.50	5	3.10
Liverpool	13.83	9	4.83	2.86
Leeds	13	6	7	1.85
Birmingham	11	7	4	2.75
Bristol	7.83	6.33	1.50	5.22
Newcastle	5.75	3.25	2.50	2.30
Cambridge	5.50	5	.50	11.00
Dublin	5	2	3	1.66
Toronto	4.66	2.83	1.83	2.54
Belfast	3	2	1	1.00
Glasgow	3	1	2	1.50
Sheffield	2.83	1.33	1.50	1.88
Bombay	2	2	.00	0.00
Cork	1	1	.00	0.00
Aberdeen	1	1	.00	0.00
Montreal	1	1	.00	0.00
Montpelier	1	1	.00	0.00
New York	.50	.50	.00	0.00
Paris	.33	.33	.00	0.00
M'Gill	.33	.33	.00	0.00
Galway	.33	.33	.00	0.00
Totals	498	377	121	4.11

MR. YOUNG, a miller, has obtained a verdict for £75 against the Southborough Local Board, for polluting his mill-stream with the affluent water from their filtering sewage-tanks, and an injunction to restrain them from allowing the water to run into the stream from the 1st of October.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION FORTY-FOURTH ANNUAL MEETING.

THE Forty-fourth Annual Meeting of the British Medical Association will be held at Sheffield, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1876.

President.—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S. Edin.

President-elect.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

An Address in Medicine will be given by E. H. SIEVEKING, M.D., F.R.C.P., Physician-Extraordinary to the Queen.

An Address in Surgery will be given by W. F. FAVELL, Esq., Surgeon to the General Infirmary, Sheffield.

An Address in Public Medicine will be given by ALFRED CARPENTER, M.D., Croydon.

The business of the Association will be transacted in Four Sections, viz.:

SECTION A. MEDICINE.—*President:* Dr. Chadwick, Tunbridge Wells. *Vice-Presidents:* Dr. J. C. Hall, Sheffield; Dr. Law, Sheffield. *Secretaries:* Dr. Robert Farquharson, 23, Brook Street, London; Dr. Banham, Glossop Road, Sheffield.

SECTION B. SURGERY.—*President:* Jonathan Hutchinson, Esq., London. *Vice-Presidents:* C. G. Wheelhouse, Esq., Leeds; J. Barber, Esq., Sheffield. *Secretaries:* Dr. J. Hardwicke, Chilton Lodge, Rotherham; John Chiene, Esq., 21, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Lombe Atchill, Dublin. *Vice-Presidents:* Dr. E. Jackson, Sheffield; Dr. Thorburn, Manchester. *Secretaries:* Dr. Wiltshire, 57, Wimpole Street, London; F. Woolhouse, Esq., Chantry Road, Sheffield.

SECTION D. PUBLIC MEDICINE.—*President:* Dr. J. B. Russell, Glasgow. *Vice-Presidents:* Dr. Eastwood, Darlington; Dr. F. T. Griffiths, Sheffield. *Secretaries:* Dr. H. F. Parsons, Goole; Dr. S. Drew, Chapelton, Sheffield.

Local Secretaries.

Arthur Jackson, Esq., St. James's Row, Sheffield.
J. H. Keeling, M.D., 267, Glossop Road, Sheffield.

Tuesday, August 1st.

11.30 A.M.—Service at the Parish Church.

1 P.M.—Meeting of Committee of Council.

3 P.M.—Meeting of Council, 1875-76.

8 P.M.—General Meeting.—*President's Address; Annual Report of Council; and other business.*

Wednesday, August 2nd.

9.30 A.M.—Meeting of Council, 1876-77.

11.30 A.M.—Second General Meeting.

11.30 A.M.—Address in Medicine.

2 to 5 P.M.—Sectional Meetings.

9 P.M.—Soirée.—Weston Park Museum.

Thursday, August 3rd.

9 A.M.—Meeting of Committee of Council.

10 A.M.—Third General Meeting.—Reports of Committees.

11 A.M.—Address in Surgery.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner.

Friday, August 4th.

10 A.M.—Address in Public Medicine.

11 A.M.—Sectional Meetings.

1.30 P.M.—Concluding General Meeting.—Reports of Committees, etc.

Promenade Concert at the Albert Hall.

RECEPTION ROOM. Cutlers' Hall will be fitted as a Reception Room, and will be open at 10 A.M. on Tuesday, August 1st, and on the following three days at 8 A.M. for the issue of tickets to members, and for supplying all necessary information.

It is particularly requested that gentlemen, on their arrival, will at once proceed to the Reception Room, enter their names and addresses, and obtain their tickets of admission.

Letters should be inquired for in the Reception Room.

PAPERS.—The following papers have been promised.

- Alford, Stephen S., F.R.C.S. On the Obstacles which delay our obtaining Legislative Power for the Protection and Treatment of Confirmed Drink-cravers.
- Allbutt, T. Clifford, M.D. On some of the Causes of Granulating Kidney.
- Bantock, G. G., M.D. On the Treatment of Ruptured Perinæum.
- Berkart, I. B., M.D. On Dilatation of the Pulmonary Capillaries.
- Bond, Francis T., M.D. On the Legislative Measures which are necessary in order to prevent the spread of Infectious Diseases.
- Bradbury, J. B., M.D. A Case of Idiopathic Anæmia treated unsuccessfully by Phosphorus: Death: Necropsy.
- Bradley, S. M., F.R.C.S. The Surgery of Syphilis.
- Britton, Thomas, M.D. The Origin of Scarletina.
- Broom, John, M.D. A few Therapeutic Extracts from my own Practice.
- Browne, Lennox, F.R.C.S. Ed. 1. Cases illustrating the successful Treatment of Suffocative Gout without Excision of the Gland.—2. Observations on the Treatment of Postnasal Catarrh.
- Bucknill, J. C., M.D. The Credibility of Medico-Legal Evidence.
- Callender, George W., F.R.S. Cases illustrating the Treatment of Chronic Abscess by Hyperdistension with Carbolic Water.
- Carier, C. H., B.A., M.D. On the Treatment of Ovarian Cysts by Drainage.
- Cassells, J. P., M.D. The Etiology of Ear-Disease.
- Chiene, John, F.R.C.S. Ed. Cases of Irreducible Femoral Hernia.
- Collie, A., M.D. Remarks on Contagion and Contagious Hospitals.
- Diver, E., M.D. The Desirability and the Importance of a more Complete Recognition of our Profession by the State.
- Drysdale, C. R., M.D. 1. On Syphilitic Epilepsy.—2. On the Duality of the Chancere.—3. Alcohol and Public Health.—4. Animal Vaccination.
- Duncanson, J. J. Kirk, M.D. The Inflammations of the Middle Ear: a. Catarrhal; b. Purulent; c. Hypertrophic.
- Eassie, W., C.E. Mechanical Disinfection.
- Eastwood, J. W., M.D. On Life-Assurance and Suicide.
- Edis, Arthur, W., M.D. On the Influence of Posture in the Treatment of Uterine Disorders.
- Elam, Charles, M.D. The Presence and Tolerance of Foreign Matters in the Lungs.
- Elder, George, M.B. 1. On Hodgkin's Disease of the Glands: with a Case.—2. Amputation of the Cervix Uteri in Malignant Disease.—3. The Relief of Bladder-pain in the Female by Dilatation of the Urethra.
- Foss, R. W., M.D. The Mortality of Ironworkers.
- Foster, Balthazar, M.D. Note on Epidemic Cerebro-Spinal Fever.
- Fothergill, J. Milner, M.D. The successful Treatment of Dilated Heart.
- Fox, C. B., M.D. Dissemination of Zymotic Disease among the Public by Tradespeople.
- Fox, Edward Long, M.D. A Fatal Case of Bulbar Paralysis, with illustration.
- Fox, J. M., Esq. Sewer-Ventilation.
- Galabin, A. L., M.A., M.D. On the Mechanism of Extraction by the Long Curved Forceps.
- Gowers, W. R., M.D. 1. The State of the Arteries in Bright's Disease.—2. The Diagnosis of Labyrinthine Vertigo.
- Griffith, T. D., M.D. On the Necessary Modification of the Nomenclature in the *British Pharmacopœia*, and the present Mode of Prescribing.
- Hall, John Charles, M.D. The Effects of Trades of Sheffield on the Workmen employed in them.
- Hime, Thomas W., B.A., M.B. 1. Hemiatrophia facialis progressiva.—2. Hysteria.
- Holder, William, M.R.C.S. Diseases arising in Lead-Workers.
- Holthouse, Carsten, F.R.C.S. On Twelve Months' Experience of the Treatment of Inebriates at Balham.
- Hovell, D. De Berdt, F.R.C.S. On Treatment after the Operation for Strangulated Hernia.
- Hutchinson, Jonathan, F.R.C.S. 1. On the use of Lead Lotion in the Treatment of Wounds.—2. The Prostatic Catheter of the Future.
- Jackson, Arthur, M.R.C.S. Excision of the Hip-joint.
- Jessop, T. R., F.R.C.S. On the Use of Carbolic Catgut for Tying Arteries in their Continuity; illustrated by Cases in which the Subclavian, the Brachial, the External Iliac, the Internal Iliac, and the Femoral Arteries, have been tied.
- Johnson, George, M.D., F.R.S. On Cases of Latent Peritonitis, with Copious Effusion into the Peritoneum.
- Kerr, Norman S., M.D. The Medical Administration of Alcohol.

King, Kelburne, M.D. Antiseptic Surgery as Practised at the Hull General Infirmary.

Lawrence, A. E. Aust, M.D. The Treatment of Women after Labour.

Lowndes, F. W., Esq. Ought the Contagious Diseases Acts to be extended?

M'Gill, A. F., F.R.C.S. The Antiseptic Treatment of Wounds without the so-called Antiseptic Dressings.

Monks, E. H., L.R.C.P. Ed. Jaundice occurring during Pregnancy, and its effects upon Mother and Child.

Oxley, Martin G. B., L.K.Q.C.P.I. Case of Hysterical(?) Paralysis in a Girl aged 8 years, caused by a Thunder-storm.

Pierce, F. M., M.D. The Effects of Child-bearing on Certain Forms of Ear-Disease.

Rogers, Joseph, M.D. Chaos, as exemplified in Central and Local Sanitary Administration.

Routh, C. H. F., M.D. On Fibrous Tumours of the Uterus.

Sadler, Michael T., M.D. 1. Obstruction of the Bowels from Enteritis, with Cases.—2. Foul Air as a Cause of Enteric Fever.

Savage, T., M.D. On Incisions of the Cervix in Uterine Hæmorrhage.

Sims, J. Marion, M.D. Epithelioma of the Cervix Uteri.

Smith, W. Wilberforce, M.D. The Flat Roof as a Recreation-Place.

Spence, Robert, M.B., C.M. Note on the Treatment of Prostatic Retention when complicated with Stricture.

Squire, A. Balmanno, M.B. A Demonstration from Life of the Diseases of the Skin by means of the Dissolving-View Apparatus.

Squire, William, M.D. The Registration of Disease, and the Part to be taken therein by the Medical Profession.

Stainthorpe, Thomas, M.D. A Case of Puerperal Convulsions treated successfully with Hypodermic Injections of Ergotine.

Taylor, C. B., M.D. On the Principles that should guide us in selecting an Operation in Cases of Senile Cataract.

Thomas, Llewelyn, M.D. On the Necessity for Prompt Treatment of Deafness in Childhood.

Thompson, James, M.B. The Relation of the General Medical Practitioner to the Sanitary Authority.

Thompson, J. Ashburton, M.D. A New Emetic Purge.

Vacher, F., Esq. Public Baths.

Walker, Bernard, M.R.C.S. On the Advantages of Ether as an Anæsthetic over Chloroform.

Wallace, J., M.D. Note on Atresia Uteri and Painful Cicatrices of the Cervix from Caustics.

Wilson, A. C., M.D. 1. Three Cases of Vesical Calculus.—2. Two Cases of Neurosis.

Yeo, I. Burney, M.D. The Results of Modern Research in the Treatment of Phthisis.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

THE ANNUAL MUSEUM.

The Ninth Annual Museum of the above Association will be held in the Church Institute, St. James's Street, Sheffield, on August 1st, 2nd, 3rd, and 4th, 1876.

All communications should be addressed to the Secretaries, from whom any further information can be readily obtained.

W. R. THOMAS, Norfolk Street, } *Honorary Secretaries,*
SIMEON SNELL, 17, Eyre Street, } *Museum Committee.*

EXCURSIONS.

* * It is especially requested that all gentlemen who intend to avail themselves of the Excursions, will send their names to the *Honorary Secretaries of the Excursion Committee*—E. M. WRENCH, Esq., Baslow; and JOHN BENSON, Esq., Sheffield—at the Reception Room, Cutlers' Hall, not later than 4 P.M. on Wednesday, August 2nd, for the Friday Excursions, or than 4 P.M. on Thursday, August 3rd, for the Saturday Excursions.

The following is the programme of Excursions, etc., during the meeting.

Wednesday, August 2nd.

3 P.M. Messrs. Cammell and Co. will roll a large Armour-Plate, and invite the Association to witness it, and afterwards inspect their famous works.

Thursday, August 3rd.

11 A.M. Thomas Firth and Sons will forge a large Gun, and afterwards show other objects of interest.

Friday, August 4th.

I. Excursion to Wortley by road. The Earl of Wharncliffe invites one hundred members of the British Medical Association to lunch, and to inspect the Collieries, etc. (Under control of Dr. Watson, Weirfield House, Penistone.)

II. Excursion to Wentworth House; by invitation from Earl Fitzwilliam. Wentworth is famous for its Pictures and Sculpture, Stud, etc. (Under control of J. Benson, Esq., Sheffield.)

Saturday, August 5th.

I. Excursion to Chatsworth and Haddon Hall, Derbyshire; by road over the moors, sixteen miles. Invitation from the Duke of Devonshire for one hundred to lunch at Chatsworth at 1 P.M. Mrs Wrench's Garden Party at Haddon Hall (by kind permission of the Duke of Rutland), from 4 to 6. N.B.—A train leaves Rowsley Station, two miles from Haddon Hall, at about 6 P.M., and reaches London at ten P.M. (Under control of Mr. Wrench of Chatsworth.)

II. Excursion to Matlock and neighbourhood. Invitation to luncheon at New Bath Hotel, Matlock Bath, by the profession of Derby, Wirksworth, Matlock, etc.—Objects of Interest: High Tor, Abraham's Heights, Caverns, Thermal Springs, Via Gellia, Willersley Castle Grounds (by kind permission of F. C. Arkwright, Esq.).—Members can leave Wirksworth after the Via Gellia excursion at 5.25, or Matlock Bath at 6, arriving in London at 9.50. (Under control of Dr. Webb, Wirksworth.)

III. Excursion by rail to Buxton, through some of the finest scenery in Derbyshire. Invitation for limited number to lunch from Medical Men of Buxton. Inspection of the Mineral Baths, Bath Charity Hospital, etc. (Under control of Dr. Robertson.)

Daily, in Sheffield.

From 2 to 5 P.M. Joseph Rogers and Sons invite inspection of their famous Cutlery works.

James Dixon and Sons invite inspection of their Electro-Plate works.

John Kenyon and Co. invite members to inspect their Steam-Saw Manufactory.

The Botanical Gardens and the Athenæum will be open to members producing their tickets.

Dr. Mitchell, the Superintendent of the South Yorkshire Asylum at Wadsley, will be glad to receive a visit from members at any time during the week. There is a very valuable collection of Fossils at the Asylum.

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, London, July 13th, 1876.

METROPOLITAN COUNTIES BRANCH.

A GENERAL meeting of this Branch will be held at No. 11, Chandos Street, Cavendish Square, W., on Wednesday, July 26th, at 8 P.M. precisely, to consider the Cruelty to Animals Bill now before Parliament. Members are invited to bring friends, being registered medical men.

ALEXANDER HENRY, M.D. } *Honorary Secretaries.*
ROBERT FARQUHARSON, M.D. }

WEST SOMERSET BRANCH.

THE annual meeting of this Branch will be held at the Clarence Hotel, Bridgwater, on Thursday, July 27th, at 2.30 P.M.

Dinner at 5 o'clock.

Members who may desire to have any communications before the meeting are requested to give notice to the Secretary.

W. M. KELLY, M.D., *Honorary Secretary.*
Taunton, June 19th, 1876.

LANCASHIRE AND CHESHIRE BRANCH:
NOTICE TO MEMBERS.

DR. STEELE, having resigned the office of Branch Secretary, requests that remittances and communications may be addressed to "Dr. D. J. LEECH, Honorary Secretary of the Lancashire and Cheshire Branch, 96, Mosley Street, Manchester".

MIDLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the General Hospital, Nottingham, on June 29th, under the presidency of JOSEPH WHITE, Esq.; about fifty members attended.

President's Address.—The PRESIDENT delivered an address.

Officers and Council.—The following were appointed; *President-elect*: C. H. Marriott, F.R.C.S., Leicester.—*Branch Council*: A. Mercer Adam, M.D., Boston; J. Barclay, M.D., Leicester; T. Blunt, M.D., Leicester; W. G. Curgiven, M.D., Derby; G. Mitchinson, L.K.Q.C.P.I., Lincoln; W. Ogle, M.D., Derby; W. T. Robertson, M.D., Nottingham; C. B. Taylor, M.D., Nottingham.—*Representatives on the General Council*: J. W. Baker, Esq., Derby; T. W. Benfield, Esq., Leicester; H. Lankester, Esq., Leicester; Ed. Morris, M.D., Spalding; W. H. Ransom, M.D., F.R.S., Nottingham; T. Simpson, Esq., Lincoln; Henry Taylor, Esq., Nottingham; W. Webb, M.D., Wirksworth.—*Hon. Secretary*: C. Harrison, M.D., Lincoln.

The local secretaries were re-elected.

New Members.—The following were elected members of the Association and Branch: Ed. Seaton, M.D., Nottingham; H. Williams, M.R.C.S., Colston Bassett; R. C. Chicken, F.R.C.S., Nottingham; Jos. Allan Philip, M.D., Lunatic Hospital, Lincoln; T. Wolverson, M.R.C.S., Alfreton; J. Ellam, M.R.C.S., Nottingham. Dr. Angus Mackintosh of Chesterfield, a member of the Association, was elected a member of the Midland Branch.

Habitual Drunkards.—A petition to Parliament, in favour of some restrictive measures for habitual drunkards, was signed by the President and members.

The Cruelty to Animals Bill.—Dr. RANSOM proposed, and Mr. STANGER seconded, a series of resolutions, which will be found at page 121.

Papers.—The following papers were read:

1. Novel Mode of Curing Stone in the Bladder, by A. H. DOLMAN, Esq.
2. Notes and Remarks upon a Complicated Case of Empyema, by G. C. FRANKLIN, Esq.
3. Puerperal Fever in its Relation to Infective Diseases, by H. R. HATHERLEY, Esq.
4. Lymphadenoma; with a presumed Case, by J. O. BROOKHOUSE, M.D.
5. Brief Observation on the Author's Method of Extracting in Cases of Cataract, and introduction of Patients illustrating the results to be obtained by his mode of procedure, by C. BELL TAYLOR, M.D.

NORTH OF ENGLAND BRANCH: ANNUAL MEETING.

THE twelfth annual meeting of this Branch was held in the Town Hall, Morpeth, on Thursday, July 6th. There were present twenty-two members and three visitors.

Dr. PHILIPSON, Honorary Secretary, said that it was with extreme regret that he had to announce the absence of the retiring President, Mr. S. E. Piper of Darlington, who had hoped to be present. He read a letter from Mr. Piper, who stated that he had been summoned to give evidence before the House of Lords on a Water Bill. Dr. Philipson said that another matter of great regret was, that he had also to announce the absence of the President-elect, Mr. Matthew Brumell of Morpeth. He read a letter from Mr. Brumell, who was in the South of England, and who had expected to be able to attend, but was prevented in consequence of indisposition. In the absence of the retiring President, and of the President, Dr. Philipson moved that Dr. Dixon of Sunderland, the senior member of the Council of Management of the Branch, take the Chair.

Dr. DIXON, who took the Chair accordingly, said they would regret the absence of the President, because it was customary to have the pleasure of hearing an address which was worth listening to; and no doubt, had Mr. Brumell been present, he would have enabled them to pass the time in a very agreeable and satisfactory manner by the address he would have given.

Vote of Thanks to the Retiring President.—It was moved by EDWARD HEFFERNAN, Esq., and seconded by Dr. BLUMER: "That the best thanks of the meeting be given to the retiring President, S. E. Piper, F.R.C.S., and the other officers, for their valuable services during the past year."

Vote of Sympathy with the President.—Dr. EASTWOOD proposed, and Dr. REID seconded: "That the members of the North of England Branch of the British Medical Association deeply regret the absence of the President, Matthew Brumell, Esq., and readily avail them-

selves of the present opportunity of assuring him of their sincere sympathy with him in his recent indisposition, and of offering to him their hearty good wishes for his restoration to health."

Report of Council.—The Council reported favourably of the position of the Branch. During the year, seventeen new members had been elected. At the present time, the Branch consists of two hundred and thirty-four members, three more than at the annual meeting in 1875. During the year, three meetings, including the annual meeting, had been held. The attendance at the meetings had been large, as the interest of the papers had called forth animated discussion. At the spring meeting in 1874, it was agreed to support the London Committee in favour of the propriety of contributing to the testimonial to Dr. Henry W. Rumsey, F.R.S.; and the subscription to the fund, from members of the Branch, amounted to £20:18:6. The report then referred to the fact, that it had been agreed, at the last annual meeting of the Association, to hold the annual meeting of 1876 at Brighton, and that Sir John Cordy Burrows should be the President. The death of that gentleman in March last had caused universal regret. At an extraordinary general meeting of the Association, it had been resolved to accept the invitation of the profession of Sheffield to hold the annual meeting there in August. The initiative, the report stated, was given by a member of the North of England Branch, Dr. Eastwood, in bringing about so happy a solution of a difficulty, and an expression of grateful remembrance was justly due, and was thus tendered. In conclusion, the Council desired to express a well-founded hope that the earnest co-operation of its members, which had raised the Branch to its present honourable and influential position, would be exerted to maintain, and, if possible, to increase its prosperity. The Treasurer's account showed a balance in favour of the Branch amounting to £9:16:11.

Officers for 1876-7.—Mr. JOHN RUSSELL proposed, Mr. THOMAS BENSON seconded, and it was unanimously carried: "That the next annual meeting be held at Durham, the autumnal meeting at Coatham, and the spring meeting at South Shields; that S. W. Broadbent, Esq., be President-elect; Dr. Philipson, Honorary Secretary and Treasurer; and Drs. C. Gibson, Byrom Bramwell, Frain, and W. H. Dixon, the Council of Management."

Representatives in the General Council of Management.—It was moved by Dr. ANDERSON, seconded by PETER ALEXANDER, Esq., and carried unanimously: "That the following gentlemen be the representatives of the Branch in the General Council of the Association—Matthew Brumell, Esq.; S. W. Broadbent, Esq.; Byrom Bramwell, M.B.; Martin Burnup, M.D.; W. H. Dixon, M.D.; J. W. Eastwood, M.D.; Charles Gibson, M.D.; G. Y. Heath, M.D.; C. S. Jeaffreson, Esq.; Andrew Legat, M.D.; S. E. Piper, Esq.; R. N. Robson, Esq.; and G. H. Philipson, M.D., *ex-officio*."

Representative in the Parliamentary Bills Committee of the Association.—Dr. BRAMWELL proposed, Mr. F. SKRIMSHIRE, seconded, and it was unanimously carried: "That Dr. Philipson be the representative of the Branch in the Parliamentary Bills Committee of the Association."

Proposed Representative in Parliament.—In the unavoidable absence of Mr. E. JEPSON, Dr. EASTWOOD proposed:

"That this Branch desires to bring under the notice of the General Council of the British Medical Association the great desirability of taking steps to obtain and to support a representative in the House of Commons, who shall specially watch over the interests of the medical profession." They had seen in the proceedings in Parliament how very little the medical profession was either understood or represented. In the debate with regard to the admission of females upon the *Medical Register*, one medical man spoke, who, though not actively connected with the profession, was a member of it, and he was utterly at sea as to what the profession required, and what the profession wished. It was extremely desirable, therefore, to have one, or more than one, to represent the profession in Parliament; and the only way for the profession to be represented, was to have a representative of some organised portion of it, such as the British Medical Association. If a member went to the House of Commons, and represented a body of between six and seven thousand men, who held annual and other meetings, and decided on certain questions, it was very certain that his influence must be very much greater than that of a medical man who went into Parliament in an independent manner. It was very desirable that they should be so represented, and they had the example set before them by their French brethren, who had a large representation in the Legislative Assembly of France. Dr. Eastwood formally moved the resolution, the object of which was to bring the matter before the annual meeting at Sheffield, in order that it might be more thoroughly taken up.

Dr. STAINTHORPE seconded the resolution. Dr. REID and Dr. BRAMWELL supported it; while Dr. McDOWELL expressed himself as not being able to recognise what claim the profession had for a representative. On the motion being put to the meeting, seven voted for it and four against it; it was, therefore, declared carried.

The Committee of Council.—On the motion of JOHN RUSSELL, Esq., seconded by EDWARD HEFFERNAN, Esq., the representatives on the General Council nominated and recommended Dr. Eastwood as a Member of the Committee of Council, to be elected at the annual meeting at Sheffield.

A Vote of Thanks to the Chairman, on the motion of Dr. STAINTHORPE, was accorded by acclamation, and acknowledged.

Dinner.—The members and friends dined at the Queen's Head Hotel, Morpeth. Dr. Dixon occupied the Chair, and was supported by the Mayor of Morpeth, and the Rector of Morpeth, the Hon. and Rev. F. Grey. The Vice-chair was filled by Dr. Philipson.

REPORTS OF SOCIETIES.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, MARCH 28TH, 1876.

W. T. GAIRDNER, M.D., President, in the Chair.

Cerebral Sclerosis.—Dr. FRASER of Paisley presented a brother and sister affected with marked unsteadiness of gait, and festination. The male was thirty years old, and had been affected since his seventh year, traces even having been noticed in his third year; before that age, he seemed perfectly healthy, and able to walk well. There was no history of convulsions, feverish attacks, or even of teething troubles. When he came first under observation, eight years ago, he was able to deliver newspapers, but walked as if drunk, *i.e.*, very unsteadily, and with much festination, falling only occasionally, and able to go considerable distances. Of late, he was more easily fatigued, and he fell often; there was no distinct paralysis, and he had considerable muscular power. There was internal strabismus of the right eye, and a little unsteadiness of the eyes, but no true nystagmus; cutaneous sensibility was normal; articulation was a little hesitating and slow; the urinary functions were normal. The intelligence, though not of a high order, seemed fair, especially in view of defective education resulting from his condition, and his memory was said to be very good. There was but little tremor while seated; the head was a little shaky, but he could hold out a pencil steadily at arm's length; some incoordination appeared on attempting to pick up objects, but he could stand perfectly well with his eyes shut; his own complaint in walking was that he felt his "head light". His sister, aged 20, was not so badly affected, and in particular she did not festinate so much; otherwise, as to present condition and previous history, her case resembled that of her brother. The father, at the time when the children were born, was much addicted to drinking, although temperate of late. The mother was active and intelligent; she had one sister weak minded since birth. The patients were members of a family of nine, four of whom are dead (two dying with convulsions in infancy, and one of phthisis at 32 years); of those living, one married sister had repeated attacks of convulsions when eight years old, and her child (also presented to the Society) was obviously affected with chronic hydrocephalus, and was blind. The ophthalmoscopic examination of both patients by Dr. Reid, showed a degree of paleness and contraction of the nerve; some congestion of the retinal veins and contraction of the arteries; the fundus appeared dingy, probably from diffusion of choroidal pigment. Dr. Fraser thought that the disease affected the cerebellum chiefly, and that probably it was of the nature of sclerosis.—Dr. ROBERTSON said that even in the Town's Hospital, where such cases tended to appear, the condition observed in these two patients was quite rare, although he had seen something like them.—Dr. YELLOWLEES said that, in asylum practice, such cases were extremely rare.—Dr. GAIRDNER had seen something resembling this condition at rare intervals, but he thought, viewed in connection with the remarkable family history, they must be almost without parallel.

Lead Amaurosis.—Dr. THOMAS REID presented a woman, aged 29, with this affection. Two years ago, she went to work at a whitelead factory, and had various attacks of colic and other illnesses laying her up for a time, but she resumed her occupation. Last September, she had paralysis of the wrist, and thereafter her vision suddenly became affected, and she mentioned to those with her at the time, that all became dark and hazy, and in a few hours she became quite blind. Under treatment at the City, and subsequently the Barnhill Hospital, the paralysis disappeared, but the blindness remained. On ophthalmoscopic

scopic examination, atrophy of both optic nerves was discovered, as also a diminution in the number and size of the vessels, but no exudations were seen. Dr. Reid referred to a case published by Dr. Scott, one which had been seen by the late Dr. Mackenzie, and which he himself had examined with the late Dr. George Rainy; he also referred to a recent case reported from America, and read notes of the *post mortem* examination.

Bright's Disease with Retinitis.—Dr. McCall ANDERSON and Dr. REID brought up a report on the case of a man, aged 41, formerly shown to the Society (BRITISH MEDICAL JOURNAL, February 12th, 1876, p. 194). He had since died at the Western Infirmary. In the left occipital lobe a mass of softening was found, involving the convolutions. A cyst was also found in the right corpus striatum. The vessels were atheromatous. The kidneys were small, two and a quarter ounces each, the capsule adherent, and the surface granular. The heart weighed twenty-three ounces; the hypertrophy chiefly affected the left ventricle. The eyeball was examined by Dr. Reid, after hardening in chromic acid, and sections were exhibited. The optic nerve entrance appeared elevated, about two lines, above the level of the retina. In a horizontal view, with a low power, numerous dark reticulations with clear interspaces were seen; these were found, with a high power, to be partly composed of condensed cellular tissue infiltrated with brownish masses. In the centre of the white interspaces a transparent nucleated cell was frequently observed, surrounded by a hyaline structure; the nerve fibres were in an advanced stage of fatty degeneration, and contained numerous nuclei in their fibrous sheaths. Dr. Reid said the prominence of the optic nerve, seen on section, had not been observed during life, indeed it had appeared atrophied and depressed in centre as seen with ophthalmoscope. It had been impossible to connect the highly reflecting white bodies, seen with ophthalmoscope, with the microscopic appearances found either in the horizontal or vertical sections of the retina.

CORRESPONDENCE.

THE DEPUTATION TO MR. CROSS.

SIR,—Although a matter of small moment, may I request the favour of your allowing me to state in the pages of your JOURNAL that, although my name was omitted from your list, I was one of those who formed the deputation to Mr. Cross on the 5th instant, on the subject of the Cruelty to Animals Bill. By so doing you will oblige yours, etc.,
10, Finsbury Place South, July 19th, 1876. JOHN GAY.

[We find that the name of Sir Henry Thompson (and probably of others), was also accidentally omitted.]

MEDICAL DEFENCE ASSOCIATION.

SIR,—Absence from home has prevented my taking earlier notice of the letter of Mr. G. Brown, the secretary of the above Association.

I would observe that the report, contained in the JOURNAL of June 24th, of the proceedings of the annual meeting of the South-Eastern Branch of the British Medical Association at Maidstone, while it conveyed generally the true purport of my remarks on the Medical Defence Association, did not, owing to the necessary condensation of them, exactly represent what I said.

What I deprecated especially was that any member of our Branch should join the Medical Defence Association; because, I stated, they could obtain from the British Medical Association all that the other aims at and offers. One of the fundamental rules of the British Medical Association is that it was established to "maintain the honour and interests of the profession", and if the arrest of illegal practice and illegal practitioners does not clearly come within the scope of those objects, I do not know what does. I am aware that the British Medical Association has not hitherto dealt with such cases; but I hold that it is not only one of its proper functions, but also its bounden duty to do so. And it was with the view of leading the way to a recognition of the duty that I made the remarks which I did.

I certainly did go on to express the great regret, which I have always felt, since its first announcement, at the formation of the Medical Defence Association; because I am confident that the existence of two associations, consisting exclusively of members of the same profession, running side by side, with similar objects, but working quite independently of each other, is a division of forces, which is most undesirable, and hurtful to the interests of the profession at large. It must lead to evil consequences sooner or later. And I have looked anxiously for some sign that it would be possible to effect an union or amalgama-

tion of them. If there were but the "will", I am quite sure there would soon be found the "way".

In the hope of living to see this happy event, I remain, etc.,
Maidstone, July 17th, 1876.

WILLIAM HOAR.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

A GENERAL meeting of the Poor-law Medical Officers' Association will be held at the Century Club, 6, Pall Mall Place, on Monday, the 31st instant, at 3 P.M. precisely, for the purpose of electing the officers and council, and to determine what public action should be taken in furtherance of the objects of the Association.

NORTHERN COUNTIES ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE annual meeting of the Association was held by permission in the lecture room of the Literary and Philosophical Society, Newcastle-upon-Tyne, on July 3rd, at 1 P.M. The following were appointed officers for the ensuing year. *President*: H. J. Yeld, M.D. *President-elect*: J. M. MacLagan, M.D. *Vice-Presidents*: R. Elliot, M.D.; E. C. Jepson, F.R.C.S.; J. M. Fox, M.R.C.S.; D. Jackson, M.D. *Honorary Secretary*: Henry E. Armstrong, M.R.C.S. *Committee*: J. C. Reid, M.D.; S. E. Piper, F.R.C.S.; J. Spear, M.R.C.S.; A. E. H. Trotter, M.R.C.S.; G. N. Tweddell, M.R.C.S.; H. D. Ward, M.D. The transaction of other formal business followed.

The retiring President, Dr. Elliot, made a valedictory speech, and introduced his successor, Dr. Yeld. After a cordial vote of thanks to the retiring President and the executive, an address on Recreation was given by the President. The following papers were also read. On the Prevention of Infectious Diseases; by Henry E. Armstrong, M.R.C.S.: On the Inefficient Registration of the Causes of Death; by J. M. MacLagan, M.D.

YEOVIL BOARD OF GUARDIANS.

THE Yeovil Board of Guardians are likely to attain an unenviable notoriety by their want of consideration for the sick poor, and their unworthy treatment of their medical officers. It is not the first time that we have noticed the hostility of certain portions of the board to medical officers who interpret their duties to the sick poor literally, in cases in which nourishment is the best medicine. We observe now that they are undertaking to decide for their medical officer what is and what is not a critical case of midwifery; and are taking upon themselves the duties of obstetric diagnosis, in order to whittle away a fee. The humanity and the public spirit and the devotion to his duties of Mr. Garland are well known, and, by obstructing and annoying him in the discharge of his duties, the guardians of the poor are not fulfilling, but are contravening, the duties and responsibilities which are cast upon them by their office, and which their title implies.

MAIN-DRAINAGE AND ENTERIC FEVER IN PORTSMOUTH.

TYPHOID or enteric fever has not unfrequently, although somewhat incorrectly, been called sewer fever. Although essentially a "filth-disease", enteric fever is by no means confined to sewered districts, and sewer-gas is only one of many mediums for the distribution of the germs of that disease. Mr. George Turner, the Medical Officer of Health for Portsmouth, in his recently issued report upon the sanitary condition of that borough during 1875, publishes some interesting particulars relating to the fatality of fever and the proportion of drained houses in the town. Portsmouth is an instance of a town in which the death-rate, from all causes, is considerably lower than the average rate in other large English towns; whereas the death-rate from fever (nearly the whole of which is due to enteric fever) is comparatively excessive. In 1873, the death-rate from fever was equal to .84 per 1,000 in Portsmouth, against .45 in London, and was higher than in thirteen of the seventeen largest English towns. In Portsmouth, the fever-rate was .86 per 1,000 in 1874, and fell again to .84 in 1875. In 1873, only 32 per cent. of the houses in the borough were drained, or rather connected with the main drainage system. This percentage had increased to 40 in 1874, and 45 in 1875. It is evident that the death-rate from fever has not declined with the increase in the proportion of drained houses;

on the other hand, Mr. Turner tells us that, while 45 per cent. of the houses were drained, 43 per cent. of the deaths from fever occurred in drained houses. With reference to these facts, Mr. Turner observes: "It is evident that the inhabitants of Portsmouth do not enjoy all the advantages which they might reasonably expect from the drainage system." This result is attributed to insufficient ventilation of the sewers. The Portsmouth main drainage system has many disadvantages to contend with; it has a very low gradient, the mouth of the sewer is constantly under water, and the sewage backs up in the sewer for a length of many feet. Mr. Turner is an advocate of pipe-ventilation for the sewers; but urges that, if the urban sanitary authority be disinclined to adopt this system of ventilation, the sewers should be freely ventilated into the streets. This objectionable alternative can, however, only be said to be better than the present system, by which the sewers are ventilated into the houses. London has a lower fever-rate than any other large town in England, and yet connection with the main drainage system is all but universal in the metropolis. A well-ventilated system of sewerage has almost invariably reduced the death-rate from fever in towns.

THE POETRY OF SANITATION.

WE have before referred to the poetical view of the sanitation of his district to which Dr. Henry Candlish of Alnwick inclines. His last report is worthy of its predecessors. He reports: The general health of the town is good, and the rate of mortality is small. Sanitary reform is attended to and maintained; and glorious, joyous summer, with her bright sunshine, fleecy clouds, fragrant breezes, verdant lawns, gorgeous flowers and abundant varied fruits, opens her luxuriant treasury to supply the wants and wishes of all, whether bent upon health or pleasure. Now the meadows echo to the groves, and with an orchestra, high as the eye can reach, constitute a choral union—a melodious blend—unspeakably delightful. All nature is busy to please and benefit. Notwithstanding this general concert of praise, in which Dr. Candlish plays so melodious a part, there appear to be one or two little minor matters which deserve his attention. For we find that, at a recent meeting of the board, the Local Government Board Inspector observed: Before going any further, he must say something as to the ventilation of the sewers in Alnwick. In passing along their streets, he had not observed a single ventilator. He had passed a most disagreeable night in the hotel where he slept, and he was of opinion that sewer gases had got into the room; and he attributed this to bad ventilation of the sewers. Why not convert all their man-holes, etc., into ventilators? What they wanted was to have a thorough good current of air through the sewers. He could not recommend the Local Government Board to sanction the loan till there was some assurance from the Alnwick Local Board that they would do something with the sewers. Rain-water down-spouts were not to be trusted for ventilation, because they failed when most wanted; in rainy weather, they could not carry the foul air out of the sewers, being full of water. He mentioned instances in point. The opinion of the birds on this subject it might not be easy to get; but as joyous summer, when it is hazy with unventilated sewers, is not always inclined to please or benefit us, it might be well for the medical officer of health to interfere for the pleasure and benefit of the rest of the inhabitants.

CHORLTON UNION HOSPITAL.

WE observe in the local papers a report of a short debate at the weekly meeting of the Chorlton Board of Guardians on the subject of the relations of the medical officer to the master. It appears that the Chorlton guardians have committed the great error of making the hospital an integral portion of the workhouse. The consequence is to make the master, who must always be a person of inferior education, knowledge, and position to the medical officer, the presiding authority of the hospitals. There are, of course, exceptions to all general rules, and we are quite willing to assume that the master of the Chorlton Workhouse is such an exception; but it has been abundantly proved that workhouse masters are not fit persons to have charge of hospital administration, and that the gravest abuses have sprung from such a system. The result of the investigation set on foot by the Workhouse Infirmarys' Association was to deal a death-blow to that principle in London, and Mr. Hardy's Act was passed to free the metropolitan infirmaries from the control of workhouse masters. We are very sorry to see that the Chorlton guardians are indisposed to accept a principle which may be regarded as having been indisputably established by an overwhelming mass of facts, and as having received the most emphatic sanction from the whole public opinion of the country and from Parliament. The remarks of the workhouse master, Mr. Brokenshire, as

to the medical officers learning ultimately to "hug the yoke" of their "more experienced colleague", do not call for any notice. They are in the extreme degree objectionable and in the worst possible taste. They point as much as anything else could do to the necessity of revising a code of regulations which could allow a person in his position to make such observations.

REPORT OF MEDICAL OFFICER OF HEALTH.

SOUTH SHIELDS.—In the report of Mr. John Spear, medical officer, and Mr. Matthew Hall, engineer, reference is made at considerable length to public *abattoirs*, for the purpose of guiding the local authority as to the propriety of erecting one. They report that the Edinburgh *abattoir* cost £22,000; that the amount was paid off in twenty-four years; and that it now yields a clear profit of £1,000 a-year. They, therefore, recommend that an *abattoir* be built by the corporation. As regards the sanitary statistics for March, Mr. Spear states that the annual birth-rate was 42.4; the death-rate, 25.0; and of children under five years, 5.7 per 1,000. From the seven principal zymotic diseases, the rate was about 3 per 1,000. He complains of children being allowed to play about before they have perfectly recovered from attacks of epidemic diseases.

OBITUARY.

THOMAS TAYLOR GRIFFITH, F.R.C.S.E.

IT is with profound regret we record the death, on July 6th, of Mr. Thomas Taylor Griffith of Wrexham, who, for a period of nearly sixty years, enjoyed the unbounded confidence of the neighbourhood as the leading medical practitioner of his day. Being naturally endowed with talents of a superior order, he was destined to shine in any walk of life he might have adopted; and with that great love for his profession which was so prominent a feature in his character, he devoted himself with unwearied and never-flagging energy, to allay the pains of suffering humanity, and to comfort and solace the heavy laden and broken-hearted.

Mr. T. T. Griffith was the son of the late Thomas Griffith, Esq., who practised as a surgeon in Wrexham for many years. He was born in Wrexham in 1795, so that, at the time of his death, he was in the eighty-first year of his age. In April 1827, he married Anne Mary, eldest daughter of Captain Robertson of Keavil, in the county of Fife, who survives him. He leaves one son, the Rev. T. Llewelyn Griffith, the much-respected rector of Deal, in Kent. Mr. Griffith was educated at the Grammar School, Wrexham, and commenced his professional education under his father's eye. Subsequently, he studied at Guy's and St. Thomas's Hospitals, where he took Sir Ashley Cooper's first prize for anatomy and surgery in 1816. He was admitted a member of the Royal College of Surgeons of London in 1817, and made an Honorary Fellow of the College in 1844. He also prosecuted his studies at St. Bartholomew's Hospital, and afterwards in Paris, previously to settling to practise in Wrexham. Few have had so large and so extensive an experience as the late Mr. T. T. Griffith, and fewer still could have turned to such good account the ever-recurring events of the greatest interest, in a practice unsurpassed in magnitude or prosperity. He was one of the oldest members of the British Medical Association, and was mainly instrumental in the formation of the North Wales Branch, of which he was twice the President. He seldom was absent from the annual and intermediate meetings, and always ready to draw upon his large store of practical knowledge for the elucidation of the various subjects under discussion. He was held in high esteem, akin to love, by every member of the Branch, who, in the year 1873, gave substantial evidence of their high regard for him by presenting Mrs. Griffith with his portrait.

First and foremost in connection with his professional career must ever be associated the Wrexham Infirmary. He was chiefly instrumental in its foundation in 1832, and acted as honorary surgeon to the institution until 1855, when he retired from active duty, and was appointed consulting surgeon, an office he held to the day of his death. When he entered upon his eightieth year, it was deemed a fitting opportunity to mark the high estimation in which he was held by his neighbours and friends; and a public meeting was convened, when it was unanimously resolved to ask him to sit for his portrait, to be placed in the board-room of the infirmary. His portrait, by the eminent painter, Mr. Daniel Macnee, now President of the Scottish Academy, was presented to Mr. Griffith in September 1875, accompanied with

a beautifully illuminated address, setting forth the object of the presentation as follows.—“The place selected for the deposit of the memorial of the respect, attachment, and gratitude of your numerous friends is peculiarly appropriate, inasmuch as the infirmary owes its existence to your forethought and energy, and its prosperity has been the result of the devotion of yourself pre-eminently, and of your coadjutors, to its interests. As inhabitants of the town and neighbourhood, the subscribers beg to express their admiration of your long and eminently successful medical career, your benevolence, public spirit, courtesy, and, above all, your consistent Christian character. All the institutions of the town are indebted to you for valuable services; and, while you have promoted the well-being of the people generally, you have been peculiarly the friend of the poor.” Sir W. W. Wynn performed the pleasing duty of making the presentation. His long and unbroken intimacy with Mr. Griffith enabled him to speak in the highest terms of his professional and private character; and, in taking a brief retrospect of his career, he remarked that he never remembered any other physician at Wynnstay but Mr. Griffith. In his acknowledgments, Mr. Griffith said “he looked upon this portrait as an encouragement to all who followed him, and that they might be assured that, with even a small endeavour to do their duty, Wrexham was ever ready to fully, largely, and generously acknowledge those services”. The establishment of the ragged schools in Wrexham was originally due to him. Not only was he the largest contributor, but, until recently, was the treasurer. His whole career was associated with Christian and philanthropic organisations. The British and Foreign Bible Society found in him an energetic local treasurer, whilst all the local Church societies and charities received his active support and pecuniary assistance. . . . Mr. Griffith was a generous contributor to the Medical Benevolent Fund, as well as to the Royal Medical Benevolent College at Epsom. He has published, at various times, in the JOURNAL of the Association, most interesting and instructive cases of compound dislocations and fractures of joints, etc., as well as successful cases of tracheotomy. He had no ambition for municipal honours; but when Wrexham was incorporated, he generously presented the Corporation with £200, as the nucleus of a fund for useful purposes. In politics, Mr. Griffith was a staunch Conservative, and in religion a firm adherent of the Established Church. He was fond of antiquarian research; and took much delight in the natural sciences, being the President of the Natural Science Society of Wrexham, and seldom absent from their meetings when his health permitted. In the practice of his profession, he was an accurate observer; he took much pains to investigate his cases; and, though advanced in years, he kept himself *au courant* with the discoveries and novelties of the day. He possessed a fine library, and many old Welsh manuscripts of unusual interest, which students of history frequently consulted.

On the day of his funeral, July 11th, his remains were followed to the grave by the Mayor and Corporation, the staff of the infirmary and every medical man resident within many miles of Wrexham, the Governor of the Ragged School, the Committee of the Town Mission, representatives of the Natural Science Society, the clergy of the Church of England and the ministers of other denominations, county and borough magistrates, the staff of the Royal Denbighshire Militia, together with friends, fellow-townsmen, and neighbours, numbering about two hundred and fifty gentlemen. The procession was closed by a long array of carriages. As a mark of respect for his memory, every shop was closed, and business suspended during mid-day; the blinds of the private houses were drawn; flags were hoisted half-mast high; and the bells of the church were muffled. Never has Wrexham witnessed such a demonstration of sympathy and respect, in which rich and poor have alike partaken, and in which the members of the medical profession have so cordially joined, most deeply mourning the death of the Father of the Profession in North Wales.

SIR JAMES L. BARDSLEY, M.D.

By the death of Sir James Lomax Bardsley, Manchester has lost one of its prominent citizens, and the medical profession one of its most distinguished members. We abridge from the *Manchester Courier* a discriminating notice of his life and character.—Sir James was a native of Nottingham, where he was born July 7th, 1801. He received his education in Scotland, studying at the Universities of both Glasgow and Edinburgh, and graduated in the degree of doctor of medicine at the latter university in 1823. When Sir James Bardsley came to Manchester, his uncle was a physician of the Royal Infirmary, a position he had held long and honourably. Almost immediately after the advent of his nephew, he carried out a wish he had for some time nursed of retiring, and the deceased was elected to the vacancy. In 1824, he associated himself with the late Mr. Thomas Turner in connection

with the Manchester School of Medicine, and was appointed lecturer on the principles and practice of physic, materia medica, and medical botany. Apart from the honour of the appointment, it was the first lectureship of the kind, we believe, which was established in the provinces. This appointment, joined to the undoubted abilities which he possessed, and aided no doubt by his extreme agreeableness of manner, soon placed himself at the head of his profession in Manchester. He speedily established an excellent connection in that city, while the knowledge of his skill becoming more generally known extended the circle of his practice to very much wider bounds. The carefulness which characterised him in early life never deserted him. He was always cautious, sometimes laying himself open almost to the charge of verging on the extremity of prudence; but the result was that a feeling of security was created in his patients which was amply warranted, for one of his nearest and dearest medical friends has said that, notwithstanding his great practice, he never knew him to make a mistake. In 1853, he received an honour unexpected by himself, and which at the time was the subject of much comment in various quarters. He had then become known in London as one of the most eminent of provincial physicians, and received as an acknowledgment the honour of knighthood, at the same time as a similar distinction was conferred upon the distinguished London physician, the late Sir John Forbes. He continued to fill the appointment of physician to the infirmary until 1863, when he resigned, receiving at the hands of the board a courteous and well-merited recognition of his diligent and valuable services during the period he had been connected with the institution.

As an author, Sir James Bardsley was well known in the medical profession. His first work, published so far back as the year 1830, was entitled *Hospital Facts and Observations*. It was well received by the profession. He contributed the articles on “Diabetes” and “Hydrophobia”, which appear in the *Cyclopædia of Practical Medicine*; and was also the author, in the course of his long life, of many contributions to medical literature. He always wrote with a thorough knowledge of the subject on which he was treating, and, what is more, always wrote to the point. He was also connected with other institutions in the city, in the establishment of which he took a not unimportant part. Medical institutions of national importance also had his support. In the affairs of the British Medical Association, he evinced considerable interest, and at one of its annual meetings contributed a paper. In 1850, he was elected president of the Manchester Medico-Ethical Association, an office which he held for some years, and was at one time president of the Manchester Institution for Diseases of the Ear.

Although he held the position of a justice of the peace and a deputy-lieutenant of the county palatine of Lancaster, he seldom took part in public affairs.

In private life, the deceased was greatly esteemed by a large circle of friends. He was always remarkably kind and gentlemanly in his treatment of those whom business brought into connection with him. His affability was only equalled by his punctuality, for he made it a boast that he always kept his engagements to the minute. His success in life altered in no degree his urbanity to all, for he was just as accessible when he had reached the high social position he attained as when, in earlier days, he commenced to battle with the realities of life. It would not be correct to attribute to him great intellectual acquirements, for he did not possess them. What distinguished him was the possession of good common sense and sound judgment, rather than deep learning. He was essentially a practical man; one who, when confronted with a difficulty, would surmount rather than shun it; and in this task his discretion and his judgment, and, as we have said before, his sound common sense, stood him in good need.

JOHN RINGLAND, M.D., M.R.I.A.

THIS gentleman, who was one of the leading obstetric physicians in Dublin, died at his residence in Harcourt Street on the 7th inst., after a long and severe illness. Dr. Ringland, who was aged sixty, was the Senior Master of the Coombe Lying-in Hospital, Lecturer on Midwifery at the Ledwich School of Medicine and Surgery, Ex-President of the Dublin Obstetrical, and the Medical Society of the College of Physicians, etc. His contributions to obstetric literature were numerous and important, and included *Annals of Midwifery in Ireland*, *Case of Vicarious Menstruation treated by Creasote*, *Amaurose survenue pendant en Parturition*, *Labour rendered tedious by anomalous condition of Pelvis*, *Accidental injuries to the Fœtus in Utero*, *Version in Contracted Pelvis*, etc. His funeral, which took place on Tuesday last, was one of the largest ever seen in Dublin; and, as a mark of respect, the Fellows of the King and Queen's College of Physicians, of which he was a Censor and Fellow, were present in College costume, and accompanied his remains to their last resting place.

POOR-LAW MEDICAL APPOINTMENTS.

BLACKMORE, G. H., M.R.C.S.Eng., appointed Medical Officer to the Fulham Union Workhouse, *vice* E. C. Barnes, M.R.C.S.Eng., resigned.
 BURNAN, Edward, L.R.C.S., appointed Medical Officer to the Lambier District of the Knights Union, *vice* T. J. E. Brown, M.R.C.S.Eng., resigned.
 DAVISON, Francis, M.B., appointed Medical Officer to the Tottington (No. 1) District of the Bury Union, *vice* Thomas Carruthers, L.R.C.P.Ed., resigned.
 LAWSON, Edward, F.R.C.S., appointed Medical Officer to the Inkberrow District of the Alcester Union, *vice* John Martin, L.R.C.P.Ed., resigned.
 HANNAN, F. J., M.D., appointed Medical Officer and Public Vaccinator for No. 2 District of the Alderbury Union, *vice* J. L. Perkins, L.R.C.S.Eng., resigned.
 BARRETT, George T., M.R.C.S., appointed Medical Officer to the Third District of the Penzance Union, *vice* R. Dunstan, M.R.C.S.Eng., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

JERNALL, John H., M.R.C.S.Eng., reappointed Medical Officer of Health to the whole of the Warrington Rural Sanitary District.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, July 13th, 1876.

The Medical Practitioners Bill, providing that all legally qualified practitioners should be capable of being elected Surgeons to County Infirmarys or Hospitals in Ireland, was, on the motion of Lord DONOUGHMORE, read a second time.

HOUSE OF COMMONS, Thursday, July 13th.

The Vivisection Bill.—In reply to Dr. Ward, Mr. CROSS said, if notice of the question were put on the paper, he would state on what day this Bill would be taken.

Tuesday, July 18th.

Sunstroke.—Mr. Hardy, having his attention directed by Mr. RYLANDS to cases of reported sunstroke at the camp near Guildford, said to report of any suffering from sunstroke had been received at the War Office. He understood the commanding officers were, as far as possible, arranging to exercise the troops before the heat of the day.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on July 18th, 1876.

Bachelor, Henry Thomas, Worcester, Cape of Good Hope
 Bowen, Alfred Longmore, Guy's Hospital
 Collenette, Frank de Beauchamp, Guernsey
 Buckell, Leonard Martin, Romsey
 Fisher, Stephen Henry, London Hospital
 Footner, John Bulkley, Bethlem Hospital
 Gibbes, Cuthbert Chapman, Surbiton
 Hames, George Henry, St. Bartholomew's Hospital
 Hancock, John Gatchell, 17, Downshire Hill
 Harvey, William Yeo, 166, Stanhope Street
 Hayes, Francis George, 13, Cathcart Road
 Jackson, Robert Alexander, 53, Notting Hill Square
 Kirtikar, Kanoba Ranchoddas, 34, Euston Square
 Lang, Henry Charles, 47, Berners Street
 Makuna, Manikj Dosabhai, Norman Ho., Prince of Wales Road
 Morshead, Ernest Garstin Anderson, Salcombe Regis
 Perry, Edward Verdon, St. George's Hospital
 Pronger, Charles Ernest, Crawley, Sussex
 Rees, David Valentine, London Hospital
 Ritchie, John Lichtenstein, St. Thomas's Hospital
 Sawtell, Tom Henry, 4, River Street
 Sellon, John William Gore, Budeigh Salterton
 Upton, Alfred, 72, Halton Road
 Vernon, Mark Henry Herbert, St. Bartholomew's Hospital
 Verrall, Thomas Jenner, 2, Dane's Inn
 Walker, George, jun., Cottenham, Wimbeldon
 Williams, William Henry, 26, Grafton Street, Fitzroy Square
 Woodward, Frederick Edward, St. Bartholomew's Hospital

The following candidates, having passed in Medicine and Midwifery, will receive the College Licence on obtaining a qualification in Surgery cognised by this College.

Eve, Frederick Samuel, 14, Lady Margaret Road
 Lithgow, Thomas George, 8, Kensington Park Road

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on the 14th instant; and, when eligible, will be admitted to the pass-examination.
 Messrs. D. Williams, A. Blair, James Homes, J. E. Prichard, J. H. Oldroyd, H. E. Davies, and A. A. Robinson (of University College); W. J. Jolliffe, L. A. Cantin, Arthur Weakley, and H. D. Halliday (of St. Bartholomew's Hospital); C. E. Everest (of Guy's Hospital); Reginald Noorman (of St. George's Hospital); and R. B. Bothamley (of St. Thomas's Hospital).

The following gentlemen passed on 17th instant.

Messrs. W. E. Davies, W. H. Copley, A. D. Maitland, and A. H. Robinson (of University College); W. R. Scroggie, J. B. Kusher, Alfred Hepburn, and W. G. Burnie (of St. Bartholomew's Hospital); E. S. Pattison and Henry Hoole (of Charing Cross Hospital); Philip F. Salomons (of Calcutta and St. Thomas's Hospitals); E. G. Betts (of Middlesex Hospital); and J. F. H. Bottrell (of King's College).

The following gentlemen passed on the 18th instant.

Messrs. E. M. Harrison, John Brown, and H. C. Rowbotham (of Charing Cross Hospital); M. E. Ling, J. S. Nickall, and G. H. Harvey (of London Hospital); James O'Connor and C. D. Briggs (of University College); H. C. Allinson and M. J. Verdon (of King's College); A. J. Jefferson and J. R. Lunn (of St. Thomas's Hospital); S. V. Theed (of Guy's Hospital); George Shaw (of Westminster Hospital); A. J. Bisdee (of St. Mary's Hospital); Percy Warwick (of St. George's Hospital); and G. A. Farrer (of St. Bartholomew's Hospital).

Fifty-one candidates out of the one hundred and forty-seven examined were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 13th, 1876.

Blackman, Josiah George, Southampton
 Blaikie, John Robert, Oswestry, Salop
 Goodsall, Frederick Walter William, Dryland Road, Canonbury
 Mears, William Pope, Bromley, E.
 Phillips, Alfred, The Ferns, Primrose Hill Road
 Roberts, John Thomas, New Romney, Kent
 Tunley, John, Mayfield, Ashbourne, Derby
 White, William Robert, King's College Hospital

The following gentlemen also on the same day passed their primary professional examination.

Lockwood, Charles Barrett, St. Bartholomew's Hospital
 Norton, Thomas Chalmers, Bristol Medical School
 Pearse, Thomas Frederick, Middlesex Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ALCESTER UNION—Medical Officer. Salary, £60 per annum. Applications on or before July 24th.
 BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Acting Physician. Salary, £60 per annum. Applications on or before August 4th.
 BIRMINGHAM GENERAL HOSPITAL—Resident Medical Officer. Salary, £130 per annum, with board and residence. Applications on or before July 31st.
 BRAINTREE UNION—Medical Officer. Salary, £50 per annum. Applications on or before July 29th.
 BRISTON DISPENSARY—Resident House-Surgeon. Salary, £150 per annum, with furnished apartments, etc. Applications on or before July 25th.
 EAST LONDON HOSPITAL FOR CHILDREN—Resident Medical Officer. Salary, £60 per annum, with board, lodging, etc. Applications on or before July 27th.
 FESTINIOG UNION—Medical Officer. Salary, £60 per annum. Applications on or before July 24th.
 HOSPITAL FOR WOMEN—House-Physician. Applications on or before July 20th.
 KEIGHLEY—Medical Officer of Health. Salary, £100 per annum. Applications on or before July 25th.
 LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary, £108 per annum, with furnished apartments, etc. Applications on or before July 26th.
 MANCHESTER ROYAL EYE INFIRMARY—House-Surgeon. Salary, £70 per annum, with board, etc. Applications on or before August 1st.
 NEWCASTLE-UPON-TYNE INFIRMARY—Senior House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications on or before August 3rd.
 ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor—Medical Officer. Applications to the Secretary, 12, Pall Mall, S.W.
 ST. GEORGE'S and ST. JAMES'S DISPENSARY—Physician. Applications on or before July 24th.
 WESTERN GENERAL DISPENSARY, Marylebone Road, N.W. Honorary Physician. Applications on or before July 24th.
 WEST HAM DISPENSARY—House-Surgeon. Salary, £100 per annum, with apartments, etc. Applications on or before July 24th.
 WESTMINSTER HOSPITAL—House-Surgeon. Applications on or before July 25th.
 WOLVERHAMPTON GENERAL HOSPITAL—House-Physician. Salary, £100 per annum, with board, washing, and furnished apartments. Applications on or before July 24th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*LAWRENCE, H. Cripps, L.R.C.P.Lond., appointed Honorary Physician to the North-West London Free Dispensary for Sick Children, *vice* E. Owen, F.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

FIELD.—On July 11th, at 31, Lower Seymour Street, Portman Square, the wife of George P. Field, M.R.C.S., of a daughter.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAYSt. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAYSt. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAYRoyal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAYSt. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club (University College), 8 P.M. Annual General Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

COMMUNICATIONS TO THE "JOURNAL".

WE have again to impress upon our correspondents that, as the bulk of communications addressed to the JOURNAL is considerably in excess of its space, the task of selection will be greatly facilitated by the observance of studied conciseness.

SANITARY CHAOS.

M. O. H.—Dr. Rogers's paper is being prepared at the instance and with the assistance of many medical officers of health. As President of Council of the Poor-law Medical Officers' Association, and as a knight-errant of conspicuous ability, and public spirit and fearless independence, Dr. Rogers has rendered great services to various departments of his profession. The Poor-law medical officers are largely interested in the official organisation of the Public Health Service. In many places they form officially part of it, and in all places, we think, they ought to do so. His paper "On Chaos in Sanitary Administration" will be read at the next annual meeting of the Association in Sheffield. It has no official character; but, no doubt, it will excite great interest, and we trust it will lead to useful results. Dr. Rogers will, we hope, receive assistance and enlightenment from all who desire to see the Health Service rendered more efficient. We are sure that he will not flinch from criticism, and we trust our correspondent may be present to say whatever he thinks on the subject, whether in agreement with, or opposition to, any opinions which Dr. Rogers may put forward.

DR. TYNDALE is reminded that all letters relating to changes of address, subscriptions, advertisements, or other business matters, should be addressed—not to the Editor, but—to the General Secretary, 36, Great Queen Street, W.C.

THE EFFECTS OF DIGITALIS IN TOOTHACHE.

SIR,—I should be glad to know if any of my brother members have ever noticed the effects of digitalis in toothache and neuralgia. I have tried it in more than a hundred cases, and have very rarely known it to fail in affording relief. I generally prescribe one-grain doses of the powder, and the pain generally is relieved in less than an hour. If administered in the form of a pill, it acts less rapidly. No doubt the drug acts by regulating the supply of blood to the part, and thus relieving the tension of the blood-vessels.—Yours truly,

Harpden, Herts, July 4th, 1876.

P.S.—The tincture of digitalis does not seem to have the same effect.

ARTHUR G. SANDBERG.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed Mr. FOWKE, not later than *Thursday*, twelve o'clock.

MEDICAL TITLES.

SIR,—Very much has been lately written, and something continues to be said, up this vexed question. Graduates, it appears, of the two British Colleges of Physicians, who on door-plate and card have preface their name with the word "Doctor" or "Dr.", have done it without authority from their respective Colleges. As I am informed, graduates of the sister College in Dublin are on a better footing; for, are not "Doctors of Medicine" created from holders of any register diploma—to wit, a surgical one—who, offering themselves without restriction of time and residence, pass an examination of two or three hours' duration? At the time I was struck with the eagerness which certain gentlemen of my acquaintance showed to making a change upon the wording of their door-plate. Now that the British Colleges have emphatically decided how their graduates shall not be styled, whose duty is it to report whether those gentlemen continue to offer against the by-laws? Some writers seem to hold the notion that the abstract syllable or appellation "doctor" signifies a *teacher*. I do not agree with them in this view of the word: firstly, because graduates of Universities are in the condition of disciples rather than of teachers; and, secondly, etymology arraigns against them. The title of Doctor comes to us, I should say, through the Latin *doctus*, from *didasko*, *didaktos* (taught). In the profession of physic, *doctor doctor*, is the man *doctus medicina*, taught or learned of medicine. That this no modern philological deduction, I appeal to the very ancient book, the Septuagint version of the Holy Scriptures, where we read (Isa. lii, 13) *didaktos* *doctus* of God (gen. of the cause), and not the *teachers* or *instructors* of God. Like form of speech is also used by a later writer, St. John. "The profession most notably medicine—are commonly styled the 'learned professions', for the purpose of announcing the teaching which their individual members have and give. A county court judge, a speaker at the bar, are alluded to as 'the learned judge', 'my learned friend', the 'learned counsel': so upon that principle should be sorry to be found so indiscreet as to refuse to use, when addressing professional non-graduate of an University, as such, the very proper, if commendatory, Anglicised Latinism, 'Doctor'. I think I have never known, in the profession of the law, a single instance of a gentleman's prefixing his own name the epithet 'learned'. Indeed, a self-paid compliment of that kind must lay open to a charge of want of good taste and propriety. Yet this—and the fact now much regretted—thus, I say, is just exactly that false step in the ladder of professional decorum which, in racing for money, popularity, or fame, and in common justice, too, to others, ought to have been avoided by very many College graduates throughout the country—graduates in particular, let me say, of Edinburgh College.

I have elsewhere suggested that University graduates who are aggrieved, who wish to obtain for the public a simple means whereby to discriminate between the Collegiate and the University order of practitioners, would do well to affix their University title to their name upon door-plate and card. On the one side, every licentiate of a College of Physicians, is a physician in fact and in name. A physician is a *healer*, in the strict sense of the word—a *vir doctus* in the art of healing the human system, diseased or disrupted. He is a person skilled in aches, pains, and diseases—*physicus nature*, *seu verum naturalium* investigator;—therefore, a medical officer of health of the highest type. A healer of the human system, of the *corpus arte phorsus divina fabricationis*, disrupted or diseased, is, indeed, a name to be coveted and revered; whereas the doctorate in an University is the mark appropriate to those of its alumni who are officially decided to have attained the highest point therein taught in things of medicine. It is essentially an honorary title, without reference to the actual practice of physic.—Yours truly,

W. GARSTANG, M.D., M.R.C.P. LOND.

Blackburn, July 8th, 1876.

SIR,—I have for some time discontinued the prefix "Dr." to my name on the door-plate, appending "M.D." after it. I was led to do so in consequence of the unflattering aspirants for honours attaching it to their names when only in possession of the licence of some remote College. "Peter Simple" need not feel any delicacy in adopting a practice which is becoming universal, and the only means of distinguishing University men.—I am, sir, yours truly,

PALMER QUI MERUIT FERRE.

SIR,—That there is an increasing demand amongst general practitioners, and especially amongst those who have been for some years in practice, for the degree M.D., is a fact that needs no proof. The inability of such men to obtain it, they desire leads to two bad results—one being that some seek abroad a doctorate which the Medical Council rightly refuses to register; the other, that no small number of L.R.C.P.s of London and Edinburgh have the presumption to call themselves "Doctors", even after the Colleges have distinctly denied that they possess any power to confer that title.

The proposal of the University of Durham, as stated in the BRITISH MEDICAL JOURNAL of the 1st instant, to institute a special examination for the purpose of affording practitioners of fifteen years' standing an opportunity of obtaining the M.D. degree, will, I think, be welcomed by many members of our profession, who have at last held out to them a chance of procuring a good M.D. from an English University.—Yours faithfully,

A PROVINCIAL HOSPITAL SURGEON.

MR. MORRETT'S letter not having been properly addressed, has been much delayed in reaching our hands. The only redress which he has, we believe, at the hands of the law.

THE VALUE OF A DOCTOR'S TIME.

A CORRESPONDENT sends us the subjoined narrative:—The following incident is somewhat amusing, although humiliating, as showing the comparative value of the time of medical men and that of other people in the minds of lawyers. I have been engaged for some days on a trial, and being anxious to spend as little time as possible in court, I asked the attorney—who, to do him justice, was more than ordinarily polite and conciliating—to take my evidence as soon as possible. My case having to-day reached the stage when my evidence was required, I calmly informed that I should be called as soon as the testimony of a certain Captain X. was taken. Captain X. is a horse-dealer, and his convenience was consulted as a matter of course before mine, because he wanted to go to "therapeutic". The fact of my having to attend to hospital as well as private practice appeared to be quite insignificant, compared to the necessity of the presence of the captain at the race-course.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

PETITIONS TO THE HOUSE OF COMMONS.

The following instructions for the proper preparation and execution of petitions to the House of Commons may be useful in the preparation of any petitions at forthcoming meetings of the Branches.

Every member presenting a petition to the House must affix his name at the beginning thereof.

Every petition must be written, and not printed or lithographed.

Every petition must contain a prayer.

Every petition must be signed by at least one person on the skin or sheet on which the petition is written.

No letters, affidavits, or other documents, may be attached to any petition.

No erasures or interlineations may be made in any petition.

No reference may be made to any debate in Parliament.

to Bono (Leamington).—We have forwarded the letter to the local committee, to whom the arrangements for the public dinner are entrusted.

ETIQUETTE OF PRINCIPAL AND ASSISTANT.

2.—As questions of medical etiquette interest others besides those immediately concerned, perhaps you will allow me to make some remarks on the controversy now going on between Dr. Phillimore and Dr. Weir, more especially as through the cloud of side-issues raised by the latter there appears some danger of the real points involved being passed over.

Dr. Weir published a case of a broken thigh in your paper, ignoring entirely his principal, Dr. Phillimore. The latter gentleman thereupon sent you a short note, stating it was published without his knowledge and consent, at the same time abstaining from any mention of Dr. Weir's name, yet, by its publication, implying that Dr. Weir ought not to print without leave, even though the case arose during the superior's temporary absence. Dr. Weir then tries to shield his error of judgment by hinting that Dr. Phillimore objects to *post mortem* examinations as well as to the publication generally of cases. If these even were Dr. Phillimore's opinions—which, however, he denies—he still would have a right to carry them out, by refusing his consent whenever opportunity arose; and so an allegation of Dr. Phillimore's ideas on these subjects is entirely irrelevant to the question, which is simply this: Ought an assistant to publish cases without leave from his principal? One inclines to think it rather unprofessional to do so. Dr. Weir says "he is unconscious of ever having acted as assistant to Dr. Phillimore"; yet the rules quoted by his late superior place him in a state of complete and even abject dependence on the will of the superintendent. Whether or not Dr. Weir was "deputy superintendent" is apart from the issue. The discrepancy in the dates, as published in the *BRITISH MEDICAL JOURNAL* and as written in the case-book, are serious, and ought to be fully explained by Dr. Weir. This he attempts to do by saying the fault lies with the nurse. This carries its own condemnation; for we at once ask how it was that Dr. Weir allowed himself to be imposed on as to the date of an accident at which he was present. But, fearful lest this defence fail, he then says that the dates in the case-book only approximate to the truth, but that the published ones are "an accurate clinical opinion". But we find the true explanation in the fact recorded by himself in the case-book, which he does not deny, that he omitted to attend to the patient for three days.

Dr. Weir has confessed—1. To publishing without his principal's consent; 2. To not visiting his patient for three days; 3. To altering his dates. The first may be taken to be a slight error of judgment; the two last are far more serious; and Dr. Weir may be assured that the profession will not be content until he has either explained his errors or apologised for them.

Trusting you will excuse the length of this letter, I am, yours obediently,

Kensington, July 11th, 1876.

MEDICUS.

A pamphlet of Mr. F. W. Lowndes (Liverpool), *On the Extension of the Contagious Diseases Acts to Liverpool and other Seaports*, last week reviewed, is published by Churchill, London, and Adam Holden, Liverpool. It is well worth the perusal of those interested in the subject.

PHYSICIANS AND DRUGGISTS.

2.—In my communication to your *JOURNAL* of July 1st, I carefully refrained from mentioning any names. Dr. Palfrey and Messrs. Probyn and Co. have put the "saddle" on their own backs, and have shown that I did not complain without just cause. In the case to which Dr. Palfrey alludes, I think he would have treated me more courteously if he had written to me about my patient, or had written a prescription intelligible to me. I confess that I never before heard of "Kirby's" preparations. We have our *Pharmacopœia*, and if its preparations are not "portable and elegant" enough, why should it not be more frequently revised, and fresh preparations added?

Another class have great cause for complaint at consulting physicians naming the chemist who is to make up the prescription—viz., the provincial dispensing chemists. We are fortunately well off here in that respect; and when they take the trouble to keep good and pure drugs, it is very hard that a monopoly should be established, and the bread taken out of their mouths. The idea that provincial chemists and druggists do not keep good drugs is deeply rooted in the public mind; and the sooner it is dispelled, and less leaning to "elegant" preparations shown, the better both for practitioners and the public.—I am, sir, yours faithfully,

HERBERT LUCAS.

Huntingdon, July 11th, 1876.

HIGGINSON'S SYRINGE.

2.—A notice appears in the *JOURNAL* of July 1st, under the head of "Surgical Memoranda", of a so-called modification of Higginson's syringe for vaginal use. Permit me to inform Mr. Lowndes that there is nothing whatever new in either the soft India rubber nozzle of five inches long or the extra two feet of pipe. So far back as the year 1866, I sold some dozens of these syringes, and I have not the slightest doubt that many other instrument-makers did likewise.—I am, sir, yours obediently,

J. MILLIKIN.

ANIMAL VACCINATION.

2.—I can inform "Medicus" that there are several large cow-pox institutions in Germany and Austro-Hungary where cows are kept simply for the purpose of supplying lymph direct from the cow, and that the results are very favourable.—I am, sir, yours faithfully,

BERNARD ROTH, M.R.C.S. & L.S.A.

48, Wimpole Street, W., July 11th, 1876.

*. The information is rather vague.—Ed. B. M. J.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

NERVOUS SHOCK COMMUNICATED TO THE SUCKLED BABE.

SIR,—Will you allow me a short space in the next number of the *JOURNAL* to reply to the very summary way in which Mr. Trestrail tries to dispose of the interesting case which I recorded (as above) in last week's *JOURNAL*? Are we not to believe a thing merely because we cannot understand it? Is it more wonderful, really, that "nervous shock" should be communicated to the suckled babe, than that the action of purgatives, iodide of potassium, etc., should be so communicated? One fact is just as difficult to explain as the other. Then your correspondent goes on to say, "every circumstance was favourable to suffocation". Quite true; but if he had read my letter carefully, he might see that suffocation was *not* the cause of death; there was not a single symptom of suffocation, but, on the contrary, there was every outward sign of the child's death having occurred from sudden shock. However, granted that my own opinion is of no very great weight, I will quote an extract from Carpenter's *Physiology* (page 614, fourth edition), which entirely bears me out in my assumption: "So many instances are now on record in which children have been suckled within a few minutes after the mothers have been in a state of rage or terror, have died suddenly in convulsive attacks, that the occurrence can scarcely be set down as a mere coincidence; and certain as we are of the deleterious effects of less severe emotions upon the properties of milk, it does not seem unlikely that in these cases the 'bland nutritious fluid' should be converted into a poison of rapid and deadly operation." Further words of mine are quite superfluous.—I am, faithfully yours, W. L'HEUREUX BLENKARNE.

Buckingham, July 1st, 1876.

SIR,—Allow me to bring forward a short case which possesses great medico-legal interest. I was vaccinating the baby of a very nervous mother. In her anxiety, she held the child tightly to her body and cried herself. Just as I had finished, I noticed that the blood which was beginning to ooze from the scratches on the arm was very dark in colour, and on turning the child to look at its face I found it quite livid; the child did not breathe, and was to all appearance dead—it was suffocated. My assistant was with me, and we restored the child to life in a short time by artificial respiration.

This happened nearly a year ago; but I publish it now, as it may throw some light on a case just recorded of "death from nervous shock" at Buckingham.—Yours truly,

HERBERT M. MORGAN.

A TEACHER.—The primary examinations for the diploma of membership of the College of Surgeons were brought to a close this session on Tuesday last.

CARRIER-PIGEONS IN COUNTRY PRACTICE.

SIR,—I beg to draw the attention of my medical brethren in country practice to the great convenience of the Belgian carrier-pigeon in mid-country and isolated districts untouched as yet by the modernising influences of telegraphy. Country practitioners can, at a very trifling cost, and with but little trouble, attach to themselves in a short space of time an efficient staff of winged "messengers", swift in the execution of their work, consuming little, and doing much. My own system is briefly this: When going a long country round, involving an absence from home of several hours, or when attending a midwifery case at a distance, which may involve a like absence, I place in my pigeon-basket (in my cart) six of my birds, some tissue-paper, a lead-pencil, and a few India-rubber rings. In a long country drive, at every village through which I pass, and when my last patient therein is seen, I write my list of prescriptions for that village, affix it to the leg of one of my birds, and despatch it homewards. By this means, either a country carrier is intercepted starting homewards from our market-town, and the medicine is delivered by him on that very evening, or my chemist is enabled hour by hour to see his work ahead of him, and forestall his dispensing necessities. And if, again, some case detain me unexpectedly, instead of sending home my carriage to announce delay, and using up a horse that would but rest where I am interrupted, till again ready to resume my journey, I send a full statement home (if need be) of the causes of such delay, of its probable duration, and give such instructions as may seem necessary to me to obviate inconvenience and confusion at home until my arrival; and all this may be done by another bird. The same method with regard to the worrying delays of distant midwifery work will strike every one who has suffered from it, without further amplification of mine. There is a further use to which I not unfrequently subject them. It often happens that at a distance of twelve miles one feels the necessity of constant communication with the friends or attendants of a critical case. The medical man may be independent of the telegraph, may secure secret communication free from postal curiosity, and may have long and detailed accounts of the patient's state sent him by hourly messengers, duly left at the house in question, as a reserve of communication, which, in my hands, has been almost unailing, and highly satisfactory.

Any of my country brethren who care to go into the subject more fully with me as to the actual stock and kind of stock necessary, the expenses of the original purchase of proper birds, etc., I shall be most happy to communicate with and advise thereupon to the best of my ability. Possibly many may have already anticipated me, and are now using the carrier-pigeon; but never having seen any remark in the public medical press on this easy means of alleviating the worries and vexations attending upon a wide country practice, I have ventured, sir, to trouble you with this letter, hoping you will find the subject of sufficient importance to insure it an insertion in your columns.—Your obedient servant,

Newport, Isle of Wight, July 8th, 1876.

GEO. H. R. DARRS, M.D.

NATIVE MEXICAN MIDWIFERY.

DR. THOM, jun., writes to the *Virginia Medical Monthly*:—I find that the following is the way in which a regular Mexican midwife performs her duty. A rope is suspended from the ceiling. Under the loose end of this a folded blanket is placed, on which the woman kneels and grasps the rope, arms extended. Behind her is placed a strong man, with his arms around her waist, while in front sits the midwife, with both hands against the perineum. When a pain comes on, the woman pulls on the rope, the man squeezes, and the midwife bears against the perineum, which she at the same time strokes from behind forward. After the child has been thus squeezed, shaken, and jolted out, the woman is then put to bed and arranged in the sitting posture, with a sheet around her waist, in which is wrapped an ovoid lump of horse-manure, baked, cooled, and packed into this shape. This horse-manure is supposed to have the virtue of keeping the blood in its neighbourhood.

POISONING BY WHITE PRECIPITATE.

SIR.—The case of poisoning by white precipitate powders, mentioned in the JOURNAL of June 24th, brings to my recollection a case somewhat similar, which occurred many years ago in the practice of a surgeon in the town of Sunderland. I was then a very young man, and acted in the capacity of assistant to him.

A young woman called at the surgery one morning, complaining of a severe attack of heartburn. The doctor gave her a quantity of a lumpy white powder in paper, at the same time telling her to take about the size of a bean now and then. A short time afterwards, he told me what he had prescribed and brought down the bottle from the shelf containing the white powder, and said it was a beautiful specimen of chalk; and, by way of proving it, he began chalking the top of a table with a lump of it. In the course of the day, word was brought to the doctor that the patient was a great deal worse; and that she now complained of vomiting, burning pain in the throat and stomach, and general disorder. Down came the bottle once more from the shelf. I took the bottle in my hand, and said it was far too heavy for chalk; but the doctor was so confident about his "beautiful specimen," that he not only made me take some, but he took some of it himself. However, I was not convinced, and put the suspicious drug to a more scientific test than chalking the table, and found the heavy white lumpy powder to be white precipitate (hydrargyri ammonio-chloridum). Here was a pretty mess. It was quite evident the poor patient was labouring under the action of an irritant poison, probably dying, and the doctor helpless in providing a remedy; and besides, both he and I were beginning also to show the same symptoms—burning pain in the throat and stomach, and a peculiar metallic taste in the mouth. At last we discovered that white of eggs was the antidote for poisoning with white precipitate. But here was another dilemma: it was now late; nearly every shop was closed, and no eggs to be got. Street after street was rummaged, until at length we had gathered enough to supper the patient, the doctor, and the assistant, and I am happy to say, all three recovered perfectly, and were none the worse of the doctor's mistake.—I am, yours, etc.,

Edinburgh, June 29th, 1876.

HANDY BOOK OF DOMESTIC MEDICINE.

DR. LINDSAY (Perth) writes to us:—To those of your correspondents who have recently made inquiry concerning some trustworthy simple manual of household medicine for the use of those who have not, for the moment, access to properly qualified medical men, let me commend a little volume, published by Messrs. Thomas Nelson and Sons of Edinburgh, in 1873, entitled a *Handy Book of Medical Information and Advice*, by a Physician (the late Dr. Warburton Begbie of Edinburgh), the cost being about half-a-crown.

THE USE OF THE GUM-LANCET.

SIR,—I notice in last week's JOURNAL a letter from Dr. Robert Huntley, expressing his opinion as to the use of the gum-lancet, and that it is a "harmless operation," which may be practised "several times needlessly." Now, if he will allow me, I can assure him in this he is thoroughly mistaken—indeed, lancing the gum is not well borne in cases even when it may have appeared to be indicated, and more than once I have been compelled to abandon it, from a general convulsive attack having occurred while using the lancet. *Apròpos*, in another letter of his, he states that in infancy the administration of medicine should, as far as possible, be avoided, more especially of sedatives or hypnotics; whereas it is admitted by the most competent authorities that no remedies are so often needed in the diseases of early life as sedatives, for at no other age is the nervous system so easily disturbed; and if there be any evil, it results simply from their unnecessary employment: indeed, to abstain from their use would be to deprive ourselves of one of the most important classes of remedies, and of one for which the gum-lancet nor no other substitute can be devised.—I am, sir, yours faithfully,

July 5th, 1876,

JUDEX.

SPECTATOR must sign his letter if he wish it to be published.

REGISTRATION OF FOREIGN DEGREES.

SIR,—We were favoured in your number of July 1st with two letters on the above subject. The first, from "One of the Memorialists," hardly demands any comment, for the writer has put forward the case of the British M.D.s so clearly, that his co-memorialists will have already, no doubt, cried out, "save us from our friends." Our "Memorialist" begins by telling "Justitia" that "it is incumbent on him to state the facts on which the statement that he made—viz., that 'most of the British graduates have incurred increased expense, often a year or two of extra study, and expended much time and brain-work, in order that they might legally claim the title of M.D.—is based.' The fact that an M.D. degree is not given away gratis, but requires additional expenditure of money, additional study, and additional time, is one of those things that most people know, but is quite new, it seems, to our unsophisticated "Memorialist." If this fact can be only manipulated so as to be taken up by our "Memorialists' apprehensive faculty, it is quite affecting to view the result—viz., that he will no longer "grudge the privilege" of M.D. to those who are fortunate enough to possess it. Unfortunately, however, his "present impression is, that there are numbers of non-graduates who are at least as learned and accomplished as a great many of British graduates one meets with." Impressions as men grow older generally get confirmed, often exaggerated; so I, personally, have no doubt but that in a year or so the "impression" of our "Memorialist" will be, that men who have received an university education do not, as a class, know one whit more than the rest of mankind; that it is a mistake to suppose that Universities are the centres of enlightenment; that they really are to be put in the same category as old ruins and monuments of antiquity, supported to gratify the antiquarian spirit of the age.

The second letter from "M.D.Brussels" begins thus: "Your correspondent 'Justitia' is wrong in one point of his letter. I am not aware that any foreign degree can be got by a day or two on the Continent." If "M.D.Brussels" had quoted "Justitia" fairly, he would have put "two or three days" in place of a "day or two"; and then, hair-splitting apart, it would have been very near the truth indeed; for not only does it require but a few days to take out a foreign degree, but if the aspirant to that distinction be not "well up," it is quite possible for him to be "coached" a few days before in his weak points by some of those who are his subsequent examiners. He next says, "I have not heard of one of the ten annual men at St. Andrew's being rejected, whereas at Brussels this frequently occurs." Such an assertion, surely, ought to be made on better grounds than "not having heard." I suspect there are many things which "M.D.Brussels" has not heard; for instance, he has not heard that hygiene is now a subject required in many of the medical schools in these countries. He goes on to say, "I should like to know what is the difference in position between one on the Register who is M.R.C.S. and one who is M.D. (e.g.) Edinburgh—I say none at all." If this comparison be made between some particular M.R.C.S. and some particular M.D.Édinburgh

which "M.D.Brussels" has in his mind, but whose names, from a commendable discretion, he refrains from giving, I have no doubt it may be true; as a general statement it is incorrect, for there is at least this difference, that at one time the M.D.Édinburgh has had to qualify in a variety of subjects—classics, mathematics, English literature, ethics and logic, etc., and that we cannot be aware of anything of the sort with regard to the M.R.C.S. He closes his letter with a parting item of information—viz., "that operations on the dead body is a new thing to English men, as I am not aware of any board in England that requires this." This is another of the things that "M.D.Brussels" is unaware of; but if, instead of hazarding statements, he took the trouble of informing himself on such points, he would have found out that operations on the dead subject do form a portion of the examinations for qualifying to practise, held by all the best medical examining boards in these countries.—I am, etc.,

M.B.

TREATMENT OF BOILS AND CARBUNCLES.

SIR,—Dr. Eade's account of the action of carbolic acid in the treatment of boils and carbuncles, in the JOURNAL for July 1st, is extremely interesting, and seems likely to prove of great benefit to the profession in the treatment of this extremely painful and tedious disease; but he does not mention one very important item in the history of the case, and that is, the amount of pain caused by the application to the patient. Dr. Eade would confer an extra benefit on the profession if he would kindly state what the effect of the carbolic acid is in this respect, and, if the pain be very great, what means he takes to mitigate it. Patients, as a rule, extremel object to any treatment that involves pain, even if only of very short duration, it can be avoided.—I am, sir, yours faithfully,

11, Bedford Square, W.C., July 1876.

T. F. K. UNDERWOOD.

MOBILITY AFTER EXCISION OF THE KNEE-JOINT.

SIR,—It may interest Messrs. Barwell and Cowell to know that there is at present in my wards a girl aged 16 whose knee-joint I excised four years ago, and who has now a perfectly movable and useful hinge-joint. She can flex and extend the limb by her own muscular action, and can bear good weight upon it when walking or running. I shall be glad to furnish you with a note and woodcut of the case. I remain, yours faithfully,

THOS. ANNANDALE, Edinburgh.

We are indebted to correspondents for the following periodicals, containing new reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolt Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers would kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Lyon Playfair, M.P., London; Dr. J. Matthews Duncan, Edinburgh; Dr. George Johnson, London; Mr. Sampson Gamgee, Birmingham; Dr. Quain, London; Mr. G. L. Henderson, London; Dr. Tukey, London; Dr. W. Garstang, Blackburn; Mr. Gilbertson, Liverpool; Mr. Blackett, London; Dr. Gowers, London; Dr. Finlayson, Glasgow; Dr. G. Vivian Poore, London; Dr. J. W. Moore, Dublin; The Rev. Llewelyn Davis, London; Dr. Braidwood, Birkenhead; Dr. Joseph Bell, Edinburgh; Dr. J. Milner Fothergill, London; The Secretary of the Obstetrical Society; Dr. W. Fairlie Clarke, Southborough; A. Associate; The Secretary of Apothecaries' Hall; Dr. Mackey, London; Dr. Gwynne, Sheffield; Mr. Charles Spurway, Paignton; Mr. Bartleet, Birmingham; Mr. Underwood, London; Dr. Duncan, London; Mr. Wm. L'Heureux, Blenkarne, Buckingham; Dr. Urquhart, Aberdeen; J. C.; Mr. Manly, Verhampton; Dr. Thomson, Bournemouth; Mr. Tyndale, Gorey; Dr. J. Davies, Swansea; Dr. Edis, London; Mr. D. De Berdt Hovell, London; The Registrar-General of England; Dr. Newman, Stamford; Dr. Snow, London; Mr. Holder, Hull; Mr. Biddle, Kingston-on-Thames; Dr. George Bland, Macclesfield; Dr. Murray Lindsay, Derby; Dr. Little, London; Dr. J. Burdo Sanderson, London; Mr. Ebenezer Davies, Swansea; The Registrar-General of Ireland; Mr. G. Eastes, London; Dr. Alex. Ogston, Aberdeen; Our Dublin Correspondent; Mr. Berkeley Hill, London; Dr. Evans, Cardiff; Dr. Wilso. Clay Cross; Dr. Robert Barnes, London; Dr. Bodington, Kingswinford; Mr. Broadbent, Liverpool; Mr. H. R. Hatherley, Nottingham; Mr. William Ho. Maidstone; Dr. Harrison, Lincoln; Dr. Aveling, London; Dr. Speedy, Dublin; Dr. Paul, Liverpool; Our Edinburgh Correspondent; Mr. Goldingham, Marn; Mr. Urquhart, Kirkcudbright; Mr. Eddowes, Shrewsbury; F. S. A. Mr. Jabez Hogg, London; Dr. Brown-Séquard, London; Dr. Cassels, Glasgow; M.R.C.S. Eng.; Dr. Sieveking, London; Mr. John Gay, London; Mr. Busgard, Northampton; Dr. Rabagliati, Bradford; Mr. Jacobson, London; Dr. Birkbeck Nevins, Liverpool; Mr. Rice Morgan, Bournemouth; Mr. Leeds, Sheffield; Dr. Tripe, Hackney; Mr. Samuel Lee, London; Mr. Vincent Jackson, Wolverhampton; Dr. Bucknill, Rugby; Dr. Clouston, Edinburgh; Dr. C. J. Williams, London; Dr. Peart, North Shields; Dr. Russell, Birmingham; Our Paris Correspondent; Mr. E. J. H. Booth, Beckenham; Dr. Pye-Smith, London; Sir Robert Christison, Edinburgh; Dr. Lory Marsh, London; Dr. N. Kerr, London; Dr. Skerriitt, Bristol; Dr. Dodgson, Cockermouth; Dr. E. Fox, Clifton; Mr. Lowndes, Liverpool; Dr. Lyon Playfair, M.P., London; Mr. Trestrail, Aldershot; Mr. Hamill, Workop; Mr. Cripps Laurence, London; etc.

BOOKS, ETC., RECEIVED.

Atlas of Skin-Diseases. By Tilbury Fox, M.D., F.R.C.P. Part X. London: J. and A. Churchill. 1876.

LECTURES ON PARALYSIS AS AN EFFECT OF BRAIN-DISEASE.*

Delivered at the Royal College of Physicians of London.

BY

C. E. BROWN-SÉQUARD, M.D., F.R.C.P., F.R.S.,

Formerly Physician to the National Hospital for the Paralysed and Epileptic; etc.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—The views I am about to put before you in this series of lectures are views which I should propound very timidly were it not for the fact that, although new, they are sustained by a number of facts. Although I am very reluctant to admit anything new, I am forced, I may say, to consider that the views that I now propound are more than demonstrated. When I say so, I do not mean that every one of the views that will be mentioned here is fully demonstrated, but certainly a good many of these views are already amply demonstrated, while the others are sustained by the facts; and I do not know of any facts that seem to be in opposition to them.

But there is another part in the views of which I will have to speak—that which relates to what is admitted generally, and of which, of course, I ought to speak first; and before establishing any new doctrine, it is essential to put down those views, if they must be put down.

As regards the demonstration that those old views must be put aside, there cannot be the least doubt that the facts in contradiction to them are so plentiful and decisive, they are so common, they occur so constantly in our practice, that I wonder, I must say, that the views which they show to be so false, to be so untrue, to be so highly unacceptable, I wonder that those views still, if not accepted, at least are taken because nothing better exists.

There are two points especially as regards the production of paralysis which are absurdly inconsistent with facts. The one which dominates through all historical paralysis is, that it depends on the cessation of the power of the part to work where the disease exists. If a disease exist in what is now considered as a psycho-motor centre, the disease is looked upon as destroying the function of the part where it exists. If the disease exist in the conductors, establishing a communication between those psycho-motor centres and the muscles, then it is considered that the function of those conductors is destroyed, and that paralysis arises from that destruction. In the two cases, it is the same doctrine that prevails. In the two cases, there is the loss of function of the part where disease is found. This is the first great point among those which are admitted which is absolutely in opposition to facts.

This course of lectures that I have now the honour of commencing will show amply how facts are constantly in contradiction to such a view. I am now talking generally of the subject, saying that it is impossible to explain in this way a paralysis such as that which we see so constantly, almost every day, among you; a paralysis in which there is a slight diminution of the power of the leg, a great diminution with complete loss of power of the arm, of slight diminution of the power of the muscles of the face, and a slight diminution of the power of motion of the tongue. These four points are the characteristics of the common form of cerebral hemiplegia. We find in that common form pretty much the same features. There may be other symptoms added to them: these are the essential characteristics. Now, if such a paralysis issue from the destruction of conductors, or from the loss of the action of a nerve-centre, how can it be that this very same identical form of hemiplegia will be found in every man who has the disease? We cannot admit that every small part of the brain is a whole centre in itself; we cannot admit that every part of the brain contains also all the conductors conducting the muscles of the arms, the leg, the tongue, the face: there must be certainly some other explanation of paralysis than that. Any how, I will revert in the course of these lectures to this point.

The second point is, that when paralysis does not come from a disease in the brain, either the conductors serving for the transmission of the will-power of the muscles, or one of the centres which have been lately discovered, and some of the older ones—which, I must

say, stand their ground better than the new ones—one of those parts has not been attacked by disease, and that the disease is in other parts of the brain, which are considered as not endowed with special functions as regards voluntary action. Well, this view also does not stand criticism, as we find; and we shall have plenty of facts to demonstrate it in the course of these lectures. We find that a disease in the very heart—if I may call it so—of those parts which serve for the transmission of the order or the will to the muscles, or in those very centres, old and new, is there destroying the part; not a disease simply like that which comes from a pressure or a tumour, however large—because nervous tissue may certainly be compressed without losing its function—but in diseases where there has been actual destruction of tissue, whether it has been taken away by any cause, by the knife, by a ball or bullet, or some other cause purely organic, there are many cases which clearly prove that from the medulla oblongata up to the psycho-motor centres, any part can be destroyed without any loss of function; so that, on the one hand, we find that paralysis can appear wherever the disease is located in the brain, whether that part is a part considered as being a centre for voluntary action, or a conductor starting from the centre going into the muscles; and, on the other hand, we find that when disease is located in those parts which are considered as absolutely essential to the transmission of the order of the will, or correction of the order, those parts can be destroyed without any paralysis—at least without any marked paralysis, if we take the great mass of cases, and certainly without any paralysis, if we take only this case, which shows how few are absolutely decided.

This criticism will be carried out during the lectures I am now beginning; and I think that the amount of proof, if I am not absolutely mistaken, will convince—I hope, at any rate, some among you, especially the younger members of the profession, who will be able to work out the subject, and carry it to a fuller demonstration than I can at my advanced period of life.

There are admitted points which are so well known that I do not think it is at all necessary to speak of them. I will merely mention, with some details, what relates to new facts that have been put forward lately since the great advance of M. Charcot in his diagnosis, at least in locating paralysis in certain parts of the brain.

I may say that although I am entirely opposed to the conclusions that we have to draw from the facts which we observe so frequently as regards the function of paralysis, and although I will now establish, or try to establish, new views with regard to the mode of origin of paralysis, I must say that the diagnostic value of a great many facts remains, notwithstanding the change of our conclusions. When a paralysis is absolutely complete without symptoms indicating considerable hemorrhage, and striking only motor power without affecting the senses or sensibility, M. Charcot was of opinion that the internal capsule in that part which does not pass through the great ganglia in the base of the brain was attacked. As regards diagnosis, I believe this is perfectly true in many cases; but it has not, however, the value that my friend thought it had, and that other people had thought also. It does not prove that the channel for the transmission of the order of the will to the muscles is there, and it does not prove also that these fibres are essential in any way to the transmission of the order of the will to the muscles. On the one hand, as I shall show by-and-by, there may be a destruction of that part without a diminution of the transmission of the order of the will to the muscles; and, on the other hand, there may be, and there are very often, indeed, cases of complete and lasting paralysis that will not diminish at all so long as the man lives, and there are many such cases in which that internal capsule is in the least degree affected.

The view that the transmission of the order of the will takes place chiefly through those fibres of the internal capsule is founded on facts which are not many, but which, I think, show that, when that part is diseased, there is generally a complete paralysis on the opposite side. This is grounded chiefly on the fact that, in cases of descending degeneration from the brain down to the base of that organ, those fibres of the internal capsule are diseased. Suppose, for instance, there is an alteration of either of the two convolutions, which are in front and behind the fissure of Rolando in those cases, as M. Charcot was one of the first to ascertain, there is a degeneration of nerve-fibres which takes place not only in the brain itself through the internal capsule, but through the crura cerebri and the medulla oblongata, and then passes into the spinal cord into the opposite side. It has been considered that that degeneration shows the line of communication between the centre of the will-power and the muscles, and, indeed, that the line of communication can be carried further. It can be carried down the nerves as the nerves themselves become diseased. Sometimes the motor nerves in the paralysed side and the muscles themselves become diseased, and diseased very rapidly in some of those cases, so that all along from the upper parts of the brain down to the muscles there is a

* Specially reported for the BRITISH MEDICAL JOURNAL.

continuous alteration, attacking the periphery and making considerable alteration everywhere. But, is that the channel through which the will-power acts on the muscle? Certainly not. If we admit for a moment that such is the channel, we are led to conclusions which are altogether in opposition to facts. We find among other things—not to dwell too long on this subject—that the part which becomes altered in the spinal cord is the posterior part of the lateral column. The posterior part of the lateral column of the spinal cord certainly is not the channel through which the will acts on the muscles. That posterior part of the lateral column, as I have found and demonstrated by vivisections, and also by a great many facts given by my friend M. Charcot himself, is endowed with the power, when irritated, of producing either permanently rigid muscles or convulsions.

I will not insist on the insufficiency of the proofs drawn from the history of that degeneration going on from the brain towards the muscles, as time presses. The most important theory, of course, is drawn from facts showing that disease in certain parts of the base of the brain which are considered as the channel of the will to the muscles most frequently produces paralysis. There is no doubt as regards the frequency of the coming on of paralysis when there is disease in the anterior part of the medulla oblongata, when there is disease in the crura cerebri, or even in the pons Varolii; but, on the other hand, as I will show in the next lecture, by facts which are absolutely certain owing to various circumstances, there are cases, and clear decisive ones, showing that those parts had been destroyed without any marked paralysis or any paralysis at all.

As regards the anterior pyramids especially, my friend M. Vulpian has shown that in two cases they were next to gone, that is, that there was hardly a fibre left in them that was not destroyed, not simply atrophied, but almost entirely destroyed as regards a good part of them. There was no trace of paralysis in those cases. One of the patients walked through the ward of the hospital the day before death; and there had been nothing found to show any diminution of power. But there are a good many other cases of which I shall have to speak by-and-bye. I now, in this general view of the subject, will only mention that there cannot be a doubt that those pretended necessary charges between the brain and the muscles are not so essential as is supposed. What, then, is the meaning of destruction in paralysis, if it is not in cases where there is a destruction of tissue in parts which are considered essential for the action of the will on the muscles? What, then, is paralysis of motor action? This is the point which, as regards the new view I have to bring forward, is the most delicate and the most difficult to establish. But, to begin about these views, I would state at once what is a necessary conclusion from fact—it is not theory—but simply what the facts clearly show—it is, in fact, the mind of facts, if I may say so—their spirit. There is no doubt that very few fibres, very few channels of communication, are sufficient to perform almost all the movements that our will may require—very few conductors. I repeat that this conclusion in this sense comes from the facts; it is no view of mine, it is the speech of facts; they show clearly that a small number of fibres may be sufficient to establish a communication between the will-centres and the muscles. The second conclusion is that one-half of the brain, including its base, is quite sufficient for the communication between the will-power and muscles on the two sides of the body. Now, if we admit those two facts—those two views if you like—we have a question which certainly comes out immediately, and is, I have no doubt, present in your minds. It is: Why, then, does paralysis so often appear, even when there is such a slight disease—as in many cases—a slight alteration in those parts which are considered as the channels of the will to the muscles? There lies the part where theory must come in. In the third of these lectures I shall have to dwell at length on that point.

I will now say simply that, when disease exists anywhere in the nervous centres, it is exactly and absolutely to every purpose the very same thing as if it existed in the mucous membrane, as if it existed on the top of any nerve or the periphery of any nerve in our own body. It produces there an irritation, as in every part which is excitable, if there be disease—and especially disease of certain kinds—in it or around it. Any part excitable is necessarily excited if there be disease near it or in it. If there be irritation, then there is a conveyance of the irritation through all the possible channels existing in the neighbourhood. If those channels be multiple, as is the case with the brain, then a greater chance of the coming on of paralysis exists than when the disease is existing in the bowels, or when the disease is simply an irritation of the mucous membrane, or of the nerves of the lungs, the nerves of the kidneys, the nerves of the liver, and so on. It may be that this is not the only reason why disease in the brain will have more power than disease elsewhere in producing paralysis; but that is certainly one of the great reasons of the difference between the brain itself and the periphery. There are a great many facts, experimental and

clinical, which establish that the brain is exceedingly excitable, and by far more so than the peripheric parts of the nervous system. This, indeed, is quite clearly established now; and the reading of clinical facts without any preconceived view, simply to ascertain whether the brain is excitable, would show it very clearly and very decisively, in demonstrating that the greatest variety of effects will occur from a disease located in a very small part of the brain, never mind where the part is located, as all parts of the brain seem to be considerably excited. But the experimental facts are more decisive about that: the experiments made by a young friend of mine, Dr. Rochefontaine, in showing what a variety of effects will come from the galvanisation of a limited part of the brain; not merely those movements which are of use for the irritation of the very same part, but also an immense variety of other phenomena dealing with the action of the heart, relating to the action of the breathing, relating to the action of the motor nerves, and the action of the spleen, the action of the liver, the action of the kidneys, the action of the muscular organs in the abdomen. Another experiment, which was not so cruel as it might seem at first, because it was made under the influence of ether, was cauterisation of the brain; which, indeed, had the animal been perfectly sensitive, would have caused no trouble as regards feeling, because the brain is certainly not sensitive, although it is semi-excited. Excitable of course does not mean sensible; it means that a reaction at any part will take place; it means that there is power of transmission to other parts; but it does not show at all that the part is sensitive. The brain, then, not being sensitive, I might have dispensed with the ether. However, the facts were ascertained under the influence of ether, and were perfectly characteristic of the great variety of facts ascertained from irritation. In some cases, a paralysis was produced of the face on one side; in other cases, there was paralysis of the two lower limbs from irritation of one side of the brain; in other cases, and that more frequently when the irritation was large, there was more paralysis on the opposite side, and considerable irritation as regards the extent of surface. But then, once more, there was a change produced in the spinal cord so great that I found the phenomena which we know to exist entirely different. There is, therefore, a considerable difference in a case of section of the spinal cord when the brain was burnt and in the case where it was not burnt. We therefore find that an injury to the brain, whether in vivisection or from irritation much greater than a burn, will produce a change, and a very considerable one, in the spinal cord. I will add, and that will be the object in a great measure of my third lecture, that I cannot but consider—and there are very good reasons indeed for the view, although it is not clearly proved—that paralysis appears anywhere from a disease in the brain, in the medulla oblongata, the cerebellum, or any other part wherever disease appears, on account of the restraining and arresting of the suspensory action exerted on the muscles and nerve-cells at a distance from the part where the disease is. Supposing, for instance, that the cells in the spinal cord are affected at once by disease in the brain, as in those experiments of mine—supposing an action takes place similar to that which we know to take place on the nerve-cells—then we have, I must say, too easy an explanation of the phenomena of paralysis. In fact, admitting that view, there is no difficulty whatever, as we know irritation in our system can produce effects in our system sometimes in one place and sometimes in another, according to the disease in various parts of the system. The fault of that view is, that it may lead to satisfaction, and thereby to the prevention of the progress of science. I myself dread to be carried away by the easy facility with which everything can be explained.

Another demonstration that I wish to make is this, that every part of the brain can give rise to paralysis; sometimes to one form of paralysis, and sometimes to another. I have notes of a vast number of cases; I cannot read them or mention them at length, but I will give you the purport of them. In the first place, I spoke of a typical form of paralysis, which we find frequently. I said that it may come from any part of the brain; there is no question as regards that. I will now say that hemiplegia proper, when it is complete, never exists alone, and that certainly is quite in conjunction with what is admitted as regards the use of the two halves of the brain. There is not a single case that has been put into opposition to this view; complete hemiplegia of one side is always accompanied by a certain degree of paralysis on the other side. If the old view were correct, there would be complete paralysis sometimes on one side, and not at all on the other. I will not say more on that point. There are a great many cases—indeed, twenty of these on paper—which show that a disease existing in the two halves of the brain occupying the whole of the middle line, and the same parts of the two sides of it, will produce hemiplegia only on one side. If we admit the old view, of course such a fact is impossible; if we admit, on the contrary, that paralysis depends upon irri-

tation, and that the excitability of the parts is not the same in the two sides of the brain as in the rest of the body, then it is very strange that hemiplegia will appear on the one side or the other, according to the mere excitability of the parts. Next to this, there is a fact that I have dwelt upon in a long lecture which I published in the beginning of the year, that a disease located on one side of the brain can produce paralysis on the same side. It may be in the medulla oblongata itself, or in the cerebellum, or in the pons Varolii, or in any other part of the brain. Well, with the old views, it is impossible to understand this unless you admit what has not yet been proved, except in one case to my knowledge, that there is no decussation of the pyramids; but if we prove that the pyramids are not the channels of the transmission of the will to the muscles, it matters not whether there is decussation on the one part or the other, so that in one case there is a paralysis in one side corresponding to the disease on the same side. It is contrary to the old views that paralysis occurs, not because of the destruction of the conductor, or will-centre, but because of the irritation existing where the disease is, acting sometimes on the one side, and sometimes on the other side, of the cells of the spinal cord and the medulla oblongata, with a sort of involuntary action, so as to stop their activity. There are a variety of facts, besides these, that I dealt with in my lecture, there are a great many cases in which there is a disease of the two sides, but paralysis in those cases appeared on the side where the greatest irritation existed. Of course, if paralysis may appear on the side where there is disease, it may appear where there is a disease on the two sides, but on the side where the greatest irritation exists. There are also cases in which hemiplegia exists on one side of the body, and then some time afterwards it appears on the other side, the first hemiplegia being cured, and nothing is found but the disease on one side of the brain. Was there some other disease that was not known? I do not know. There are many cases which support the view I maintain, which is not in accordance with the old views. Then there may be disease existing in one side of the brain, producing at one time paralysis of the arm on one side, and paralysis of the leg on the other side; or a disease which produces at the same time paralysis in one arm, and paralysis in the other. But here now comes a kind of case, and I have a good many of them, which is extremely demonstrative. In those cases there is paralysis of the body on one side, and paralysis of the face on the other side. These cases are very well known, and very well explained, perhaps, when the disease is in the pons Varolii, through the disease striking at the same time the roots of the facial nerves, or the trigeminal nerve on one side where it exists, producing paralysis of these nerves. This is perfectly plain; and of course when I have put forward the views I entertain as regards paralysis, I deal not only with a paralysis not depending upon the existence of the nerve, but its entrance into the base of the brain, as in those cases it is a disease of the nerve that exists and not a disease of the nerve-centre. In these cases, the disease may sometimes be in the cerebellum, sometimes in the ganglia at the base of the brain, sometimes in the posterior lobe, sometimes in the anterior lobe, and so on, so that the greatest variety of seat has been observed in those cases in which there was this paralysis. And what do we see in these cases? the paralysis on the same side as the disease in some of these cases, and paralysis in the opposite side of the body in some of these cases also. There are two cases also in which paralysis appears on the corresponding side of the face to the disease, and the paralysis in the body appears in the corresponding side; there are but two of these cases, and they are very interesting; but all the details are missing in one of them, so that I would not say that we should attach much importance to them. There are forms of paralysis which, although depending on the brain proper, have all the characteristics of paralysis depending on the cerebellum or on the spinal cord itself. There are a number of cases in which hyperæsthesia appears in the paralysed limb, while the same degree of hyperæsthesia in a few of these cases was said to exist in the opposite side; and, in those cases where hyperæsthesia existed on the side of the paralysis in the brain-disease, physicians have not paid attention to the sensibility of the supposed healthy limbs. But in two cases that I have seen, and in many cases published by Dr. Priestley, hyperæsthesia existed on the paralysed side, and anæsthesia on the opposite. There are many cases in which, with the lesion on one side of the brain, paralysis has existed in both sides. Of course it may be said that there was another lesion which had not been found. That is quite possible; but in cases of hæmorrhage of the brain, in cases of sudden paralysis, it is very likely, if the patient die soon, we may find that there was no other lesion, and that we are to consider paralysis as having been produced on the two sides by the irritation starting on the one side. There are many cases of paralysis of the lower limbs, and a number not so large by far of paralysis of the two upper limbs, occurring from disease in one part of the brain. I used to fight against the

admission of such a thing; I could not believe it. I could not realise that it was possible that a disease located anywhere in the anterior, the middle, or the posterior lobes, not to speak of the pons Varolii, medulla oblongata, or cerebellum—that any disease located in the cerebral lobes can produce paralysis of the lower limbs without acting at all on the face and the upper limbs. I have, however, been convinced that beyond doubt there are such facts; and, in the publication of facts, which I shall make fully, you will find details which will leave no doubt on this point. There is one kind of paralysis which is very much in opposition to the old views, and that is paralysis limited almost entirely to one limb. If disease exist in any part of the brain, and produce paralysis in one arm, you know perfectly well it is chiefly the arm which is affected in these cases. It is considered, so far as certain facts go, a demonstration of the view of Soissart and others that the brain in certain parts contains the will-power of the arm, and in other parts the will-power of the leg; that the anterior part of the brain serves to move the leg, and the posterior part serves to move the arm. There are, however, a great number of facts which give the lie to this conclusion. There are cases of paralysis occurring throughout the upper and the lower limbs indifferently, with the lesion located anywhere, and not in one particular spot with reference to the paralysis in each part of the body; so that there is no doubt whatever that paralysis in the leg and paralysis in the arm may appear, no matter where the lesion may be. I find the time has gone, so that I can only say one word more; but I will return to this in the next lecture. It is that facial paralysis may be caused by disease in a limited part of the brain, without any paralysis anywhere else; such cases are extremely common, judging from the number of facts I have collected.

THE PROGRESS OF FEVER PATHOLOGY.

Extracts from an Address delivered at the Annual Meeting of the Bath and Bristol Branch.

By HENRY F. A. GOODRIDGE, M.D., F.R.C.P.,

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[RECOGNISING the advantage of making these annual addresses fulfil a sort of *compte rendu* purpose, Dr. Goodridge selected for his subject, the progress of fever-pathology. There were at least three reasons, he thought, why the subject of fever should possess special attractions to the medical mind. 1. The frequency of its occurrence. 2. The gravity of its import, and 3. The occult nature of the process. He then continued:] "Occult in times past it most certainly was, unsurpassed in this respect by any other disorder of the nosology; occult, it is to be feared, we must confess, the febrile process, in not a few nor unimportant particulars, still is. But has not the light of modern research which has illumined so many dark corners of medical science at length penetrated the thick darkness here? Have not the improved means and methods of investigation—the introduction of the various so-called instruments of precision into clinical and pathological use—nay, the great and important department of experimental physiology, which has of late so rapidly developed, borne some fruit in this quarter? It is just to these questions that we would now address ourselves; and I think we shall find that if the results achieved are not so successful, so brilliant, as are witnessed elsewhere, it is at least not because of any neglect of the advantages referred to, nor of any lack of able and zealous labourers in the field of solid and enduring work done, but rather because of the intricacy and recondite character of the subject to be dealt with, the exceeding difficulty and complication of the many problems to be solved, and the manifold sources of fallacy which continually start up on the right hand and on the left, while prosecuting the several branches of the inquiry.

Deriving, as we do, the word fever from *febris*, and that from *fervere*, it might be supposed that the recognition of excess of heat as the most characteristic feature of the disorder was as old as the Latin noun itself, and co-extensive with its use. Yet this would be not quite correct. For, firstly, since the days of Hippocrates until quite recent times, authorities had frequently maintained that fever was a favourable circumstance, a salutary process, and they found that their etymology and their pathology coincided, or at any rate they made them coincide, for they derived the word from *februa*; which, as we well know from the name of our second month, at one time the final one of the Roman year, means to make pure. And, secondly, Boerhaave and his followers held that the increased frequency of the pulse was the great characteristic of the febrile state. The opinions entertained by the ancients upon the subject of fever will always form a curious and interesting chapter in the history of medicine. We cannot, however,

at present further advert to them, but must content ourselves with the single remark, that if ever in matters medical speculation could be said to have run riot, assuredly it would be in reference to fever. And as in some other matters, so here; what men found they could not succeed in explaining to their satisfaction, they at last came to deny the existence of altogether. The school of Broussais, or the pathologico-anatomical school of his period, rejected all essential fever or fever that was not demonstrably dependent upon a local inflammation, or that had not, as it was termed, a material basis; thus, I hardly need remind you, typhoid or enteric fever was with them a dothenteritis, intermittent fever a periodical gastro-enteritis, or an inflammation of the spleen, and so on; and well do I remember that, when proceeding in 1846 to the final examination for my M.B. degree, no candidate was thought to be safe who was not well posted up in the arguments in defence of the essentiality of fever. Nobody, I suppose, nowadays expects to be challenged on this matter.

In tracing the development of modern views of fever, we have not really then (and this will more distinctly appear immediately) to go back much further than a quarter of a century ago. Certain events are conspicuous as having played an important part in the process. I will briefly review them.

First of all, of course, was the introduction of the thermometer as a clinical instrument. Until the time of De Haen, the ordinary method employed for estimating the heat of a fever-patient, was the application to his skin of the hand of the observer, than which, we know, none could be more fallacious. De Haen, using the mercurial thermometer, and with precautions previously neglected, carried out by its aid the first systematically conducted observations which laid the foundation for the regular employment of thermometry at the bedside. He ascertained, what at first seemed paradoxical, that during the cold stage of intermittent fever, when the patient is shivering almost intolerably, the temperature of the interior of his body exceeds to a considerable amount the normal standard, and becomes as high as in the succeeding hot stage. De Haen flourished about the middle of the last century. He did not, however, recognise the wide bearing of his own discovery, nor the consequences deducible therefrom, but only found therein a weapon wherewith to fight the iatro-mechanical physicians, whose theory that fever was due to friction was then rife, the Dutch professor himself being all the while satisfied that fever was one of those things which it was not vouchsafed to mortal man to know. His contemporaries and the following generation were alike supine, and so De Haen's observations almost passed into oblivion, until G. Gavarret in 1839, and then to a much more considerable extent G. Zimmermann in 1851, brought them to light again. The latter demonstrated the great practical value of the thermometer and of temperature observations, and subsequently Wunderlich may be said to have fully established the same. While then, on the one hand, the thermometer has only confirmed an observation as old as the days of Galen, that "*calor præter naturam*" is an essential symptom of fever; on the other, this instrument has furnished the means of determining with exactitude the presence or absence of this pathological condition, of measuring the intensity of the same, and of registering the fluctuations, even to minute fractions of a degree, which, according to the specialities of each case, the febrile heat may undergo. In fact, the thermal history of a case of fever has become capable of accurate study, and can be even graphically represented as in the temperature charts with which we are now so familiar. The march of each one of the principal varieties of fever has been found to be definitely characterised in respect of its pathognomic feature, its pyrexia; and thus the thermometer comes to confirm or correct a diagnosis otherwise made, or may itself alone render any diagnosis possible. But to expatiate, as it would be easy to do, upon the advantages of the clinical thermometer, surely were a work of supererogation, when probably nearly every gentleman whom I have the honour to address is carrying one in his pocket.

We can readily understand that at a period when erroneous views prevailed respecting animal heat in general and its sources, correct ones could hardly exist as to the origin of the preternatural heat of fever. A false physiology could scarcely lead to a true pathology. But as the heat of the body is now known to depend mainly upon chemical processes—oxidation processes—continually taking place in its tissues, the preternatural heat, which was at once assumed to be due to increased production as its principal cause, was taken in conjunction with another fact, also well known to the ancients, viz., that in fever the body wastes, or, as subsequently more accurately determined, fever-patients lose more in body-weight than non-febrile persons under otherwise equal circumstances, and the conclusion was arrived at, that in febrile diseases an increased consumption of the tissues of the body constantly takes place. This doctrine, although partly anticipated by others, was

first definitely stated by Virchow in his classical essay on fever in 1854, and with an important addition was embodied in the following formula, which formed the basis of the Goulstonian Lectures, delivered the following year by that great and good man, for the loss of whom to science and humanity the tear has hardly ceased to flow, Dr. Parkes of Netley. "Fever," said Virchow, "consists essentially in elevation of temperature, which must arise from an increased tissue-change, and have its immediate cause in alterations of the nervous system". Forthwith the appeal was to facts, and the new theory was submitted to the test of strict clinical and experimental investigation. The results we shall soon come to consider. The temperature of the human body being the resultant of an equilibrium between production of heat and loss of heat, it is obvious that the same effect may be brought about in opposite ways. Accordingly, the late Professor Traube of Berlin maintained that the elevated temperature of fever was the effect not of increased production of heat, but of diminished loss of heat. The diminished loss itself he attributed to irritation of the vaso-motor nerves, under the influence of the fever-exciting cause, producing spasmodic contraction of the small arteries of the periphery, and consequent anæmia. In regard to the well-pronounced and rapidly developed cold stage of intermittent fever, with all the phenomena indicating that the supply of heat from the interior to the periphery is for the time being restrained, there can be no doubt that the aggregate discharge by radiation and conduction of the heat of the body is diminished. But clearly Traube was too exclusive. His theory was found to be inapplicable to fever in general, as we shall see further on; and even in respect to the cold stage, thermometric observations have shown that the temperature rises before the shivering and the vascular spasm and cutaneous anæmia have at all occurred. Yet Traube did good service in drawing attention to diminished heat-loss as concerned in the elevation of temperature of fever, and thereby checking a corresponding exclusiveness that seemed likely to arise on behalf of the other factor, heat-production.

An event which marks an epoch in the history of physiological science, for with it is connected the great discovery of the vaso-motor nervous system, is scarcely less notable in the history of fever doctrine. It is needless to say that I refer to Claude Bernard's famous experiment twenty years ago, of dividing the sympathetic nerve in the neck of the rabbit. We have just seen that Traube invoked vaso-motor nerve-agency to help him out with his theory; but, in regard to this experiment, we know that one of the most striking phenomena observed to follow upon the operation is a rapid rise of temperature in the corresponding ear and half of the head of the animal. Now, this has been very differently interpreted. By the distinguished French physiologist it has always been maintained, and in his recently published "*Leçons sur la Chaleur animale*" he vigorously defends the point, appealing to the latest researches of himself and others in proof, that there is absolutely increased production of heat, created heat, within the sphere of the divided sympathetic, and that this increase, at first local, becomes general—"la température du sang, avec la fièvre d'abord locale, finit cependant par se généraliser". It was but a short step for those who shared this view to propound concerning fever, as in fact was soon done, that it consisted essentially in a paralytic condition of the sympathetic nervous system. On the other hand, there have been, and still are, numerous authorities, and among them too those who hold neuro-pathological views of fever, who deny that any heat is produced in this experiment, and attribute the rise of temperature observed to the local afflux of blood consequent upon paralytic dilatation of the vessels, in fact, to simple importation of heat by the circulation. They contend, moreover, that so far from the temperature of the whole body being raised as a consequence, a slight but distinct lowering of it is detectable. Thus, while with the one party this experiment is of supreme value as elucidatory of the pathogenesis of fever, with the other it is of no such value at all.

The discovery in physics, within the last few years, of the law of conservation of force (as it is termed), since it has thrown important light upon the mechanism of production of heat within the body, has contributed in no inconsiderable degree to the progress of fever-pathology.

[Dr. Goodridge then passed in review the clinical and experimental investigations undertaken in connection with the doctrines of increased production of heat, and of increased tissue change, in fever, and proceeded.]—

We come now, in the last place, to the dependence of fever upon alterations of the nervous system; and this is just the most debatable portion of our subject. We anticipated it somewhat in our notice of Claude Bernard's discovery of the vaso-motor nerves. We then remarked that a theory of fever had originated directly from that discovery; and, although but one of several theories that assign to the nervous system an important rôle in the production of that disorder, it

would appear to be the simplest and most definite of them, and perhaps, on this account, has very much concentrated upon itself the attention of experimental inquirers. According to this theory, fever is due to vaso-motor paralysis. The appeal has been to the experiment of dividing, in animals, the spinal cord at the level of the fifth or sixth cervical vertebra, to which proceeding, of course, closely correspond severe accidental lesions to the cord in this situation in the human subject. It was found, then, as the result of this experiment, that in animals of some size a rapid rise of temperature often occurred, exceeding that of fever; but in small animals, cooling was the rule, unless the surrounding air was warmed or they were artificially clothed, in which case the temperature rose, as in the former instance, and might attain to even a fatal elevation. By the advocates of the vaso-motor paralysis theory, these results were at once attributed to the disconnection of the vaso-motor nerves from their intracranial centre by the section of the cord, and the consequent withdrawal of their inhibitory influence upon the combustion processes of the body—in short, they regarded the condition thus brought about as very much identical with fever in the clinical sense. The cooling which occurred in small animals, they explained by excessive radiation of heat from the surface, itself the consequence of paralytic dilatation of the cutaneous vessels. In man, since Sir Benjamin Brodie's historical case, several similar ones have been recorded, in which inordinate elevation of temperature has ensued upon crushing injury to the cervical cord; and there are those here present, I doubt not, who have seen such. On the other hand, there have been as notable cases of depression of temperature, after the same injury. Mr. Hutchinson, in his excellent lecture on the subject, as regarded from a physiological stand-point, gives it as his opinion, that the condition of the heart makes the difference. "It certainly never happens", says he, "that the temperature rises in these cases unless the heart's action is vigorous. If the pulse is only of moderate strength, the patient cools". But to apprehend more distinctly, in reference to the claims of the vaso-motor paralysis theory, what are the essential effects of section of the cervical cord, let us briefly note what alike *a priori* reasoning, physiological experience, and clinical observation combine to teach respecting them. Of course, in a transverse section, not alone the bands of vaso-motor fibres, but all the other constituents of the cord, at the same time, will be divided. First, then, there occurs a sudden and great diminution of arterial tension, the direct result of vaso-motor paralysis—arterial tonus, as it is called, is abolished—more or less venous stasis arises from the quiescence of the muscles, and the heart's action, by its own partial paralysis, is retarded; in fine, the power of the heart and the efficiency of the circulation are greatly reduced. Secondly, there is paralysis of the muscles, to the extent of about five-sixths of the body; the muscles and the liver we know to be the most heat-producing organs of any; and while non-paralysed muscles, even though at rest, produce some heat, paralysed muscles produce next to none. And, thirdly, the respiration is impaired; the breathing is diaphragmatic; dusky of complexion is, I believe I am correct in saying, a common feature in accidental cases in man; and, as a consequence also of the disturbance of the circulation, oxygen is imperfectly supplied to the organism. Hence, to sum up, allow what may be for the withdrawal of inhibitory influence, the result is a very serious curtailment of those processes upon the maintenance of which the production of animal heat depends. The real condition brought about, indeed, is one of particular interest; and the discovery of it affords, I think, one of the most telling instances of the value of animal experimentation, that method of research against which of late so much agitation has arisen. The one great characteristic difference, then, between an animal whose cervical cord is divided, and a normal one, is, that the former has lost all power of regulating its heat according to external conditions. Let us hear the description given by our distinguished pathologist, Dr. Burdon Sanderson. "A healthy dog, accustomed to the temperature of summer, may be exposed to that of a winter's day without the slightest variation. After the cord is divided, the same animal must be clothed, even when in a warm room, else it cools too much; while, if the room is only a very little too warm, it passes into a state of intense pyrexia. To prevent either result, depression on the one hand or collapse on the other, the surface-loss has to be accurately adjusted to the thermogenesis by artificial means; for the animal has lost its powers of making any adjustment for itself". The warm-blooded mammal has been reduced, in fact, to the condition of a cold-blooded animal. Thus, the man with his spinal cord crushed (supposing it to be completely crushed) at the level of the fifth or sixth cervical vertebra, has lost his power of regulating his heat; his temperature is no longer stable, but labile, dependent upon that of the surrounding medium. But is this the condition of the fever-patient? Far from it. The latter still regulates his heat, nearly as efficiently, indeed, as a healthy person does, only for a higher temperature; the one regulates for 98.6 deg. Fahr., the other for say 104 deg. Fahr.,

more or less as the case may be. The smallest experience of the treatment of fever by the cold-bath, the true antipyretic method, will satisfy anyone on this point; for to the overpowering of the regulation-force of the patient our utmost efforts have to be directed. As to the supposed increased discharge of heat from the surface of animals with divided cord, Dr. Murri of Florence alleges that he has proved the direct contrary. Whilst the temperature in the rectum was normal or excessive, he found that of the skin unnaturally low. For the reasons that have been given, this is quite conceivable; at all events, it is clear that the result of section of the spinal cord cannot be used to uphold the vaso-motor paralysis theory of fever. Not a few pathologists, however, have adopted this theory. A reference to Dr. Murchison's grand work will show that he ranks among them. Claude Bernard, notwithstanding that he contends, as we have seen, for the thermogenetic effects, general as well as local, of division of the sympathetic in the neck, finds that section of the cord presents difficulties; and so he falls back upon the hypothesis of vaso-dilator excitation to explain the phenomena of fever, the existence of vaso-dilator nerves not having yet been demonstrated. Billroth, Liebermeister, and others, trace the essence of fever to some alteration of the nervous centres which preside over the regulation of the heat of the body, the nature of this alteration being obscure, but its effect being to disorder the regulation, so that it ceases to be for the normal degree of temperature, and comes to be for an abnormally high one. But it would seem to be no longer the question, whether this theory or that of the participation of the nervous system in the genesis of fever be correct, but rather whether the nervous system has anything at all to do with it. "It is no longer necessary", writes Dr. Sanderson, "to occupy space in discussing the theory, according to which there is a direct physiological relation between the nervous system and the chemical processes on which the production of heat depends; for it has now been shown experimentally by Dr. Murri that, after severance of the cord, the temperature rises even when the thermogenetic function may undergo a great diminution". Dr. Sanderson does not give any details, nor does he say that he has himself experimentally verified Dr. Murri's observations; but I think that, while wishing to pay all honour to the Italian physician, we may take the liberty of asking for some confirmation at the hands of a German, French, or English authority, before conclusions deliberately arrived at by many eminent men are thus summarily set aside. In an abstract of Dr. Murri's publication, I find it stated that he first divided the cervical cord of dogs (which produced a cooling), and then injected fetid pus under their skin, whereupon their temperature rose quite as much as after injection of the same in animals not operated on. Surely this would be something like an *experimentum crucis*; and would be additionally interesting from the fact, repeatedly ascertained, that, in cold-blooded animals, fever cannot be produced. In certain small mammalia, Dr. Sanderson seems to imply, the effect, as regards thermogenesis, of increased tissue-change in fever is balanced, or even more than balanced, by that of arrested food-supply; if that be so, it may be the explanation here also; otherwise, upon the view of this pathologist, that fever originates in the living tissues, and is from first to last a disorder of protoplasm, it is difficult to understand why in the frog, which of course has protoplasm in its tissues, and is quite able to produce heat, nothing, in however low a degree, answering thermally to fever in the higher animals, can be artificially produced. How successfully the process of inflammation has been studied in the batrachian's tissues, we are all aware.

And now, gentlemen, I must bring to a close this very imperfect sketch of the progress of fever-pathology. It was part of my original intention to include some notice of the causes, that is, remote causes, and of the effects of fever; but it soon became evident that, in doing so, I should exceed my limits. In respect of the latter, the effects of fever, I rather regret the omission; for very considerable advances in our knowledge have been made here; we stand on securer ground, and the subject is of the highest practical importance.

To sum up, then: we have seen that the characteristic elevation of temperature of the body in fever is mainly due to increased production of heat; that, besides the increased production of heat, there is a disorder of nutrition, an abnormal disintegration of the tissues of the body, and particularly of the muscular tissue, evinced on the one hand by increased excretion of urea and of potash salts, of carbonic acid, and perhaps also of water, and on the other by progressive loss of body-weight; that the increased production of heat, occurring at a time when a principal source of normal heat-production—viz., the food ingested—is all but completely cut off, must have its chief origin in the abnormal disintegration of tissue; but that the converse may also hold good to a greater or less extent, there being thus action and reaction that, however probable may be the hypothesis of the intervention of the nervous system, the connecting link between the entrance into the

organism of the fever-excitant, the pyrogenic matter (be this *contagium vivum* or what it may), and the onset of the characteristic phenomena, has not yet been demonstrated; in other words, the proximate cause of fever remains undetermined. Several minor *lacunæ* and unsettled questions we have had occasion to notice.

The work we have passed in review, as before observed, is almost entirely that of the last five-and-twenty years. Can we doubt, if we may venture upon a forecast of the future, that the final quarter we have just entered of the enlightened nineteenth century will witness a vast accession to this work, if not its completion? Can we doubt that voids will be filled up, that dubious or weak points will be corrected or confirmed, that difficult problems will be solved, that obscurities will be cleared away, and that the present *disjecta membra* will be united and consolidated into a true theory of fever? Can we doubt this, when, to say nothing of the advanced cultivation of science abroad, its claims have now come to the front at home, and original research is being stimulated and encouraged (if we except the measure before Parliament) to an extent utterly unknown at any previous period? Can we doubt it, when we look upon the beautiful pieces of mechanism, the elaborate appliances and apparatus, now in the hands of the biologist, and designed for the service of his laboratory, which are being exhibited at South Kensington? Can we doubt it, when the fraternity of science is no longer limited to local societies, the gathering of a few kindred spirits in the place of their abode, or to provincial associations, such as our own body at one time was, or even to national associations, such as our own body is now proud to be, but has come to extend to international congresses; men of science of different race and language speeding along the iron-way from capital to capital, or traversing the wide ocean, in order to confer on the subject of their common pursuit and to aid its advancement? Can we doubt it, when the ancient prophecy of Inspiration would seem to be literally receiving its fulfilment: "Many shall run to and fro, and knowledge shall be increased".

ON THE PAST AND PRESENT TREATMENT OF INSANITY.

Being the President's Address, delivered at the Annual Meeting of the Birmingham and Midland Counties Branch.

By G. F. BODINGTON, M.D., M.R.C.P., President of the Branch.

THERE has long been, as I need hardly remind you, a contention as to the necessity or non-necessity for specialism and specialists. Now I am not about to inflict upon you a dissertation on this somewhat trite question. But I desire to draw your attention for a moment to the incontrovertible fact that specialities do actually exist, and that, whether we will or not, we have to encounter them, to deal with them, and to be influenced by them. The field of knowledge is so vast that no one mind is encyclopædic enough to compass it—nay, no human being is able in the short space of a life time to "try the heights and fathom the depths", even of a single science. Hence it happens that in the pursuit of learning, just as in the mechanical arts, we have division of labour. Division of labour tends to perfection of knowledge. To become an adept, one must concentrate effort on a single subject. This principle is as applicable in medicine as elsewhere, but in medicine it has, so to speak, run to seed in sundry directions. We have doubtless conditions and circumstances to which exception may be fairly taken in reference to some of the developments of specialism. Still, however justly it may, for many reasons, be decried, there yet remains in it, I cannot help thinking, a kernel of good. The division of labour upon which it is based, and the concentration of thought which it entails are advantages not to be lightly thrown aside. "These specialists", says Oliver Wendell Holmes, in his *Poet at the Breakfast Table*, "are the coral insects that build up a reef. By and by it will be an island, and for aught we know may grow into a continent".

Now it happens that I myself am engaged in a branch of practice more open than any other division of the field of medicine to the charge of specialism. Whether this particular division of the medical art is rightly or wrongly so decidedly separated, I do not now attempt to decide. For the present I leave the question open. But being an arch-specialist, not from choice, but necessity, it becomes me, I think, in addressing this meeting to notice the fact, and to offer a

word or two of apology or explanation in introducing a very special subject.

Gentlemen, I propose to lay before you to-day some considerations upon the past and present treatment of insanity, and the method of dealing with insane patients. I select this as the topic of my address because now for nine years I have been engaged in the management of an asylum, and for a much longer period have been more or less familiar with some of the phases of lunacy. I do not pretend to be able to deal with the subject as it deserves, nor to expound it according to your merits; yet, bearing in mind the considerations I have just enunciated touching division of labour, bearing in mind what is comprehended or implied in the word experience, and having in wholesome reverence the maxim, *ne sutor ultra crepidam*, I feel it to be the subject which I am least incompetent to discuss, and therefore most justified in bringing before you, however imperfectly, on the present occasion. Should it seem to any of my hearers that a subject so special is likely to offer but little of interest for this auditory, I would remind you that insanity comes in the first instance under the care of the general practitioner, almost invariably. Further, I have to say, for your comfort, that it is my intention to avoid the technicalities of asylum routine, and as far as possible to make my observations bear more or less directly upon those phases of mental alienation, and those practical points in the care and management of the insane which are apt to come within the cognisance of the general practitioner or consulting physician in the ordinary course of daily work.

In the *Lancet* for May 20th of this year there appeared a remarkable article entitled the Physiological Treatment of Insanity. I agree with the sentiments expressed, but I call the article remarkable, because it is wonderful to my mind that at this day it should be necessary to call back attention to the propriety of treating insanity on a physiological basis, or that it should be requisite to point out the futility of dealing with it by other than physiological methods. Why, even Hippocrates recognised insanity as a bodily disease, and located it in the brain. *Ἡ δὲ αὐτῇ καὶ μαίνομεθα καὶ παραφρονοῦμεν*. For by this same organ (that is, the brain) we are mad and become delirious, he says. He enunciated a pathology of madness, and laid down rules and maxims for its treatment, all referable to the view that it depends upon disordered physiological processes. Yet in the latter half of the nineteenth century, one of the leading organs of medical opinion in England writes these words: "Strangely, many able students and practitioners of medicine do not perceive the natural and indissoluble bond which holds these two departments together"—that is to say, the departments of psychology and physiology. Such is the language of the writer in the article to which I have referred, and I have little doubt it conveys an accurate impression, for many corroborative circumstances have come under my own notice in the course of my experience. Yet it is a stranger thing that it should be so, for, so far as I know, all our most trusted modern teachers inculcate physiological treatment.

Dr. Copland, to go back a generation, in his *Dictionary of Practical Medicine*, has an article curiously entitled "The Physiological Pathology of Insanity"; and in the Remarks more generally applicable to the Treatment of Insanity, therapeutical measures are advised which clearly indicate that treatment upon a physiological basis was fully recognised at the date of the publication of the *Dictionary*, 1844. Dr. Prichard, writing about ten years earlier, under the head of the *First Practical Indication in the Medical Treatment of Insanity*, speaks in these terms: "The first indication is to remove or lessen that diseased condition of the brain on which we have reason to believe that insanity depends as its immediate cause"; and again, under the head of the *Second Practical Indication in the Medical Treatment of Insanity*, he says, "The second indication for the medical treatment of insanity . . . is to restore and maintain, as far as can be done, a healthy condition of the physical or natural functions, and to obviate or remove disorders in other parts of the system which may be connected or coincident with the diseased condition of the brain". What teaching can be more physiological than this? Esquirol, too, writing in the same decade, when discussing the moral treatment of insanity, insists that moral means are agents which exercise a direct influence upon the brain; not on the mind, be it observed, but on the brain. In laying down the principles of physical treatment, he points out that we must not fail to use hygienic and pharmaceutical means which will operate upon the brain, or upon those parts of the organism in which the primitive irritation arises. In short, his method of treatment is thoroughly physiological. Coming to our own time, we find amongst writers the tendency to found treatment upon physiology rather than upon psychology increasing day by day. The correlation of mind and brain is day by day more fully accepted, I may say demonstrated, and mental pathologists and therapeutists follow in the train of the mental physiologists. Let me quote one or two writers in proof of this.

Griesinger enunciates views of pathology and treatment which fully recognise somatic influences; and psychical treatment, he takes care to explain, is efficient in so far as it modifies cerebral activity. "All psychical acts, normal or abnormal, are cerebral phenomena" he declares; he dwells upon the necessity of pursuing somatic as well as psychical treatment, and warns his readers that when he speaks "in detail of the psychical and somatic as distinct modes of treatment, the fact of their intimate relation to one another cannot but be very evident". Dr. Maudsley, in his admirable chapter on the Method of the Study of Mind, urges with great ability the claims of the physiological and objective method. He says: "Though very imperfect as a science, physiology is still sufficiently advanced to prove that no psychology can endure, except it be based upon its investigations"; and again, "above all things, it is now necessary that the unholy barrier set up between psychical and physical nature be broken down". Dr. Maudsley's chapter on the Pathology of Insanity is a legitimate deduction from these and such like propositions, coupled with actual observation of diseased states. It is a most able vindication of the view that the basis of mental disease is physical, and must be sought for in derangements of physiological processes and changes of structure. The inference from this, that treatment ought to be purely physiological, is obvious. Dr. Hammond, in his work on *Diseases of the Nervous System*, says: "The fact is daily becoming more evident and more generally admitted, that insanity is to be treated as a material disease, and not as a metaphysical nonentity."

These examples are culled from text-books, and give a fair sample, I think, of the current teaching. If we turn to the most recent periodical literature, we shall find the same sort of doctrine pervading the whole of it, only, perhaps, even more decisively given forth, and certainly more fully elaborated. In proof of this, I cannot do better than cite the *West Riding Asylum Reports*. Those admirable Reports may, I think, be taken as a fair and trustworthy expression of the leanings of the medico-psychological world at the present moment, and anyone familiar with them will, I feel sure, agree with me that they overflow with the records of investigations which tend to link most closely—nay, I will say to identify—mental disease with cerebral lesion, or disorder of cerebral function, and to establish the therapeutics of insanity on a thoroughly physiological basis. I might go on adducing authority after authority in support of my present allegation, both from English and foreign sources. It would, however, be superfluous. Nevertheless, there is just one more reference which is so pertinent that I cannot refrain from quoting it. It occurs in the recently published volume of *Clinical Lectures*, by Auguste Voisin, the distinguished successor of Pinel at the Salpêtrière. He commences the fifth lecture of the volume in the following terms: "Gentlemen, I commence this new series of lectures with an ever increasing conviction that insanity is pre-eminently a bodily disease. Ever since the year 1870, I have been making autopsies demonstrating this fact; I have, moreover, been able to see more and more clearly that a purely moral treatment is altogether inadequate to ameliorate and to cure insanity. I shall enter into the question with you, in this first lecture, of the changes which occur in the cerebral tissue, and I hope by so doing to open up to you new vistas in the therapeutics of mental alienation."

It appears, then, that the doctrines held and taught by the leading minds of the present day with regard to the nature and treatment of insanity are clearly founded upon physiology. How, therefore, does it happen that a great deal of current opinion and practice—may I say average opinion and practice—still cuts off insanity from the common category of diseases, bases its treatment upon mere psychological, metaphysical, moral, or social considerations, and relegates the patient and his malady to a totally separate and special arena? The answer to this question is to be found, I believe, in the history of the subject, in the views held regarding it from a very remote period. Although Hippocrates and other ancient writers held rational views as to its nature and treatment so far as the state of knowledge in their day permitted, yet it must be remembered that animistic theories of disease have been held in primitive and metaphysical states of society in all ages. They are still held amongst barbarous and savage tribes, and by the vulgar, even in the most cultivated communities, at the present day. Belief in the supernatural or demoniacal origin of bodily ailments descended from the Greek schools of philosophy, and pervaded Europe through the dark ages. Fed by superstition, it cast a lurid glare amidst the glories of the Renaissance, and only faded away in the latter half of the eighteenth century. Madness, of all others, was the disease most distinctly attributed to obsession or possession. As the phrase ran, a madman was "one possessed". Not till Pinel lifted the veil at the era of the French Revolution and let in the light of reason and science, was there any general recognition of the unity of madness and disease. He it was who wrought this great change in his celebrated

treatise on Insanity, "a work", says Buckle, "remarkable in many respects, but chiefly in this, that in it the old notions respecting the mysterious and inscrutable character of mental disease are altogether discarded". Before his time, Divine judgments, magic, and other supernatural agencies, were attributed as causes, possession by evil spirits was the pathology, miracle-mongering, exorcism, imprisonment, chains, stripes, and starvation were the means of treatment. Pinel opened up a new era; but the influence of the past hangs lowering over mankind. We know "how use doth breed a habit in a man", and as with the man so with the race. Exploded beliefs once promulgated by hierophants are long cherished by the people; the savour of old custom clings to the human mind, and the exhausted ideas of bygone days qualify modern life. Thus it is that notions are even yet prevalent in some quarters respecting insanity which smack of the ancient superstitions. The ontological hypothesis regarding madness, though not maintained by scientific minds, has not altogether vanished. Its effects upon treatment have by no means disappeared. They remain as an example of "survival in culture" of the thoughts and habits of pre-scientific days.

But metaphysical speculations touching insanity have been kept alive not by the vulgar and commonplace only. Writers of eminence since Pinel's time have upheld a science of mind wholly severed from biology, and mental pathologists and therapeutists have acquiesced in the doctrine. Abercrombie, for instance, great and original as he was as a pathologist, makes no mention of insanity in his *Pathological and Practical Researches on Diseases of the Brain and Spinal Cord*, but, curiously enough, he does treat of it at some length in a metaphysical work, the *Inquiries concerning the Intellectual Powers*. In that treatise, the function of the brain is sedulously ignored; and, although no distinctly ontological view is upheld, yet insanity is referred to causes purely psychical, mysterious, inscrutable; and the treatment recommended consists entirely of intellectual and moral means. The teaching of a man of so great repute as Abercrombie could not fail to have considerable influence upon the opinions of his time. We have sufficient evidence of this in the fact that his work on the *Intellectual Powers* went through eighteen editions; and, when we consider that the eighteenth edition was published so recently as 1869, we may see that an antiphysiological method has not only survived, but has been disseminated by authority, even down to our own day. If further confirmation were wanted of the fact that mental derangement still stands apart, to a certain extent, from other diseases, and still holds a disembodied spiritualistic sort of position, even in the opinion of the weightiest authorities, it might be found in the *Nomenclature of Diseases* of the Royal College of Physicians. In that work, insanity is placed, it is true, under the general head of Diseases of the Nervous System, but it is not classed with diseases of the brain, nor even with "functional diseases of the nervous system". It stands by itself in a class entitled "disorders of the intellect".

Another cause whereby the treatment of insanity has not kept pace with the scientific progress of the age is, perhaps, to be found in the sudden awakening of the national conscience in England to the enormities of the old system. The moral delinquencies, when once disclosed, stood out in such hideous relief, and the revulsion of feeling was so tremendous, that all minds were bent upon the moral and social aspect of the case. Revolting inhumanities had been in vogue as a legacy of the dark ages, and the public mind, roused to indignation, thought first and only of substituting human kindness for inhuman cruelty. It is unnecessary to revert to this further; it is well known how in our own time the reformation has been wrought. I only wish to point out here that, in the general centring of attention upon the abolition of abuses, upon the construction and regimen of asylums, upon the discipline, diet, clothing, amusement, and general comfort and happiness of the invalids, the vital question of medical treatment has been somewhat elbowed out and shoved into the background. Now, this is an inversion of the proper order of proceeding; while the things I have enumerated are all good in themselves and worthy of attention, yet the first question the physician has to ask himself is, How best and quickest can I cure the patient, and send him forth recovered, to rear his head a sane man amongst his fellows?

Insanity, then, it is clear, was cut off for a long time from the general category of diseases. I have endeavoured to point out reasons for this exceptional mode of treatment, and to show that the effects of the severance are felt even down to our own day. It is needless for me to declare, after the tone and drift of my remarks, that I believe this severance to have been wrong and injurious, and that insanity ought long ago to have been classed with other bodily diseases, and to have been dealt with upon the common principles of medicine. It does not concern us now to discuss the much-vexed question of the nature and origin of mind. I am not sure that it at all concerns us, simply as stu-

dents of pathology and practitioners of the healing art, to inquire how mind is conditioned. Probably, the mixing up of this question with practical medicine has been an impediment in the way of knowledge, and a cause of the evils to which I have made allusion. Whether thought is, as Cabanis taught, an organic secretion of the brain, or whether mind is an animistic extra-corporeal thing, which uses the body merely as a mechanism to execute its behests, is a matter of no moment in considering our present subject. What we have to consider, and what alone concerns us in this present relation, is not what mind is, but in what manner we may know its operations, and by what means we may deal with them. Whether the nervous system be the cause, or merely the instrument, we need not ask. All we need for our immediate purpose is to trace such a connection between the series of phenomena we call mind, and the agencies by means of which they may be dealt with, as will enable us most surely to correct and cure disorders when they come before us. Whatever may be the true rôle of the brain in mental organisation, it is, I think, safe to assert that the correlation of mind-disease with brain-disease is now firmly established. Not many years ago, it was common enough for writers to dwell with a sort of hopelessness upon the impossibility of connecting mental diseases with changes in the structure of the brain. Even those most convinced of the material source of the malady, were constrained to confess that insanity left, after death, very little trace of anything whereby to identify the seat of lesion. But the microscope, in the hands of numerous able investigators, chiefly medical officers of public asylums, whose opportunities for the study of morbid anatomy are abundant, is doing much to reveal the site and nature of the morbid changes of structure connected with insanity. At the same time, modern doctrines of vaso-motor physiology and pathology, and such investigations as those of Hitzig and Ferrier, on the excitability of certain parts of the cerebral hemispheres; those of Lombard and of Schiff, on the elevation of the temperature of the nervous centres; and others of a kindred order, are calculated to throw light upon, perhaps hereafter to supply, adequate explanations of cases which hitherto have been extremely obscure. By tracing the connection between symptoms during life and the disclosures of the microscope after death; by comparison of pathological states with states produced by artificial experiment; by these and similar methods—in short, by the ordinary principles of pathological investigation, and also *per viam exclusionis*, we have arrived, it seems to me, at a stage in the history of the subject at which may be confidently asserted, that all mental disorders arise out of the brain, and that we may paraphrase the dictum "*omne vivum ex ovo*" by another, namely, "*omnis insania e cerebro*". We come, then, to the conclusion, that insanity is a local disease, and that we know the organ involved. From this, we deduce the general aim and method of our treatment. Knowing the organ whose physiological processes are disturbed, the obvious indication is that we should endeavour to reinstate these processes in their integrity. This reinstating of physiological functions is surely physiological treatment.

The brain-affection, like many other affections of particular organs, may be, and undoubtedly often is, merely the local expression of a general pathological condition. Or it may be, as happens in those cases of insanity known as sympathetic, the central result of a peripheral irritation. Or it may be the result of morbid processes, commencing centrally in the vessels or the special tissue of the brain itself. But whether the cause of the brain-disturbance be immediate or remote, there is, it seems to me, one grand principle of treatment to be borne in mind—the principle of rest to the organ affected. Now, this is a well-known and acknowledged principle in therapeutics, so I need not dwell upon it. Every one will agree with me that it is a sound principle to use a machine within the limits of its powers. In insanity, the nutrition of the higher nervous centres is impaired, and the intellectual apparatus thrown out of gear, to a greater or less extent; but always below, never above, the normal standard of its working capacity. The working power that remains ought to be most carefully husbanded, and no strain whatever put upon the weakened machine. I am not satisfied that this principle is formally recognised as it should be, still less that our methods of treatment meet its requirements. Nothing is more common than to postpone the treatment of insanity until the case becomes so desperate that it must, for the sake of society, be taken in hand. Now, this is a practice which does not save and husband the diminished powers of the machine which is out of order. It is a practice quite opposed to the views of the most experienced and trustworthy observers, and contrary, I may say, to good sense. The earlier any disease is treated the better; and I am certain it is especially so with insanity, which is often allowed to run on into an incurable condition for want of early remedial measures. I feel sure that many more cases of simple insanity would recover than do recover, if they were submitted to sound physiological treatment at an early stage. The evil, I

believe, is not for the most part to be laid to the charge of medical advisers, who have to cope, not only with the patient and his malady, but with friends, relatives, and social, domestic, and financial circumstances. All these things clash with early treatment; but the one above all others which, perhaps, constitutes the most insuperable obstacle, is the extreme sensitiveness of families with regard to the stigma supposed to attach to insanity. Not till the evidence becomes "gross as a mountain, open, palpable", are people willing to acknowledge that a relation is insane. Any interpretation but the true one is put upon the symptoms, and every sort of plausible reason is given to account for deviations of conduct of the gravest import. Not till acts of violence, or perhaps suicidal attempts, occur, are any steps taken to submit the patient to systematic treatment. Now, this postponement and delay is chiefly dangerous by excluding that rest to the affected organ, which I look upon as the very pivot of physiological treatment.

It has often happened to me to receive under my care cases of insanity, the previous history of which has revealed one continued course of incitement to action rather than to rest. In melancholia especially the practice is most common. Friends think they can stir a patient out of his lethargy and depression by encouragement or by remonstrance. So efforts are persistently made to cheer and rouse him. He is dragged off to the sea-side perhaps; that failing, he is carried about from one health-resort to another, constant change being inculcated and put into practice. Amusements of various kinds are provided, and every sort of diversion is attempted until the whole array of moral means is exhausted. Now, I believe it is useless, and worse than useless, to attempt to amuse a melancholic patient, especially by means that either overtax the bodily energies in general, or call into action the impaired brain. You must first cure your patient of his melancholy before attempting to make him cheerful. He suffers from disease, and is, in fact, not amusable till the disease is removed. Amusements are no rest nor relief to a melancholic; they are, on the contrary, literally as well as metaphorically, a weariness to the flesh.

The first practical step in the treatment of acute or recent cases of insanity is to take the patient out of his own control. Volition is disordered, or becomes subordinated to the dictates of a disordered intelligence. Perhaps hallucinations or delusions urge him to the commission of outrageous absurdities. Under such circumstances, control alone is often an agent of rest and relief, by regulating conduct which would otherwise run off into the wildest extravagancies. It is generally said that patients must be removed from home, for the purpose of separating them from scenes and associations to which they have been daily accustomed. Break the train of association of their ideas is the advice given, and this is one of the main reasons assigned for removing them to asylums. In asylums they undoubtedly encounter new scenes, but I doubt if there is any evidence to show either that the old scenes are injurious, or the new ones beneficial. For my own part, I believe that if proper discipline and control, and medical treatment, could be exercised at home, insane patients might be as well treated in their own houses as in asylums. If it is a question of an association of ideas, it seems to me the balance is strongly against asylums, where the surrounding circumstances are, as a rule, less likely to be agreeable, and less likely to call up pleasing ideas than the circumstances of a patient's own home. But unfortunately there are very few homes where the patient can be controlled, very few friends or relations wise enough, or who themselves possess sufficient self-control to watch with patience a prolonged course of firm and consistent treatment. In their crass ignorance of the nature of the disease they presume to give advice, and to take the direction of affairs. They judge the disordered mind by rules applicable to a sound mind. They interfere, or allow others to interfere, with all sorts of irrelevant recommendations, they disturb and excite an already too much disturbed brain, they avert any tendency there may be to recovery, they hasten the tendency to downward progress, and are too commonly responsible for rendering the case incurable, and the patient a lunatic for life. The advantages a patient derives from an asylum are the rest he obtains by being placed under regulated discipline and control, the uninterrupted treatment he receives, and the negative advantage of being removed from the mismanagement of foolish relations, or the disturbances of a panic-stricken household.

Of all the symptoms of insanity, sleeplessness is one of the most prominent and most constant. It is one of the earliest to occur and, in my opinion, continued sleeplessness ought invariably to be looked upon as a grave symptom, and submitted early to treatment. It is astonishing to observe the protracted sleeplessness which occurs in insanity, and though, as Dr. Crichton Browne has recently pointed out, it may continue for many months in chronic mania, without visibly affecting the bodily health, yet in recent cases I cannot conceive that it is safe to let it go on unchecked. Our object is—it must never be forgotten—

not merely to keep the patient alive and in good vegetative health, but to restore his brain to health and good working order. My observation leads me to believe that, in cases of simple insanity, a great step is gained when the habit of sleeplessness is overcome; and I further believe that many patients who enter asylums might be kept out of them, and the case cut short in an early stage, were this indication effectively pursued. A lunatic suffering from acute insanity, exhausts his brain by one long-continued incessant toil, the object of his thoughts being himself and his own imaginary affairs. The brain is perpetually in action. Morning, noon, and night it is incessantly engaged in abortive reasoning, in morbid perception, in the production of disordered ideas. The whole twenty-four hours is one uninterrupted round of overstrained attention. The functional action of the intellectual centres is never relaxed. They never even get the relief of change of subject, for a lunatic is for the most part a thorough egotist, and it is impossible to divert his attention from the hallucinations, delusions, or imaginary circumstances which his diseased brain concocts. Under such circumstances as these, I have no hesitation in procuring the needful rest by means of hypnotics. I am perfectly aware that this practice is not accepted by some authorities. The sleep is said to be not natural, to be a coma or a narcosis; and a narcosis Dr. Anstie has defined to be "a more or less complete paralysis of the nervous system". Sleep obtained by hypnotic drugs has also been defined as "chemical restraint" of the brain-cells. It seems to me just as likely to be chemical liberation, as chemical restraint; but I am really not curious to know which. For practical purposes, and in the present stage of physiological knowledge these finedrawn surmises are not *ad rem*. There may come a time, and I think there will, when we shall have a much more intimate knowledge of the action of drugs upon the cells and vessels of the nervous centres. Meanwhile, we must content ourselves with rational empiricism. Guided by that light, we shall see our way to interrupting, by means of hypnotics, the exhausting irregular action of the intellectual centres. As a matter of experience, I find hypnotics to be of the greatest use in various forms of insanity. Whether the sleep be good sleep or bad, I feel sure that the cessation from time to time of otherwise incessant irregular brain action is a positive good which brings in many cases safety and recovery to the patient.

In an address of this kind, partaking, as it does, more of the nature of a general view than of a discussion into details, I do not propose to enter into the relative merits of the various hypnotics in the medicinal catalogue, nor into their special application. Nevertheless, I must stay for a moment to observe that, of all of them of which I have had any experience, none equals opium. It is most astonishing to note the diametrically opposite views held by authorities with regard to the use of this drug in the treatment of insanity. I cannot now enter into the controversy. All I can say is that, in my hands, it has in numerous cases proved of the greatest benefit; and I can by no means coincide in the adverse opinions of some physicians, of the highest repute, upon this question. Morphia is the most easy of administration, as it is also, I believe, the most effectual form of the drug, and its efficacy is often increased by combining it with tartar emetic. Whether the tartar emetic acts by diminishing the force of the heart, or by relieving tension of the cerebral arteries, or by some direct sedative action upon the brain cells, I do not pretend to say; but I know that it often, when added to morphia, will act as a hypnotic and sedative in cases, especially of acute mania, where morphia alone is less efficient. Hypodermic injection of morphia is most valuable, both because it can be easily administered to a patient who refuses all medicine, because it acts quickly, and because it acts effectually. I have treated cases of acute mania by hypodermic injections of morphia, most successfully, during the last few years. It may be continued for lengthened periods without losing its effect. For detailed information and cases treated by the hypodermic method, I refer you to a paper by Dr. Bywater Ward, in the first volume of the *West Riding Asylum Reports*, and would especially commend to you the passage with which he concludes. It is this: "In the earlier stages of insanity, often seen in private practice, but rarely met with in asylums, I should expect that this mode of treatment would prove of great benefit." In the *Journal of Mental Science* for last April, there is a most instructive paper by Dr. McDiarmid of the Perth District Asylum. He sums up the results of three hundred and ninety-four hypodermic injections in insanity of various forms, both acute and chronic. One or two of his conclusions I will read to you. They are as follows. "Of all single drugs, opium, or its alkaloid morphia, is the most potent and reliable hypnotic and sedative in the treatment of insanity." "Attacks of acute and recurrent mania and paroxysms of excitement, in chronic mania and dementia, may be cut short in the outset, or beneficially controlled, by morphia subcutaneously administered." "Morphia so administered has no marked ten-

dency to cause constipation; and, even in melancholia, by alleviating the misery, and thus lessening the waste of nervous force, it predisposes to improvement in appetite and digestion." With these conclusions, my own experience of the hypodermic injection of morphia leads me entirely to concur. Of course, there are many cases in which morphia must be avoided or used with the utmost caution. I should hesitate to employ it in senile insanity, or in any case in which there was reason to suspect atheromatous degeneration of the cerebral vessels. I should certainly withhold it in cases of Bright's disease, and in many others perhaps. But in uncomplicated insanity, I look upon it as a most precious remedy; and would strongly recommend its use, in such cases, at a much earlier stage of the disease than I am in the habit of meeting with in asylum practice.

Dr. Ponza, Medical Director of the Asylum at Alexandria, has lately drawn attention to the influence of coloured light upon the insane, and has proposed to treat patients by placing them in rooms of different colours. According to his views, red light, possessing the most intense electro-chemical rays and heat rays, is adapted for melancholic patients, whilst blue light, which is absolutely destitute of calorific, chemical, and electrical rays, is, on account of its negative quality, suitable for the furious agitation of maniacal persons. This statement has been received, I believe, with some degree of ridicule; but I would remark that darkened rooms are grateful to maniacal patients, who often desire to have the light shut out. Further than this, I was lately talking to a person, on whose statements I can thoroughly rely, who told me that, when suffering some time ago from puerperal mania, she was always distressed by red coloured objects, which seemed to her connected with the idea of fire, and produced the most painful sensations, while blue colours gave relief. During the period of recovery, the notion of fire went away, but distressing feelings continued on seeing such things as red curtains or other articles of furniture, until recovery was complete. All this may appear a trifle; but, though I am not so sanguine as to expect patients to be cured of insanity by placing them in chambers painted in certain colours, yet, I think, the treatment by means of colours is worth consideration. It coincides with my views respecting rest; for rest must be granted to the sensory, as well as to the higher centres; and I should recommend its adoption as an adjunct to treatment, even supposing it only to concern the comfort of the invalid.

It is impossible, in considering the treatment of insanity, to pass over altogether the question of restraint. The "non-restraint system" has become the object of a creed, which it is dangerous to doubt, in England. There is much to be said about the subject; but all I shall say here is that, if restraint is a remedy of any value, it is wrong to relinquish it on account of any system, doctrine, theory, or creed whatever. This is the question I ask myself: Is restraint a remedy? Is it calculated, under any circumstances, to do the patient good, to promote his recovery? If so, I will not cast it aside because it has been once abused. If we are to give up entirely those good things that are liable to abuse, we shall have to go about our daily work in a very destitute, ill-furnished sort of fashion. I have certainly confidence enough in myself, and I have quite enough confidence in the educated class of men generally, who are in these days engaged in asylum practice, to use restraint without abusing it. On the other hand, I have not supreme confidence in the attendants, to whom manual coercion is entrusted, to use that kind of restraint with good temper and humanity. But, again, the question is, Is restraint of any value as a remedy? I believe there are numerous instances in which it is an effectual means of tranquillising maniacal patients, who, when effectually restrained, cease to struggle, and go quietly to sleep. The wild movements by which they are tormented and racked, though made by voluntary muscles, are not, strictly speaking, voluntary movements. They are rather impulsive agitations of the limbs, and are quite beyond the patients' own control. Mechanical restraint, under such circumstances, is a relief and a rest. Maniacs gladly welcome this means of a quietude they long for, but, unaided, cannot maintain. This I know from my own observation; but, to support my assertion, I quote Voisin, who, in his clinical lectures, says: "Gentlemen, you must not hesitate to employ the strait-waistcoat. . . . This apparatus saves them (the patients) from their own violence, and hinders them from injuring themselves in a variety of ways. Do not believe that they hold it in horror, as is said and supposed. I could show you patients, who at first have made resistance, it is true, but who subsequently themselves help to put on the strait-waistcoat, when their agitation renders that means necessary."

I have been led to consider rest to the brain as an essential part of treatment, not only from such considerations as those put before you, but from watching chronic cases and acute cases during the progress of recovery. I will mention two examples, just to illustrate what I mean. A young lady, the subject of confirmed dementia, had become quiet, orderly, and docile for the most part, but incapable of mental

exertion. It happened, from circumstances not necessary to be detailed, that efforts were made to evoke some intelligent action from her and to train her somewhat in the same way as idiots are trained. The experiment went on well, and the patient seemed to be making progress in employing herself by needlework and in other ways. But the effort was too much; a paroxysm of excitement supervened, clearly due to over-exertion of an enfeebled incapacitated brain. When the paroxysm subsided, she relapsed into her usual torpid state, but was rather more demented than before. The second example is a case of mania, accompanied by constant *risus sardonius* and long continued tonic spasms of the flexor muscles throughout the body of very severe character. The case is of twelve months' duration, and now in process of recovery. On two occasions the patient has seemed so far advanced that she has been allowed to mix with others, has done needlework, has read, has entered into various amusements and occupations, but on both occasions has relapsed. On being sent back to bed and kept in the strictest quietude, she has again recovered, and will now only be allowed to enter into association with others and resume the ordinary pursuits of life after more prolonged treatment, and with the utmost care and caution. Such cases as these, and I could cite many of them in illustration of the same thing, convince me that, though evolution of mental power may be right to encourage in the undeveloped brains of congenital imbeciles, yet rest is absolutely necessary for the impaired enfeebled brains of patients suffering from insanity. I believe it is often thought that all that is wanted to rest a brain is change of subject or change of occupation, and perhaps this is so with healthy brains which are merely fatigued. But the brain of a lunatic is not merely fatigued; it is in a state of disease, or, at least, of disordered function, therefore the analogy does not hold. No doubt, when any of us are overworked, it is a great relief to travel or seek after amusements. But the lunatic carries with him wherever he goes the disease which is wearing and exhausting him, and no pleasure-seeking will rid him of this sort of fatigue. On the contrary, excitement of the senses is superadded to his troubles, and his burden is doubled. In utter rest is his only safety. I laid stress at a former part of this address upon the necessity for early treatment. I reiterate this, and urge again the necessity of rest of the completest kind at the very earliest period. As soon as insanity is detected, the patient should be laid by. I know the difficulties, but I speak only of what should be done if a truly physiological treatment is pursued.

Voisin says that in simple insanity he finds certain alterations in the grey matter of the cerebrum, consisting of minute apoplexies, effusions of hæmatin and hæmatosin into the lymphatic sheaths, infarctions, atheroma, capillary dilatations, and necrosis of vessels, and certain changes of cerebral cells. But these changes he does not find in insanity of short duration. Up to a certain period, there is only intense hyperæmia and very marked injection of the finest capillaries, the cerebral cells appearing healthy in the midst of the network of capillaries distended with blood. He goes so far as to fix the date after which the changes in question occur, and places it at two months. Perhaps this is only approximatively correct; but, at least, it tends to confirm the experience of all clinical observers as to the necessity for treating insanity at as early a period as possible, and it confirms also the notion I have uttered regarding rest. If complete rest can be obtained within these first two months, or whatever the period may be, while the cerebral cells are still uninjured, and the disorder is, in fact, only functional, the probability is that the hyperæmic condition may disappear, the destructive changes be averted, and chronic cases of insanity much diminished in number.

Gentlemen, I commenced this address by something like a vindication of specialism. But as I have gone on, paradoxical as it may seem, you have, I hope, perceived this much, namely, that it is not my aim to maintain insanity as a specialism. If it must for certain reasons be necessarily, at least for some time to come, in special hands, yet I fully believe it to be part and parcel of the great field of medicine. There is nothing whatever to separate it in principle or in practice from the general body of medical science and art. It should be taught clinically at every medical school, and every practitioner should be made as familiar with it as with other branches of medicine. It should be treated physiologically, upon the common principles of therapeutics. The public should be taught to look upon it in a new manner, to recognise it as an ordinary disease, and to cease to regard it with that sense of awe and mystery which now prevails. Were these things done, I am strongly of opinion that many cases of insanity might be treated successfully at home, that there would be fewer of those simple, uncomplicated cases which terminate in chronic lunacy of twenty, thirty, fifty, and even sixty years duration, cases which are to my mind an *opprobrium medicinae*, and finally that there would be much less necessity than there is at present for lunatic asylums.

TOPICS OF THE DAY.

An Address Delivered at the combined Annual Meeting of the South Midland and Cambridgeshire and Huntingdonshire Branches.

By H. W. SHARPIN, F.R.C.S., Esq., President.

GENTLEMEN,—I should gladly have availed myself of some excuse, could I have found any, other than a feeling of my own incompetency, for not reading to you an address this day; but custom appears to call upon me as President to say a few words. The anxiety which I feel at the present moment is not diminished by the remembrance of the able address most of you heard at Cambridge last year.

I must, in the first place, thank the members of the South Midland Branch for the honour they have conferred upon me in electing me as their President for this year; and, in the second place, allow me to congratulate them upon the way in which the members of the Cambridgeshire and Huntingdonshire Branch have responded to their invitation to join them at Bedford.

Such meetings as these are highly calculated to promote good fellowship and to enlarge our ideas. They draw us out of the narrow sphere of self-interest into a purer and more wholesome atmosphere; for, "by the conversation of one friend with another are the good parts and faculties of men improved", and truly has it been said that as "iron sharpeneth iron, so a man sharpeneth the countenance of his friend". They also afford an opportunity to discuss the leading topics of the day affecting our profession, and to debate upon subjects strictly professional.

Whatever may be the differences of opinion as to the advantages to be obtained from these meetings from a scientific point of view, I never remember to have heard anyone dispute that their influence upon our social relations one to the other was great, and that this would be even greater still if we made an effort to attend in larger force every meeting of the Association.

I was very much struck by an anecdote I came across the other day showing the way in which a medical man of eminence treated another many years ago—long, long before the time of such social gatherings as these, at a time, too, when medical and surgical knowledge was not so equally divided by those practising the arts as it is now. The incident to which I referred occurred at the commencement of the last century, and, though a matter of history, it may not be familiar to all. I will venture, therefore, to repeat it. Dr. Radcliffe, the first physician of the day, then practising in London, was summoned to Windsor to see, in consultation, the Duke of Gloucester, the heir apparent to the throne. It would seem that the physicians in ordinary had not recognised the true nature of the young Prince's ailment; they thought that he had taken cold, and bled him. It is related of Dr. Radcliffe that he turned abruptly round to the other physicians in attendance, pronounced the illness to be scarlet fever, and desired to know if it were true that the child had been bled. One of the physicians replied that it had been done by his order. Then, said Radcliffe, "you have killed him, and shall be answerable for his death; I will not prescribe". All entreaties to induce him to change his resolution were unavailing, and, as we all know, the boy died. I can hardly think that the learned doctor would have thus acted had there been a British Medical Association in those days, and he a member of it. Not that I would have you, for one moment, think that I regard a medical association necessary to make one gentleman treat another as such. It is now-a-days taken for granted that all are gentlemen before joining the Association; but the meeting together of educated men engaged in the same noble, though laborious, career of alleviating human suffering, experiencing the same conflicts of duty, and exposed to the same trials, successes, or failures, must have a tendency to foster a kindly and friendly feeling one towards the other, and to make us judge each other charitably and leniently. One medical man may be very far removed from the other in intellectual power, another in his success in life; but each, even the most gifted and the most fortunate, has his trials and his failures to recount, and his frequent and utter ignorance to acknowledge and to bewail over.

A confession of this kind is very humiliating. It is a great leveller, and makes us regard one another in a more kindly manner than anything else could. For there are few things more humbling than to see that we have done mischief and are quite powerless to lessen it, much less to undo it; to have made a mistake, and to discover it when it is too late; still, who, I would ask, is there, even amongst the most skilful and talented of our profession, who must not admit to having done much mischief and to having made many mistakes?

I am afraid that I may be thought by some present to have viewed this subject from a rather low standpoint; and that we ought to be actuated by higher motives in our conduct one towards the other.

sincerely trust that we all are, and I acknowledge the greater excellence of the character where brotherly love so indwells that it shows itself independent of all external influences. To the attainment of this character, should be our high aim; but, to expect it, would be to look for human perfection. As practical men, we must deal with man as he is, and not with him as he ought to be.

Again, at a meeting of this kind, the ventilation of subjects by public discussion enlarges our range of ideas. We are enabled to see things with other eyes than our own; and in a profession such as ours, which is as yet very far removed from the exact sciences, it would appear to be of the utmost importance to guard against taking up any single idea or theory, and riding it as a hobby; for, however honest our intention, the mind filled with that one idea is apt to look only within the area of that idea and to see nothing beyond it. We should, on the contrary, in the practice of an art like ours, take a wide and comprehensive view of whatever disease may present itself for our diagnosis and treatment, and we are never so likely to do this as by freely discussing it. Let it not be understood that my remarks in any way refer to specialism, or that I undervalue the great results that have been achieved by concentrating the attention upon some special branch of medicine or surgery; but here I would observe that the greatest specialists with whom I am acquainted with are those the largest minds, and who take the most comprehensive view of whatever may be their particular line of study.

A leading topic of the day, on which I would make a few observations, is the practice of medicine by women. The question is beset with difficulties, but the mind of the public is being agitated by it; and, as there is a strong feeling with some women that they are well fitted to be doctors, and that it is only from selfish purposes that an opposition is raised by the other sex to exclude them, perhaps it is worth while considering what would be the best way of settling the question. Would not the best means of determining the point be to allow the experiment to have a fair trial, to give the ladies fair play, to give them the same facilities for acquiring a knowledge of the profession in a hospital specially for themselves, but at the same time make it imperative that they pass through the same curriculum of study and the same examination as the men before being allowed a place on the *Medical Register*? Feeling strongly the importance of maintaining a high character of examination for all licences which should give either sex a place on the *Medical Register*, I cannot here pass over the noble conduct of Dr. Barnes; we must all acknowledge that, to his prompt and vigorous action, followed as it was subsequently by the resignations of Dr. Farre and Dr. Priestley, the profession generally is greatly indebted, for to have granted a midwifery licence without requiring a complete medical education, would have been a retrograde movement, and an act of great injustice particularly to the accoucheur and to the general practitioner. I have no misgivings about women acquiring very readily medical knowledge sufficient to satisfy any examining board, but I have great misgivings about their being, as a body, physically fit for the life of a practitioner of medicine.

Midwifery is the branch of medicine that is supposed by many to be woman's special sphere of usefulness, but, curiously, it is the one of all others that would seem to be the least fitted for her, for I maintain that women are not qualified by nature to bear the physical fatigue of obstetric medicine. Though the majority of confinements are simple enough, formidable emergencies do arise, enough to tax to the utmost the greater strength of man; and I expect that there are few of us here engaged in that branch of practice who have not now and then found the physical fatigue and mental anxiety of some difficult case a little beyond our powers of endurance.

It is, therefore, not only unfair to society to encourage the idea that women are fitted for this kind of work, but it is most cruel to lead necessarily highly educated ladies to suppose that they are adapted for such a life; but, beside all this, to acquire a practical knowledge of their profession, women would have to go through, in the dissecting and post mortem rooms and in the operating theatre, enough to change their very nature. Knowing what we ourselves have in this way gone through, as a necessary part of our professional career, we can hardly sink without a shudder of any gentlewoman doing the same.

But, allowing the lady to be thoroughly equipped, with her diploma in her pocket, how seldom could she ever properly practice her profession; it is not easy to see how the difficulties attendant upon her being called up at night and having to ride, or drive herself, or go with her coachman, perhaps, several miles into the country, are to be overcome. Will parents consent to allow their daughters, or husbands their wives, to be walking the streets or making country journeys at all hours of the night? and will patients make proper allowance for their lady-doctors, when these ladies are themselves laid up for their own accouchement, or for a miscarriage, impending or accomplished, or for the sundry other ailments peculiar to their sex, and absolutely requiring rest?

But, while we unhesitatingly pronounce against the scheme for making women medical practitioners, it would be unadvisable, perhaps, to make further opposition. Rather, bowing to the necessities of the times, we might permit the experiment to be tried under proper restrictions and wait the result. I make bold to predict that the experiment will prove a failure, and that women themselves will, in a great measure, contribute to that failure. In their hour of trial, when difficulty arises, it will be seen that they will seek for help and succour from the stronger sex, and will thus show their want of confidence in their own.

With reference to the Cruelty to Animals Bill, in its present shape, as introduced into the House of Lords by the Earl of Carnarvon, there can be no doubt that it would interfere materially with the study and teaching of physiology, and it may well arouse the just indignation of the profession; but I feel sure that, if so modified that it does not interfere with the progress and development of science, it will be welcomed by the medical profession, than which there exists no class of men more humane.

Passing from the subjects of experiment to one of matter of fact, it is highly satisfactory to notice the financial prosperity of the British Medical Association as exhibited by its balance-sheet of 1875. It indicates, perhaps better than anything else could, a vigorous state of health. By the Association, doubtless much good has been, and is being, done to the profession itself, and through its members its influence extends to society in general. Unquestionably the medical profession, by its increase of knowledge, is steadily exerting year by year a greater influence and power over the whole community. The State each year recognises more and more its value, and makes use of its services. The time, therefore, may come, though at present it would seem somewhat chimerical, when the President of the Medical Council may be as necessary a member of the Ministry of the country as the Lord Chancellor.

Gentlemen, I shall not occupy your time longer. I make no apology for having made my address so brief, because I know that the papers to be read this afternoon promise much more of interest to you than anything that I might have to say.

CLINICAL MEMORANDA.

ULCERATION OF THE FRÆNUM LINGUÆ IN WHOOPING-COUGH.

DR. MORTON'S remarks, in reference to ulceration of the frænum linguæ being a symptom of pertussis, which appeared in the *JOURNAL* of June 10th, I read with especial interest, as it coincides with many cases I have met with in my practice.

The ulcers that I noticed generally begin at the end of the first week, or early in the second, and are most difficult of inspection, especially in young children; they usually commence by a minute vesicle or vesicles in clusters, but distinctly separate one from another, on the frænum, in immediate proximity to the under surface of the tongue; in the course of a few days, they form into small ulcers, generally ovoid, and sometimes circular in shape, greyish in appearance, and apparently void of inflammation.

My impression is, in which I quite agree with Dr. Sawyer, that they are produced by continued irritation and pressure of the tongue being forcibly propelled against the teeth or gums during the paroxysms of coughing. Taking into consideration that the ulcers are so frequently found in the same place, especially in cases of a doubtful nature, this may be reasonably regarded as a means of diagnosis. The thanks of the profession are due to Dr. Morton for bringing the subject forward.

T. R. LEESON, M.R.C.S. Eng. & L.M.D., Blackburn.

SURGICAL MEMORANDA.

DISLOCATION OF THE HIP, IN A BOY, AGED SEVEN YEARS, REDUCED BY MANIPULATION WITHOUT CHLOROFORM.

THE case under Mr. Coleman's treatment, which appeared in the *JOURNAL* of July 8th, has induced me to publish the following, as showing that it is not so extremely rare, but rather a common (if not the most common) dislocation of the hip-joint.

On May 10th, I was requested to see a boy named John Hogg, residing in this village, who had received, as I was informed by his mother, a "broken leg"; and, from his living near my own residence, he was seen about fifteen minutes afterwards. The child was playing on

the sloping grassy bank of an aqueduct with his sister, when by some means he rolled from the top, a distance of five yards, and in his course sustained the dislocation referred to. On examination, the head of the femur was found lying high on the dorsum ilii, thus producing very marked shortening, with inversion of the foot, and the heel somewhat raised. The head of the bone could be felt in its new situation, without rotating the limb, and on placing him on his back, and attempting to straighten the knee, the spine arched forwards. Altogether the symptoms seemed so complete, as to form an unmistakable diagnosis. I begged the assistance of the husband next door to hold the child, whilst I endeavoured to reduce it by "manipulation" without chloroform, as recommended by Dr. Reed of Rochester, U.S., when the reduction was accomplished, audible as in Mr. Coleman's case by the sharp snap, which seemed involuntarily to call from the neighbour assisting "It's in". I was likewise struck with the intense pain the little patient seemed to suffer before its reduction, and how soon afterwards, almost immediately, he said he was "better now".

ROBERT TORRANCE, L.R.C.S.E., Matfen.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

NOTTINGHAM GENERAL HOSPITAL.

CASE OF EXCESSIVE PELVIC HÆMATOCELE: SUPPURATION:
ASPIRATION: RECOVERY.

(Under the care of Dr. MORRIS.)

[FOR the report of this and the following cases, which occurred in the hospital during 1875, we are indebted to Dr. L. W. Marshall, House-Surgeon.]

Elizabeth W., married, aged 32, applied as an out-patient on August 20th, 1874, complaining of pain in the lower part of the abdomen and difficult micturition. She had been told she was pregnant, and believed her symptoms to be due to that cause. On examination, it was deemed advisable to admit her; and a further examination revealed the following condition and history. She stated that, a week or so before admission, whilst running, "she felt something go in her left side", low down, near the pubic arch. This, however, did not prevent her from walking home and doing her house-work with difficulty for a day or two. Three days after this occurrence, a swelling appeared in the left side, at the seat of previous pain, which steadily increased in size up to the present time. She had menstruated a week before the pain seized her. The catamenia had always been regular; but she had noticed lately, on three occasions, that she had a slight vaginal discharge tinged with blood. She was pale; pulse 84, small and weak; temperature 99 deg.; bowels confined; urine voided in small quantities and with great pain. Her abdomen presented a swelling which extended from the pubic arch to within an inch and a half of the umbilicus; it was more evident in the left inguinal region than in the right, gradually being lost as the mesial line was passed, but possessing well defined borders on the left side. There was some tenderness on pressure here also. On vaginal examination, the uterus was found to be fixed; the vaginal surface, both in front and behind the os uteri, to be as hard as a board. A catheter could not be passed into the bladder, even a small gum-elastic one, without a stilette. She stated that her general health was good; she had had no previous illness. She was confined thirteen years ago. Compound soap-pill was ordered, with fomentations. Her condition improved somewhat for a few days, her urine being voided more freely. She menstruated a fortnight after admission. The swelling became smaller, and confined to the left side. On September 15th (nearly a month after she became an in-patient), she had a rigor, and her temperature rose to 104 deg.; and the swelling became more tender, accompanied by vomiting. These symptoms were relieved by treatment, but recurred on October 7th; subsiding, however, in a few days; the temperature passing from 105 deg. to normal.

January 2nd. She had varied from time to time, having more or less pain, with fluctuation over the swelling, which had become much larger, extending to half an inch above the umbilicus and over into the right inguinal region. The bowels had been regular. She had no vaginal or rectal discharge at any time. Temperature 101 deg. On

the evening of this day, she had another rigor, and the temperature rose to 105 deg.

January 3rd. She was aspirated this morning, the needle being inserted in the left inguinal region. Thirty-seven ounces of pus were taken away. From this day, she improved, the swelling subsiding, and her general health improving, until January 15th, when the tumour appeared to be larger, and increased up to January 27th, when thirty-one ounces of pus were removed again by aspiration.

February 13th. There was no evidence of any further collection, and her condition was so much improved, that she was allowed to get up daily.

February 24th. She was made an out-patient.

August 23rd, 1875. She continued to be well, and was able to do her house-work. No swelling could be felt either by vaginal or abdominal examination. The uterus was fixed, and she complained of pain preceding the catamenial discharge; which, however, was sufficient in quantity and regular in time.

REMARKS.—This case, I believe, is chiefly of interest from the fact that the blood was effused both in front of and behind the uterus, and from the extent of extravasation and prolonged suppuration, ending finally in recovery.

DOUBLE FLOATING KIDNEY.

(Under the care of Dr. RANSOM.)

Sarah S., aged 34, was admitted May 22nd, 1875, complaining of pulsation in the abdomen, with a movable swelling in the right side. This swelling she discovered accidentally six years ago, whilst "rubbing her stomach to relieve a sinking feel". She had not much pain but stated that pressure on the tumour hurt her; and prolonged fatigue gave her an "unpleasant sensation" which did not amount to pain. Her health, she stated, had been fairly good. Her belly was thin and scooped out, so that a physical examination of it was easy. No abnormality was discoverable elsewhere. The swelling on the right side, to which she called attention, was not easily made out whilst she was lying on her back, as it fell back into the flank; but it could be lifted out and pushed forward with one hand; whilst a very positive reniform shape was followed out by the finger, the pelvis being very distinct. Whilst she lay on her left side, the tumour fell forward to the umbilical region, and could be seen beneath the parietes. The left kidney was also very easily found, and could be moved, but not so freely as the right.

PUNCTURED WOUND OF NECK PERFORATING PHARYNX.

(Under the care of Mr. WHITE.)

Charles Withers, a navvy, was admitted on May 5th with the above mentioned injury, the result of having fallen upon a small sharp "pick" used for removing stones in tunnelling. The pick was fixed in soft earth; and he fell back upon its point, which penetrated his neck about an inch and a half below the ear on the left side, passing through the sterno-mastoid between the carotid vessels (which could be felt plainly by the finger inserted into the wound) upwards and inwards, piercing the pharynx immediately behind the posterior pillar of the fauces. On opening the mouth, the wound could be plainly seen, and the finger could be passed from the external wound up the pharyngeal opening. He made a good and rapid recovery, being discharged with the wounds healed on June 5th.

CASE OF EXTENSIVE LACERATED WOUND OF KNEE-JOINT: IRRIGATION: RECOVERY.

(Under the care of Mr. BEDDARD.)

Thomas B., aged 12, was admitted November 8th, with a wound the left knee-joint six inches long, extending across the front of the joint below the patella from one side to the other. The ligamentum patellæ was divided close up to the patella, carrying a portion of bone with it. The wound was caused by falling out of bed on a chamber pot twelve hours before he arrived at the hospital. He had bled freely from his severed articular vessels. The finger was passed in the joint. The wound was at once syringed out with carbolic acid lotion (one in eighty), and the edges brought together with wire and horizontal sutures, except at the outer and inner corners. The limb was placed on a McIntyre's splint, straightened out with pads, etc., adapted for free irrigation with iced carbolic acid lotion (one in eighty).

November 20th. The irrigation was continued up to this date, when the wound was found to be superficial and granulating. His temperature had not exceeded 99 deg., and his health had been good throughout.

December 15th. He had a rise in temperature from slight sore throat. The joint, however, was doing well.

December 22nd. The corners of the wound being still open, they were dressed with boracic lint and collodion.

December 27th. The leg was dressed to-day, when the two corners were found to be healed, with the exception of a very minute portion.

CASE OF WOUND OF KNEE-JOINT: IRRIGATION: SUPPURATION: ANKYLOSIS.

(Under the care of Mr. WHITE.)

Alfred L., aged 23, a groom, was admitted with two wounds of the left knee joint: one above the patella, small and punctured; the other about an inch long, on the inner side, caused by falling from a carriage, the horse having bolted. Both wounds were washed out with carbolic lotion; and the joint, having been fixed on a splint, was irrigated with water at the temperature of the ward. He had no constitutional disturbance for two weeks and three days. The wounds did not, however, look well. But at this time he had a rigor, and other evidence of suppuration of the joint appeared. Poulticing was substituted for irrigation. I was from home at this time, and, on my return, found the joint suppurating freely; and, at Mr. White's desire, I made free openings on both sides, and passed a drainage-tube underneath the patella, the ends protruding at each wound. His temperature at once fell, his health improved, and he made a steady recovery. The tubing was removed about a month after its introduction, and at this time a collection of pus was evacuated in the popliteal space.

December 25th. He now has firm ankylosis of the joint and an useful leg.

REMARKS.—The last two cases are interesting on account of their similarity as injuries, and difference in treatment and result. The first was treated by irrigation with an iced antiseptic solution, the wound being more extensive than the second, and the patient younger. The second was treated by irrigation with water only at the temperature of the ward, the wounds being less free, resulting in suppuration and ankylosis.

HOSPITAL NOTES.

We have commenced a series of "hospital notes," which will serve to record points in practice, clinical and therapeutic hints, and brief notes of interesting points in relation to the science and art of medicine observed in the current inspection of hospitals. Such "chips" are among the most valuable materials of the workshop, and are too often sacrificed because there is no appropriate place in which they can be garnered. Contributions from the provincial hospitals will be very welcome in this column.

UNIVERSITY COLLEGE HOSPITAL.

Varicocele: Etiology.—A case in which Mr. Berkeley Hill had tied the spermatic veins was found to have some urethral discharge, and phosphatic urine a few days afterwards. Mr. Hill remarked that masturbation was an usual cause of varicocele; that such patients often had prostatic discharge, and that the irritation produced by ligature was enough to determine a recurrence of some prostatitis, or even cystitis.

Stromeyer's Cushion is a triangular pad, the base of which lies against the thorax, and the apex is prolonged so as to form a comfortable rest for the arm; it was ordered as the best splint for a case of traumatic abscess near the elbow-joint, which was being treated by India-rubber drainage-tubes.

Fractured Patella.—Mr. Hill usually treats this with starched bandages applied on the second day up the whole limb, and obtains satisfactory results. A patient with this injury was walking within about a week.

Unusual Accidents.—A lad presented the exact appearances of strangulation; deeply congested face, bloodshot swollen eyes, purple lips, and pallor round the mouth. He had been caught in the spokes of a wheel, apparently by the neck, and was admitted almost asphyxiated, but is recovering. In another child, a full cab had passed over the thorax and fractured one or two ribs; there were collapse, hamoptysis, and, later on, friction-sound, but the child was getting quite well.

Thomas's Splints were being fairly tried in the hospital. One case of "white swelling" in the early stage was being treated, in bed, with the splint on wheels, which enables the limb to be moved up or down readily; the movements, however, are scarcely compatible with the bed-coverings. This form of splint is necessarily expensive, and Mr. Hill did not consider it superior to the cradle and swing. Another case, aged 10, with history of a fall eighteen months ago, was brought in April with acute disease of the right hip-joint, the foot being inverted, the great toe beneath the opposite sole, and the limb shortened by one inch; pain increased on pressure, and startings of limb. On May 5th, the long leathern splint having been applied, its curved arms

at the ankle, the hip and the thorax, respectively, were bandaged so far forwards as to counteract inversion, and with speedy relief to pain; the position is now almost rectified, and the foot can be pressed against the joint without distress. In another child, with suppurating in the knee-joint, when ordinary splints and extension had not answered well, the iron parallel side-splint had given apparently good results, but an attack of scarlatina had interfered. We were informed that Mr. Marshall also had had some very good results from the use of these splints.

Popliteal Aneurism: Value of Carte's Tourniquet.—A man, aged 70 (arcus senilis commencing), noticed in August last, a lump which increased till, on admission in April, there was a rounded projection to the extent of an inch and a half, in which pulsation, *bruit*, and thrill were perceptible, and were controlled by pressure on the femoral artery. On May 9th, the limb was flexed at 70 degrees, the angle being gradually made more acute. On May 15th, flexion was relaxed. The aneurism was smaller. Flexion was resumed. On the 23rd, the aneurism was much as at first. Esmarch's bandage was ordered to be applied, and one tourniquet over the femoral artery. Great pain was produced, requiring chloroform. After a few hours, the pain necessitated removal of the apparatus, and flexion was again tried at angles of 80, 70, and 55 degrees. For some days, the aneurism seemed smaller, but, on June 12th, it proved to be larger; and, on the 13th, digital pressure was applied continuously for eight hours, at the end of which time the limb was again flexed. This plan was continued for three days without improvement; and, on June 16th, two of Carte's tourniquets were applied over the femoral artery, one near the groin, and the other at the lower third of the thigh. Pressure by this means was continued for between three and six hours daily (with two days' interval) until July 3rd, being, in all, about seventy-four hours. At the present time, the aneurism is perfectly consolidated. The limb is still somewhat hard.

REVIEWS AND NOTICES.

SPECIMEN FASCICULUS OF A CATALOGUE OF THE NATIONAL MEDICAL LIBRARY, under the Direction of the Surgeon-General, United States Army, at Washington, D.C. Washington: Government Printing Office. 1876.

THIS is a specimen fasciculus of a great catalogue, intended not merely as a guide to the collection itself, but also as a bibliographical record for the use of the medical profession generally. The scope and aims are set forth in the covering letter, from Assistant-Surgeon Billings to the Surgeon-General of the United States Army, which serves as preface. The collection originally formed part of the library of Congress; but, for some years past, the librarian of Congress has ceased to buy medical books, and the care of the collection, and the purchase of additions to it, have been handed over to the Surgeon-General. The object in view has been to form as complete a library for medical reference as can be got together, so as to form a truly national collection, especial care being taken to make the more ephemeral literature—such as journals and pamphlets—as perfect as possible, that being the particular class of work which is least easily procured and housed by medical men, on account of its extent and enormous bulk. Although the library already contains 40,000 volumes, and as many pamphlets, it is only about one-half what such a collection should contain; for, says Mr. Billings, "hardly a day, and never a week, goes by that a request is not made of the librarian for some medical book which the library does not possess". The plan of the classification "is mainly from the anatomical stand-point. By the use of numerous cross-references, it has been made certain that the titles desired can be found, although not always under the heading anticipated the references are always from the general to the special heads". The arrangement is alphabetical on the *single-alphabet* system, that is, both subjects and authors' names are in one list; but every care is taken to distinguish them by difference of type, subject-headings being generally in heavy capitals, and authors' names in italics (large or small), or small brevier. By this means, the eye catches more easily the name sought for than if there were more monotony. References to journals, transactions, etc., are given in nonpareil, and include the results of the examination of nearly 5,000 volumes of such publications. When completed, the work will consist of five volumes, of about a thousand pages each, and will form an indispensable book of reference for every medical library. Too great praise cannot be bestowed on the enlightened way in which the American Government contributes to the advancement of medical and sanitary science, and on the complete and elegant manner in which their official publications are got up.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 29TH, 1876.

THE UNIVERSITY OF DURHAM AND THE M.D.
DEGREE.

SOME time ago, a long correspondence took place in our columns, where also several leaders appeared, on the question, Who are and who are not entitled to call themselves doctors? Strictly speaking, as we showed at the time, those only who have an University degree of M.D. are entitled so to style themselves; although we also pointed out that the question had assumed a somewhat fictitious importance, from the accident that in England the common course of medical study ended in making a man a simple "Mr.", while in Scotland, and to a large extent in Ireland, the rule was, that men became M.D.s. This difference might or might not imply a difference of knowledge between the holder of the degree and the diploma; but the difference, if there was any, was due chiefly to the mental calibre and preliminary general education of the medical man, and not to his medical qualification. Still, what with the ignorance of the public on the one hand and its disinclination on the other to study or interfere with questions of medical etiquette, and what with the dissatisfaction of the profession with a position of things which really decided nothing, the question has been left in a very unsatisfactory state. It was suggested, both by ourselves and many of our correspondents, that some of the English Universities might address themselves to the solution of the difficulty which properly qualified medical men of a certain standing found in obtaining the M.D. degree, and with it the right, without question, of styling themselves doctors. We are glad to see that the matter has now been taken in hand by the University of Durham, and in a way which promises to do something towards a solution of the question for the present.

If the degree of M.D. is to mean anything more than a mere qualification to practise medicine and surgery—which seems to be assumed both by the use the public make of it and by the general feeling of the profession—two things are required, and ought to be required, from those who hold it. First, M.D.s ought to have a thorough general education; and second, a thorough knowledge, practical and theoretical, of their profession. In the course of time, we hope, indeed, that no medical man will be allowed to take the M.D. degree who has not also a degree in Arts, or has passed an equivalent examination; but it does not seem advisable at present to insist on this, chiefly for the reason that many of the present holders of the M.D. degree are not graduates in Arts, and that it is, therefore, unfair to men who wish to become possessed of it to prohibit them from having it on the same terms as the present holders. Already, however, the difficulties of meeting the requirements in general culture demanded by the licensing bodies from aspirants for all medical and surgical qualifications has had its effect (among other causes) of raising the standard of the whole profession by putting some check on its numbers; and it would, of course, be much to be deprecated, that any alteration for the worse should take place in this respect. The regulations drawn up by the Warden and Senate of Durham University are very satisfactory on this point, since the fifth section states that, "if the candidate for the M.D. degree shall not

have passed, previous to his professional examination (in virtue of which he has been placed on the *Medical Register*) an examination in Arts, he shall be required to pass an examination in Classics and Mathematics". After the subjects of examination have been stated, Section 6 goes on to state that, even "when the candidate shall have passed a preliminary examination, in virtue of which he shall have been placed on the *Register*, he shall be required to translate into English a passage from some Latin author, such as Virgil, Cæsar, or Celsus; and shall have an opportunity of showing proficiency in Greek, Moral Philosophy, or some Modern Language". For our own part, we should have preferred to have seen a knowledge of such a book as Whewell's *History of the Inductive Sciences*, or of Mill's *Logic*, substituted for Moral Philosophy, since medicine is or ought to be an inductive science, and whatever advance is to be made in it (and the near future seems to us to be big with promise in this direction) can be made only by our thorough appreciation of the methods by which advance has been made in other departments of knowledge, and by a full understanding of the application of inductive canons. In truth, the medical man, to be properly qualified for his work of taking charge of human nature in all its aspects—the most difficult task, probably, which exists—ought to know as much as possible about all things; and it is because of our want of breadth, for the most part, that so many of us, in place of controlling, are controlled by our patients. The other subjects of preliminary examination are those of which a knowledge is generally required by examining bodies, and imply no more knowledge than well-educated lads ought to possess at the age of fifteen or sixteen. It may safely be said that no medical man should be thought competent for his work who does not exhibit a knowledge in general subjects at least up to this standard; and we look upon it as one of the healthiest signs of our times, that many medical men now feel by no means disposed to rest here.

As regards the professional examination, we are glad to be able to give to the regulations an unqualified approval. The preliminary professional requirements scarcely call for any remark. The candidate for the degree of M.D. must be registered, must have been in practice for at least fifteen years, must be at least forty years of age, and must be of good moral character. There is no requirement as regards the length of time over which the student's curriculum shall have extended. A medical man whose student-days lasted three years is equally eligible for examination with one whose course of study extended over four. This is perfectly just and fair; the point to be tested being, not how long was this candidate in obtaining this knowledge, but does he or does he not possess it? Besides, by the time a man has been fifteen years in practice, the length of his studentship is a matter of no importance. We are glad to notice that under the head of Medicine proper is included a knowledge of Psychological Medicine and of Hygiene. The importance of these last two departments can hardly be overrated in days when the high pressure of living is causing an ever-increasing number of the forms of nervous disorders, and when the aggregation of our population in towns is raising every day new questions as to drainage, ventilation, cubic space, and so on. Men who have been fifteen years in practice in any of our towns must often have had to face questions of this nature, and conscientious practitioners must often have been hard put to it to answer them properly. Next follows an enumeration of the other subjects of professional examination. A knowledge is required of Surgery, Midwifery, Pathology, Anatomy, Medical Jurisprudence, and Therapeutics. By this means we are kept clear of what is, perhaps, the greatest danger to the professional man of the present day—a too narrow specialism. Any man who wishes may specialise; but the candidate for the Durham M.D. degree has no encouragement to do so until, having laid a wide and stable foundation, he is abundantly justified in doing so if his chances in life allow him. Of course it will now rest with the University

authorities to give status to their degree. Just in proportion as they value it and keep up its standard will the profession, and by-and-by the public, hold the degree in estimation. Nothing so surely tells against any degree as making it too easy to obtain, and there is hardly anything which requires a longer time than to raise the value of a qualification which has once sunk in public estimation. The history of some other degrees of M.D. in the United Kingdom sufficiently points the moral of such a general statement, long years of effort in the right direction being crowned by only a tardy success. But this is a danger which, though we mention it as a possible one, fills us with no apprehension. Where the public and the profession are unanimous in their efforts and desire to raise the standard of professional work, there can be no doubt that standard will rise; and for the next generation it may perhaps be the case, rather than the profession is too much educated for the public to appreciate it, than so badly educated as not to be up to the level of their patients. In any case, we wish this attempt to meet a much and widely felt want a cordial success, and shall look forward to its working with very great interest.

THE PLAGUE.

PLAGUE has ceased for the time being in Bagdad and in Mesopotamia generally, and probably also in Persia. The outbreak in the last-named country at Shuster, it appears, was of short duration, although severe. The outbreak at Sakkys, in Persian Kurdistan, was also severe; but it is not quite clear whether the disease had wholly ceased there at the time of the latest news from that town. The report of the cessation of the disease in Mesopotamia is accompanied by the significant reservation, "for the time being". Indeed, it would appear to be taken for granted by the most competent observers in Bagdad, that the present cessation of plague there and on the lower Tigris and Euphrates is but the annually recurring dormancy of the disease which has been observed in the hot season during previous epidemics, and which has characterised the two years' previous prevalence of the malady in this epidemic. It is, in fact, anticipated that the disease will reappear next year; and, having regard to its late appearance in two widely separated districts of Persia, that it will probably assume wider proportions than have yet been observed. This anticipation seems also to be entertained in Constantinople and the Levant generally, for it is commonly understood in the Turkish capital that arrangements are in progress for calling together there a conference of the maritime nations of Europe on the subject. This is an age of conferences; and the business-like way in which the International Sanitary Conference of 1874 at Vienna in respect to cholera did its work, and came to a sort of guarantee compromise as to that disease, makes it possible that some good might arise out of a conference as to plague. Were it not that the new quarantine law of France, lately put in force, comes to check us, we should have thought it barely probable that the quarantine of plague could have been seriously discussed by the western nations of Europe in these days; but tradition has scarcely less influence in physic than in other things, and quarantine must still be discussed as a serious matter of public-health polity everywhere out of England. When France yields to tradition on the subject of quarantine, notwithstanding the clearer light which has dawned upon her since 1874, how can we blame the Levantine powers? We shall hope now very shortly to be able to present our readers with a connected account of this year's prevalence of plague. It may be expected that the Ottoman Medical Commission sent to Bagdad will presently prepare a report on the subject, and that this report will be at once made public by the Ottoman Sanitary Administration. The gloomy anticipations with which the prospect of plague next year is regarded in the Levant make it necessary that the fullest information on the subject should be given to the world by the Turkish, and, we would add, the Persian authorities.

THE Keighley Board of Guardians have again refused to carry out the provisions of the Vaccination Acts, by a majority of 7 to 3.

At a consultation held at Brussels, between several eminent medical men, among whom were Dr. Brown-Séquard of London, and Professor Charcot of Paris, it has been decided that the Empress of Brazil should go to Gastein, in Austria, for the benefit of the waters at that place.

WE are pleased to see that it is intended to present Dr. Arthur Hill Hassall with some suitable recognition of his great and untiring exertions, continued for a period of ten years, in the establishment and foundation of the Royal National Hospital for Consumption and Diseases of the Chest.

Punch's whole-page cartoon this week is entitled "Stupidity and Ignorance: Meeting of Medical Professors". Operating Professor: "By this experiment we have ascertained that we can alleviate the sufferings of thousands of our fellow-creatures. I may further add—", Policeman (interrupting): "No you mayn't. We have had enough of this sort o' thing. You must move on!" Professor: "Move on? We can't move on if you interfere." The four figures at the table are portraits of Jenner, Paget, Henry Thompson, and Ernest Hart.

ROYAL COLLEGE OF SURGEONS.

FROM the annual report of the receipts and expenditure at this Institution, from Midsummer-day, 1875, to Midsummer-day, 1876, which has just been published, it appears that the former amounted to £19,896 17s. 11d., and the latter to £20,776 9s. 8d.; the cause of this excess of expenditure over receipts appears to be in the purchase of the freehold house, No. 38, Lincoln's Inn Fields, which was obtained for £6,450. The chief item in the receipts is, as might be expected, in the fees paid for diplomas, amounting to £10,966 13s. Rent of chambers and dividends on stock produced £2,426 12s. 8d. In the expenditure, the largest amount appears to be in fees paid to Council, Courts and Boards of Examiners, amounting to £5,704 16s.; salaries, wages, and pensions, absorbed £4,420 7s. 9d.; including the three departments of College, Museum, and Library; taxes, rates, and Government stamps (exclusive of postage), £1,103 3s. 3d.; alterations, repairs, painting, etc., £463 11s. Trust funds yielded £139 8s. 8d.

THE MEDICAL SECTION AT SHEFFIELD.

It is believed that unusual vitality will be given to the Medical Section this year by the discussion on industrial diseases already mentioned in our columns. We must congratulate Dr. Chadwick on the "happy thought" by which he proposes to utilise in this special way the visit of the British Medical Association to Sheffield, and bring forward more completely than has yet been done the effects of various forms of mechanical industry on health. The officers of the Section have been exerting themselves actively to procure a large supply of valuable material illustrating the subject from all points of view, and we report with much satisfaction that the profession have amply responded to their invitation. The discussion will be opened on Thursday by Dr. J. C. Hall, whose wide experience eminently fits him for this position; and Dr. Peacock, although unfortunately unable to be present, sends a most important paper on French Millstone-makers' Disease, illustrated by a drawing and pathological specimens. Dr. Farquharson will demonstrate Dr. Richardson's recently invented masks, and the ingenious arrangement of feathers by which all dust and foreign bodies are prevented from reaching the lungs. Dr. Beveridge will read a paper on the occurrence of phthisis among the granite-masons of Aberdeen; Dr. Purdon of Belfast, one on the injurious effects produced on the lungs by flax-dust; and Dr. Arlidge, one on potters' disease from inhalation. Dr. Foss will discourse on iron-makers' diseases; and Dr. Elam will, on the other hand, show the remarkable toleration by the lungs of foreign bodies. Others have promised to furnish various instructive points from their own special field of observation, and we suspect that the only cause in any way likely to

affect the most successful working of this Section will be an *embarras des richesses*. We have also much pleasure in announcing that, at the conclusion of Dr. Chadwick's opening address on Wednesday, Professor Rutherford will give the report of his second series of experiments on the excretion of bile.

SIR WILLIAM GULL AND THE BRAVO INQUIRY.

"DISPUTANDI pruritus ecclesiæ scabies". The very extraordinary evidence given by Sir William Gull at the Bravo inquiry, contradictory in itself and expressive of a total disregard of the ordinary courtesies of consultation, has led to a still further and emphatic contradiction from Dr. George Johnson. Even if Sir William Gull's memory had been accurate, it is clear that his conduct, as he described it, was unjustifiable. Even if he had been called to a "case of disease, and found it a case of poisoning", and had not had the principal facts explained to him by Dr. Johnson, it would not have become him to attempt to play the part of Jupiter, and, without consulting with his eminent colleagues, to proceed, as he describes himself to have done, without taking their opinion. But, as a matter of fact, it is quite clear and certain that he had been very fully informed by Dr. Johnson that he and the other medical men considered the case to be one of irritant poisoning, possibly from arsenic, and that they had already tested some of the vomit for arsenic. It is very unfortunate that Sir William Gull's memory should have failed him so much in this important case; it is still more unfortunate that he should have publicly claimed to have acted as no consulting physician should act under such circumstances.

THE PARKES MUSEUM OF HYGIENE.

HIS Royal Highness the Duke of Cambridge has sent a contribution of £10 towards the fund now being raised to found and endow a museum of hygiene at University College, in memory of the late Dr. Parkes.

DEATHS FROM CHLOROFORM.

WE regret to have to record a death from chloroform, which occurred at St. Mary's Hospital on July 5th. It illustrates several special points; and, by the courtesy of Mr. Norton, the surgeon in charge of the patient, and of Mr. Juler, the resident chloroformist of the hospital, we are enabled to furnish the following details.

A robust labouring man, aged about 45, was admitted with a fibrous tumour, involving both hard and soft palate; it had been growing for about three months, and was then as large as a walnut, so that Mr. Norton decided to remove it. He advised the man not to have an anæsthetic, but to no purpose; the nature of the operation, and the presence of Wood's gag in the mouth made *ether* inadmissible, and prevented also the use of the mouth-piece attached to Clover's apparatus, the usual mode of giving chloroform at St. Mary's. The patient, having had breakfast at 8 A.M., and having had one ounce of (diluted) brandy about half an hour before the operation at 2 P.M., and being dressed in an ordinary loose jacket, was placed sitting, though not exactly upright, in an arm-chair, and Mr. Juler commenced to give chloroform on a napkin folded conewise. The day was very hot, and the quantity first poured out was about a drachm. Very soon the patient began to struggle violently, and more chloroform was poured out, the whole quantity calculated at three drachms, and being certainly less than four. Within two or three minutes, the patient, struggling violently, had risen to his feet, and pulled the gag from his mouth. Mr. Juler, before recommencing the chloroform, had the patient laid flat on the operating-table, and then he turned to take up a cone of flannel with which to continue the administration. The patient was then quieter, and breathing rather heavily; Mr. Norton had a finger on the radial pulse, which was beating normally, when suddenly the sound of breathing ceased, and the face turned rather dusky. Whether the pulse continued afterwards or not, could not be positively stated, but Mr. Norton felt convinced that the respiration stopped first; at the same moment, he saw the tongue protrude between the teeth. The tongue was immediately pulled forward, the head and shoulders drawn downwards below the level of the table, the body being turned somewhat to the left, and Sylvester's method of artificial respiration was commenced and continued for half an hour. A few gasps occurred, and air freely entered the lung, but no sign of life was observed. Mean-

while, the face and chest were slapped with wet towels, and the phrenic nerve faradised, *i.e.*, one pole of Stöhrer's battery was placed on the nape, and the other at the epigastrium. At the *post mortem* examination, no tangible explanation of the death was afforded; the heart was rather flabby and light-coloured in parts; the lungs and also the brain moderately congested. At the inquest, it being ascertained that the administrator was competent and experienced (having been chloroformist for nearly two years, and having had nine hundred cases and no death), a verdict of "death from chloroform" was returned.

MR. J. C. FERRIER writes to us from Guy's Hospital: I have to record a death from chloroform which occurred while I was acting as house surgeon at the Leicester Infirmary lately. The patient, a stout man, aged 60, was suffering from a subglenoid dislocation of the humerus, of twenty-four hours' standing, which had resisted the attempts made at reduction by the senior surgeon to the infirmary, aided by two men. These attempts were made at the patient's own home, without an anæsthetic, and, as they were unsuccessful, he was sent on to the infirmary. I proceeded to administer chloroform. After inhaling it for a short time, the patient (as is usual with male adults) began to struggle; he was allowed occasional breaths of pure air, and the administration proceeded gently with. About a minute and a half or two minutes from the commencement of the inhalation, and when he was first beginning to get under its influence, the heart's action stopped, and after a few breaths the respiratory movements also ceased. The tongue was immediately drawn forward, artificial respiration resorted to, and galvanism to the heart; these measures were continued for some time, but proved unavailing. *Post Mortem Examination*.—On opening the chest, a layer of fat was seen on the pericardium, measuring seven inches across at the level of the fifth ribs, and half an inch in thickness. On opening the pericardium, the heart was seen to be large, very fatty and flabby, the only trace of muscular substance visible being a small triangular patch, about one inch by half an inch, in the centre of the right ventricular wall. The substance of the wall of the right ventricle apparently was all fat, except a thin layer of muscular substance lining the cavity, and a small patch in the middle of the wall. The left ventricle had also fatty walls, but not so marked as those on the right side. All the cavities of the heart were much dilated, flabby, and empty; the valves were healthy. Both kidneys were large and granular, so much so that it was impossible to separate the capsule at any part; the cortex was reduced to a thin layer. Before the chloroform was given the pulse was good, and no heart-disease could be detected. The chloroform used was Duncan and Flockart's. It was given on a small piece of lint contained in a metal inhaler which had a hole for the admission of air about the size of a fourpenny piece, and this hole was not covered by the lint. Death evidently began at the heart and not at the lungs; this was clearly shown by the *post mortem* examination. From a previous experience of over two hundred cases, I should say that the amount given was not sufficient to put most patients under its influence, and just until the fatal symptoms appeared the patient was far from fully anæsthetised, and no attempt at reduction of the dislocation had been made. Whether *ether* would have had the same effect it is, of course, impossible to say, but the *post mortem* examination showed such a state of heart, that sudden death might have occurred at any moment.

MEDICAL OFFICERS OF HEALTH AND INFECTIOUS DISEASES.

AT a recent meeting of the Barton and Eccles Local Board, the clerk to the board reported that he had, in accordance with instructions written to each of the medical practitioners in the district, requesting them to report to the officers of the board any case of infectious disease that might come under their notice, and stated that every practitioner, with one exception, had promised his co-operation. The exception was Dr. Haddon, who objected on the ground of the inutility of reporting cases of infectious disease to a board that possessed no hospital accommodation for the isolation and treatment of patients suffering from these diseases; he very reasonably contended, that a medical officer of health was, without such accommodation at his disposal, comparatively help-

less to deal with these diseases. The chairman of the board urged that there was great difficulty in finding a suitable site for such a hospital, and a resolution was passed that the board should advertise for a site. The Local Board District of Barton and Eccles has a population of about 20,000 persons; and, according to Dr. Buchanan's estimate, should afford hospital accommodation for twenty patients suffering from infectious diseases. There would, however, be an economy, if the Barton Local Board could come to an arrangement with some of the neighbouring local boards for the erection of a joint hospital for the treatment of these diseases.

GRATIFYING TESTIMONIAL.

THE many friends of Mr. Stone will be glad to learn that, at the last meeting of the Council of the Royal College of Surgeons, it was moved by Mr. Hancock, seconded by Mr. Hilton (both ex-presidents), and resolved unanimously:

"That on reappointing Mr. Thomas Madden Stone to his office for the first time since he ceased to be resident in the College, the Council do record their appreciation of the services he has rendered during many years.

"The Council estimate very highly his watchful care of the College premises, and his active and judicious supervision of the College servants in the discharge of their several duties; and, especially, they thank him for the zeal which he has always shown for the honour and welfare of the College, not only in the performance of his appointed duties, but in all his intercourse with the Fellows and Members, and with the students of the medical schools.

"That the foregoing resolution be engrossed on vellum, signed by the President (Sir James Paget) and presented to Mr. Stone."

Mr. Stone's services to the College of Surgeons have been life-long, and there are few of its members and friends who do not know how thoroughly he has made that service a labour of love, and how ceaseless and untiring have been his efforts to add to the popularity, the repute, and the success of the College. His personal kindness and warm-hearted sympathy shown to candidates have endeared him in a singular degree to many thousands of professional men.

MILK-POISONING IN ST. PANCRAS.

WE are favoured by Dr. Stevenson with the following extract from his report on the health of the parish during June 1876. "Three cases of enteric fever having occurred in the Regent's Park sub-district, in well-appointed houses, I was led to make a searching investigation into the possible causes of the disease. I could not detect any defect in the houses to which I could attribute the origin of the malady; and there appeared to be but one circumstance in common to them, the milk which was supplied by one retailer. The mother of one of the patients complained that the milk was dirty. I, therefore, wrote to the milkman respecting it. He replied: 'I can assure you every care is taken with utensils and otherwise to prevent such a thing happening. A little dust will in many ways obtain access to the milk, be as careful as we will; but your letter will make me far more vigilant even than I have been'. I have already taken every precaution, where there is the least chance of anything happening, and I trust my extra endeavours will be crowned with success. Nevertheless, I deemed it advisable, the farm being situated in the country, to ask the medical officer of the district to examine the farm for me. He informed me that a more likely place for mischief to proceed from it is difficult to imagine. He adds: 'Until the last day or two (? There is obviously a very new railing) the cows have had access to a pond containing crude sewage, a culvert opening directly into it, and bringing sewage from some twenty houses in the village. The garden surrounding the house is skirted with a sewage ditch, which ends in a brick culvert as it passes through the farm yard, and discharges into the pond before mentioned. In the garden there is another pond containing muddy water. There is a shallow fifteen feet surface well containing a few inches only of water. There is a rusty iron-covered tank, containing a few inches of filthy water. From either one or other of these sources comes the water-supply. I was told the water was

filtered; that some had been brought from London to clean the pails and pans, etc., but I saw some of this filthy water in a large milkcan, said not to be in use for milk, and also in two pails said not to be milk-pails. . . The dairy, so-called, is simply an offset from the scullery of the house, not too clean, and badly ventilated.' As far as he can ascertain, there have been no cases of enteric fever in the adjacent village. The farmer supplies one of the largest refreshment contractors in London with milk. Obviously, more stringent powers are required by rural authorities than they at present possess to secure cleanliness of dairies and protect the public against poisoning by impure milk. I shall watch with interest to see if any fresh cases arise in the walk of this particular milkman, who would have us believe that he has water carried from London into the country to cleanse the milk utensils. I am bringing all possible pressure to bear upon the dairyman to secure greater care and cleanliness; and, unfortunately, I do not think anything more than this can be done by the sanitary committee. Three cases of enteric fever referred to above were as follows. A child, aged three years, attacked on June 8th or 9th; maculæ appeared on June 16th. An under nurse attacked on June 12th; maculæ seen on the 20th, when she was admitted into hospital. The disease was pronounced to be typhoid on June 18th. A girl, aged eight years, was attacked June 13th-14th; maculæ observed on June 18th or 19th." It is certainly quite time that the by-laws should be issued for the regulation of the London dairies and dairy-farms which Mr. Sclater-Booth announced some months since to be in preparation.

LONGEVITY.

A REMARKABLE case of longevity is reported in Virchow's *Archiv*, by Dr. Ornstein of Athens. The man, George Stravarides, died in Smyrna, at the age of 132 years. Although this Methuselah had always lived an irregular life, and had consumed an average of more than a hundred drachms of brandy daily, he retained full possession of all his five senses, as also a complete set of teeth, up to the moment of his death. He also continued to the last to attend to the duties of his avocation—a baker. This man was born in 1743, in the reign of Mahmud I, and lived during the reigns of nine sultans.

SUMMER MORTALITY.

AT this season, when the returns of the Registrar-General show that hundreds of deaths of infants are each week referred to diarrhoea in our large towns, the deliberate opinions of medical officers of health in large urban districts acquire exceptional value. Mr. George Turner, the medical officer of health for Portsmouth, in his report upon the health of that borough during 1875, pronounces that common diarrhoea is, in his opinion, an "eminently preventible disease". It is well known that the epidemic prevalence of this disease is of comparatively modern date, and this is attributed, by Mr. Turner, in a great measure to the increasing tendency to use artificial food for infants, which among the poorer classes is generally of an inferior quality, and ignorantly administered. The average age of the children who died from diarrhoea in Portsmouth, during 1875, was little more than seven months, when the child should be, but seldom is, restricted to a milk diet. When infants of the working classes are artificially fed, they get little milk, and this is generally, through want of cleanliness and the inherent difficulties in the way of distributing and storing it in small quantities in crowded towns, more or less unfit for use. This subject has been carefully dealt with in a recent report by Dr. Goldie, the medical officer of health for Leeds, and is one well worth the serious attention of practical sanitarians. Next to improper feeding with unwholesome food, Mr. Turner considers that ignorance and neglect of the danger and insidious character of diarrhoea, as a disease, is the most fertile cause of its fatality. Diarrhoea in its early stages is habitually neglected by parents among the working classes, and moderate symptoms are often allowed to continue for eight or ten days, or even for a fortnight, until the weakened child at last rapidly collapses, and medical aid, when at last called in, is powerless to effect a cure. Fatal diar-

rhœa is almost peculiar to the children of the poor; children of persons in easy circumstances, although attacked by the disease in considerable numbers, seldom suffer severely, owing to a better appreciation of the necessity for treating it on its first appearance.

A CHARGE OF MALAPRAXIS.

AN action brought against a surgeon at Malvern, for producing death by laceration of the bowel, in introducing a No. 6 bougie in treating a case of stricture of the rectum, has terminated wholly in his favour, the verdict being "for the defendant, who is a skilful man, and leaves the court without any stain upon his skill or character". The laceration was above the stricture, and the evidence of the surgeon was to the effect that it was due to a sudden lurch of the patient after the bougie had passed through the stricture. The risks of practice are great, and we congratulate the defendant on having cleared himself of all imputation. We fear, however, he must still be a sufferer in expensès, in addition to the anxiety and annoyance inseparable from such charges.

HOSPITAL SATURDAY FUND.

The Council of the above Fund met on Saturday last, at the offices, Leicester Square. Captain Mercier presided. It was reported that the arrangements for this year's collection, on September 2nd, are in a forward state. The Home Office has again sanctioned the collections in the streets by ladies. The Steamboat Companies have given permission for collection-boxes to be placed on the river steamers during Hospital Saturday week. The Foresters have made a grant. Every facility will be afforded by the Post Office, Police, Fire Brigade, and other administrations, for collections amongst employes, and there is every reason to anticipate a successful result. It was resolved, "that under no circumstances should working-men, members of the Council, receive remuneration for services rendered"; and "that the plan for this year's distribution be forthwith settled, so that the collection may be apportioned without delay amongst the hospitals and dispensaries". Gentlemen, wishing to make suggestions as to the "plan", are invited to communicate with the Council before the end of the month (July).

THE TEMPERANCE QUESTION.

DR. EAMES BROWN of Llanbister, Radnorshire, writes to us: It has several times occurred to me that the medical profession is particularly interested in the temperance question, and I think more so than any of her sisters, especially in a sanitary point of view. Is it not possible to have this subject taken up in earnest, discussed, and thoroughly ventilated by the British Medical Association at their approaching annual meeting about to be held in Sheffield, and for steps to be immediately taken to ascertain the views of the members of the Association, at least, if not those of the members of the entire profession, upon using their united and individual influence upon members of both Houses of Parliament to support Sir Wilfred Lawson's Permissive Bill now before Parliament?

MULTIPLICATION OF LOCAL BOARD DISTRICTS AND OF SANITARY AUTHORITIES.

THE Local Government Board have announced their intention shortly to issue an order creating a Local Board District of Salfley, situated in the parish of Aston, near Birmingham. The hamlet of Salfley, which will thus become an urban sanitary district, and no longer form part of the rural sanitary district of Aston, contains a rapidly increasing population, which was enumerated at 2,842 in 1861, had risen to 4,120 in 1871, and now probably exceeds 5,000. The multiplication of these small local board districts, and consequently of urban sanitary districts is, however, of doubtful advantage to sanitary organisations unless they become parts of large combined districts. It is only in combined districts, and indeed only by combination of authorities, that the important matters relating to sewage and water-supply can be satisfactorily dealt with. It is, moreover, only in large or combined dis-

tricts that it is possible to secure the services of thoroughly efficient medical officers of health, whose entire services are devoted to public hygiene. It is to be regretted, that many of the small local board districts around Birmingham are not, for sanitary purposes, under the provisions of the Public Health Act of 1875, formed into one combined district, under one officer of health. Such an arrangement would be as advantageous to the sanitary welfare of Birmingham as to that of the surrounding townships, which, although lying outside the present boundaries of the borough, really form part of that metropolis of the midland counties.

QUESTIONS IN PUBLIC MEDICINE.

THE following are the special questions for discussion in the Health Department of the Social Science Congress, to be held at Liverpool in October next.

1. What is the best mode of making provision for the supply and storage of water (1) in large towns, such as Liverpool and Manchester, (2) in groups of urban communities of lesser size, such as exist in the manufacturing districts of Lancashire and Yorkshire?
2. What further legal enactments, if any, are required with a view to arrest the spread of infectious fevers, and how far national and municipal registration is desirable as a means thereto, and, if so, what should be the nature of such registration?
3. What amendments are required in the legislation necessary to prevent the evils arising from noxious vapours and smoke?

SCOTLAND.

ELGIN DISTRICT LUNATIC ASYLUM.

A MEETING of this Board was held in Elgin last week, to consider the report of Dr. Arthur Mitchell, Commissioner in Lunacy, on the Elgin District Asylum. Dr. Mitchell reported, that the mortality in the asylum since 1873 had been abnormally high. The health of the patients was lower than formerly, they were less contented, and it could no longer be regarded as some mitigation of a poor lunatic's misfortune that his support fell on a Morayshire parish. Owing to great scarcity of water, diarrhoea was very prevalent; the supply of milk was insufficient, and, in consequence of scarcity of water, none of the blankets had been washed at the time of the Commissioner's visit. A Committee who had considered the report, entirely denied the accuracy of its statements, and held that it was unwarranted and misleading, that it was replete with studiously specious and plausible misrepresentation, and a gross libel on the district board. They recommend that prompt measures be adopted to vindicate the character of the institution. The Board unanimously adopted the Committee's report, and resolved to ask the Home Secretary to appoint a gentleman, other than a Commissioner in Lunacy in Scotland, to inquire into the truth of Dr. Mitchell's reports.

WATER-SUPPLY OF PERTH.

AT the monthly meeting of the Water Commissioners for the burgh of Perth, a report by Mr. Bateman of London, on the proposed new schemes for supplying water to the city of Perth, was read. About ten different sources for a water-supply had been spoken of, these being different lochs, rivers, and burns in Perthshire; but Mr. Bateman considers that the best of all the schemes is to extend the present system of pumping water from the filter-beds in the Tay at Moncrieff Island. Mr. Bateman speaks thus of the water constituting the present supply. "The water so collected is of very great purity—it is equally good in high and low water—and, notwithstanding the sewage of the city which is poured into the river above the island, the water is not only remarkably pure, according to chemical analysis; but, as I am informed, and as I had in part the opportunity of observing, it is bright and brilliant under all circumstances of the river. This is due, no doubt, to the great extent of sand through which the water must filter before it enters the collecting drains. I am convinced no better water could be procured anywhere; and, I am also convinced, that an enlargement and improvement of these works will enable the city to

obtain an abundant supply at less cost than going to distant places." He recommends the erection of new reservoirs on the Burgh Muir at an elevation of three hundred and thirty feet from the centre of the city, and increased power in pumping the water from the river, by which an excellent and fully adequate supply could be provided for all the parts of the city and suburbs. The cost of this extension is estimated at £30,000. The report will be discussed at the next meeting of the Commissioners.

GALASHIELS.

A LARGE and recently built suburb of Galashiels, comprising a number of streets, and probably not less than two thousand inhabitants, has had its water-supply cut off by a landslip. The company's supply-pipe was carried past the head of a quarry twelve feet deep from the face of the rock, and twelve feet under the surface. Lately, the lessee of the quarry has been excavating rock below, and the company have several times warned him against proceeding further, and at length procured an interdict against his continuing the excavating operations. On the night of the 18th, a great landslip came away, carrying the pipe with it, and effectually cutting off the water-supply from the district mentioned.

EDINBURGH UNIVERSITY BOTANICAL CLASS.

ON July 21st, the prizes were presented to the successful students of Professor Balfour. The systematic class numbered three hundred and forty-three students, and the practical class sixty-six. A very large number of specimens of living plants have been used to illustrate the lectures and demonstrations during the session. There have been nine excursions, during which, six hundred and fifty species of plants have been collected. After the prizes had been awarded, an address was presented to Dr. Isaac B. Balfour, who had conducted the systematic class during his father's late illness. The address testified to the ability, energy, and success with which the class had been conducted.

IRELAND.

AT a recent meeting of the Dispensary Committee of New Ross, it was unanimously resolved that Dr. Rossiter, late medical officer of the district, should receive the full superannuation which the Act provides.

PHARMACEUTICAL CHEMISTS.

It is stated that Sir M. Hicks-Beach has agreed to accept Mr. Errington's amendment to the Juries Procedure Bill (Ireland), exempting pharmaceutical chemists from serving on juries. This result was expected; they are thus placed on an equality with their brethren in England, as regards this matter.

THURLES CORONERSHIP.

LAST week, Mr. Cormack was elected coroner, Dr. Calahan's nomination being refused, on the ground of not being qualified. An objection to the appointment has been lodged by the latter, and it is understood that the matter will shortly be brought before a legal tribunal.

THE IRISH PUBLIC HEALTH BILL.

WE understand that the Dublin Sanitary Association have had this Bill under consideration, and have invited a conference of the Irish Medical Association, and the College of Surgeons, and the College of Physicians to discuss some important clauses in the new Act. As, however, we find that Sir Michael Hicks-Beach has not the slightest intention to pass the Bill this session, any action which these bodies may take in the matter of memorialising Parliament must necessarily be deferred to a future occasion.

BELFAST HOSPITAL FOR SKIN-DISEASES.

THE eleventh annual meeting of the committee of this Institution took place on the 5th instant. During the year, 923 patients were under treatment in the wards or at the dispensary attached to the hospital.

The committee regret the continued apathy that exists among the majority of the public towards the charity, the result being that a balance of £121 is now due to the treasurer. They acknowledge, however, their grateful thanks to Lady Johnston for her donation of £1,000 towards the funds of the hospital.

THE VIVISECTION BILL.

MOVEMENT OF THE BRANCHES OF THE BRITISH MEDICAL ASSOCIATION, AND OTHER BODIES.

METROPOLITAN COUNTIES BRANCH.

A LARGELY attended meeting of this Branch and of other members of the medical profession resident in London was held on Wednesday, July 26th, at St. George's Hall, Langham Place, for the purpose of considering the Vivisection Bill introduced into Parliament by the Earl of Carnarvon.

The chair was taken at eight o'clock by JONATHAN HUTCHINSON, Esq., the President of the Branch.

The CHAIRMAN (who was received with cheers) said it was incumbent on him first of all to explain his position with reference to this meeting. He was only present in the position of Chairman by virtue of his being the President of the Metropolitan Counties Branch of the British Medical Association, and not because he had taken any special part with reference to the Vivisection Bill; though, in respect to that Bill, his views were entirely in accord with the views of those who called the present meeting. [*Hear, hear.*] This was, he believed, the first meeting of the profession which had been held in reference to the Vivisection Bill, and it had been called under somewhat peculiar circumstances. It would be within the knowledge of all present that the Bill was placed before the profession some two months ago, and that it then excited feelings of the most intense indignation; this feeling evoked from the individual members of the profession, was followed by measures of remonstrance from various medical bodies, of which the British Medical Association was only one. He was, however, proud to say that the Association took a prominent part, and that the profession generally were unanimous in condemning the Bill. Memorials against the Bill were presented by other bodies representing different sections of the profession, and amongst others by the College of Surgeons, by the College of Physicians, by various bodies in the provinces, and by the Society of Physiologists—they all, in fact, agreed in making the same representation against the Bill. So far as the British Medical Association was concerned, it was an Association admirably adapted for dealing with such questions. Its machinery could be put into action at very short notice. It possessed a Parliamentary Committee, presided over by Mr. Ernest Hart, a gentleman who was most able, indefatigable, and truly alive to the interests of the profession. [*Hear, hear.*] That Parliamentary Committee made a careful examination of the Bill, and afterwards framed certain modifications of its provisions which were printed and circulated. These circulars had the effect of developing professional sentiments, and indicated the lines on which they ought to work. In this matter, the profession had acted with rare unanimity—[*cheers*]—there never was a question on which they were so unanimous; there never was a question which evoked such general indignation amongst the leaders, and incensed the greatest amongst them to use such terms of reprobation and sarcasm. [*Renewed cheers.*] Well, then, these combined remonstrances were addressed to the authorities who had the charge in Parliament of the measure for the restriction of vivisection. The result of these remonstrances had been remarkable, and the effect produced exceeded anything which even the most sanguine amongst them anticipated. At the present moment, professional opinion had much changed from what it was a month ago; and the opinions of those who had the Bill in charge were within the same period so greatly modified that they (the Association) were now inclined to press not only to the utmost the modifications which the Association at first suggested, but they were also inclined to go further. The programme of amendments framed by this Association brought into action various medical bodies—and the College of Physicians amongst them—and, first of all, they went to work to get certain modifications of the measure. Then having given the matter more mature and exhaustive consideration, the resolution was come to that it was desirable that the Bill should be totally rejected, notwithstanding that several, and amongst them some of the most important modifications suggested, had been acquiesced in by the Government, so that it was not too much to say that their efforts had been attended by remarkable success. [*Ap-*

plause.] The evidence of the spirit which was abroad in the land convinced him that, if they were to converse with half-a-dozen educated men not in any way connected with the profession on the subject, five out of every six of them would, in the most unqualified manner, say that so far as they could see, the Bill introduced by the Government had better be abandoned. [*Hear, hear.*] That being so, they were now in a position to say, that they thought that the prejudice which existed a short time ago—a prejudice which they did not view with any sort of surprise, since it was excited by certain exaggerated statements which were put forward for the purpose of arousing the popular feeling—had considerably abated. Under a calm consideration of the facts of the case, the clamour which had been raised against vivisection had subsided, and they could now appeal against the Bill with a better chance of success than they had even a month ago. He thought it incumbent on him here to acknowledge somewhat officially (the sentiment, he was sure, was felt unanimously by all whom he had communicated with on the subject, and the feeling was not confined to members of the Association) the courtesy which they had received at each conference from the various members of Her Majesty's Government. [*Hear, hear.*] Those members of the Government who had charge of the Bill had, on every occasion, received the suggestions which had been made with courtesy, and with an apparent desire to be enlightened on the subject. And then the public papers had done much towards educating the public on the question, and they had backed up the efforts of the Association, and of the various medical Colleges in this direction. He would now pass on to the more special business of the evening. It would be known to most of those present, that the Bill had received many important modifications, and those who had recently had a conference with the Home Secretary, Mr. Cross, stated that he was willing (he did not pledge himself to any promise) to make further modifications; and the various representations which had been made to the Association and to the College of Surgeons, held out the hope that the Bill might yet be modified in a much greater degree; that some of the existing clauses might be taken out, and others treated in a different way. [*Hear, hear.*] The Committee of this Branch of the British Medical Association had held meetings to consider the question, and at last it was thought that it was its duty to call a general meeting of its members. Hitherto what had been done had been done by the Committee, and the discussions which had taken place had taken place in what he would term conferences. But now it was thought that the business had so far progressed, when it would be for the best interests of the profession at large, that a general meeting should be held, at which the attendance of all registered practitioners in London should be invited. Hence the present meeting, to which the members of this Branch of the British Medical Association had been invited, as well as the registered members of the profession in the metropolis; and if there were any gentleman present who was not a member of the Association, he would still be entitled to speak to the resolutions, and his vote would be counted. Mr. Hutchinson then proceeded to explain the present position of the Bill, and the various opinions which had been expressed in relation to it.

Dr. ANDREW CLARK moved: "That this meeting, although fully recognising the improvements effected in Lord Carnarvon's Cruelty to Animals Bill in its latest form, is still strongly of opinion that, should it become law, the progress of science will be most seriously hindered, and the interests both of animals and of men much prejudiced". He was of opinion that the Bill, as it now stood, was unwise and unstatesmanlike; unjust to the profession, detrimental to the interests of society, and an obstruction to the progress of knowledge in England; and on these grounds it should receive, not only from the British Medical Association, but from the profession at large, an implacable and untiring opposition. [*Hear, hear.*] We should not rest until we had shown Ministers such an opposition front that they would not attempt to write this measure in the Statute-book. The Chairman had said that they should not speak on the question in angry tones; but he somewhat differed from this dictum, admirable as it was as a rule, for he thought that there were times when resentment was a duty as well as a privilege. [*Hear, hear.*] If a man were to insult him, he should think himself a coward if he did not strike him back. [*A laugh.*] He for one counselled plain speaking. The objection to vivisection was, in his opinion, growing amongst the people of this country; and, if they did not take great care, the probability was that they would get a much worse Bill. There was so intimate a relation between physiology and medicine that the one could not be separated from the other, without doing injury to both. Disease, they all knew, was not a thing, but a state; in disease, he apprehended, that there were no new laws in operation, and, if he understood the matter aright, the physiological laws were the same, only acting under different conditions. If

they followed the history of medicine, it would be found that all advance in medicine followed an advance in the knowledge of physiology; and the best physician was always found to be the man who had the largest knowledge of experimental physiology. To stop the progress of practical physiology would, therefore, be to stop the progress of practical medicine; and if the two were so closely allied, was it not clear that we should give every facility to the advance of physiology, in order to advance medicine? The State and society might both try to stop the progress of physiological knowledge, but it was not to be stopped; all the barriers which might be raised against it, whether penal or moral, would be cast down, for if they were stopped from experimenting upon animals, then they would have to experiment upon man. [*Cheers.*] This Bill, as it stood, if it were to pass (even if it were modified, as some of the leaders amongst the physiologists would have it), would be a grievous thing, as it would tend to establish a class distinction between professional physiologists and general practitioners. Such a result as that would be most deplorable; he would have men physiologists and general practitioners as well. [*Hear, hear.*] But this Bill would, if passed into law, create a distinct barrier between physiologists and general practitioners. There was another consideration which the framers and promoters of this Bill ought to have in view before they passed it. It was said the other day that the sphere of the action of medicine was greatly increasing; and it was surely the business of statesmen to encourage the study and practice of a science of so much importance to the human race. What were they doing to encourage the study of medicine? Nothing at all. But, on the contrary, they were doing all that they possibly could to discourage it; and it required no prophetic vision to see that, if this Bill were passed, history, in the future, in telling the story of human development, will have to show how a Conservative Government, resting on an excess of power, listened to a clamour of weak sentimentalists, and cast England from the proud position which she had previously held in the intellect of the human race.

Dr. PAVY seconded the resolution. He said they had arrived at the culminating point of the discussion which had been agitating the public mind for the last fifteen years. During that period, the public mind had been influenced by the false statements which had been made by various persons, and this had resulted now in a Bill, proposed for the suppression of vivisection. That being so, the culminating point of the discussion had been arrived at with regard to the question, and he had no hesitation in saying that the proposed Bill was unacceptable to physiologists in its present shape. It had been sent down from the House of Lords, but it was only slightly modified compared with its form as originally proposed in that house. He regarded the title of the Bill as objectionable, the short title being "Cruelty to Animals Act", a title which seemed to imply that physiologists were guilty of an infliction of unnecessary pain to animals. He associated "cruelty" with the wanton infliction of pain, and so it appeared to him that the Bill was in the highest degree objectionable. Dr. Pavy then criticised at some length the provisions of the Bill in regard to the restrictions imposed, the exemption of dogs and cats from vivisection, the system of licences, etc. It appeared to him that the Bill, in its present form, was a bill to restrain the advance of physiology. The statements made from time to time in the public press, had convinced many that a Bill of this kind was necessary. But these statements were so garbled that one could hardly reconcile their descriptions with the fact. He had been astonished at the way in which the description of an experiment, which he had personally conducted some years ago, had been referred to in a recent leader in the *Daily Telegraph*. If the description had been reported faithfully, it could not have been applied for the purpose for which it was applied. And this kind of thing had been constantly done. The Royal Commission had decided that no strong measure against vivisection was needed. A little time ago, he had a visit from the committee appointed by the Society for the Prevention of Cruelty to Animals. They came to Guy's Hospital among the rest, and were shown over the physiological department; and they said that they could not see any abuse, or that anything requiring repression was carried on there. With regard to medical students, and the effect of vivisection upon them, the speaker said that no person in London would dare to go into the lecture theatre of a hospital, and perform experiments which would inflict pain on an animal before the students; or, if he did it once, he would not dare do it a second time. He objected to the registration of places for experiments, as it appeared to him that the registration of the individual should be sufficient. Physiologists were in a different position now from what they were a few years ago. A short time ago, the medical profession did not come forward; but now the case was different; and he thought that they would get what they wanted, viz., a modification of this Bill which would be acceptable to physiologists.

Mr. BRETT supported the resolution, and insisted on the necessity of preserving intact their liberty of research.

Dr. FITZPATRICK thought that nothing could be more admirable than the spirit in which the Chairman spoke of the disposition to accept, with a certain amount of consideration, the views of those who were opposed to them on this question; for he thought it was a mistake to underrate the force of a popular opposition, an opposition so powerful, that the best constituted powers in modern days had at various times been obliged to yield to its pressure. He believed that those who opposed vivisection were animated by high and honourable motives, and where they departed from vivisectionists it was through misconception of the whole question.

Dr. WYNN WILLIAMS also supported the resolution. He spoke of some experiments which he had performed on guinea-pigs, to ascertain the effect of iodine in preventing fatal results from inoculation with septic matter. Had the Bill been in operation he would never have made these experiments, as he would have been obliged to have taken the trouble to get the requisite license.

The motion was put to the meeting, and carried with but one dissentient.

Dr. BARNES moved the next resolution: "That this meeting would urge upon the promoters of the Bill that legislation on this subject should be abandoned for the present session." The Bill had undergone such an amount of vivisection, that it was comparatively dead; and they might, therefore, now proceed to dissect it. It was, he thought, impossible to remodel the Bill so as to get a result satisfactory to the medical profession this session; and it was, therefore, desirable that legislation on the subject should be abandoned for the present session at least. From the debates which had taken place on the Bill in the House of Commons, it was very evident that honourable members required information on the subject as well as the general public. He had had conversation with several members of Parliament on the subject, and they one and all confessed that they "knew nothing about it". [*Cheers.*] And yet these gentlemen, who confessed that they were ignorant of the subject, were called upon to legislate upon it. The remark of the Earl of Shaftesbury to Professor Huxley might well be made to these honourable and right honourable gentlemen: "And you dare to legislate about things about which you know nothing." [*Renewed cheers.*] He said, let them wait and learn. [*Hear, hear.*] Information of the proper kind on the subject was being gradually gained, and truth was supplanting falsehood and calumny. The calm intelligent portion of the press was coming round, and that must have a preponderating influence; and, if they waited for a short time, then legislation—if there were legislation on the subject in the future—would be on a broader basis. The Bill, as at present framed, placed the Home Secretary, in his opinion, in a most piteous position, for on him was thrown the responsibility of saying what experiments were and what were not necessary. Was there any person in that room who would venture to occupy such a position? Would either of them dare to limit the progress of science by saying, "You shall not make such and such an experiment"? Would any of them dare to do so? [*Hear, hear.*] But this was the position in which the Home Secretary was placed; and a learned profession was placed at the mercy of a Home Secretary, who to-day might be a man of science, but to-morrow we did not know what he would be. [*Cheers.*] But what was more absurd was this, that power was given in the Bill to a judge to exercise the same functions as the Home Secretary; for in a criminal case, where the judge might think necessary, he might order experiments to be tried and tests made, just as though science could be improvised by the order of a court—just as if science could be got to order like a lawyer's eloquence or so much merchandise. This Bill he regarded as the product of the hysterical school of politicians—[*hear, hear, and cheers*]—that school which mistook emotion for facts and argument. What was wanted was time to reconsider the whole question. Information was not so catching as emotion, and time was wanted for information to spread. One branch of science could not be dissociated from the rest in an arbitrary manner. Physiology and pathology depended one upon the other, and there were the most intimate relations between biology and chemistry. "Question Nature," said Bacon; and in the practice of vivisection they were questioning Nature in the interests of humanity. If vivisection for so high and noble a purpose were not to be permitted, then what was to be said of what was termed "sport"? It might be said that hunting was a passion or instinct implanted in the human breast, and practised by all nations, in all ages; that it was an irrepressible instinct that could not be dealt with by any protective measure; but there was another passion in men, a passion which some men would endure death itself rather than abandon, it was a passion for pursuit, but pursuit with a higher aim than field-sports, it was the

pursuit of science. How could we reconcile it to our common sense to see the sportsman who, after cutting off the "brush" from the fox, and throwing its quivering and bleeding remains to the dogs, enters the House of Commons a few hours afterwards and votes against vivisection? The question involved was not a question of patriotism, but of humanity. History had to regard, and would regard hereafter, the progress of the country, in arts, sciences, and literature. History was no longer so much an account of battles and conquests as it formerly was, but held that the true test of a nation's greatness was its progress in art and knowledge; and, if the Bill passed, it would be said by history that this country, which had produced some of the greatest physiologists in the world, had been put down from its high estate, and become the scorn of intellectual nations. Gentlemen who had had some experience of correcting for the press would know how difficult it was to remodel a Bill. The Bill now under consideration required to be entirely recast. It should be framed on new principles and new lines, so that an Act might be passed which, whilst it preserved the rights of science, would preserve animals from the torture of useless experiments. [*Applause.*]

Mr. WILLIAM ADAMS seconded the motion. He thought it was very desirable that the question should be postponed for another session; and, if that were done, an opportunity would be afforded to disseminate that knowledge on the subject which was so much required. He did not, however, hope that during so short an interval they would be able to overcome the prejudices of the fanatical leaders of the anti-vivisection movement. Still, with time, they might hope to enlighten the public and bring about a better state of public feeling on the subject.

Dr. EDWARDS CRISP remarked that the Chairman stated that some of the most celebrated physiologists were anxious that the Bill should pass in a modified form, because it would legalise their acts. He believed that great evils would result from the passage of the Bill, as it would tend to produce specialists amongst physiologists. He hoped that the Bill would not pass this session; and that, when the matter was better understood, there would be a sufficient Bill.

The CHAIRMAN thought he must have been misunderstood. He did not desire to limit vivisection to those who had laboratories; and he agreed with the previous speaker that it would greatly prejudice science if the performance of experiments were confined to a certain class. [*Hear, hear.*]

The resolution was then put and carried unanimously.

Mr. JOHN GAY moved: "That in the event of its being thought necessary to propose legislation on this subject in the future, this meeting would suggest as alternative measures (1) an act of simple registration of persons licensed, on the plan of Dr. Lyon Playfair's proposal; or (2), which would be much preferable, an Act in extension of Martin's law, applicable to cruelty of all forms to all animals, but exempting, under certain regulations, experiments performed solely for the advancement of science." He hoped that the alternative measures proposed in this resolution would not be required, but that the Bill would be thrown out. He did not think that the feeling against vivisection was so wide spread as we had been led to suppose; the feeling had been excited by popular persons of high social position and great reputations for humanity; but the excitement, so created, would by and by subside. Martin's Act, he thought, was not sufficiently comprehensive, and he hoped that neither alternative would be pressed on them.

Dr. WILSON FOX said that it was necessary for the morality of the whole country, and for the welfare of the whole profession, that an inquiry should be conducted in a different form than it had been conducted. There were two or three conditions affecting this Bill, which made it impossible for any honest man to carry it out conscientiously. It was left by the Bill to the Home Secretary to judge what experiments were necessary and what unnecessary, but no man could judge of another man's experiments. Besides, it would be impossible for any man to carry out the provisions of the Act in this country, where his actions would constantly be made the subject of misrepresentation. He was sorry to say that, in this case, misrepresentation was one of the most powerful weapons which had been used against them in the legislature; and, in reading over the debate which took place in the House of Lords on the subject, he found that the noble earl who introduced the measure, misquoted the evidence of Dr. Klein, who, imperfectly acquainted with our language, misunderstood the question put to him, and the evidence which he gave under such circumstances was that greatly relied on for the carrying of their Bill. Dr. Klein may, therefore, be said to have been a martyr in the cause. Dr. Klein's evidence, as he (Dr. Fox) read it, was that he did not, except in cases of painful experiment, give chloroform. Such misrepresentation had been made, that he thought it was time for the

profession to ask for legislation. They had heard what the House of Lords had had to say with regard to "sport", and the fact was, they tried to ignore it. The noble earl, introducing the Bill, said that there was no similarity between "sport" and vivisection; and the noble earl seconding the measure, said he did not shoot. But the noble earl owned large estates, and did he not allow his friends to come down and shoot over them? The sufferings of the winged bird, of the wounded deer, were far greater, and the wound, so inflicted, much more cruel than any wound inflicted in the course of experiment. The question of hunting was answered by one gentleman before the Commission, who asked what the Committee would think of the humanity of a person who had a machine in his drawing-room with which he hunted an animal; and hunting with a well trained pack of hounds in a field, was in fact hunting with a well trained machine. The whole question, and not the particular matter of vivisection, required legislation. The medical profession repudiated with scorn the suggestion that they required any special legislation—[*hear, hear*],—and they challenged the legislature to make a law to meet the requirements of society. [*Renewed cheers.*] The medical profession could submit their actions to the light of day, and all they desired was, that the legislature would introduce a measure which would meet the real just demands of suffering animals throughout the country. He thought that the report of the Royal Commission had attempted to reconcile some irreconcilable agitators, but there was nothing which could satisfy them. The Royal Commission said plainly that there was no proof of the existence of cruelty amongst vivisectionists. The charge of cruelty against students could not be maintained; he protested against the requirements of the profession only being made the subject of legislation, and he hoped that next session an honest Bill would be brought in.

Dr. STEWART would leave with the Government the responsibility of proposing what was proper to be done. They were not unwilling to be subjected to restrictions. What they said was that they objected to be singled out for special legislation. He suggested that the third resolution should be carried in a modified form. He proposed as an amendment:—"That, in the event of its being thought necessary to propose legislation on this subject in the future, this meeting would suggest as alternative measures—1. An Act of simple registration of persons licensed; or 2. An Act dealing with the whole subject of cruelty to animals."

Mr. ERNEST HART seconded the amendment.

After some conversation, in which Dr. Pye-Smith, Dr. Hare, Mr. Jabez Hogg, Mr. Hart, and other members took part, the proposer and seconder of the resolution withdrew it in favour of Dr. Stewart's amendment.

Dr. HARE proposed as an amendment, and Dr. WYNN WILLIAMS seconded: "That we are prepared to consider and acquiesce in any well prepared Bill for the suppression of cruelty to animals."

Mr. SIMON said that legislation ought to have reference to what might be done with regard to cruelty to animals generally. It was right to prevent the infliction of pain upon animals without reason. They could show good reason for any pain they might inflict; and, if they were to be privileged to inflict pain, this must be by having the position of registered persons, and he thought they must also submit to certain regulations and accept the control of the Government of the country. He believed the Government wished to do justice to the medical profession, but he agreed with the resolution, that legislation during the present session would be inconvenient. In legislating on the question, he thought the word animal should have only one meaning; that a frog, a dog, or a cat should have equal protection. He agreed with Lord Shaftesbury, whom he much respected, and with those who were with him, in what he believed to be the essence of their contention on this question, namely, that experiments should not be made save by those who could rightly estimate their value and duly consider them; and, to secure this, they must be made by registered persons. Everything reasonable should also be done to minimise pain both as to duration and extent. Conditions like these might fairly be claimed by the public. But this Bill was legislation of an emotory character, particularly in its dealing with cats, dogs, horses, and asses. The duty of tenderness was due to all animals, and it was impossible to be in any degree a naturalist without feeling it; nay, he was a true poet who said of a woman—

"Her foot seemed to pity the grass it pressed."

This Bill had been the result of hysterics and calumny, and it was curious to see sportsmen legislating against the cruelty of physiologists. These legislators spent six months of the year in doing their own butcheries in a more or less cruel manner, and they were grossly, even more than femininely, ignorant of the subject they were treating. A proper measure should deal with all cruelty—whether in sport, in the shambles, or in scientific pursuits.

The amendment was negatived; and the motion proposed by Dr. Stewart was carried by a large majority.

On the motion of Dr. QUAIN, it was determined that the resolutions which had been passed should be communicated to the Home Secretary.

The proceedings closed with a vote of thanks to the Chairman.

EAST YORK AND NORTH LINCOLN BRANCH.

A SPECIAL meeting of this Branch was held at the Hull Infirmary, on July 25th, in opposition to the "Cruelty to Animals Bill". JOHN DIX, Esq. was asked to take the chair in the unavoidable absence of the President. The following resolutions were adopted:

1. That this Meeting entirely approves the action taken by the Parliamentary Bills Committee of the Association, in opposition to the "Cruelty to Animals Bill," as at present framed, and for the large amendment of its provisions.

2. That, inasmuch as the Report of the Royal Commission conclusively vindicated the humanity and high character of the professors and teachers of physiology in this country, and the practice of the Medical Schools, and affirmed upon indubitable proofs the vital importance of physiological research and experiment, for the welfare of humanity and the progress of the art of healing—this Meeting is of opinion that no case is made out for any restrictive legislation directed against physiologists, or against the members of the medical profession.

3. That, inasmuch as the Royal Commission have suggested a measure framed upon the analogy of the Anatomy Act, with the view of satisfying the public mind, which has been agitated by calumnies, exaggerations, and mis-statements on the subject, this Meeting would be willing to accept a measure which would extend the provisions of Martin's Act to warm-blooded animals generally; such a measure could then afford security against the unnecessary infliction of pain upon animals generally by any class of persons, including sportsmen, fishermen, trappers, farriers, butchers, agriculturalists, and traders.

4. That a copy of these Resolutions, together with a printed report of the proceedings of this Meeting, be forwarded to Lord Carnarvon and Mr. Cross, and to the Borough and County Members.

5. That petitions embodying the views expressed in these Resolutions, be drawn and circulated in the district of this Branch for signature, and that they be forwarded to the Members for the respective localities, and that such Members be requested to present them to the House of Commons, and to support their prayer.

At a meeting of the Staffordshire Branch held on Thursday, resolutions against the Bill were adopted.

MATLOCK BATH.

MATLOCK BATH is built partly in a valley through which flows the river Derwent, and partly upon terraces of *tufa*, which has been deposited from its warm springs. It is sheltered from the north and east by the heights of Masson and the majestic High Tor, and has the beautiful grounds of Willersley Castle and Masson Lodge raised above it on each side of the Derwent on the south and west.

The thermal springs were discovered about the year 1698, when the first bath was built, but were never minutely examined till last year, when, at the instance of Dr. Webb of Wirksworth, an analysis was made by Dr. Dupré of the Westminster Hospital, and the following is his account of them.

	Grains per gallon.	Parts in 1,000,000.
Chloride of sodium	4.57	65.30
Sulphate of magnesium	9.73	139.00
(Ditto, containing magnesium)	(1.946)	(27.80)
Sulphate of calcium	2.04	29.14
Carbonate of calcium	14.68	209.71
Silica	0.71	10.14
	31.73	453.29
Organic matters—traces of aluminum, minute traces of potassium, lithium, and strontium, and loss	1.03	14.71
Total dry residue, as found by direct estimation	32.76	468.00

The members of the British Medical Association will have an opportunity of seeing this romantic spot on August 5th, after the meeting at Sheffield, and they cannot fail to appreciate its romantic scenery. They will enjoy, also, the hospitality of the profession of Derbyshire,

and be conducted through the grounds of Willersley Castle, and the charming drive to the Via Gellia. To the geologist this excursion will be of a very interesting character; the dipping of the strata in Masson, and the arrangement of them in the High Tor, will give ample scope for reflection upon the past history of this place, where, as Darwin says most truly—

"Deep in wide caves beneath the dangerous soil,
Blue sulphur flame, imprisoned waters boil;
Impetuous streams in spiral columns rise
Through rifted rocks, impatient for the skies."

We look forward to this excursion to Matlock as one of the most enjoyable adjuncts of the Sheffield meeting. The local members of the profession will give their brethren a hearty welcome, and do their best to promote the pleasure and comfort of those who pay Matlock a visit. The following is the programme of the Excursion.

10.10 A.M. Leave Midland Station, Sheffield.

11.12 A.M. Arrive at Matlock-Bath.—N.B. Mr. Howe and Mr. Buxton will meet train, and point out objects of interest.

1.0 P.M. Luncheon at New Bath Hotel (by invitation from the profession of Derbyshire).

2.0 P.M. The grounds of Willersley Castle (by kind permission of F. C. Arkwright, Esq.)

3.0 P.M. The Via Gellia, by Carriages from the Lodge, at Willersley, near Cromford Bridge.

6.0 P.M. Leave Station at Matlock-Bath. (Express stops by kind permission of J. Allport, Esq.)

THE BRUSSELS EXHIBITION.

[FROM A SPECIAL CORRESPONDENT.]

THE International Exhibition at present open here promises to be a great success, not only as a commercial undertaking, but as a means of bringing public attention to bear upon subjects little understood or appreciated by the masses, thereby fulfilling the grand design of its originators.

The literature of hygiene and sanitation is not—and, from the nature of it, is never likely to become—popular. The originators of the exhibition, therefore, very wisely as I think determined, that as books failed in great measure to familiarise the public with the principles of these important subjects, to make an attempt of another kind to accomplish this good object—the attempt to take the form of an exhibition of models, apparatus, and the various processes employed in connection with them for the protection and preservation of life.

The present is the largest exhibition of the kind ever held, and will, I have no doubt, be followed by others on a still larger scale. On other occasions, more discrimination no doubt will be employed in the selection of exhibits. Handsome cabs, harness, candles, perfumery, and the like, should find no place in such displays; and British exhibitors might find it advisable and to their interest, to take a leaf out of the foreign exhibitors' book, not only with regard to the general management of the section—it being a matter of difficulty at present to find out where the articles corresponding to the numbers in the catalogue are—but also in providing a sufficient explanatory notice of each article, so as to give some clue to the visitor as to what is presented to him for his inspection. I have seen people turn away unsatisfied on several occasions since my arrival from exhibits in the British section, unable to find anyone who could explain things which interested them, and which, in many instances were without an explanatory notice of any sort or kind.

An international jury has been appointed for the purpose of awarding prizes to the most deserving of the exhibitors. The jury is divided into ten "class" juries. Each class jury is composed of seven members; four being foreigners and three Belgians. The medical profession is tolerably well represented on the jury. Russia sends Drs. Mueller and Nedatz. Germany sends Dr. Esmarch (who is President of the "class" jury for "assistance to the wounded in time of war"), Dr. Fehling, Dr. Hirsch, and Dr. Liebreich of Berlin. England sends Dr. Sandford Moore. Austria sends Dr. Mosetig. The Belgian representatives are Dr. Bougard, Dr. Martin, Dr. Boens, Dr. Crocq, and Dr. Feigneaux. The "class" juries have commenced their meetings, and their labours will be continued until the 31st instant. Some time during the first fortnight in August the awards are to be made public.

I propose to make a selection of a few only of the many objects of interest which are to be found in the various sections of the exhibition, and bring them to the notice of the readers of the BRITISH MEDICAL JOURNAL.

As to the British section, the juries have commenced their labours.

I am able to put your readers in possession of the remark of some of the *savants* acting as jurymen.

In Class 8, Dr. Hardwicke, Coroner for Central Middlesex, has exhibited a very ingenious apparatus for analysing air. It is intended for the use of medical officers of health. The amount of water, organic matter, and carbonic acid can be determined by its means. It is rather difficult of description without a diagram. It consists, however, of the following parts: an aspirator, and three detached parts; a spiral tube; a chloride of calcium tube; a nest of three tubes, one containing pyroxylin. Two graduated glass bottles joined by means of an airtight brass collar made to fit the necks of the bottles closely, form the aspirator. The brass collar is perforated by a tube provided at each end with a stop-cock; the tube communicates with the interior of the bottles. The same tube is made to rest on a stand and so forms an axis, round which the bottles can be rotated. To bring the aspirator into action, one bottle is first filled with water, and the bottles placed vertically upon their axis, the water-bottle being uppermost; the stop-cocks being then turned, air enters the upper bottle to any required amount by one orifice, and the displaced air leaves the lower bottle by means of the other. The aspirator is peculiar in this respect, that the supply of water is almost inexhaustible, and when the lower bottle becomes full, the apparatus can be reversed, and the lower then becomes the upper, and the motion of the air, no matter how the instrument is placed, always is in the same direction. If an approximate estimation of the amount of water in the air be required, the air is drawn through the spiral tube which is attached for the purpose to the aspirator.

The spiral tube being first inserted into a larger tube partially filled with ice, as the air passes through the vapour is condensed, and falls into a small flask in which the spiral tube terminates. An exact estimation of the amount of water can be made if the chloride of calcium tube be attached to the aspirator and weighed before and after in the usual manner. The amount of carbonic acid is determined by drawing the air through a solution of caustic potash or soda, and then titrating in the usual manner with the standard acid solution the amount of organic matter in the nest of tubes. The innermost one contains a plug of pyroxylin. This is weighed both before and after the experiment; the increase, of course, gives the floating bodies. If the pyroxylin be then dissolved in alcohol and ether, the solids remain for further microscopical or other examination. Dr. Janssens, the Inspector of Hygiene for Brussels, has been so pleased with the apparatus, that he has ordered one to be made for his own use.

The juries made a close examination of the various articles in the British section for use in the time of war. The mule panniers and surgical instruments were very much admired, not only for their solidity, but excellent for their finish. The new pattern surgeon's pocket-case appears to be superior to anything of the kind exhibited, and the same may be said of the lithotomy instruments and aspirator, which is represented by the exhibitor as being a modification of Dieulafoy's aspirator, whereas it really is a modification of that of M. Potin of Paris, who was the first to employ a bottle as a part of the aspirator.

The new pattern ambulance waggon has been universally condemned; 1. From its being too heavy for two horses to draw; 2. From the complicated arrangements intended to facilitate insertion of the stretchers on the floor; 3. From its small fore wheels rendering the draught more severe on the horses. And certainly, on a review of the various wagons intended for ambulance purposes, it is difficult for an unprejudiced person not to arrive at a similar conclusion.

The Order of St. John exhibit their wheeled stretcher only. Frequent inquiries were made as to whether they did this, either from not wishing to exhibit anything else, or from not having anything else to exhibit. It is quite certain that the latter is the reason why the display of ambulance articles, both by the British Government and by the Order of St. John, is of such a very meagre description. To our shame it must be acknowledged, that we have no medicinal waggon, no railway hospital trains, no variety of wheeled stretchers, such as those continental nations have who have kept pace with the improvements in ambulance transport which have steadily been taking place of late years, and as can be seen by every visitor to this exhibition.

Not having these things we cannot exhibit them, but why should we not have them? This is a question which the philanthropic public will require to have answered by the Government some one of these days, in case of England being engaged in a great war. Drs. McNalty and Porter have exhibited wire splints. These are not shown to the best advantage. They should have been opened out, and applied to a lay figure. The exhibitors of wire splints in other sections of the exhibition are almost innumerable.

A specimen page of the clinical register of surgical cases as kept at the Leeds Hospital is well worthy of attention. This gives, besides

the patient's name, address, diagnosis, cause, notes, and treatment, drawings of the disease or operation; and, at a *coup d'œil*, everything that requires to be known about the patient.

Masters and Sons of London show, to my mind, a case of the best artificial limbs exhibited in the whole exhibition; and, in my next letter, I hope to be able to allude to articles of interest exhibited by other countries.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION FORTY-FOURTH ANNUAL MEETING.

THE Forty-fourth Annual Meeting of the British Medical Association will be held at Sheffield, on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1876.

President.—Sir ROBERT CHRISTISON, Bart., M.D., D.C.L., LL.D., F.R.S. Edin.

President-elect.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

An Address in Medicine will be given by E. H. SIEVEKING, M.D., F.R.C.P., Physician-Extraordinary to the Queen.

An Address in Surgery will be given by W. F. FAVELL, Esq., Surgeon to the General Infirmary, Sheffield.

An Address in Public Medicine will be given by ALFRED CARPENTER, M.D., Croydon.

The business of the Association will be transacted in Four Sections, viz. :—

SECTION A. MEDICINE.—*President*: Dr. Chadwick, Tunbridge Wells. *Vice-Presidents*: Dr. J. C. Hall, Sheffield; Dr. Law, Sheffield. *Secretaries*: Dr. Robert Farquharson, 23, Brook Street, London; Dr. Banham, Glossop Road, Sheffield.

SECTION B. SURGERY.—*President*: Jonathan Hutchinson, Esq., London. *Vice-Presidents*: C. G. Wheelhouse, Esq., Leeds; J. Barber, Esq., Sheffield. *Secretaries*: Dr. J. Hardwicke, Chilton Lodge, Rotherham; John Chiene, Esq., 21, Ainslie Place, Edinburgh.

SECTION C. OBSTETRIC MEDICINE.—*President*: Dr. Lombe Atchill, Dublin. *Vice-Presidents*: Dr. E. Jackson, Sheffield; Dr. Thorburn, Manchester. *Secretaries*: Dr. Wiltshire, 57, Wimpole Street, London; F. Woolhouse, Esq., Chantry Road, Sheffield.

SECTION D. PUBLIC MEDICINE.—*President*: Dr. J. B. Russell, Glasgow. *Vice-Presidents*: Dr. Eastwood, Darlington; Dr. F. T. Griffiths, Sheffield. *Secretaries*: Dr. H. F. Parsons, Goole; Dr. S. Drew, Chapeltown, Sheffield.

Local Secretaries.

Arthur Jackson, Esq., St. James's Row, Sheffield.

J. H. Keeling, M.D., 267, Glossop Road, Sheffield.

Tuesday, August 1st.

11.30 A.M.—Service at the Parish Church.

1 P.M.—Meeting of Committee of Council.

3 P.M.—Meeting of Council, 1875-76.

8 P.M.—General Meeting.—*President's Address*; Annual Report of Council; and other business.

Wednesday, August 2nd.

9.30 A.M.—Meeting of Council, 1876-77.

11.30 A.M.—Second General Meeting.

11.30 A.M.—Address in Medicine.

2 to 5 P.M.—Sectional Meetings.

9 P.M.—Soirée.—Weston Park Museum.

Thursday, August 3rd.

9 A.M.—Meeting of Committee of Council.

10 A.M.—Third General Meeting.—Reports of Committees.

11 A.M.—Address in Surgery.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner.

Friday, August 4th.

10 A.M.—Address in Public Medicine.

11 A.M.—Sectional Meetings.

1.30 P.M.—Concluding General Meeting.—Reports of Committees, etc.

Promenade Concert at the Albert Hall.

RECEPTION ROOM. Cutlers' Hall will be fitted as a Reception Room, and will be open at 10 A.M. on Tuesday, August 1st, and on

the following three days at 8 A.M. for the issue of tickets to members, and for supplying all necessary information.

It is particularly requested that gentlemen, on their arrival, will at once proceed to the Reception Room, enter their names and addresses, and obtain their tickets of admission.

Letters should be inquired for in the Reception Room.

PAPERS.—The following papers have been promised.

Alford, Stephen S., F.R.C.S. On the Obstacles which delay our obtaining Legislative Power for the Protection and Treatment of Confirmed Drink-cravers.

Allbutt, T. Clifford, M.D. On some of the Causes of Granulating Kidney.

Andrew, Edwyn, M.D. A New Operation for Closed Pupil.

Bantock, G. G., M.D. On the Treatment of Ruptured Perineum.

Barlow, Thomas, M.D. A Case of Double Hemiplegia.

Berkart, I. B., M.D. On Dilatation of the Pulmonary Capillaries.

Beveridge, R., M.D. On the Occurrence of Phthisis among Granite-Masons.

Bond, Francis T., M.D. On the Legislative Measures which are necessary in order to prevent the spread of Infectious Diseases.

Bradbury, J. B., M.D. A Case of Idiopathic Anæmia treated unsuccessfully by Phosphorus: Death: Necropsy.

Bradley, S. M., F.R.C.S. The Surgery of Syphilis.

Britton, Thomas, M.D. The Origin of Scarlatina.

Broom, John, M.D. A few Therapeutic Extracts from my own Practice.

Browne, Lennox, F.R.C.S. Ed. 1. Cases illustrating the successful Treatment of Suffocative Goitre without Excision of the Gland.—2. Observations on the Treatment of Postnasal Catarrh.

Bucknill, J. C., M.D. The Credibility of Medico-Legal Evidence.

Callender, George W., F.R.S. Cases illustrating the Treatment of Chronic Abscess by Hyperdistension with Carbolic Water.

Carter, C. H., B.A., M.D. On the Treatment of Ovarian Cysts by Drainage.

Cassells, J. P., M.D. The Etiology of Ear-Disease.

Chiene, John, F.R.C.S. Ed. Cases of Irreducible Femoral Hernia.

Collie, A., M.D. Remarks on Contagion and Contagious Hospitals.

Day, W. H., M.D. On Sympathetic Headache.

Diver, E., M.D. The Desirability and the Importance of a more Complete Recognition of our Profession by the State.

Drysdale, C. R., M.D. 1. On Syphilitic Epilepsy.—2. On the Duality of the Chancere.—3. Alcohol and Public Health.—4. Animal Vaccination.

Duncanson, J. J. Kirk, M.D. The Inflammations of the Middle Ear: a. Catarrhal; b. Purulent; c. Hypertrophic.

Eassie, W., C.E. Mechanical Disinfection.

Eastwood, J. W., M.D. On Life-Assurance and Suicide.

Edis, Arthur, W., M.D. On the Influence of Posture in the Treatment of Uterine Disorders.

Elam, Charles, M.D. The Presence and Tolerance of Foreign Matters in the Lungs.

Elder, George, M.B. 1. On Hodgkin's Disease of the Glands: with a Case.—2. Amputation of the Cervix Uteri in Malignant Disease.—3. The Relief of Bladder-pain in the Female by Dilatation of the Urethra.

Foss, R. W., M.D. The Mortality of Ironworkers.

Foster, Balthazar, M.D. Note on Epidemic Cerebro-Spinal Fever.

Fothergill, J. Milner, M.D. The successful Treatment of Dilated Heart.

Fox, C. B., M.D. Dissemination of Zymotic Disease among the Public by Tradespeople.

Fox, Edward Long, M.D. A Fatal Case of Bulbar Paralysis, with illustration.

Fox, J. M., Esq. Sewer-Ventilation.

Frank-Smith, W., M.B. On Hephestic Hemiplegia.

Galabin, A. L., M.A., M.D. On the Mechanism of Extraction by the Long Curved Forceps.

Gowers, W. R., M.D. 1. The State of the Arteries in Bright's Disease.—2. The Diagnosis of Labyrinthine Vertigo.

Griffith, T. D., M.D. On the Necessary Modification of the Nomenclature in the *British Pharmacopœia*, and the present Mode of Prescribing.

Hall, John Charles, M.D. The Effects of Trades of Sheffield on the Workmen employed in them.

Hime, Thomas W., B.A., M.B. 1. Hemiatrophia facialis progressiva.—2. Hysteria.

Holder, William, M.R.C.S. Diseases arising in Lead-Workers.

Holthouse, Carsten, F.R.C.S. On Twelve Months' Experience of the Treatment of Inebriates at Balham.

Hovell, D. De Berdt, F.R.C.S. On Treatment after the Operation for Strangulated Hernia.

Hutchinson, Jonathan, F.R.C.S. [1. On the use of Lead Lotion in the Treatment of Wounds.—2. The Prostatic Catheter of the Future.

Jackson, Arthur, M.R.C.S. Excision of the Hip-joint.

Jessop, T. R., F.R.C.S. On the Use of Carbolised Catgut for Tying Arteries in their Continuity; illustrated by Cases in which the Subclavian, the Brachial, the External Iliac, the Internal Iliac, and the Femoral Arteries, have been tied.

Johnson, George, M.D., F.R.S. On Cases of Latent Peritonitis, with Copious Effusion into the Peritoneum.

Kerr, Norman S., M.D. 1. The Medical Administration of Alcohol.—2. Alcohol in Workhouses and in the Treatment of the Sick Poor.

King, Kelburne, M.D. Antiseptic Surgery as Practised at the Hull General Infirmary.

Lawrence, A. E. Aust, M.D. The Treatment of Women after Labour.

Lowndes, F. W., Esq. Ought the Contagious Diseases Acts to be extended?

M'Gill, A. F., F.R.C.S. The Antiseptic Treatment of Wounds without the so-called Antiseptic Dressings.

Monks, E. H., L.R.C.P. Ed. Jaundice occurring during Pregnancy, and its effects upon Mother and Child.

Oxley, Martin G. B., L.K.Q.C.P.I. Case of Hysterical(?) Paralysis in a Girl aged 8 years, caused by a Thunder-storm.

Parsons, John, M.R.C.S. Eng. On some Experiences of the Coroner's Court.

Pierce, F. M., M.D. The Effects of Child-bearing on Certain Forms of Ear-Disease.

Purdon, H. S., M.D. On the Injurious Effects produced on the Lungs from the Inhalation of Flax-Dust.

Roberts, F. T., M.D. 1. On Abdominal Abscess.—2. On the Varieties of Phthisis.

Rogers, Joseph, M.D. Chaos, as exemplified in Central and Local Sanitary Administration.

Ross, James, M.D. The Presence of Bacteria not necessary to Infection.

Routh, C. H. F., M.D. On Fibrous Tumours of the Uterus.

Sadler, Michael T., M.D. 1. Obstruction of the Bowels from Enteritis, with Cases.—2. Foul Air as a Cause of Enteric Fever.

Savage, T., M.D. On Incisions of the Cervix in Uterine Hæmorrhage.

Seaton, Joseph, M.D. On Ventilation as applied to Sewers, Ships, and Buildings.

Sims, J. Marion, M.D. Epithelioma of the Cervix Uteri.

Smith, W. Wilberforce, M.D. The Flat Roof as a Recreation-Place in British Towns.

Spence, Robert, M.B., C.M. Note on the Treatment of Prostatic Retention when complicated with Stricture.

Squire, A. Balmanno, M.B. A Demonstration from Life of the Diseases of the Skin by means of the Dissolving-View Apparatus.

Squire, William, M.D. The Registration of Disease; and the Part to be taken therein by the Medical Profession.

Stainthorpe, Thomas, M.D. A Case of Puerperal Convulsions treated successfully with Hypodermic Injections of Ergotine.

Taylor, C. B., M.D. On the Principles that should guide us in selecting an Operation in Cases of Senile Cataract.

Thomas, Llewelyn, M.D. On the Necessity for Prompt Treatment of Deafness in Childhood.

Thompson, James, M.B. The Relation of the General Medical Practitioner to the Sanitary Authority.

Thompson, J. Ashburton, M.D. A New Emetic Purge.

Vacher, F., Esq. Public Baths.

Walker, Bernard, M.R.C.S. On the Advantages of Ether as an Anæsthetic over Chloroform.

Wallace, J., M.D. Note on Atresia Uteri and Painful Cicatrices of the Cervix from Caustics.

Wanklyn, J. A., Esq. On Filters.

Wilson, A. C., M.D. 1. Three Cases of Vesical Calculus.—2. Two Cases of Neurosis.

Wilson, J. Mitchell, M.B. The Excessive Prevalence of Infectious Diseases among Children; with some Suggestions for the Control of such Cases.

Yeo, I. Burney, M.D. The Results of Modern Research in the Treatment of Phthisis.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above named officers at as early a date as possible.

No paper must exceed twenty minutes in reading, and no subsequent speech must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

THE ANNUAL MUSEUM.

The Ninth Annual Museum of the above Association will be held in the Church Institute, St. James's Street, Sheffield, on August 1st, 2nd, 3rd, and 4th, 1876.

All communications should be addressed to the Secretaries, from whom any further information can be readily obtained.

W. R. THOMAS, Norfolk Street, } *Honorary Secretaries,*
SIMEON SNELL, 17, Eyre Street, } *Museum Committee.*

EXCURSIONS.

**** It is especially requested that all gentlemen who intend to avail themselves of the Excursions, will send their names to the Honorary Secretaries of the Excursion Committee—E. M. WRENCH, Esq., Baslow; and JOHN BENSON, Esq., Sheffield—at the Reception Room, Cutlers' Hall, not later than 4 P.M. on Wednesday, August 2nd, for the Friday Excursions, or than 4 P.M. on Thursday, August 3rd, for the Saturday Excursions.*

The following is the programme of Excursions, etc., during the meeting.

Wednesday, August 2nd.

3 P.M. Messrs. Cammell and Co. will roll a large Armour-Plate, and invite the Association to witness it, and afterwards inspect their famous works.

Thursday, August 3rd.

11 A.M. Thomas Firth and Sons will forge a large Gun, and afterwards show other objects of interest.

Friday, August 4th.

I. Excursion to Wortley by road. The Earl of Wharncliffe invites one hundred members of the British Medical Association to lunch, and to inspect the Collieries, etc. (Under control of Dr. Watson, Weirfield House, Penistone.)

II. Excursion to Wentworth House; by invitation from Earl Fitzwilliam. Wentworth is famous for its Pictures and Sculpture, Stud, etc. (Under control of J. Benson, Esq., Sheffield.)

Saturday, August 5th.

I. Excursion to Chatsworth and Haddon Hall, Derbyshire; by road over the moors, sixteen miles. Invitation from the Duke of Devonshire for one hundred to lunch at Chatsworth at 1 P.M. All above the hundred, and members accompanied by ladies, will be provided with lunch at Baslow, near Chatsworth. In consequence of domestic affliction, Mrs Wrench's Garden Party at Haddon Hall will not take place. N.B.—A train leaves Rowsley Station, two miles from Haddon Hall, at about 6 P.M., and reaches London at ten P.M. (Under control of Mr. Wrench of Chatsworth.)

II. Excursion to Matlock and neighbourhood. Invitation to luncheon at New Bath Hotel, Matlock Bath, by the profession of Derby, Wirksworth, Matlock, etc.—Objects of Interest: High Tor, Abraham's Heights, Caverns, Thermal Springs, Via Gellia, Willersley Castle Grounds (by kind permission of F. C. Arkwright, Esq.).—Members can leave Wirksworth after the Via Gellia excursion at 5.25, or Matlock Bath at 6, arriving in London at 9.50. (Under control of Dr. Webb, Wirksworth.)

III. Excursion by rail to Buxton, through some of the finest scenery in Derbyshire. Invitation for limited number to lunch from Medical Men of Buxton. Inspection of the Mineral Baths, Bath Charity Hospital, etc. (Under control of Dr. Robertson.)

Daily, in Sheffield.

From 2 to 5 P.M. Joseph Rogers and Sons invite inspection of their famous Cutlery works.

James Dixon and Sons invite inspection of their Electro-Plate works.

John Kenyon and Co. invite members to inspect their Steam-Saw Manufactory.

The Botanical Gardens and the Athenæum will be open to members producing their tickets.

Dr. Mitchell, the Superintendent of the South Yorkshire Asylum at Wadsley, will be glad to receive a visit from members at any time during the week. There is a very valuable collection of Fossils at the Asylum.

FRANCIS FOWKE, *General Secretary*.

36, Great Queen Street, London, July 13th, 1876.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

At a meeting of the Committee of Council, held at the office of the Association, 36, Great Queen Street, London, on Thursday, July 6th, 1876. Present: Dr. Falconer, President of the Council, in the Chair; Dr. De Bartolomé (President-elect), Mr. Husband (Treasurer), Dr. Clifford Allbutt, Mr. Alfred Baker, Mr. Callender, F.R.S., Dr. C. Chadwick, Dr. R. Farquharson, Mr. R. S. Fowler, Dr. E. L. Fox, Mr. Reginald Harrison, Mr. T. Holmes, Mr. J. R. Humphreys, Mr. F. E. Manby, Dr. Morris, Mr. R. H. B. Nicholson, Dr. C. Parsons, Dr. F. Sibson, F.R.S., Dr. Thomas Underhill, Dr. Edward Waters, Mr. C. G. Wheelhouse, and Dr. E. Wilkinson.

The minutes of the last meeting and special meeting of April 24th and May 2nd, were read and found correct.

Read letters of apology for non-attendance from Mr. J. Wright Baker, Dr. B. Foster, Dr. G. H. Philipson, and Dr. W. F. Wade.

Resolved: That the sixty-eight gentlemen whose names appear on the circular convening the Meeting, be and they are hereby elected members of the Association.

In reference to continued minute, No. 142: Read telegram and letter from Dr. Alfred Meadows and Dr. W. Fairlie Clarke.

Resolved: That as Dr. Meadows and Mr. Fairlie Clarke have not been able to attend to-day and furnish facts which would justify the Committee of Council in assuming that abuses of Medical Charities exists, and in the absence of any active interest in the subject, no further action be taken at present.

Resolved: That Mr. Curling, one of the Trustees of the Stewart Grant, be elected a member of the Scientific Grants Committee.

The General Secretary reported that there have been nine essays received for competition for the Hastings Prize Essay, subject—Diphtheria, its Diagnosis, Pathology, and Treatment.

Resolved: That Sir William Jenner, Dr. Greenhow, Dr. Clifford Allbutt, Dr. Grainger Stewart, and Dr. F. Payne be requested to be kind enough to act as adjudicators of the Hastings Prize Essay.

The General Secretary reported that no Essay had been received for competition for Mr. Wood's Grant of £25 for best Essay on Pyæmia.

Resolved: That Mr. Wood be informed that no essays have been received, and he be requested to say what he would wish done in the matter.

Resolved: That the President of the Council, the Treasurer, and Dr. E. L. Fox be the sub-Committee to draw up the annual Report.

The Report of the attendances of the twenty elected members of the Council was read.

The names of Dr. Quain, F.R.S., London; and Dr. Waters, Liverpool; Mr. Timothy Holmes, London; and Dr. Matthews Duncan, were struck off, and that of Mr. Humphreys by lot, in accordance with By-law.

Resolved: That the fifteen gentlemen whose names remain on the list, be nominated for election for members of the Committee of Council for 1876-1877, together with five to be added.

Eleven gentlemen having been nominated, a ballot was taken, and the gentlemen whose names are as follows, having the greatest number of votes, were declared to be chosen.

Mr. R. H. B. Nicholson, Hull	Dr. Sieveking, London
Mr. Arthur Jackson, Sheffield	Dr. Eastwood, Darlington
Dr. Holman, Reigate.	

Dr. Parsons stated that the Council of the South-Eastern Branch having reconsidered the motion (Minute No. 172) of which he had given notice, desired now to withdraw it.

Dr. Farquharson, having by desire of the Council of the Metropolitan Counties Branch, brought forward a case of Medical Ethics, it was

Resolved: That the President of the Council, Dr. Waters, and Dr. Carpenter, be a sub-Committee to consider and report upon the case.

Read letter from the Editor of the JOURNAL, enclosing one from the Secretary of the Hull and North Lincoln Branch, forwarding an advertisement of a member of the Association.

Resolved: That the matter be referred to the sub-Committee appointed to consider the case brought before them by Dr. Farquharson.

Resolved: That the minutes of the Journal and Finance Committee of this day's date be approved, and the recommendations carried into effect.

Resolved: That the minutes of the Stewart Grant Committee of this day's date be approved, and the recommendations carried into effect.

Read letter and resolution from the Secretary of the Staffordshire Branch.

Resolved: That the resolution of the Staffordshire Branch be referred to the Parliamentary Bills Committee, with a request that they report to the Committee of Council upon the subject.

Read letter and resolution from the Hon. Secretary of the Edinburgh Branch.

Read letter and resolution from the General Council of Medical Education and Registration.

Resolved: That the letter and resolution of the General Medical Council be received and entered on the minutes, and that the resolution of the General Medical Council be reported to the Annual Meeting of August next.

SOUTHERN BRANCH: ANNUAL MEETING.

THE third annual meeting of this Branch was held this year at the Royal Hotel, Weymouth, on Wednesday, June 28th. The President, Surgeon-General W. C. MACLEAN, M.D., C.B. (of Netley Hospital) took the chair.

THE PRESIDENT, in addressing the members of the Branch, said that before he retired he was glad of this opportunity of saying he was one of those who held very strongly to the opinion that the British Medical Association was one of immense importance to their profession. He did not say so simply because it did so much to support the dignity, interest, and influence of their great profession, but because he believed in a very great way, and in many ways perhaps which the public hardly appreciated, this great Association materially forwarded the interest of the public, as he was certain of this: that, whatever tended to raise the status, dignity, and educational level of the professional man, tended also to the benefit of the public; and he was of opinion the British Medical Association did these things in a very striking way. If he were asked to give instances of the beneficial operations of this Association, he would, without any hesitation, point to that influential deputation which a few days ago waited upon Lord Carnarvon in reference to the Vivisection Bill. That very able minister was then obliged to confess that no more influential deputation had ever waited upon any minister. He hoped the profession would rally around the British Medical Association, as he thought they could not forward its interests better than by everyone in the district in which he lived supporting the Branch Association started in their midst.

The President then vacated his seat, upon which the President-elect, Dr. ALDRIDGE of Dorchester, occupied the same.

Report of Council.—THE HONORARY SECRETARY, Dr. J. WARD COUSINS, read the report of the Council; after which, on the proposition of Dr. TIZARD (Weymouth), seconded by Dr. LUSH (Weymouth), it was received and adopted.

Next Annual Meeting.—Dr. PHILPOTS (Wareham) proposed the annual meeting of 1877 should be held at Winchester, and that F. J. Butler, M.D., should be the President-elect. This was seconded by Dr. MCLEAN (Portland), and carried.

Officers and Council.—Mr. ASKHAM (Portland) moved, Mr. PARKINSON seconded, and it was resolved, that the officers nominated by the Council be elected. The list was as follows:—*President-elect*: F. J. Butler, M.D., Winchester. *Vice-Presidents*: W. Hoffmeister, M.D., Cowes; S. Bentham, Esq., Southsea. *Representatives in the General Council*: W. H. Axford, M.B., Southsea; L. Leslie, M.D., Alton; J. Manley, M.D., Fareham; Surgeon-General W. C. Maclean, M.D., C.B., Netley; D. Nicholson, M.D., Portsmouth; F. J. Parsons, Esq., Portland; H. Tizard, M.D., Weymouth; T. Trend, M.R.C.P., Southampton. *Members of Council of the Branch*: F. St. Quintin Bond, Esq., Havant; J. E. Brine, Esq., Wimborne; E. Buckell, Esq., Winchester; T. A. Compton, M.D., Bournemouth; W. G. Davis, Esq., Heytesbury; G. Scott, M.D., Southampton.

The Honorary Secretary was unanimously desired to accept office again, which he consented to do.

Society at Bournemouth.—Dr. ALDRIDGE informed the meeting that the medical gentlemen of Bournemouth had formed a separate Society, and he thought it was their duty to invite them cordially to join the Southern Branch. A resolution was then carried to that effect.

President's Address.—Dr. ALDRIDGE delivered an able address. He first expressed the pleasure and satisfaction occasioned by the visit of the members of the Southern Branch of the British Medical Association to the beautiful and much admired watering-place of Weymouth. Having accorded them a hearty welcome, and expressed a hope that the

arrangements for their reception would meet their convenience, he passed on to bring prominently before his medical brethren the important question of the abuse or inordinate use of alcoholic drinks. He thought they should unitedly aid and abet, to the best of their ability, every effort now being put forward to abate this crying evil, which, he said, is depopulating our nation and producing incalculable ruin and disgrace to a Christian people. The Church of England, to its honour, had taken the initiative in the great movement for the suppression of the evil; it was making strenuous efforts to reform the habits of the mechanical and industrial population. Dr. Aldridge then pointed out the effects of the excessive use of alcoholic stimulants upon the moral and intellectual development of the nation, also the effects of their daily immoderate use upon the physical conformation and health. He asked whether they considered the use of alcohol in any shape absolutely necessary for the cure of disease, or that it assisted remedially in its relief. The use of these stimulants in moderation was only allowable, and all excesses must of necessity engender disease and militate against the enjoyment of physical health and strength. This being so, it was clearly their duty to forward the efforts of the Christian Church in spreading health and moral happiness throughout the land. Let them not abstain from discharging their duty in this matter, and so help to eradicate the evil by spreading information upon the subject and using their own personal influence in bringing about a better state of things in the nation and in the world at large. It was clearly their duty to point out the fact that three-fourths of the diseases which afflict the population of the British Empire, and end in the destruction of health and the decay of both mental and physical powers is attributable to the habits of excessive indulgence in drink amongst the people.

Dr. BUTLER (Winchester) moved, and Dr. CASE (Fareham) seconded, a vote of thanks to the President for his address, which was carried.

Excursion and Dinner.—After the meeting, the members had an excursion to Portland. On their return, they dined at the Royal Hotel; the chair was taken by Dr. Aldridge, and the vice-chair by Dr. Ward Cousins.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE twenty-second annual meeting of this Branch was held on June 30th at the Midland Hotel, Birmingham, when there were present seventy members and visitors. Dr. WADE, Retiring President, took the Chair, and briefly introduced the President, Dr. FOWLER BODINGTON of Kingswinford, who then took the Chair, and returned thanks for his election to the office.

A Vote of Thanks to the retiring President, Dr. Wade, was proposed by Mr. NEWMHAM, Wolverhampton, seconded by Dr. RUSSELL, and carried unanimously.

New Members.—The following Associates were elected members of the Branch: Mr. C. A. Draper, Kenilworth; Dr. R. Saundby and Mr. A. F. Hawkins, Birmingham; Dr. H. J. Young, Erdington.

Annual Report.—Dr. FOSTER read the annual report of the Council, which congratulated the members on the close of another prosperous year in the history of the Birmingham and Midland Counties Branch. The numerical strength of the Branch had increased to 338, of whom twenty-one members had been elected during the year; twelve had been lost by resignation or removal to a distance, and two by death, namely, Dr. Alexander Fleming and Dr. John Edwards. By the death of Dr. Fleming, the Branch had lost one of its most accomplished and active members. He had on several occasions contributed to the proceedings of the Branch, and had served for several years on the Council. In 1872, Dr. Fleming accepted the invitation of the Committee of Council of the Association to deliver the Address in Medicine at the Annual Meeting of the Association in Birmingham, but his failing health compelled him to resign the high honour. In 1873, when he was to have succeeded to the Presidential Chair of this Branch, the same cause deprived his fellow Associates of his valuable services as their chief officer. The number of members belonging to the sections, one hundred and sixty-six, or almost one-half of the total strength of the Branch, might, the Council thought, be fairly increased, and they urged on all practitioners living within easy distance of the town the importance of joining in the practical work of the sections. During the session, 1875 to 1876, seven ordinary meetings of the Branch had been held. The illness of Dr. Wade, the President, having necessitated the postponement of his address at the last annual meeting, the first ordinary meeting in October was set apart for its delivery. Papers had been read at the several meetings on various

subjects by Mr. Furneaux Jordan, Dr. Charles Warden, Mr. J. F. West, Mr. Hugh Ker, Mr. Gamgee, Dr. Rickards, Mr. Bartleet, and Dr. James Johnston. Cases, specimens, and instruments were brought before the Branch by Dr. P. Bindley, Mr. E. Eales, Mr. F. Jordan, Mr. L. Tait, Dr. A. H. Carter, Dr. J. Sawyer, Dr. B. Foster, Dr. John Thomson, Mr. E. V. Whitby, Dr. Savage, and Mr. Priestley Smith. The work of the session had been purely scientific in its character, none of the more exciting topics of medical politics having been brought before the meetings. The Council felt that, on this account, the proceedings of the Branch had not been less useful or less instructive. Indeed, the amount of valuable material offered for the session had been much in excess of the time at the disposal of the Secretaries, and the Council regretted that many important papers had been necessarily postponed. The subcommittee of the Branch, appointed in October, 1874, to consider the best means of furthering legislation for the care and restraint of habitual drunkards still continued its meetings. The labours of the subcommittee had, however, become comparatively light for the present, as the energetic action of the Branch so completely revived public interest in this question that it had entered on a new and more hopeful phase. A joint committee of the Association at large, and of the Social Science Association, had been appointed to take charge of the question, and a form of petition had been drawn up by the joint committee, and was now placed on the table for signature. For some years past, there had been much dissatisfaction with the inadequate accommodation afforded by the Midland Institute for the meetings of the Branch. A suitable place had now been found in the Examination Hall of Queen's College, in which, by permission of the College Council, the meetings would in future be held. Finally, the Council congratulated the members on the great prosperity of the parent Association. With its more than seven thousand members, and its Branches in active work all over the three kingdoms, the British Medical Association had become an unequalled power for expressing the mind of the medical profession on all subjects affecting its scientific and social interests. The very important modifications in the Vivisection Bill lately conceded by the Government, in answer to a deputation of the Association, illustrated the legitimate influence which the Association was able to exercise as the recognised mouthpiece of the profession at large. This influence, directed aright by the intimate connection of the individual Branches with the parent Association, would, year by year, grow more powerful in preserving the privileges and advancing the interests of the medical practitioners in the United Kingdom.

Mr. WATKIN WILLIAMS read the statement of accounts, which showed that the receipts (including a balance of £62:1:9 from last year) amounted to £139:10:6; and, after the reduction of expenditure, there remained in hand a balance of £81:17:2.

On the proposition of Mr. GARMAN (Wednesbury), seconded by Dr. JAMES THOMPSON (Leamington), the report and statement of accounts were adopted.

Pathological and Clinical Section.—Dr. RICKARDS (Honorary Secretary) read the report of the Pathological and Clinical Section.

Microscopical Section.—Dr. WILLIAM HINDS (Honorary Secretary) read the report of the Microscopical Section.

Votes of Thanks were accorded to the Treasurer and Secretaries, and to the Chairman and Officers of the Pathological and Clinical and Microscopical Sections, and to the retiring Council and representatives of the Branch in the General Council of the Association.

President's Address.—The PRESIDENT delivered an address, which is published at page 140.

On the motion of Dr. WADE, seconded by Mr. VINCENT JACKSON, it was resolved by acclamation: "That the best thanks of the Branch be given to the President for his admirable address."

Officers and Council.—The PRESIDENT declared, from the report of the Scrutineers, Dr. Denne and Mr. H. Eales, that the following gentlemen were elected to the undermentioned offices for the ensuing year. *President-elect:* J. S. Gamgee, Esq. *Secretaries:* Balhazar Foster, M.D.; James Sawyer, M.D. *Treasurer:* T. Watkin Williams, Esq. *Council—Country Members:* S. H. Agar, L.K.Q.C.P., Henley-in-Arden; W. C. Garman, Esq., Wednesbury; J. C. Garman, Esq., Wednesbury; A. J. Harrison, M.B., Walsall; F. E. Manby, Esq., Wolverhampton; J. Manley, Esq., West Bromwich; C. A. Newham, Esq., Wolverhampton; James Thompson, M.B. Leamington. *Town Members:* Alfred Baker, Esq.; J. Johnston, M.B.; E. Malins, M.D.; A. Oakes, Esq.; E. Rickards, M.B.; J. Russell, M.D.; T. Savage, M.D.; J. V. Solomon, Esq. *Representatives in the Council of the Association:* S. H. Agar, L.K.Q.C.P.; T. H. Bartleet, Esq.; G. Fowler Bodington, M.D.; George Elkington, Esq.; B. Foster, M.D.; W. C. Garman, Esq.; F. E. Manby, Esq.; J. Manley, Esq.; Lloyd Owen, Esq.; T. Savage, M.D.; J. V. Solomon, Esq.; James Thomp-

son, M.B.; Thomas Underhill, M.D.; W. F. Wade, M.B.; J. F. West, Esq.; T. Watkin Williams, Esq.; J. Sawyer, M.D., *ex-officio*.
Auditors: E. Malins, M.D.; J. Garner, Esq.

Pathological and Clinical Section—*Chairman:* T. H. Bartleet, Esq.
Secretaries: E. Rickards, M.D.; Lloyd Owen, Esq.

Microscopical Section—*Chairman:* Lawson Tait, Esq. *Secretaries:* William Hinds, M.D.; Francis Warner, M.D. *Demonstrators:* Philip Bindley, M.B.; Priestley Smith, Esq.

Dinner.—The members afterwards dined together, Dr. Fowler Bodington, the President, occupying the Chair, and Mr. Gamgee, President-elect, and Dr. Foster, the Vice-Chairs. Mr. Gamgee, senior; Mr. S. Wood, Shrewsbury; Dr. Day, Stafford; Mr. Goodall, Silverdale; Mr. W. Tyrrell, Malvern, and others, were present as visitors.

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

THE twenty-fourth annual meeting of this Branch was held at St. James's Hall on Friday, July 14th, at 4 P.M. The chair was first taken by the retiring President, ROBERT BARNES, M.D.

Report of Council.—Dr. HENRY, Honorary Secretary, read the report of the Council, as follows.

"In presenting the twenty-fourth annual report to the Metropolitan Counties Branch, the Council have to state that during the year nineteen new members have joined the Branch, twenty-one have retired, and fifteen have died. The present number of members is 583, that for 1865 having been 600.

"The members who have died are: Sir John Cordy Burrows of Brighton, who had been appointed President-elect of the British Medical Association; Dr. Samuel Day-Goss; Mr. Campbell De Morgan, F.R.S.; Dr. J. Dempsey; Mr. G. G. Gascoyen; Sir G. Duncan Gibb; Dr. Samuel Giles; Dr. Richard Hassall; Mr. James Hinton; Dr. W. J. Hunt; Dr. Letheby; Mr. Benjamin Miller; Dr. Thomas Parker; Dr. Joseph Ridge; and Dr. George Webster of Dulwich, who was one of the earliest Presidents of this Branch, and a frequent and much esteemed attendant at its meetings for many years.

"A meeting of the Branch was held on March 3rd, at the rooms of the Medical Society of London, for the purpose of affording the members an opportunity of expressing their opinion on the practice of advertising medical books in the public press, and on the proposal to admit to the examination for the midwifery diploma of the Royal College of Surgeons persons who did not possess legal qualifications for the ordinary practice of the medical profession. On each of these subjects, a series of resolutions was proposed by your President, and, after brief discussion, carried. Your Council trust, with regard to the question of advertising medical books in public papers, that the expression of opinion on the part of the Branch, consonant as it is with the general opinion of the profession as expressed at the meetings of other Branches and by other means, will be effectual in arresting a practice which, in the words of one of the resolutions, 'is founded on no plea of either necessity or expediency'.

"It is gratifying to your Council to know, with regard to the proposed admission of persons to the midwifery licence of the Royal College of Surgeons without having already undergone an examination in the various departments of general medical practice, that the action of the Metropolitan Counties Branch is in perfect unison with that of the other Branches and of the profession generally. The course taken by your President and his colleagues, Dr. Farre and Dr. Priestley, in resigning their offices as examiners in midwifery at the College of Surgeons, has met with the universal approval of the profession, in the expression of which, the Council feels assured, the members of the Branch cordially join.

"Your Council, at a recent meeting, authorised the Secretaries to obtain signatures to a petition in favour of the amendment of the so-called Cruelty to Animals Bill; and a numerous signed petition was presented to the House of Lords. Although certain of the amendments suggested were adopted, there is a widely spread feeling that the Bill is still unjust to the medical profession, inasmuch as it indicates a want of humanity on their part; and that, if passed in its present form, it will seriously impede the progress of physiological and medical science. The members of the Branch will have read in the JOURNAL of the Association the powerful arguments which have been brought forward against the Bill; and your Council would urge on each member the importance of early communication with any members of the House of Commons with whom they may be acquainted, in order to secure the rejection of the Bill for the present session, or at least its amendment in the directions indicated by the memorials recently pre-

sented, and which have been published in the JOURNAL. But it is most essential that action should be at once taken in this matter.

"A report will be presented on behalf of the Committee on legislation for habitual drink-cravers.

"Your Council have pleasure in stating that the Treasurer's report will show a balance of £41 in hand after payment of expenses. They recommend that donations of £5:5 each be given to the Royal Medical Benevolent College and the British Medical Benevolent Fund."

Dr. BEGLEY proposed, Dr. SHRIMPTON seconded, and it was resolved: "That the report of Council now read be received, adopted, and entered on the minutes."

Treasurer's Report.—Mr. DUNN, Treasurer, read the financial report, from which it appeared that the income for the year had been £78:2:7, and the expenditure £36:5:4, leaving a balance of £41:17:3.

Dr. FELCE moved, Dr. SHRIMPTON seconded, and it was resolved: "That the Treasurer's report now read be received, adopted, and entered on the minutes."

Election of Officers and Council.—The following were elected:—*President:* Jonathan Hutchinson, Esq. *President-elect:* Septimus W. Sibley, Esq. *Vice-Presidents:* Thomas B. Curling, Esq., F.R.S.; Robert Barnes, M.D. *Treasurer:* Robert Dunn, Esq. *Secretaries:* Alexander Henry, M.D.; Robert Farquharson, M.D. *Ordinary Members of Council:* S. S. Alford, Esq.; John Armstrong, M.D.; J. A. Aveling, M.D.; G. F. Blandford, M.D.; T. S. Cobbold, M.D., F.R.S.; J. M. Fothergill, M.D.; J. T. Griffith, M.D.; W. C. Grigg, M.D.; J. Macpherson, M.D.; J. H. Paul, M.D.; R. D. Powell, M.D.; Richard Quain, M.D., F.R.S.; H. Cooper Rose, M.D.; Leonard W. Sedgwick, M.D.; Charles Shrimpton, M.D.; A. P. Stewart, M.D.; E. H. Vinen, M.D.; E. T. Watkins, M.D.

Representatives in the General Council.—The following twenty-nine gentlemen were reported to have been elected representatives of the Branch in the General Council of the Association:—William Adams, Esq.; J. H. Aveling, M.D.; Robert Barnes, M.D.; H. C. Bastian, M.D., F.R.S.; G. W. Callender, Esq., F.R.S.; W. Fairlie Clarke, M.D.; J. T. Clover, Esq.; T. B. Curling, Esq., F.R.S.; J. Langdon Down, M.D.; Arthur E. Durham, Esq.; J. M. Fothergill, M.D.; Wilson Fox, M.D., F.R.S.; S. O. Habershon, M.D.; Ernest Hart, Esq.; Alexander Henry, M.D.; Berkeley Hill, Esq.; T. Holmes, Esq.; Jonathan Hutchinson, Esq.; George Johnson, M.D., F.R.S.; Henry Lee, Esq.; John Marshall, Esq., F.R.S.; H. Maudsley, M.D.; C. F. Maunder, Esq.; A. Meadows, M.D.; W. S. Playfair, M.D.; R. Quain, M.D., F.R.S.; J. Russell Reynolds, M.D., F.R.S.; Edward H. Sieveking, M.D.; E. J. Tilt, M.D.

President's Address.—Dr. BARNES then resigned the chair to the newly elected President, JONATHAN HUTCHINSON, Esq., who delivered an address.

Dr. WALTER DICKSON proposed, and Dr. BARNES seconded, a vote of thanks to the President for his address, which was unanimously carried.

Vote of Thanks to the Ex-President.—It was proposed by Dr. J. H. AVELING, seconded by Dr. FELCE, and unanimously resolved: "That the cordial thanks of the Branch be given to the retiring President, Dr. Robert Barnes, for his able and courteous conduct in the chair, and for the interest that he has taken in the prosperity of the Branch, and in all matters affecting the honour and welfare of the profession that have been brought under the notice of the Branch." Special reference was made, in terms of approbation, to the conduct of Dr. Barnes in resigning his office as examiner in midwifery at the Royal College of Surgeons.

Dr. BARNES acknowledged the vote, and said that he had received many similar expressions of approbation of his conduct.

Habitual Drunkards.—Dr. FARQUHARSON gave a brief account of the proceedings of the Committee on Habitual Drunkards. The Committee was reappointed, to consist of the President and Secretaries, the President-elect, Dr. Stewart, Dr. Blandford, Dr. H. Monro, Dr. Vinen, Mr. S. S. Alford, and Mr. Holthous.

Dinner.—The members afterwards dined together at St. James's Hall; Jonathan Hutchinson, Esq., President, in the chair.

LANCASHIRE AND CHESHIRE BRANCH: NOTICE TO MEMBERS.

DR. STEELE, having resigned the office of Branch Secretary, requests that remittances and communications may be addressed to "Dr. D. J. LEECH, Honorary Secretary of the Lancashire and Cheshire Branch, 96, Mosley Street, Manchester".

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

NEW FORM OF CONTRACT.

WE very much regret to see that the Bath guardians have adopted a resolution which opens a very serious and most mischievous precedent. They have carried a resolution by which they propose to pay to their union medical officer a salary which is to include the cost of wines and spirits, as well as of medicine. The medical officer had heretofore received a salary of £150 *per annum*, including all medicines "except cod-liver oil and quinine". The cost of union spirits recently has been £70 *per annum*. The Board of Guardians of Bath appears to be a "teetotal board", and is of opinion that an effort should be made to cut down the expenditure on alcoholic liquor to £30 *per annum*; and, with this view, they propose to allow that sum to their medical officer, and to call upon him, for that sum, to provide the sick with wine and spirits "whenever he considers it necessary to do so; and that he be paid the sum of £30 *per annum* for the same, it being understood that the medical officer will not recommend the board of guardians to provide beer and porter for the paupers in lieu of wine and brandy". But if brandy and wine, why not beer and porter? If the medical officer is to undertake the functions of a wine and spirit merchant, why not of a beer and porter seller? We call the attention of the Local Government Board to this in the first instance. We cannot imagine that a central department will sanction the attempt to convert the medical officer of the work-house into its wine-merchant, and to frame a contract which avowedly seeks to reduce the wine-bill by saddling it on the doctor. The whole proceeding is contrary to the very essence and spirit of good administration, and directly contrary to all recent measures of reform. All recent proceedings have been to remove the doctor even from the invidious position of contracting for drugs, and to pay him a salary for his duties independently of medicines. It cannot be too clearly understood that professional men are concerned only with the proper performance of their duties, and are not properly saddled with any combination of profits as purveyors mixed up with their salaries as medical attendants. Here there is an obviously cynical intention to reduce the amount of wines ordered by decreeing that the doctor's pocket must pay for it. In that case, if the doctor has a succession of bad cases requiring wine and spirits, either his pocket or the pauper patient must suffer; and the guardians are content to look indifferent who suffers, provided their pockets do not. We have never seen a more cynical abandonment of public duty than is implied in this result. We should think ill of the professional dignity of any medical man who should accept such a contract; we think still worse of the guardians who passed it; but we should hold the lowest estimation of any department of the Government which could sanction it. We trust it has already been vetoed at Gwydyr House. If not, we shall take care that the matter does not drop here.

MEDICAL OFFICER FOR LIVERPOOL.

THE following memorial has been forwarded to the Local Government Board by ratepayers in and of the borough of Liverpool.

1. Up to the 6th day of July instant, the duties of medical officer of health of this borough were performed by Dr. Trench, who received a salary at the rate of £1,300 *per annum*. In consequence of his increasing indisposition, the Council of the borough, then, under the provisions of the Public Health Act, 1875, arranged with Dr. Trench to act as medical officer of the borough at the reduced salary of £500 *per annum*, with the understanding that he should retire from active service, and that a deputy medical officer of the borough should be appointed under the said Act, who would in reality be the medical officer of the town. 2. On the said 6th day of July the Council passed the following resolution: "That the health committee be authorised to take the requisite steps for the appointment by the Council of a deputy medical officer of health for the borough and port of Liverpool, pursuant to the 191st section of the Public Health Act, 1875, at a salary of £800 *per annum*, the appointment to be subject to the approval of the Local Government Board, and to be held during the pleasure of the Council." 3. At the time of the passing of the said resolution, Alderman Dr. John Stopford Taylor was chairman of the health committee of the borough; but shortly after the above resolution was passed, he resigned his seat in the Council, for the purpose of being a candidate for the proposed appointment. 4. The health committee, on the 13th day of July instant, without advertisement, public competition, or personal application from the

said John Stopford Taylor, recommended the said John Stopford Taylor to the appointment, and on the 19th day of July instant the Council of the borough confirmed the said appointment, the numbers voting for the recommendation being 22, and against it 12, making a total of 34 of the Council present out of 64, the total number of the Council. 5. Your memorialists are of opinion and believe that the said John Stopford Taylor is not a fit and proper person to be appointed such deputy medical officer, by reason of his not possessing any surgical qualification, and in not being duly registered under the Medical Act of 1858 to practice surgery. 6. The said John Stopford Taylor is 54 years of age. 7. Your memorialists complain of the unsatisfactory manner of the appointment, in its not having been open to public competition, whereby the best man might have been secured. And your memorialists beg leave respectfully to submit that if elections on this method are allowed, all fair dealing and honesty in the control of municipal affairs will be destroyed. Your memorialists, therefore, humbly pray that you will see fit not to confirm the appointment of John Stopford Taylor as deputy medical officer of health, and will direct that the said appointment may be referred back to the Council, to throw the matter open for public competition, to appoint a younger man, and to obtain a proper and duly qualified practitioner in medicine and surgery. And your memorialists will ever pray, etc.

THE HEALTH AND INCORPORATION OF BIRKENHEAD.

IN December last, at a meeting of ratepayers, a committee was appointed to collect information as to the "desirability of incorporating Birkenhead and the out-townships forming the Parliamentary borough into a municipal borough". The committee has just presented its report, which is, however, a mere statement of facts, and does not contain any expression of opinion as to the desirability or otherwise of applying for a charter of incorporation. There appears to be a strong local feeling in favour of incorporation, and a substantial subscription is said to have been set on foot to meet the preliminary expenses. The Improvement District of Birkenhead no longer represents the town of Birkenhead, and the union of this district with the surrounding townships for all local government purposes, and especially to secure a more complete sanitary organisation, appears to offer substantial advantages. Under existing arrangements, the Parliamentary borough of Birkenhead is under the sanitary control of four different urban sanitary authorities. The Improvement Commissioners of Birkenhead constitute the urban sanitary authority of the two townships of Birkenhead and Claughton; and the townships of Tranmere, Oxtom, and Higher Bebington, possess their local boards, which are also urban sanitary authorities. There can be no question as to the sanitary advantages to be derived from welding these four districts into one urban sanitary district, with one medical officer of health. From a sanitary point of view, it is always desirable that the suburbs of a town should be under the same sanitary organisation as the town itself, and this would in the main be effected by the incorporation of the limits of the Parliamentary borough. We shall watch with interest the steps which may be taken to carry out this change in the local government of Birkenhead.

THE REDDITCH LOCAL BOARD.

AT the last meeting of this Board, the *bona fides* of our review of Mr. Page's report was called in question; but we think that the discussion which occurred, the resolution arrived at, as well as the statement of the inspector of nuisances, the report of the finance committee, and the quarterly report of the medical officer, all proved our statement most fully. In answer to questions put by the Board, the medical officer said that the statistics regarding the cesspools had been taken from returns made to the Board, and thereupon one of the members stated that, two years ago, an order was given by the Board respecting them which was not carried out. The inspector of nuisances said, "that of all the nuisances reported by him, the Board had never given him an order to summon one person". It was then proposed, that a general order should be given to remove all the nuisances complained of, but the inspector objected that he must have an order in each case. In connection with this matter, the inspector produced his book to prove that one hundred and seven middens had been emptied in less than five weeks, and two hundred and fifty-three loads removed, so that on an average each cesspool held nearly two loads and a half of soil. The report of the finance committee was to the effect that, out of £41:9:5 spent during the preceding month for labour on the high-ways, for scavenging, watering, "night-soiling", and other works, no less than £21:14:10 had been spent for "night-soiling"; showing

incontestably the truth of our statements as to the extent to which the middle cesspools were filled.

A copy of a letter from Mr. Millward, which had been sent to the Local Government Board was read, complaining that a scheme for the proper drainage of the town had been prepared three years ago after a strong report as to its necessity had been made by Dr. Ballard, but that nothing had been done. Also, complaining of a most offensive nuisance which was allowed to exist near his house, viz., an open ditch receiving the drainage of thirty houses. As regards this nuisance, one member said that it might be removed for five shillings by repairing the outlet. Another, that if the middens and water-closets were cut off from it, the ditch would be perfectly harmless. Another member said, as the death-rate was 15 per 1,000, it was one of the healthiest, instead of as described, one of the most unsanitary towns in the kingdom. The medical officer of health's report for 1875, gave the death-rate as being 20.6 per 1,000. The quarterly report of the medical officer showed that the death-rate had been only 17.6 for the three months ending June 30th, and that the town had therefore, in common with the rest of England, enjoyed an unusually good state of health. It also contained a statement that the Board had sanctioned the construction of a cesspool for the first house built in a new street. The report as to the nuisances was adopted, and referred to the sanitary committee with power to abate them; but, as regards the report of the medical officer of health, it was not adopted. As, however, Mr. Page did not propose that any action should be taken, the non-adoption of the report was an unnecessary and spiteful act.

It is certainly a singular specimen of oratory for a member of a local board to call our report "diabolical and untrue", when the action taken by the Board and the correspondence read, as well as the reports of their officers, all undoubtedly prove the truth of our statements. It may be, that some misunderstanding of local terms afforded a slight peg whereon to hang his statement; but when the inspector openly states that he had never received authority to take out a summons against those who had not complied with the Board's orders, it was time to direct the sanitary committee to take the necessary action. We have contented ourselves with giving little more than an abstract of the report in the *Redditch Indicator*, as that affords sufficient justification for our remarks, and trust that the future action of the local authorities will be such as not to require such an unfavourable criticism as appeared in our late notice of their medical officer's report.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A MEETING of this Association was held on July 5th, when the President, Dr. Parsons, opened the business by a reference to the action taken by the Harrogate Commissioners in the case of their late medical officer of health, Dr. Deville. He said he did not desire to criticise the action of the Commissioners except so far as the interests of the public are concerned, but that, if the Local Government Board approved of the action taken, it might be advisable that all the society's meetings should be held in private. He considered that, as a public officer, the medical officer of health had a duty to perform towards the public generally, which took precedence of his action towards those who appointed him. A report was then read by the Secretary, setting out the facts of Dr. Deville's case, and expressing the opinion of the meeting to the effect, that they had heard with much astonishment the course taken by the Commissioners in dismissing Dr. Deville, and especially in advertising for another medical officer without waiting for the approval of their action by the Local Government Board, as one half of his salary is paid out of the Parliamentary grant. They, therefore, decided to memorialise the Local Government Board on the matter. The report went on to state that, despite the unfortunate result at Harrogate, it is advisable that the meeting should be public, because the expression of opinion at such meeting is necessary for the education of the public in sanitary works and legislation. As regards health-resorts, it is most injurious for any attempt to be made at concealing their sanitary defects. Indeed, the meeting considered that the best mode of obtaining the confidence of the public is to appoint a good officer, and to encourage the publication of all the sanitary shortcomings of a district. We feel persuaded that the plan proposed is best for the public, the district, and the medical officer, as the time has gone by for any attempt at making things smooth to be successful. The knowledge that hotel and lodging-house keepers have succeeded in causing the dismissal of a medical officer of health in consequence of a proposal to have the sanitary arrangements of their establishments examined once a twelvemonth, must prove most injurious to them, and most certainly will keep many visitors away; as the

only reasonable conclusion to be drawn is, that the state of their drainage and other sanitary conditions is such, as to render concealment necessary. Very many have suffered severely from the bad drainage and water-supply at the lodging-houses and health-resorts, and the late action of the Harrogate Commissioners should induce visitors to make special inquiries for themselves before taking apartments in the town.

MILITARY AND NAVAL MEDICAL SERVICES.

THE RESPONSIBILITY OF MEDICAL OFFICERS.

WITH reference to the inquiry at Aldershot, connected with the loss of stores, and to which we last directed attention in the *JOURNAL* of December 25th, 1875, we learn that the recommendation has been fully endorsed by the Secretary of State for War, and the deficit is to be borne by the public. Informality in the first handing over of the stores was finally proved, and the medical department was relieved of the responsibility of stores entailed upon it by Clause 6 of Special Circular of March 6th, 1873; it was hoped for ever. By degrees, the equipment of the three station hospitals has been handed over to the Captain of Orderlies, who has been designated, so far as store-charge is concerned, District Officer of Orderlies, i.e., subordinate to the Principal Medical Officer. This arrangement has been working most admirably, to the satisfaction of commissariat and medical departments. Our surprise, therefore, is great, when we find that regulations relating to station hospitals, issued July 1st, 1876, have again involved the medical officers with store responsibility. It has been so clearly demonstrated that the training of medical officers does not fit them for this and sundry duties, and that such work can be better done and cheaper by officers, or even non-commissioned officers, brought up to such calling. The quoted regulation at paragraph 6, provides for an establishment of officers, non-commissioned officers, and men of the army hospital corps for a station hospital. How can so few officers as twenty-four meet this want? The organisation of the army hospital corps will never be complete without this subordinate establishment of the medical department, unless it be intended seriously and truly to unify the medical department, dividing it into parts (as is done in the army service corps), the one charged with purely professional duties; the other with descriptive, payment, and store-keeping. If such, then, be intended, we trust that liberal provision will be made for granting increased pay and power for the performance of such duties as is done with every other arm of the service.

OPERATION OF THE ARMY WARRANT IN INDIA.

SIR.—The report of Mr. Hardy's offer of £250 a year to surgeons on joining has just arrived in this country, and, as half the army serves constantly here, it would be well for those who join at Netley to know what they may expect on arrival, for they will most certainly spend their first five years in India. *Vide Army List*, last page of Medical Department. The Indian Government does not recognise War Office orders increasing officers' pay: the Warrant of 1868 has never been acted on here. They pay only for relative rank, and a surgeon ranking as lieutenant will receive only a lieutenant's pay, plus palkee allowance—total, rupees 317, annas 8, worth at the present rate of exchange exactly £6 12s per month; and must provide his own house, servants, fuel, and light, out of this sum. After five years' service, he will be sent home, now to receive £250 per annum, or £23 more than the old rate of £227, thus costing the British Exchequer £125 extra during his ten years' service, after which time he may be dismissed, if in broken health, or, indeed, without reason assigned, on a gratuity of £1,000.

The remedy is simple. Let Mr. Hardy grant the rank of captain on joining, as in the navy, and the Indian Government must pay 415 rupees a month, as to captains (whose home-pay is 115. 6d. only), otherwise, instead of double pay, the young surgeon will receive in India less pay and allowances than at home.

There are many surgeons-major of seventeen years' service in India. They laugh at Mr. Hardy's mention of 5s. per day increase for them, knowing the fate of previous warrants, and that India pays for rank only. Every engagement has been violated at home, and in India ignored; and now the young medical men are the victims, and are to return to the ranks of civil life to compete with fustidians, with the advantages of capital and experience on their side, should true health not fail, thus to drive the younger ones into the ranks.

No one who fairly reads this letter will accuse the writer of standing in the way of young men anxious to earn their bread; but it is high time that an honest policy be adopted, and no renewal of agitation caused by faith being broken with them. The test is simple: the rank of captain carries the pay due to them in India. Let it be granted. The older members of the service have undertaken its duties, and will, I hope, continue to fulfil them honestly, until some opening for retirement be made.—I am, sir, your obedient servant, EQUITY.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Wednesday, July 26th, 1876.

Medical Act (Qualifications) Bill.—The Earl of SHAFTESBURY, in moving the second reading of this Bill, said its object was to enable every University or other body entitled under the Medical Act to grant qualifications for registration to grant such qualifications to all persons without distinction of sex. There was, however, a proviso that no woman should be entitled to take any part in the government, management, or proceedings of the Universities or Corporations mentioned in the said Medical Act.—The Bill was read a second time.

Clean Rivers Bill.—The Duke of BUCKLEUCH, in moving the second reading of this Bill, said its object was simply to prevent new pollutions in rivers.—The Bill was read a second time.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on July 25th.

Appleby, John T., Knutsford, Cheshire
Beverley, William H., Leeds
Blaikie, John R., L.S.A., Oswestry
Cash, John T., M.B. Ed., Manchester
Catt, Charles H., Pentypridd, South Wales
Dawson, Cantley, Leeds
Lapage, Charles C., B.A. Cantab., Leeds
Lennon, George L., Manchester
Marsh, O. E. B., L.R.C.P. Ed., Bristol
Mercer, Robert, Bradford
Moxon, William, Birmingham
Phillips, Alfred, L.S.A., Primrose Hill
Pratt, William, M.D. Liege, Newtown, Montgomeryshire
Routh, Jules J., Manchester
Spofforth, John, Litchfield
Sweeting, Martin C., Knaresborough
Thomas, Abraham G., M.B. Ed., Aberystwyth, South Wales
Wiglesworth, Joseph, Liverpool
Williams, Charles L., Sattley, Warwickshire

The following gentlemen passed on July 26th.

Ballard, Philip, Bromyard
Donbavand, Edgar J., Hackney
Dunbar, J. J. M., Talbot Road, W.
Ellis, Philip M., Chudleigh
Folkes, Frederick H., Dukinfield
Gosling, Charles E., Richmond
Harding, G. C., Clapham
James, Charles, Penzance
Kilbride, James, L.K. & Q.C.P.I., Dublin
Phillips, Charles H., Ramsbottom, Lancashire
Richardson, Thomas W., L.S.A., Norwich
Robinson, Ernest L., St. Martin's, Guernsey
White, Alfred O., Tangier, Morocco

Two candidates passed the examination in Surgery; and, when qualified in Medicine, will be admitted members of the College: and eleven candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their studies for six months.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, July 11th, 12th, and 13th, 1876, the following candidates obtained the Licence to Practise Medicine.

*m*Callan, Michael
*m*Charlton, George Robert Deighton
*m*Hartigan, William
*m*Hutchison, Alexander Rankin
*m*Kinnear, Michael Kiely
*m*Latham, William
*m*Lawless, Edmund James
*m*Lynch, Gilbert
*m*Moorhead, George Alexander
*m*Sherrare, Cesar Dudley
*m*Smallman, Benjamin Franklin
*m*Wall, Edmund Aloysius
*m*Webb, Vere George

The Licence to Practise Midwifery was obtained by those marked *m*, and by

Carleton, Arthur Wellesley
Fairclough, John James Kent

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 20th, 1876.

Anderson, Alexander Richard, Hammersmith
Cox, William Laird, Abbey Road, Kilburn
Duncan, Robert Byron, Glasgow
Giles, George Michael James, North Terrace, S.W.
Gillam, Thomas Henry, Weaverham, Cheshire
Hussein-Khan, Mirza, Hatherley Grove, Bayswater
Jackson, Robert Alexander, Norfolk Square, W.
Jones, Price, Llanrwst, Denbigh

Little, James, Maryport, Cumberland
Parker, Arthur Frederick, Clifton, Bristol
Richardson, Thomas William, Norwich
Williams, William Henry, Sherborne, Dorset

The following gentlemen also on the same day passed their primary professional examination.

Battle, William Henry, St. Thomas's Hospital
Boreham, Frank Squire, Charing Cross Hospital
Candler, William John, St. Bartholomew's Hospital
Coles, Donald Alexander, St. Bartholomew's Hospital
Dingley, Allen, St. Bartholomew's Hospital
Dutton, Thomas, Guy's Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

AMERSHAM UNION—Medical Officer. Salary, £50 per annum. Applications on or before July 31st.
BALLATER UNION—Medical Officer. Salary, £30 per annum. Applications on or before August 7th.
BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications on or before August 7th.
BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Acting Physician. Salary, £60 per annum. Applications on or before August 4th.
BIRMINGHAM GENERAL HOSPITAL—Resident Medical Officer. Salary, £120 per annum, with board and residence. Applications on or before July 31st.
BRAintree UNION—Medical Officer. Salary, £50 per annum. Applications on or before July 29th.
CLIFTON UNION—Medical Officer for the Workhouse.
HOSPITAL FOR WOMEN—House-Physician. Applications on or before July 30th.
MANCHESTER ROYAL EYE INFIRMARY—House-Surgeon. Salary, £70 per annum, with board, etc. Applications on or before August 1st.
MERE UNION—Medical Officer for the Second District and the Workhouse.
NEWCASTLE-UPON-TYNE INFIRMARY—Senior House Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications on or before August 3rd.
NORTH WITCHFORD UNION—Medical Officer for the Second District.
ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications on or before August 9th.
ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor—Medical Officer. Applications to the Secretary, 12, Pall Mall, S.W.
SUDBURY UNION—Medical Officer for the First District.
SUSSEX COUNTY HOSPITAL, Brighton—House-Surgeon. Salary, £80 per annum, with board and lodging. Applications on or before August 23rd.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BIRD, George G., M.R.C.S., appointed Resident Medical Officer of the Lock Wards of the Royal Hospital, Portsmouth, *vice* J. J. O'Connor, M.B., resigned.
MAKISS, George H., M.R.C.S.E., appointed House-Surgeon to the Seamen's Hospital, Greenwich.
MURPHY, H. H., M.R.C.S., appointed House-Physician to the Seamen's Hospital, Greenwich, *vice* W. T. Law, M.D., resigned.
RUDDUCK, J. B., M.R.C.S.E., appointed Resident Accoucheur to the London Hospital.
WARD, G. Austin, M.R.C.S., appointed House-Surgeon to the West London Hospital, *vice* T. G. Alderton, L.R.C.P., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

COX.—On July 9th, at 11, Wellington Villas, Brighton, the wife of Arthur H. Cox, J.P., of a son.
HARRISON.—On July 6th, at Lincoln, the wife of C. Harrison, M.D., of a daughter.

MARRIAGES.

BRACEY—REEVE.—On the 12th instant, at St. Ann's, Moseley (by the Rev. W. B. Benison, M.A.), Herbert Richard Bracey, M.R.C.S. Eng., 43, Bristol Street, to Mary Louisa, daughter of the late William Reeve, of Madam's Hill, Monk's Path.
SPENCER—WALSHAM.—On the 26th instant, at St. Bartholomew's, Sydenham (by the Hon. and Rev. Augustus Legge, Edith Maria, elder daughter of Joseph Huntley Spencer, of High Wickham, Hastings, and London, to William Johnson Walsham, M.B., F.R.C.S. Eng., of Weymouth Street, Portland Place, W.

WE learn that a project is on foot to present Dr. Arthur Hill Hassall with some suitable testimonial in recognition of his labours and services in the establishment and foundation of the Royal National Hospital for Consumption and Diseases of the Chest, located at Ventnor. This hospital, as is well known, is on the separate system: each of the one hundred patients which it accommodates being provided with a separate sleeping apartment. The erection of the hospital is now finished, and seven of the eight blocks, of which it consists, are fully occupied with patients. The completion of the hospital, after ten years of strenuous exertion, is considered to afford a fitting occasion for presenting Dr. Hassall with some acknowledgment of his services. An influential committee has already been formed for the purpose. Mr. Frederick Colman, of 12, Pall Mall, S.W., is the Honorary Secretary; and Lord Eversley and Sir Lawrence Peel are joint Treasurers.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

COMMUNICATIONS TO THE "JOURNAL".

We have again to impress upon our correspondents that, as the bulk of communications addressed to the JOURNAL is considerably in excess of its space, the task of selection will be greatly facilitated by the observance of studied conciseness.

R. ASKS: 1. When ought a coroner to pay a medical witness his fee?—[At once.] 2. Is it usual not to do so until some months after the inquest?—[We hope not.] 3. Where a *post mortem* examination is necessary, is it right for a coroner to give the order to his nephew, who is his partner and deputy coroner, instead of to the medical man who was called in?—[Certainly not.] 4. Is it legal and fair to the public and the profession for a surgeon holding a Poor-law appointment to employ an unqualified assistant to do the work, and also allow him to attend club and private patients? The assistant began life as his master's surgery boy, and has never been to any medical school.—[We do not think the Local Government Board would sanction it.]

TREATMENT OF LABOUR WITH DEFORMED PELVIS.

SIR,—Can any of your readers suggest a remedy for the following case. I have on two former occasions had to attend in labour a young person with greatly deformed pelvis, and on each occasion had to perform craniotomy, which has proved very troublesome in her case. She is, I am sorry to find, again likely to give me another chance. She informs me that she is, to use her own words, "gone two months". What had better be done? and how? when?—I am, etc., AN ASSOCIATE.

FATAL UMBILICAL HÆMORRHAGE IN AN INFANT.

SIR,—I beg to send you the following for the JOURNAL, should you consider it of sufficient interest.

I was requested to attend Mrs. A. at about 2.30 P.M. on the 3rd instant, whose labour had commenced a month sooner than she expected. I found her walking about the room, the pains following each other quickly; and I noticed that her abdomen was very large. At the third pain, some liquor amnii and a portion of membrane escaped: she then got upon the bed, and during the next pain the rest of the liquor amnii escaped in unusual quantity. The labour was an easy one, and the child was born at 3.30 P.M., and was evidently at full term: it was, however, very livid, and respiration was established with difficulty. I then secured and divided the funis.

Mrs. A. told me that all her children had lately had whooping-cough, and that she herself had it for about a month, recovering from it in the latter part of April. Late in the evening, I was informed that the child was dead; its clothing having been found saturated with blood, from the funis, which must have occurred at about 7.30 P.M. I called at ten the next morning, and found the stump of the funis much shrunk, so that the ligature exercised no compression; and upon dividing it, black fluid blood escaped. I was told that bloody fluid had escaped from the mouth; and upon considering the case, I think the death was due to a morbid state of the blood preventing a coagulum from forming, which I suppose usually occurs, as it seems that the constriction of the ligature is only exerted for a short time in any case, owing to the rapidity with which it begins to shrink.

I do not know whether such cases are at all common; but if anticipated, some sort of spring clamp or elastic ligature might be useful.—Yours truly, Southam, July 10th, 1876.

WALTER LATTEY, F.R.C.P., etc.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

THE SPREAD OF SYPHILIS.

SIR,—The suggestion made by Mr. John Wood in the late discussion on syphilis, that civilised mankind is gradually becoming syphilitised, has much *prima facie* plausibility. In addition to the apparent diminution of the virulence of the disease in individual cases, every practitioner of long experience must have noticed the lessening frequency of the true infecting chancre as compared with the soft sore. Even where there are no Contagious Diseases Acts to account for the discrepancy, the preponderance of the chancre is a matter of common observation, and it may be a question how far hereditary syphilisation is concerned as a factor in this change. An interesting point of inquiry in this connection would be to ascertain the family history of patients with either form of sore. If, as I believe, the secretion from an inflamed true syphilitic lesion will produce a soft sore in a person with an acquired syphilitic taint, it seems probable that a hereditary taint may exercise a similar modifying influence: so, too, might perhaps be found a clue to some cases of "mixed chancre". The question in its simplest form may be thus stated: Is infecting chancre often seen in persons who have ever manifested inherited syphilis? and this question it may be worth future investigators to answer.—I am, etc., ALFRED S. CARROLL, M.D.

New Brighton, New York, U.S.A.

THE VIVISECTION QUESTION.

DOCTORS are not the only people who should look to the clauses of the Vivisection Bill, which some well meaning but utterly inconsistent and wrong-headed enthusiasts are striving to push through Parliament. No one would uphold reckless wanton cruelty, least of all the physiologists and doctors—the latter, without exception, the most self-sacrificing class of the community, exposing as they do daily their lives and those of their families to risks that the general public know nothing of. To treat the numerically insignificant experiments of the man of science, when they are undertaken for the highest objects, not for sport or food, as penal, or at least as objects of police supervision, is an utter absurdity on the part of any one who wears a coat of cloth, not to say a sealskin jacket or a feather-trimmed hat, who eats a mutton-chop or an oyster, who indulges in the sport of shooting, hunting, or fishing, or sets traps for rats, rabbits, or moles. As for the gardeners, there must be no smoking of houses, no catching of slugs and snails, no trapping of wood-lice, weevils, or earwigs: green-fly, scale, and thrips must be allowed to enjoy their lives unmolested. Indeed, as it is quite impossible to draw the line between the different manifestations of life, animal or vegetable, we may next expect to hear it gravely proposed to be made a punishable offence to cut a cabbage—certainly to prune a peach-tree or pollard a willow: an *argumentum ad absurdum*, some will say, and truly so. All we can reply is, that it is not more preposterous than the proceedings of those who would allow a frog to be vivisected, but who draw the line at cats and dogs.—*Gardeners' Chronicle*.

NERVOUS SHOCK COMMUNICATED TO THE SUCKLED BABE.

SIR,—We all know how very liable infants are to convulsions; but in the case of Dr. Robert James Lee, the fact of their continuing three months, and then proving fatal, does not support the idea that sudden shock to the mother was the cause of them. Mr. De Berdt Hovell would have us believe that what he calls shock to a mother's "moral being" may readily cause the death of the child, but that when the "physical being" alone is affected, as in epileptiform convulsions, the nervous shock is not communicable. He also insists that the cause of death in these breast-cases is not suffocation (notwithstanding that every circumstance is favourable to such a disease), but that the altered quality of the mother's milk, which he goes so far as to call "poisonous", is the cause of instant death. I will not attempt to follow him in the comparison between woman and John Bull's wife, fearing I might lose myself when I came to speak of a cow's "moral being", although I still hold the opinion that "Dame Cow" is liable to nervous shock, grief, fright, and their consequences.

In Dr. Brookhouse's case, the mother was greatly frightened, started up, and ran to the door, hugging the babe to her breast, but paying no attention to it for some minutes. In my mind, there is no doubt that in her eagerness and anxiety she pressed the child too closely to the bosom, and almost suffocated it, which would account for the symptoms described. Mr. Hovell speaks of persons jumping at wrong conclusions; but there are, unfortunately, others of so scientific a mind, that no ordinary explanation will satisfy, it being far more in keeping with their mental bias to believe in "nervous shock communicated to the suckled babe" than in "commonplace suffocation".

In conclusion, I would insist that it is not sufficient to prove that the milk of a mother may be affected by sudden grief: the question is, is *bona fide* nervous shock capable of being directly and immediately communicated to the suckled babe from its mother's breast and of causing its sudden death, the life and health of the mother being comparatively unaffected?—I am, sir, yours truly, Aldershot, July 1876.

H. ERNST TRESTRAIL, F.R.C.S.

THE "FLORIDA COUGH".

THE *New York Gazette* has the following hit. "The most popular fashionable affectation among young ladies ravenous for social notoriety is the 'Florida cough', which is regarded by those who have been abroad as a fine substitute for 'Roman malaria', so fashionable a few years ago. The Southern malady is supposed to be contracted sitting on the piazza of a Magnolia or Jacksonville hotel, flirting and eating oranges alternately. Those who have never been near either place suffer dreadfully from the disease."—*Philadelphia Medical and Surgical Reporter*.

TRACHEAL TUBE OF INDIA RUBBER.

SIR,—It may interest Mr. Morrant Baker to know that the use of India-rubber tubing after tracheotomy can scarcely be called new. I have a patient who has been using these tubes since Christmas last. The tubes are made by the patient's friends as required, from an ordinary piece of vulcanised India-rubber tubing, one end being simply rolled back to form a ring sufficiently strong to hold the loops of silk through which the tapes are passed for tying round the neck in the common way. The tubing used cannot be too flexible: most of the common tubing is too rigid for comfort.—I am, your obedient servant, July 19th, 1876.

FRANK PUSZARD.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

DISEASE FROM USE OF POTATOES:

SIR,—Having in my youth spent five years and a half in a country hospital in the centre of Ireland, and practised for forty years in the province of Munster, I can decidedly say that there is no peculiar disease amongst the peasantry consequent on the use of a potato-diet. Forty years ago, when the peasant's diet was merely potatoes, and milk was scarce, often unobtainable, scrofulous disease was abundant, and then very often took the form of bone-disease, necrosis of the long bones being very frequent. Now, the peasant and labourer are well fed comparatively; and I can vouch for it, that where there is an abundant supply of skimmed milk, even with the inferior potato of later days, no healthier children can be reared than those who get such food: indeed, more children are killed in the first year of existence in Ireland by over-supply of badly prepared bread and milk than from any other cause, producing as it does all kinds of intestinal irritations and convulsions; and too often, by over-repletion of indigestible food, sudden or rapid cerebral disease.—I am, sir, your obedient servant. J. W. MARTIN.

Portlaw, July 1876.

LADY MEDICAL PRACTITIONERS AND REGISTRATION OF FOREIGN MEDICAL DEGREES.

SIR,—I was exceedingly glad and rejoiced at heart to find that Mr. Cowper-Temple's Medical Degree Bill met with the fate which it justly deserved, and for the following reasons.

1. The medical profession is already overstocked. The last six months of a medical student's life are about the most anxious. I do not here refer to his examinations, but how he is to earn his daily bread after he has obtained his long-worked-for degree. Whether to enter one of the branches of Her Majesty's service, go on board ship, or settle down as a private practitioner, these are among some of his daily thoughts.

2. Let ladies keep to their proper sphere, in which case they will be looked up to, respected, and admired by men. Woman, I believe, was never intended by Providence to be either doctor or a surgeon; but as a nurse, there could be no better.

With regard to the registration of foreign degrees, I hope the present Administration, which have done, and will do, much for the integrity and honour of the British empire, will never allow it to be said of them that they committed such a blunder.

In conclusion, I fully concur with the remarks made by Lord Sandon in the beginning of his speech. The medical profession must be upheld. In the town where I reside there has been imported lately from America a female, possessing, according to her own account (as I heard yesterday, when attending a midwifery case), all the medical and midwifery paraphernalia of our American cousins.—Yours, etc., M.B., LL.M., R.S.P.P.

County Down, July 1876.

ETIQUETTE OF PRINCIPAL AND ASSISTANT.

SIR,—I must remind your readers—first, that Dr. Phillimore is obliged to admit that I "performed his duties" during his absence, and was not under his control, but "the control of the Committee of Visitors"; second, that he cannot, therefore, lay claim to the position of "principal" in the treatment of the disputed case; third, that he cannot deny having conferred the title of "deputy superintendent", which he now declares "illegal"; fourth, that by an ominous silence, he admits having "withheld his consent to the publication of another case because of a personal whim"; and fifth, that by means of a clever but shadowy evasion, he has tried to escape the *post mortem* question, because its logical conclusion is destructive of his own arguments. Further, there is an attempt, in his last letter, to show that I have tried to shift a so-called "inaccuracy" upon the shoulders of a nurse. The nurse is responsible no further than calling my attention to a fall that the patient experienced on a certain day. This is the "part" I have assigned to her; hence the statement in my last letter, that the "dates published are more authentic than the account in the case-book". I have already admitted my inability to fix the exact date of the accident, but I maintain that those published convey a conscientious and practically accurate opinion.

Having been forced to admit that I "performed his duties and was responsible for the well-being of the asylum and its inmates in his absence", Dr. Phillimore has qualified this admission by charging me with "inattention". My last letter anticipated and set aside this sophistry; besides, his own private testimony and that of the Committee of Visitors leave his statement without a shadow of foundation. Strange to say, he denies "the illimitable recuperative powers of Nature" in this patient, who is a general paralytic, and still survives her fracture, bed-sores, and diarrhoea, as a proof of my assertion.

Thanking you for your impartiality throughout this controversy, which is sufficient proof of your liberal management of a liberal JOURNAL, I remain, your obedient servant, ALEX. M'COOK WEIR, M.D., etc.

Birmingham, July 17th, 1876.

ANIMAL VACCINATION.

SIR,—In the JOURNAL of July 8th, Medicus asks whether animal vaccination is still practised. I have vaccinated in this way for over eight years uninterruptedly, and have inoculated now about five hundred animals with the Belgian "spontaneous" stock. A fresh stock has also been produced by the inoculation of variolæ upon a new milch cow after the method of Ceely and Badcock. This plan may be had recourse to whenever it is desired to resort to primary cow-pox, and anyone is willing to undergo the expense and trouble. I have suggested, as an additional precaution, a further step in the method ("Good Vaccine Lymph", 1871; "Practical Notes on Vaccination", *Brit. Med. Review*, July 1876)—viz., that the virus, when taken from its primary vesicle, should be passed through one or two heifers previous to use on the human subject. This may be as unnecessary in the hands of Mr. Ceely as is the use of pen-markings to a veteran surgeon; but it is well to keep in memory the *contraints* of M. Chauveau.—I am, sir, yours, etc., JOHN GREENE, L.R.C.P.

July 18th, 1876.

MEDICAL ETIQUETTE.

SIR,—Mr. Alexander declines "to stoop" to have his statements "attested". It is perhaps prudent for him to do so, but I feel no loss of dignity (in this case) in placing myself under the protection of the signatures of the patient, her husband, and her sister. I shall decline any further correspondence.—Yours truly,

WILLIAM JACKSON.

P.S. We, the undersigned, attest the statements of Dr. Jackson's letter of June 24th to be true.—The patient (Lucy Hammond); the husband (this was given on June 24th); the sister (Susan Cole).

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

CASE OF FICTITIOUS DUMBNESS.

SIR,—The case described by Staff Surgeon Robert Nelson under this head, in your JOURNAL of this day, seems to me have been one of emotional aphasia, occurring in a nervous and sensitive lad under circumstances which, to him, were not only irksome, but distressing. I do not see what advantage was gained, or what light thrown upon the case, by the administration of chloroform; neither does the fact that the boy "shrieked for mercy", when pinched, at all contradict the hypothesis that his case was genuine. The same course might even have caused him to speak. It would be quite consistent with the temporary nature of the disease for him to have done so. But unless the fictitious nature of the case can be further substantiated, I consider the flogging an act of ill-judged and uncalled-for cruelty. The life on board-ship appears to have been quite unsuited to the lad's sensitive temperament, and he appears to have suffered accordingly. To have quietly removed him would have been humane; but to flog him was to do him wrong, and no good to anybody.—I am, sir, yours obediently, D. DE BERDT HOVELL.

Five Houses, Clapton, Middlesex, July 15th, 1876.

CLASSICAL QUOTATIONS.

SIR,—My communication is devoid of pathological interest; but, seeing that we are at present occupying a large share of public attention, I think that we had better show accuracy in our quotations from standard authors. Your correspondent, "On the Use of the Gum-lancet", in the JOURNAL of the 15th instant, like many members of Parliament and other learned speakers, would, if the author of *Hudibras* still lived, cause sufficient gingival agony to set even the little steel instrument at defiance. How can you convince a man against his will. Butler's words, in my edition of 1704, are:

"He that complies against his will
Is of his own opinion still."

Vide the last Book, Canto iii, page 202.—I remain, dear sir, yours truly, July 15th, 1876.

H. M. D.

THE *Southport Daily Advertiser* of June 29th contains a vigorous article, *apropos* of the annual meeting of the Lancashire and Cheshire Branch of the British Medical Association, against Lord Carnarvon's Bill, and concludes by expressing the earnest hope that the medical profession will in this respect do its utmost to stem the torrent of folly which is flowing in upon England.

ECLAMPSIA IN DIPSO MANIA.

SIR,—*Apropos* of Dr. Murchison's case of "Eclampsia in a Case of Dipsomania", published in the JOURNAL of July 1st, I mention the following, which occurred in my own practice a few days ago. The proprietor of a foundry, and who works in it himself, aged about 50, a hard whisky-drinker for the last nine months, was suddenly (without any premonitory symptom, except that he complained two or three days before of a pain in his head, and his urine being scanty, which symptoms were relieved by a few doses of acetate of potash) seized with epileptiform convulsions in the middle of the night. He had six fits in succession in as many hours, four of which were over before I saw him. Coma lasted about five minutes after each attack. I gave him half a drachm of bromide of potassium; and shortly afterwards he had two more fits, in one of which his tongue was bitten severely. I then gave him one drachm of the same medicine, and ordered it to be continued in half-drachm doses every three hours, with the result of his having no return of the attacks; and next day he was up and at his business, though weak.

This case is interesting as one of epileptiform convulsions, evidently the result of alcoholic excess, occurring in a man not naturally predisposed to such attacks, and also as showing the good results, apparently, of full doses of bromide in what may be called an acute case of the kind. The man is extremely violent when under the influence of drink, and has nearly killed his wife on more than one occasion, so that we may conclude that on this last occasion the "nerve-explosion" took a different route to discharge itself than, unhappily for his comfort, it generally does.—I am, etc., THOMAS DRAPE, M.B.

Enniscorthy, Ireland, July 5th, 1876.

KINDLY inform me where I shall find the best instruction on the duties of a medical officer of health, and the best work on sanitary science, including, of course, drainage, etc. A MEMBER.

* * There are several manuals devoted to this purpose; e.g., those of Hart, Michael, Wanklyn, and Corfield; *Manual of Public Health*, Smith, Elder, and Co.; Wilson (Churchill); Edward Smith (Knight and Co.); and for Ireland, that of Cameron (Fannin and Co.).

GOUT AND URTICARIA.

SIR,—In the BRITISH MEDICAL JOURNAL for July 1st, page 39, I have just read your letter, headed "Gout and Urticaria", to which I have much pleasure in responding, feeling confident that I can put you in the way of curing both disorders. My attention has been given for many years to the cause and cure of gout, to which I have an hereditary tendency, my father and grandfather having suffered greatly from this disorder. I soon ascertained that by attention to diet alone I could prevent the disease, and for more than thirty years I have steadily adhered to a diet consisting of farinaceous food and fruit, with milk and cream, by which means I have escaped any illness. Among my patients, I have found that (when I could not induce them to give up animal food) by partaking only of fish, fowl, and rabbit—white meats—their attacks of gout have been of a milder and less frequent character; but in no case have I been able to cure the disease unless I could induce a total abstinence from all flesh-food.

In all cases of gout, rheumatism, and in many cases of skin-disease and neuralgia, lithic acid is found to exist in large quantities in the system; and by some writers on gout—by Dr. Garrod especially—this is believed to be the sole cause of gout. I am rather inclined to look upon it as a product of gout; but whether I am right or Dr. Garrod, matters not in the cure of the disease. To effect that, I am satisfied that abstinence from animal food is a *sine qua non*. But I advise vapour-baths to be taken every day or every second day, followed by tepid washing, to eliminate, through the skin, the diseased matters existing in the blood in all cases of gout and skin-diseases.

If I can give you any further information, I shall be happy to do so on leaving from you. I am, sir, yours sincerely, JOHN MALCOLM, F.R.C.P.

5, Ashburton Road, Southsea, July 20th, 1876.

UNQUALIFIED ASSISTANTS.

SIR,—Leaving flattery out of the question, there is one thing for which I have often-times admired the *BRITISH MEDICAL JOURNAL*—to wit, the assiduity with which it has and does expose all kinds of professional shams; hence I now take up my pen, strong in the hope of obtaining your warm support in the suppression of a minor, but by no means insignificant, sham, which till recently has quietly slept in the shade. In the past, we have heard a good deal about our unqualified assistants; they have been branded as the authors of many a catastrophe, and even as the abettors of some most revolting crimes. Not long ago, the whole medical faculty became horror-stricken at the number of “medical students” appearing at the police-offices on charges of drunkenness and disorderly conduct. The evil had been growing for a good while before any notice was taken of it; but at last the thing became too glaring to be winked at, and the medical scrutators put their heads together with the view of remedying a state of things which was undoubtedly helping to lower the status of the profession generally. Everybody knows the result. It was easy enough to find So-and-so, “medical student,” in the police-reports, but it was not quite so easy to find So-and-so on the roll of registered medical students; in fact, it was found that “medical student” was a by-word occupation for every disorderly clerk, tradesman, etc., that happened to fall into the hands of the police. Now, most unquestionably, do the respectable unqualified assistants, past and present, occupy a precisely similar position. The unqualified assistants who cause catastrophes, or lend themselves to what is criminal and dishonourable, are certainly not *bonâ fide* medical students at all, inasmuch as their names are not to be found on the students’ registered roll. The truth is forcing its way into light at last; and truly it is well for us, medical students that it is. It is beginning to be known now that “shop-boys” are filling the position of unqualified assistants all over England—men who never spent an hour in a medical school or hospital, much less passed the examination required by the Medical Council before a right to the name of student is earned. In the very town where I am at present there are “shop-boys” passing themselves off as “doctors”; and if proof be required that there are “shop-boys” acting as assistants in other towns also, I am prepared to produce it. But if the “shop-boys” merit our indignation, how much more do the practitioners, who knowingly and willingly employ such a class of men, deserve to be condemned? We medical students are a mixed class; some of us may have been well off in the commencement of our course, until adversity or misfortune darkened our doors. Then, indeed, we eagerly catch at any opportunity to retrieve our fallen fortunes, and we look for an assistant. There are plenty such applicants; but not alone will practitioners not try and find them, but they actually give the “shop-boys” the preference. Will the fathers of the profession turn a deaf ear to our unanimous appeal against such a practice—this quackery that is being practised against us? Is there no redress? We on our part will exert ourselves to oust the shop-boys, by forming a protective club of some kind; and I sincerely hope that every member of the profession anxious to elevate its tone and enhance its utility will be found ready to aid us in the assertion of our rights and the exposition of the pseudo-medical students, yclept “shop-boys.”—Yours faithfully, M. H.

THE HISTORY OF STRICTURE.

SIR,—Will any of your readers be pleased to inform me who were the first members of our profession to treat of the pathology and treatment of stricture of the urethra, and in what works their writings are to be found?—Your obedient servant, July 22nd, 1876. INQUIRER.

“PLASTER-CAST” asks for indication of any source or sources from which he might obtain information on the making of plaster-casts. He has been seeking this knowledge some long time, but has not found it, but he thinks it is knowledge which every medical man would be the better for having.

ETHER-INHALER.

SIR,—I notice in your number of to-day that mention is made of my arrangement and modification of Hawksley’s ether-inhaler, from which it might appear that I claimed the application of the water-bath. This is not so, as the bath was a part of the original appliance of Mr. Hawksley. My object was to have, in an operating theatre where ether is largely used, everything that can be fixed and arranged so that it cannot be upset. For this reason I have had a large water-bath screwed to the wall, and the ether-bottle fixed into it with a clamp, and a sufficient length of tube to extend over the whole area of the theatre. By having this arrangement, the apparatus is always at hand and not in the way. The only other modification is an additional valve in the face-piece.—I am, sir, yours, etc., 10, Finsbury Circus, E.C., July 21st, 1876. JAS. E. ADAMS.

REGISTRATION OF FOREIGN DEGREES.

SIR,—Your correspondent M.B., before he begins to criticise a letter, ought first to read it over very carefully, and then, if he be determined to rush into print, to be certain that he possesses the requisite amount of information to reply to what he thinks are the errors of his opponent. I never said I had not heard that hygiene is a subject required in the medical schools. What I said was, in my student days it was only taught at Netley. M.B. is a very courteous individual. When I penned my letter to you, sir, I had not two men in my eye: I am not in the habit of drawing comparisons. The M.D. of any University, be it London or Edinburgh, can only practise his profession; the L.S.A. can do the same. Will my friend kindly inform me how many of the Scotch M.B.s proceed to the M.D., and how many of them are content with it?

As to M.B.’s startling information about the examiners of some foreign University coaching candidates, he ought in honour to make public the name of the men and their University. Now, as to St. Andrew’s, ten men can only graduate in a year. M.B. tells me, or at least insinuates, that men are rejected, but does not say how many. W.D.H. does. From 1871 to 1875, he gives fifty-one candidates with four rejections; in 1873, of eleven candidates, ten passed, just the number that could; so that No. 11, whoever he was, was bound to be plucked, because the University had not the power to give him his degree. One friend of mine, who a short time ago was one of the ten, said that whenever a pluck occurred it was only in a very bad case. Those of us who are old enough to remember the rush to St. Andrew’s in 1861-62, will also remember certain letters which appeared in the medical journals. One writer told how quacks and druggists from London were admitted, and men from the country of several years’ practice, who were rusty, indeed, but who all passed. Will M.B. kindly favour us with the percentage of rejections during the years of grace?

About operation on the dead body, this is not required by either of the Colleges of Surgeons of London, Edinburgh, or Dublin, or the Glasgow Faculty. It is not required by the London College of Physicians. When I say not required, I do not mean a course of practical surgery, but as a part of the examination for the diploma.

The only schools in London where hygiene is taught—that is, special courses of lectures given upon it—are Guy’s and University College; and as to examining bodies that require a course of lectures on hygiene, of those I have already quoted, one only, the College of Physicians, and they include it with practice of medicine.

I thank M.B. for his letter, and inform him that my reply to Justitia was at least courteous in its tone. I did not use to him such phrases as, “I suspect there are many things that Justitia has not heard,” etc.; and would advise M.B. to be also sure of the information he wishes to communicate before rushing into print. I am, etc. M.D. BRUSSELS.

July 23rd, 1876.

PETITIONS TO THE HOUSE OF COMMONS.

The following instructions for the proper preparation and execution of petitions to the House of Commons may be useful in the preparation of any petitions at forthcoming meetings of the Branches.

Every member presenting a petition to the House must affix his name at the beginning thereof.

Every petition must be written, and not printed or lithographed.

Every petition must contain a prayer.

Every petition must be signed by at least one person on the skin or sheet on which the petition is written.

No letters, affidavits, or other documents, may be attached to any petition.

No erasures or interlineations may be made in any petition.

No reference may be made to any debate in Parliament.

TREATMENT OF CHRONIC ECZEMA.

SIR,—I have found the following prescription very useful in some cases, and I would advise L.R.C.P. to try it. R, Liq. carbon. deterg. (Knight’s) 3i; glycerin. 3ii; aq. ad. ℥i. To be painted on the part with a camel’s hair-brush night and morning.—I am, etc., W. L. HEURUX BLANKARNE.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard’s Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard’s Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. De Bartolomé, Sheffield; Mr. Jonathan Hutchinson, London; Dr. George Johnson, London; Dr. Rutherford, Edinburgh; Dr. Sieveking, London; Mr. John Malcolm, Southsea; Dr. Edis, London; Mr. Hyde Houghton, Dudley; Dr. Alfred Carpenter, Croydon; Dr. J. W. Moore, Dublin; Dr. J. Richards, Bangor; Dr. Joseph Rogers, London; Dr. Braidwood, Birkenhead; Mr. Gilbertson, Liverpool; Mr. Vacher, Birkenhead; Mr. Ferrier, London; Mr. W. J. H. Wood, Boston; Mr. H. E. Juler, London; Dr. Meymott Tidy, London; An Associate; Mr. James Eddowes, London; Dr. W. Fairlie Clarke, Southborough; Dr. J. Milner Fothergill, London; The Secretary of Apothecaries’ Hall; Dr. Norman Kerr, London; Mr. Sampson Gamgee, Birmingham; Dr. M’Kendrick, Edinburgh; Dr. Hardwicke, Sheffield; Lieut.-Gen. Bouchier, London; The Registrar-General of England; Mr. G. Carrick Stead, London; Dr. Allfrey, St. Mary Cray; Mr. Howse, London; Dr. Chadwick, Tunbridge Wells; Mr. G. Eastes, London; Dr. Crookshank, London; Dr. Robinson, Preston; Our Paris Correspondent; A Member, Petworth; The Registrar-General of Ireland; Our Edinburgh Correspondent; Dr. J. Burdon Sanderson, London; Mr. W. H. A. Jacobson, London; Dr. J. A. Lush, M.P., London; Dr. Protheroe Smith, London; Mr. E. R. Hardey, York; Dr. Meredith, London; Dr. Frances Hoggan, London; Mr. Robert Smith, Winchfield; Dr. Wilson, Kilmuir; Dr. Crichton Browne, Southsea; Mr. W. M. Bradley, Jarrold-on-Tyne; A Doctor; Mr. J. B. Rudduck, London; Mr. M. M’Intosh, Murthly; Bengal, F.R.C.S.; A Correspondent; Dr. Cassells, Glasgow; L. R.: E. W. W.: Dr. Filson, Portaferry; M.R.C.S.; Mr. Sydney Pearse, London; Dr. W. Farr, London; Our Dublin Correspondent; Dr. J. C. Hall, Sheffield; Dr. Angus Mackintosh, Chesterfield; Dr. Mahomed, Paris; Dr. Henry Bennet, Weybridge; Mr. E. P. Hardey, Hull; Dr. Arthur Leared, London; Dr. G. V. Poore, London; Dr. Ferrier, London; Dr. Dowse, London; Mr. Norris, Charnmouth; Mr. W. Hope, London; Dr. Caton, Liverpool; Mr. G. Brown, London; Mr. Jones, Llanercoast; Dr. Cousins, Southsea; etc.

BOOKS, ETC., RECEIVED.

Illustrations of Clinical Surgery. By Jonathan Hutchinson, F.R.C.S. Fasciculus IV; Plates 13 to 16. London: J. and A. Churchill. 1876.
Spiritualism. By William A. Hammond, M.D. London: Sampson Low and Co. 1876.
Atlas of Skin-Diseases. By Louis A. Deehring, M.D. Part I. Philadelphia and London: J. B. Lippincott and Co. 1876.
Transactions of the Pathological Society of Philadelphia. Edited by Jas. Tyson, M.D. Vol. v. 1874-75. Philadelphia: J. B. Lippincott and Co. 1876.
Text-Books of Science: Introduction to Chemical Philosophy. By Wm. A. Tilden, D.Sc. Lond., F.C.S. London: Longmans, Green, and Co. 1876.
Epilepsy. By Frederick Goodchild, M.D. London: J. and A. Churchill. 1876.
A Hand-Book of Therapeutics. By Sydney Ringer, M.D. Fifth Edition. London: H. K. Lewis. 1876.

PRESIDENT'S ADDRESS,

DELIVERED AT

THE FORTY-FOURTH ANNUAL MEETING OF THE
BRITISH MEDICAL ASSOCIATION,*Held in SHEFFIELD, August 1st, 2nd, 3rd, and 4th, 1876.*

BY

M. MARTIN DE BARTOLOMÉ, M.D.,

Senior Physician to the Sheffield Infirmary, etc.

GENTLEMEN,—Permit me, in the first place, to thank you most sincerely for the elevated position which, by your kindness, and not through my own merits, I have now the honour to occupy.

A late President described "the British Medical Association" as "the largest association of medical men ever voluntarily banded together for the general good of the profession".

To be the President of this unique Institution, is an honour to which any man may honestly aspire, and even anxiously covet; but, believe me, gentlemen, it is one which my most selfish anticipations never once led me to expect. And when I call to mind the distinguished men who have preceded me, I almost tremble at my audacity in accepting so important and responsible a trust; and the only excuse I can offer you is my desire to justify your confidence, by devoting such means as are within my reach to your service, and to the advancement of the noble profession to which we all have the honour to belong; and in this I feel encouraged by the conviction that you will accept "the will for the deed", and kindly overlook my shortcomings. The melancholy and unfortunate circumstances which have led to the present meeting of the Association being held in Sheffield, are so well known to all here present, and are so universally deplored, that it would be but an evidence of bad taste were I to refer to them further than to assure you, that it was the suddenness of the emergency which finally decided me to overlook all other considerations, as well as my own deficiencies, and, yielding to the solicitations of kind, and, I fear, too partial friends, climb the giddy height. In the next place, gentlemen, I beg to tender you, not only in my own name, but in the name of my professional brethren in this town and neighbourhood, and even in that of the inhabitants of this grimy and busy hive of industry, a warm and hearty welcome.

The presidential addresses have steadily, and in an almost geometrical progression, increased in bulk and importance; and have frequently been very successful displays of eloquence and historical research. An ordinary man, therefore, suddenly placed in my present position, cannot attempt anything like competition with his predecessors without the risk—nay, I may almost say the certainty—of failure staring him fully in the face. I shall, therefore, limit my task within easy range; and bearing in mind that we are assembled in the very hot-bed of limited liabilities, occupy only a portion of your attention, without usurping to myself that time which, I am sure, you may turn to more profitable account.

It has now become almost the rule for the President of the Association, inspired, as it were, by "the genius loci", to descant upon the merits of the town wherein the Association is actually assembled, to sing the praises of some of its notable citizens, past or present, or to describe, in full detail, its industries, its position, or its characteristic features. Nor should this practice be too hastily condemned; for it possesses the great recommendation that, if judiciously acted upon, it trenches upon no "vested rights"; it does not interfere with the especial addresses, carefully prepared by dint of labour and patient study, by eminent men appointed for the purpose beforehand, and whose essays constitute a most important part of the purposes for which the Association holds its annual meeting. In the present instance, the temptation is irresistible to plunge at once into a disquisition of the diseases more especially attendant upon some of the staple trades of this district; but the fear of "stealing" somebody else's "thunder" imposes silence upon me. I shall follow the example of the gentlemen to whom I have alluded; but I shall do so only so far as briefly to call your attention to the character of this picturesque, though dirty, neighbourhood, to its natural wealth and industrial pursuits, and to the changes which have taken place, within my knowledge and observation, in its staple manufactures, in the social condition of its inhabitants, and in the type of disease.

The country around Sheffield cannot easily be surpassed, either for the beauty and variety of its scenery, or for the mineral wealth hidden

beneath its surface. Within a radius of a score of miles, we have the most striking contrast between highly-cultivated agricultural land and monotonous, yet lovely, moorlands, teeming with grouse and other game. Within this circuit is enclosed the beautifully wooded district so graphically described in the opening chapters of *Ivanhoe*; and here we find such interesting ruins as Sheffield Manor, once the prison of the lovely Mary, Queen of Scots; Roche Abbey, Conisborough Castle, Haddon Hall, and many others; as well as more modern structures, such as Chatsworth, the peerless Palace of the Peak; Wentworth Wood House, and Wharfedale. In this circle are likewise situated some of the most productive iron and coal mines in England, together with some of the most ancient lead mines, some of which were extensively worked by the Romans; and, though neglected for generations past, have been again reopened within my knowledge, and are at present in full and, I trust, remunerative activity.

In the various branches of the Sheffield trade, grinding stones are extensively used, and this to a greater extent than is generally supposed, for their destruction by frequent dressing is very rapid; but the quarries from which they are extracted appear exhaustless, and fully equal to the demands likely to be made upon them for an indefinite length of time. Clay, particularly fire-clay, is indispensable for furnace building; and nature, as if solicitous that nothing essential to the success of this Cyclopean region should be wanting, has furnished several varieties with abundant liberality. Nay, more, pulverised ganister is necessary for smelting purposes; and this, again, nature yields in such abundance that, after the local wants are provided for, thousands of tons are annually sent, at remunerative prices, to other districts not so favoured, and even exported to foreign countries. Building stone of the finest quality is also found in great profusion; and the stone of which the Houses of Parliament are built was quarried, and, in great measure, wrought within twelve miles of Sheffield.

The various streams, which meander over the irregular surface, formerly furnished the whole motive power required to work the numerous grotesque grinding wheels capriciously sprinkled upon their banks; but in this important office they have, to a great extent, been supplanted by the more certain and more controllable steam-power, and much of the grinding is in consequence done in the town itself. Even at the present day, the country is plentifully covered by trees; but it must have been incomparably more so in former ages; and, as some of the handicrafts carried on in this locality could not dispense with charcoal, the forests, before the introduction of coke, must have constituted a very important source of revenue. At the present day, coke has very largely taken the place of charcoal, and this perhaps explains the transformation of so many forests into agricultural lands.

The situation of Sheffield is, I think, one calculated to ensure as high a state of health as any town in the kingdom. It spreads over many undulating hills, varying in height, according to the able report of our medical officer of health, Dr. Griffiths, "from 120 to 1,300 feet above the mean sea-level"; and these undulations must necessarily assist in draining the surface of the soil into the different water-courses. The hill sides were dotted, when first I made acquaintance with them, by numerous pretty little gardens, which the working-men of the period took great pride in keeping in the neatest and most productive order; and which, in my opinion, played a most important part in the social and moral condition of the labouring population of this hard-working district. When, for example, trade was "slack", and men worked "short-time", they filled up their compulsory leisure by paying extra attention to their gardens; and such was the zest with which they devoted themselves to horticulture and floriculture, that it was a common thing to meet them early and late—without neglecting their work—going to or returning from their favourite pastime, loaded with the fruits of their industry. I shall not easily forget the keen spirit of rivalry I have more than once seen displayed upon their grimy, honest features, when, upon meeting one another, they have opened their respective bundles by the roadside, and compared their contents, vociferously contesting their merits all the while. So earnest were the artisans of that time in the pursuit of this innocent pleasure, that it was no unusual thing for them to spend whole nights, and for long periods consecutively, in watching their little plot of ground, lest some midnight marauder should destroy their chance of competing for the coveted prize at the flower or fruit show—for those were, indeed, the days of gigantic gooseberries and monstrous roots of celery.

Those gardens are now, alas! swept off the face of the neighbourhood by the unquenchable thirst for building sites; and their humble cultivators have, I fear, been driven to waste their leisure hours in less innocent and less productive amusements.

Man's bliss consists of trifles such as these, and I cannot help regretting the destruction of those little cases in the desert of a working man's precarious existence; and I would respectfully yet earnestly sug-

gest to philanthropic capitalists the propriety of replacing them by new ones in some convenient locality accessible by rail, for, as one of our most feeling English poets says :

"Spontaneous joys, where nature has its play,
The soul adopts and owns their first-born sway;
Lightly they frolic o'er the vacant mind,
Unmolested, unmolested, unconfin'd."

The borough of Sheffield is intersected by five different water-courses, all of which may be seen at once from a spot, by no means the highest in the neighbourhood, not more than three miles from this building; these streams and the irregularities of the soil are so favourable for surface-drainage that man, until a recent period, has trusted altogether to these natural advantages without duly considering that surface-drainage unaided by engineering skill, while it removes nuisances from one locality, very frequently deposits them upon another in perhaps an aggravated form. Within a comparatively recent period, however, a regular system of connected drainage has been adopted in the borough, which, under the able management of our medical officer of health and his coadjutors, bids fair to be of very essential service to the town and its surroundings.

When this Association, then the Provincial Medical Association, last met in Sheffield, upon the 31st of July, 1845, just thirty-one years ago, the town occupied less than one-fourth of its present area; it contained less than one-third of its present population, and represented a very infinitesimal portion of its present wealth; and it was entirely devoid of the numerous beautiful and elegantly appointed villas and pleasure-grounds which now so lavishly surround it upon almost every side.

The working population were pent up within the very narrow limits of the town itself, and the various branches of the cutlery and other trades were carried on in small ill-contrived and inconvenient premises, and the various manufactured articles came together for the first time, only when collected in the warehouse of the factor; but now-a-days all this is changed; large and commodious buildings, in many instances of colossal dimensions, have been erected both by companies and by individuals who employ large capitals, and "the little maister" of former epochs is almost a thing of the past. Every one who can do so gets out of the town, and the result of this thinning of the urban population has been a most wonderful improvement in the health of the district.

From remote antiquity, Sheffield appears to have been celebrated for its cutlery; and Chaucer, speaking of the burly miller in the *Reve's* tale, tells us—

"A Sheffield thwitel bar he in his hose,
Round was his face and camois was his nose."

The Sheffield whittle of ancient times was, I believe, what is now called a case or sheath-knife, "rough and ready", and in all probability would have borne but a degrading comparison in point of workmanship with the highly finished and more expensive knives now made by some of our first-rate cutlers, and particularly with those wonderful monuments to human patience and ingenuity exhibited in Rodgers' show-rooms; but I dare say it was more useful and serviceable than these latter, in spite of their hundreds of blades and ruinous cost of production; at all events, it was doubtless the best of its kind at the time, and had already made its mark in the world sufficiently deep to attract Chaucer's attention.

The whittle is not, I am glad to say, the only local production of this fertile workshop immortalised by poets. The "spotted heft" and the "Wadsley flat back" have also engaged the attention of the muse, for Mather, a local poet, sings—

"A baskiful for a shillin,
To mak em, we are willin;
For flatbacks and spotted hefts we daily mun be sellin,
Or swap em for red herrings our bellies to be fillin."

There can be no doubt that the manufacture of cutlery has been the staple trade of Sheffield for many ages, and that, in all probability, it will continue to flourish in this locality for generations yet to come, in spite of all competition, both foreign and domestic.

On visiting the cutlery works, you cannot fail to be struck with the effects produced both upon the manufactured goods and upon the artificers who make them, by the system of divided labour so universally adopted in the cutlery and other trades. By the inflexible rules which guide this division of labour, a man is rigorously kept to one kind of work only, so that, for instance, in the making of an ordinary one-blade knife, twelve "hands" are employed, while the number of men taking part in the making of a fair sportsman's knife is no less than twenty-one; counting in both cases after the strips of steel are ready for the forger. By this constant practice, each man making but one piece of a knife, perfection is doubtless attained, and you will be surprised to see the rapidity and precision with which a workman forges an unlimited number of the piece he is accustomed to forge without taking any measurements, but guided solely by his eye; yet, so perfectly do these

pieces resemble one another, that you can distinguish no difference between them. The same remarks as to the accuracy of the work apply to the grinder, and, indeed, to any other workman concerned in making the various parts constituting a pocket-knife. The most wonderful part, however, of the whole process is the final putting together of the various pieces; for, although they have been made by the large number of men I have already mentioned, in separate workshops and without the slightest concert with one another, "the fitter" has no difficulty, taking the various parts almost at random, and with but very little filing, in uniting them into perfect knives identical in shape, size, and, indeed, in every respect. The only exception to some of the preceding remarks is to be found in the making of the scales, each of which must be accurately shaped to a pattern.

So far, we only see the advantages of the division of labour, but the system is not, in my opinion, free from objections; for I understand that, if you take a man thus accustomed to one particular kind of work and set him to a different job, he feels nearly as awkward as a raw novice would do. By this, you will perceive that the division of labour, while it undoubtedly produces more perfect, and perhaps cheaper, work, it at the same time deteriorates the workman by turning him into a mere machine; thus rendering him less capable of varied employment by narrowing the scope of his mental faculties and crippling the adaptability of his muscles and other physical agents. This truth appears to be recognised by the different branches of the trade; if we are to judge by the severe manner in which apprenticeships are regulated.

The manufacture of files is another industry which has rendered Sheffield famous for ages past, and which is still carried on almost with undiminished vigour; for, although file-cutting machines are used to a certain extent, yet I believe that files cut by hand are preferred by the workmen who use them as being superior to those cut by machinery, even beyond the difference of their cost. Men, women, and children of tender ages are employed in large numbers in this locality in cutting files of all descriptions and sizes, from the diminutive little things less than an inch in length, a dozen of which weigh but an ounce, and principally used by watchmakers, to the gigantic specimens employed in filing hot iron, eighteen to twenty inches in length, and weighing fourteen pounds each. The hammer used in cutting files varies in weight from a few ounces to fourteen pounds, according to the description of file to be cut with it. File-cutting is a most interesting process; and it is surprising to see the accuracy of the work compared with the rough tools used in producing it, and the apparently careless manner in which the chisel, guided by the touch, is struck with just the requisite amount of force, while the operator joins in conversation and participates in the boisterous mirth around, or is, perhaps, looking at any other object but his work; to him the touch is indeed a sense; but, here again, we must admit that "practice makes perfect".

The manufacture of saws has likewise reached a very high state of perfection in this district, and several firms have attained very great distinction in both home and foreign competition. Rectilinear saws are made from the finest to the coarsest toothing, and of all sizes, from the piercing saws, weighing but half an ounce to the dozen, to the pit-saws, eight feet long and sixteen pounds in weight each. Circular saws are also made of almost all sizes. Of the smallest, used for cutting metals and pearl, a dozen weigh but an ounce and a half; while the largest, six feet in diameter, weigh three hundredweights each.

It is useless to waste your time further in illustrating, as I might do, the excellence of all the other tools made here, whose name is legion, but "ex uno disce omnes".

In process of time, Sheffield became celebrated for its silver and silver-plated goods, and for a long period "the Sheffield plate" stood unrivalled in the market. The Sheffield plate was produced in a very simple but very ingenious manner; two blocks of different metals and of different thickness, the thicker one of copper called "an ingot", the thinner of an alloy of silver called "a plate", were soldered together and passed successively several times between two powerful steel rollers, subject to very great pressure, until the twin-plate was expanded to the requisite extent and reduced to the desired thickness. The blocks, as I have said, were of different thickness, the copper ingot being several times thicker than the silver plate, but so accurate had the degree of ductility and expansibility been ascertained, that the relative thickness of the metals always stood in the original proportion; and, when the metals had been expanded to the requisite extent of surface, the baser metal was generally found covered by the silver to a most uniform degree. In the progressive march of improvement, "the Sheffield plate" has been superseded by the more perfect and convenient process of electro-plating, which doubtless possesses many advantages over the old process; the principal of which being that it offers greater facilities to the exercise of fancy and caprice in the shape and ornamentation of the design, because, as in electro-plating, the silver is

deposited upon the goods after they are, so to speak, finished, the seams and solderings, as well as the irregularities of the borders and ornaments, are all equally covered by the deposit of the precious metal.

I must not omit to mention among the productions for which Sheffield is justly celebrated the various purposes to which Britannia metal, German silver, and other alloys of that class have been adapted, such as forks, spoons, tea-pots, and similar things, because the beauty of their designs and the excellent quality of the metal entitle them to some brief notice. A late friend of mine engaged in the trade once told me that the metal produced by his firm was of such good quality that the "smashers" were in the constant habit of buying forks and spoons of his make by twos and threes for the purpose of turning them into counterfeit coin. And our witty friend Mr. Punch, in a recent number of his amusing periodical, represents a publican telling a customer that he would not so much regret the loss of his pots, if he had not to take them again across the counter in the shape of counterfeit coin.

I may here observe in passing, as regards the designs of Sheffield goods, that the principal firms were formerly in the habit of keeping able designers of their own, to whom they paid very handsome salaries, and whose designs they guarded with the most jealous reserve; but, since the establishment of our most successful school of art, a greater degree of liberality has been displayed by our manufacturers, and there exists now, I am happy to say, a kinder and less reserved reciprocity between them.

The greatest addition which has been made to the manufactures of this town is as regards heavy iron and steel castings. Fire-stoves, gas- and water-pipes, and other castings in steel, iron, pig-metal, and sown-metal, have long formed an important part of the trade of Sheffield and the surrounding district, and the original Southwark Bridge was, I believe, cast at Rotherham; but it is comparatively recently that the making of railway tires, springs, axles, and buffers, and, still more recently, the rolling of armour-plates for ships and fortifications, and the casting of heavy ordnance, have been introduced amongst us; and these changes and additions have caused a rapid increase in our population. The population of old Sheffield could not supply the rapidly increasing want of brawny arms caused by the rapidly increasing development of this new industry, and consequently, as the demand invariably creates the supply, thousands and tens of thousands of robust and athletic men responded to the call, both from the "Black Country" and from almost all parts of the agricultural districts; and, as a natural result, the population of Sheffield may be said not only to have increased numerically, but to have improved in physical quality also.

The rolling of armour-plates has here been brought, I believe, to the greatest state of perfection; and you will have an opportunity afforded you, through the kindness of Messrs. Cammel and Co., of seeing the process of making one of those monster plates; but I cannot tell you beforehand either the size or shape, as these depend upon the particular part of the ship for which at the time the plate is wanted; but, whether it be large or small, you will see sufficient to feel astonished, if you see it for the first time, at the precision and certainty with which enormous masses of metal, either in a state of incandescence or perfectly cold, are controlled and directed, and finally brought into proper shape and adapted to one another, by the most powerful, accurate, and delicate machinery—the whole planned and executed by man's irresistible intellect, seconded by healthy human muscles. Well might Hamlet exclaim, "Oh, what a thing is man!"

Pugnacity—however much the assertion may grieve the members of the Peace Society—pugnacity appears to me to be that quality which, for a wise purpose, no doubt, has been most lavishly distributed throughout the whole creation; and while we find one being distinguished from another by some attribute or peculiarity not common to all, very little observation will enable us to perceive that, whether animal, bird, fish, reptile, or insect, all animated beings can and do fight, after a fashion. It was not to be expected that the armour-plates should be allowed to have it all their own way; had it been so, Messrs. Cammel and Co. and Messrs. John Brown and Co. might have been classed amongst the foremost champions of peace. It was soon discovered that, if ships could be made invulnerable, an enemy's vessel could, unmolested, commit almost any atrocity without danger to herself, except such as might result from direct impact against another ship; artillerymen, therefore, set their wits to work, and "The Woolwich Infant", and other *pets* of this kind were the offspring.

Messrs. Thomas Firth and Sons have, for a considerable time, been engaged in casting the blocks required for the titanic artillery of the present day, as well as other large steel castings. They also have made arrangements to show the members of the Association the whole of the process, and even to illustrate it by casting one of those large cores.

Where the present mad competition between the might to offend and the strength to resist the attack, is to end, it were difficult to predict; but of this much we may be certain—Sheffield will prove herself equal to her mission; and so long as the contest last, and even the day after, she will continue, while nations are fool enough to pay for it, to supply the means both of attack and defence, the bane and the antidote, with the most perfect impartiality, thus endeavouring to balance the account, much after the manner of the Newcastle apothecary, who

"If he hurried
A few score mortals from the world,
He made amends by bringing others into 't."

Having mentioned the names of two or three Sheffield firms, I think it only an act of justice to state, that I believe there is not a single manufacturer or firm in the whole district who will not, with characteristic liberality, be glad to show the gentlemen here present everything that may be shown; but, as the stay of the Association in Sheffield is limited, and we have a good deal of work cut out for us to do, the acting committee have impartially selected such of the manufactories as are considered typical of the process to be witnessed.

This hasty and imperfect sketch of Sheffield may, perhaps, be considered still more incomplete, by some of my hearers, if I omit altogether names of general or local celebrity in the paths of literature or art; but let me assure you, gentlemen, that the omission is not caused by the lack of materials, but simply by my desire not to tire you by a long discourse at the very beginning of our task. Francis Chantrey, James Montgomery, Ebenezer Elliott, Rhodes, Hunter, and many others I could name, need no eulogy at my hands; and delicacy forbids me to name the several living philanthropic Sheffielders who honour themselves, as much as they benefit their native town, by their splendid munificence; and, unless I am very much mistaken in the opinion, I entertain of these gentlemen, they will be the first to applaud my reticence.

The type of disease in this locality has undergone considerable change for the better since I first knew anything of it; and this beneficial change has been produced, in my opinion, by a variety of causes.

First and foremost, we must place the supply of water, which now is constant, abundant, and of first-rate quality, from the extensive reservoirs of the Sheffield Water Company, whose collecting surface consists mainly of moorland; whereas, thirty years ago, the supply of water was intermittent, in so far as the water company was concerned, and the remainder of the water consumed was to a great extent derived from pumps, wells, and other receptacles, too often contaminated by offensive matters, from the surface, from cesspools, and even from graveyards. Now, according to Dr. Griffiths' able report, the water supply within the borough amounts to twenty-one gallons daily for each person. This unlimited supply of pure water, together with the reduced price of soap, have gradually introduced greater cleanliness among the people generally, and a consequent diminution and mitigation of disease. This favourable change has also been promoted by the improved and daily-improving system of connected drainage, the closing of the graveyards within the town, the opening of wider and consequently better ventilated streets, and the visible improvement, small though this is, in the construction of dwellings for the working-men and for the poor.

The artisan population has acquired, or perhaps imported from their former residences, a taste for country life, which their high wages, in many instances almost incredible, enable them to gratify; and in this way, also, the improved sanitary condition of the borough may perhaps be accounted for.

The general type of disease has progressively become less adynamic; the common epidemic fevers, which not unfrequently visit us, have not of late required the extremely stimulating treatment of former times, nor have they diffused themselves so universally or with their wonted rapidity.

So much, gentlemen, for Sheffield and its belongings; let me now say a few words, as impressively as I can, upon a subject which, like the postscript to a lady's letter, contains the very pith and marrow of this crude address, and is of the most vital importance to the community at large. It is one upon which I hope you will, before this important annual gathering is brought to a close, express your opinion calmly, emphatically, fearlessly, and in unmistakable terms. I mean the appointment and removal of medical officers of health.

No man who has had an opportunity of observing and comparing what a town or district was before the appointment of medical officers of health, and what it has become since, can have failed to be struck with the improvement which, generally speaking, has characterised the change. I do not mean to assert that all appointments have been equally judicious, or that there is no instance of failure; but I do say that, if such exist, as possibly they do, they have not come within my

notice; and that, even if we grant their existence in rare, isolated instances, the exception but proves the rule, and throws the almost uniform success of the system into bolder prominence; and the only cause for surprise is that so much has been accomplished in so short a time, for we must candidly admit that we are a highly conservative people, and take a great deal of time thoroughly to uproot our long-cherished prejudices.

The appointment of medical officers of health is a step in the right direction; and if proper judgment be exercised in the selection of men for the office, and they are placed in the independent position which the honest discharge of their duties imperatively demands, they are, in my opinion, destined to change ere long the character of disease throughout the whole nation, and, to use an Irishism, *to save the lives of generations yet unborn*.

But, gentlemen, let us speak plainly. To ensure the efficiency of the medical officer of health, we must secure his independence, and he must be protected against petty tyranny and ignorant caprice; in short, gentlemen, he must be protected against local influences. No officer of health ought, in my opinion, to be appointed or dismissed without the concurrence of the Local Government Board; and I think it would be still more satisfactory if the Local Government Board took the whole business upon itself, both the appointment and the dismissal, as well as the remuneration of the officer, and retained within its grasp the power of moving an officer from one district to another, and of thus avoiding the total loss of the services of a good man, who, through exceptional circumstances, might have become unsuitable to one locality, but yet be a very desirable officer for another. In this way also a cheering prospect of promotion and reward might be made to brighten the gloom and monotony of certain districts; but the principal advantage would result from the medical officer's conviction, that his character and his bread were protected against the arbitrary and irresponsible self-sufficiency of certain jacks in brief authority, who, while apparently discharging a public duty, may in reality be only gratifying a private pique, originating perhaps in the conscientious, though impolitic, interference of the medical officer of health with a favourite, though noxious, cesspool or pigsty.

And now, gentlemen, allow me to thank you once more, not only for having given me the opportunity of addressing you, but for the very courteous and patient manner in which you have listened to my long and perhaps uninteresting remarks.

STOCKBRIDGE.—Mr. Browning, the Medical Officer of Health, reports that the number of deaths during the year, 1874, was in excess of the average, which may be accounted for by the severe weather during the early and later months of the year. Nearly half the deaths were of children under five years of age, and as many as 28.8 per cent. were under one, which was less even than in 1874, when there were 33 per cent. under one, and 57 per cent. under five. We find that this enormous number of deaths in early life did not occur during the ten years 1861-70, as the proportion under five for that period was only 27 per cent. When, in addition to this, the medical officer says that he finds 25.6 per cent. of the children born in the district die before reaching the age of one year, we agree with him "that many of these deaths are due to preventable diseases". It appears that Mr. Browning has made a house-to-house visitation of a considerable portion of the district, and that a large number of nuisances which would otherwise have escaped notice have been abated. The main public sewers have recently been constructed, and the adjacent houses will be drained into them; and 8,000 yards of water-mains have been laid. The deaths of young children show that these sanitary improvements were not made at too soon; and it is to be hoped that not only will they contribute to the comfort of the inhabitants, but also to their health.

BRIDLINGTON.—Dr. Hutchinson reports the births as having been 299 in 1875, which gives a birth-rate of 32.76 per 1,000 population; and 202 deaths, which are above the average, and afford a death-rate of 21.66. The zymotic death-rate was also higher than usual, having been 3.5 per 1,000 inhabitants, against an average of 2.3; the increase being due to measles and scarlet fever in the early part, and to enteric fever in the latter part of the year. There were 41 deaths of children under one year old, or 20 per cent. of the total deaths. Dr. Hutchinson observes "that this is a matter which demands the most serious consideration, as I think a vast amount of infant life might be saved by proper management". He pointed out the unusual humidity of the atmosphere, which is important, as it causes "phthisis, bronchitis, etc., in cold, and facilitates decomposition of dead animal and vegetable matter in warm weather", leading to diarrhoea. A case of typhoid was caused by the use of contaminated well-water.

ADDRESS IN MEDICINE,

BY

EDWARD H. SIEVEKING, M.D., F.R.C.P.,

Physician Extraordinary to Her Majesty the Queen; Physician in Ordinary to H.R.H. the Prince of Wales; Physician to St. Mary's Hospital; etc.

A CERTAIN noble lady was asked by her daughter-in-law for advice, as to the best method to be pursued in educating her children. The reply recommended "a little wholesome neglect". This apparently paradoxical suggestion was not intended to imply that her ladyship undervalued systematic training and education, but that she trusted much to the natural tendencies of growth and development, to bring out the latent forces, provided they were guided by superior knowledge and intellect into their proper channels. The answer was a protest against pedantry, and the procrustean bed of the pedagogue, which in former times, as now, too commonly seeks to establish an uniformity of level and appearance, regardless of the impulses of nature.

A trim garden in the Louis Quatorze style causes us to admire the ingenuity of the gardener, who, by his shears, would compel the bushes and trees to assume any fantastic shapes that his fancy led him to determine upon; but the lover of nature finds in his productions no food for the imagination or for the cravings of the heart, for he feels that the same labour and time bestowed upon developing the glories and harmonies of colour, form, and perspective, would have better served to raise him from the mean and grovelling, to that which is exalted and eternal.

That which excites the admiration of foreigners in our country and constitution, and runs counter to so many preconceived notions of the fitness of things, imbibed by men who have been educated under a different régime, lies really in "the little wholesome neglect" that the Briton has enjoyed ever since he has acquired an historical name. He has been allowed to grow; or rather, in spite of frequent attempts to curb and stunt him, he has learned to know his strength and to assert his independence. It is not appropriate that I should, in this place, dwell upon any question of the political development of our country; but the preceding remarks suggest themselves forcibly to any one who, on an occasion like the present, casts his eye back upon the features that mark the growth and expansion of the body, an integral part of the commonwealth, to which we, the medical men of Great Britain, belong.

As a profession, we have enjoyed but little of the fostering care of Parliaments, of Corporations, of Universities. What they have done for us has rarely been owing to their spontaneous action, but has been mainly due to that *vis à tergo* which Lord Palmerston, in a different sphere, demanded when any great measure of public utility was urged upon him. Our efforts and success will be none the less, if we occasionally, while taking breath in our race, look back to examine our previous course; to know the sloughs in which we have floundered; the pitfalls we have escaped; to obtain a clear view of the goal that shines before us, in an ever brightening and broadening light.

A great future lies before us. No utopian vision of fantastic delights, no weird dream of golden joys and boundless felicity; but a prospect that forces upon us the conviction that we are entering upon a field of wider duties, of greater service to our fellow-man, of a nearer approach to the fulfilment of our highest destiny, as members of a Christian commonwealth.

Many who are now honouring me with their attention may think that so much remains to be done by the profession, that they may be disposed to regard lightly the labours and achievements of the past. But those whose memory, like my own, can bring before them the events of the last forty years, and who can realise to themselves the state of the medical profession in our island at the earlier part of the present century, will form a different estimate. Most of the labourers who have brought about, what I cannot but call, our present hopeful condition, have passed away. But it is right and fitting, and in accordance with the spirit in which these addresses were originally established, that our gratitude, while it is not unmindful of what we owe to our contemporaries, should follow those who have gone before with loving hearts.

At the commencement of the nineteenth century, the medical profession was still in a chaotic state in Great Britain and Ireland. Its detractors denied that it occupied a scientific status; and in spite of

the eminence of some of the heroes of our calling, we could scarcely ignore the trade-mark which was conspicuous on its documents. In vain have I sought for any evidence of corporate professional feeling in the earlier history of British medicine. Great names—aye, and greater than Italy, Germany, or France can boast of—illumine our roll of distinguished citizens; but how many of them had to lay the foundation of their medical knowledge in foreign schools, because the means were wanting at home, to acquire the alphabet of their profession?

Linacre, the founder of the Royal College of Physicians, studied at Bologna and Padua, where he took his degree of Doctor of Medicine; Caius studied physic under Montanus, and dissected with Vesalius, at Padua, where he graduated; Harvey, to whom the whole world bows in reverent admiration, learned his profession under Fabricius ab Aquapendente, Minadous, and Casserius, and took his degree at the same university. Leyden, Heidelberg, Avignon, Paris, Montpellier, are some of the many foreign universities, which, as we learn from Dr. Monk's erudite *Roll of the College of Physicians*, claim as their alumni most of the eminent medical men belonging to the sixteenth, seventeenth, and even far into the eighteenth centuries. These men did not, as is well and wisely done by physicians and surgeons of the present day, go abroad to compare foreign with home experiences, and to perfect a professional education of which the foundation had been laid in their own schools and universities, but they undertook the risk and fatigue of travel, which in their days was no slight matter, to acquire knowledge which was unattainable in their own country.

I have in vain sought for early evidences of medical teaching in England, or especially in the English universities, before the beginning of the sixteenth century. Nicolas of Farnham, and John of Gaddesden, who treated Edward III, when he had the small-pox, by wrapping him up in a scarlet cloth, and discovered the method of distilling fresh from salt water, appear to have been the first exceptions to the rule that our princes brought over their medical attendants from abroad. Nicolas de Farnham (as we are told by Matthew of Paris),* who was elected in 1241 to the see of Durham, had been rector in arts at Paris, and afterwards practised medicine at Bologna. He became pre-eminently distinguished in, and obtained great favour by, his skill. The king and queen, Henry III and his consort, by the advice of some learned men, and expressly at the instance of Otto, the legate, the Bishop of Carlisle, and some other of the king's secret advisers, summoned Nicolas to take charge of their souls and bodies, and to be their familiar counsellor; in which office he conducted himself well and prudently till he was elected to the said episcopal dignity.

The first medical lectures of which I can find any record were delivered in Oxford by a foreigner of the name of Andrew Alazard,† who had graduated at Montpellier, and was appointed by the chancellor and proctors to lecture on medicine, and to explain, from tables of his own, *Avicenna de Pulsibus*.

So little, however, was the science of medicine appreciated in Oxford during the sixteenth century, that the university admitted, about 1550, Simon Ludford, originally a Franciscan Friar, and subsequently an apothecary in London; and afterwards David Langston, a coppersmith, two ignorant, unlettered, and incompetent persons, to the honours of a baccalaureate in medicine. The visitors of the university, on being applied to by the College of Physicians (*Caio Presidente*), interdicted the university from a repetition of their license, and provided that a certain course of study should be followed by each candidate previously to his incorporation.‡ The utter neglect of medicine by the highest educational bodies in the realm was not redeemed by any supplementary efforts on the part of others. The barber-surgeons, who were incorporated by letters patent from Edward IV, in 1461,§ and whose functions were of the most limited nature, were the only representatives of the general practitioner of the present day, until the corporation of barber-surgeons was dissolved in the 18th of George II. At this date, the surgeons, who seceded from the barbers, were incorporated, but they were not endowed with a charter till the beginning of the present century. The apothecaries, as a mere trading company, were founded, in 1606, by James I, but they exercised no influence on the profession of medicine till Parliament, in 1815, conferred upon them powers which they have since wisely exercised and developed.

Valuable as have been the services of the College of Physicians in giving a local habitation and a name to medicine, and in holding a royal ægis over many great men of science, neither this corporation, nor the barber-surgeons, nor, at a later period, the College of Surgeons, could be regarded as representing or acting with the body of medical practitioners, or as aiding the social or scientific status of the great bod-

of the sons of Æsculapius in England, whose numbers were gradually swelling into many legions. The College of Physicians—may a devoted son be permitted to say as much without an approach to disrespect—failed to recognise the grand opportunity offered to them in the early part of the present century, of taking the entire management and discipline of the medical profession into their own hands, and the consequence was, that a City company bravely came to the rescue. All honour to the Hall in Blackfriars! The master and wardens of the Apothecaries' Company rose to the dignity of the occasion; and what they have done, since 1815, for the promotion of the best interests of the medical profession, deserves not only a bare allusion, but our most cordial acknowledgments.

But jealousies and bickerings continued, and the different branches of a great profession could not even now claim any of the various institutions existing throughout the country as representing their first interests. The clouds surrounded us more and more, and appeared increasingly gloomy, when an acute observer might observe a silver streak in the west, heralding the dawn of a brighter era. The dawn of a new life was seen over Worcester—a life which *we* are beginning to realise in all its capacities, and of which meetings like the present are the partial fulfilment of early promise.

Among the many events which, in the recent development of our profession, appear to me to be most characteristic, both from their mode of origin and the significance of their bearing upon the spirit of the times, as upon the future of our corporate and scientific growth, there are especially three, to which I would crave your present attention, in order that, on the one hand, we may recognise the deep obligations which we owe to our predecessors; that, on the other, we may seek to derive from past experience the lessons that should guide us and our successors in our future career. The three events to which my introductory remarks may have already turned your thoughts have especial reference to what appear to me the chief phases of our advancement as the followers of a beneficent and learned calling, viz., our relations to each other and the State; our relations to the science of medicine; and our relations to education.

The first event was inaugurated on the 17th of July, 1832, when Dr. Hastings induced fifty gentlemen of the medical profession to assemble, under the presidency of Dr. Johnstone of Birmingham, in the board-room of the Worcester Infirmary. On that occasion, Dr. Hastings delivered an address which was pregnant with all the great consequences to which the Provincial Medical and Surgical Association has since led. Allow me to recall his own words, as published afterwards in the first volume of the *Transactions* of the Association, which appeared in 1833. "I congratulate you, gentlemen," he said, "that the day for forming a Provincial Medical and Surgical Association has at length arrived—an association which, I trust, is destined to exercise no inconsiderable influence on the future of medical science. Feeling, as I have done, the disadvantages under which the prosecutors of medicine resident in English provincial towns have laboured, in consequence of the want of any system of co-operation, by which their separate exertions for the promotion of our knowledge of the healing art may be so united as to render them more influential and more extensively useful, I cannot but hail the day—*hunc letum medicis diem*—as one of peculiar promise, as one likely to lead to the most important results."

You, gentlemen, know as well, and better than I do, how far these prognostications have been realised. Three hundred members at once rallied round Dr. Hastings; and the best proof that he had only become the happy expositor of a wide-spread feeling of the necessity of harmonious co-operation for great common ends, has been afforded by the progressive adhesion of medical men from all parts of the country to the programme he laid down. Very valuable contributions to literature (medical, surgical, hygienic, biographical) appeared, first in the *Transactions*, and subsequently, in 1840, in the *Provincial Medical and Surgical Journal*, edited for the Association by Drs. Hennis Green and Streeter. In the meantime, the interest in the Association had spread to the metropolis, and the particularism, to use a favourite continental term, which very properly belonged to the Association at its outset, was abandoned; the jealousy between the provinces and London yielded to the imperative feeling of brotherhood which unites us all; and, in 1853, according to a resolution adopted at the meeting held in Oxford in the previous July, the *Provincial Medical and Surgical Journal* appeared, under the editorship of Dr. (now Sir John) Cornuack, as the *Association Medical Journal*. This was now placed in the hands of the subscribers every week, instead of, as previously, once a fortnight. The change was effected, not without some opposition on the part of those who, fearing too radical changes, doubted the soundness of the Oxford decision; but, as the editor observes in his opening remarks to the new series, it was "a strong declaration of the necessity which the

* Bohn's edition, vol. i, p. 231.

† See art. A. Wood, *Hist. and Antiq. Oxon.*, vol. i, p. 239.

‡ Dr. Monk's *Roll of the College of Physicians*, vol. 1, p. 59.

§ Maitland's *History of London*, 1775.

progress of events has imposed on the Association of pursuing that line of duty which had hitherto been acted upon with that augmented vigour which a wider sphere of action required—a vigour which could only be effectively developed by greater frequency of publication, and by the possession of a literary and scientific centre in London, where editorial resources are more abundant, more varied, and more easily available than in any other city in the world*.

From that time, the arterial pulses that beat throughout the kingdom acted synchronously and rhythmically with the heart; a sympathetic centre had been found, which tranquillised or warded off local disturbances in the circulation; and our body politic insured a renewal of life, which,

"Broadening down from precedent to precedent",

promised, as it still promises, ever richer and more abundant fruit. There may and must be differences of opinion as to many of the questions that have agitated the Association during the last twenty-three years, and will continue to do so, unless the worst of all events—stagnation—were to ensue; but whatever the shortcomings may be that can fairly be laid to our charge, I question whether any profession has ever done more in so brief a space of time to regenerate itself, to show a more healthful activity, or to produce more beneficial and enduring results. Those results, whether we refer to the expansion, the increased and unselfish energy of our corporations, to the Act of 1858, with the consequent formation of the Medical Council, the publication of a national *Pharmacopæia*, and the recognition of State Medicine, to speak only of a few salient features, take their root essentially in our Association. Their very mention refutes the accusation which has been heard from time to time, that medical men showed some of the worst features of trades-unionism. The great leaders to whom we have given our willing adhesion have universally looked to the improved education of the profession, the diffusion of its benefits among our countrymen, the prevention of disease, and the physical and moral advancement of the nation, as their guiding principles. They have put a Christian interpretation upon the Hippocratic oath, and have not hesitated to make personal and corporate sacrifices where the good of the community appeared to demand them. There has even been a tendency to self-depreciation occasionally, which was not justified by the circumstances, nor was it compatible with that healthy frame of mind which should urge on to higher achievements. But those who have a personal experience of things as they were thirty years ago, can scarcely hesitate to admit that, in all aspects in which our profession can be regarded in relation to our fellow-citizens, it occupies a better position now than then. Much has been said about our political status. I am not one of those who consider Parliamentary honours undesirable for members of the medical profession who possess a patrimony sufficient to enable them to disregard the emoluments of practice, or who have realised a competency by the ordinary routine; but, while circumstances are never likely to allow their number to be very large, I hold that, speaking broadly, the political arena, in its usual limited sense, is not the one for which our education or our sympathies generally most fit us. The medical man is so trained to look at and examine the questions that present themselves to him in all its aspects, that he can scarcely make a good party man. Besides, we are exempt from serving on juries, and from filling many of those useful and honourable civic posts which help to educate the rising politician. We give much unpaid or underpaid work of another kind, as our quota to the treasury of the commonwealth; and the time may come, nay, I would trust that it is not far distant, when some of the most distinguished, zealous, and far-sighted of our brethren may be called to a higher position in our Sovereign's councils than has yet been the case; not for the mere vulgar gratification of a personal ambition, but because there are many questions that come more and more into the foreground, upon which it is desirable that individuals, who have received that medical training which can alone qualify them to advise, should publicly exercise a power and a responsibility which shall develop, extend, and strengthen the health of the nation.

Those who are prejudiced against the view that medical men have a capacity for becoming "rulers of men", have only to look to our vast colonial possessions to learn that the training of the physician qualifies him for posts of the highest and most responsible character. Can we believe that, in crossing the Atlantic, the Pacific, or the Indian Oceans, a transmutation takes place of a baser to a nobler metal, and that a man who can worthily rise to the highest places in other hemispheres is incompetent to give wise counsel and to carry strong and beneficent measures while he is in contact with his native soil?

It is not without significance, as to the influence which the question as to the nation's health is exerting upon the public mind, when we find a Prime Minister putting hygiene and its bloodless victories on a level with the sanguinary achievements of generals and admirals. Mr.

Disraeli,* on the 9th of November, 1875, said: "I believe that a policy that diminishes the death-rate of a great nation is a feat as considerable as any of those decisive battles of the world that generally decide nothing." Whatever our politics, it appears that here we have the indications of a policy upon which "Whig and Tory all agree"; but it is the first time that the principle underlying it has been announced as guiding the action of a First Lord of the Treasury. We draw a good augury from it. Echoing his leader's sentiments, Mr. Cross, on the same occasion, dwelt upon the duties devolving upon the City authorities, "to rid the City of all those plague-spots which have spread disease and misery throughout the whole metropolis"; and he told them that their powers, "rightly employed, would be the means of conferring a great benefit on the community at large". Post-prandial effusions may not have all the dignity of official statements; still, assuming that the proverb *In vino veritas* applies to ministers not less than to ordinary mortals, we may indulge in the hope that, although the speakers might be unwilling to carry out their argument to its legitimate conclusions, they recognise the great principle for which we are contending.

In small and scattered communities, the want of sanitary supervision does not immediately make itself felt; though, with our present knowledge, it is manifest that legislators grievously neglect their duty, if they do not, in the infancy of townships and states, take those steps which shall render it unnecessary, with their growth, to regret early *laches*. With our present and increasing population, with all the peculiar demands made upon every fibre of the individual, it is especially the duty of governments to see that labour and life be economised, which means that health be made a State question.

Whether it would be wise to seek the establishment of a distinct ministry of Health and Medicine; whether we should try to secure for the best men among us seats on Her Majesty's Privy Council; or under what other form the medical interests of the country could be best administered—it would be out of place to discuss here. The members of the Association have better opportunities of ventilating such details. But of this I feel assured, that the time will soon be at hand when, in some way or other, greater power must be put into the hands of physicians, in order to secure the most perfect development of hygienic measures for our country.† I conceive that I should have neglected a duty which this occasion imposes upon me, had I failed to indicate one, if not the main, direction which our associate labours should continue to take. The coryphæi of medicine in all times have had vague presentiments on this subject; but, from the celebrated work *On Airs, Waters, and Places*, which Hippocrates published about 400 years before Christ,‡ to the remarkable and interesting volume *On the Civilisation of England*, which appeared two thousand two hundred and fifty-seven years later,§ mankind and their growth are represented rather as the creatures than the controllers of circumstance; whereas I hold that it is our duty to rise superior to the physical world, so that we may compel it to obey us. If we are to subdue the earth and have dominion over it, we must first seek thoroughly to acquaint ourselves with those supreme laws under which the Creator has placed us; but the very essence of all science, civilisation, and medical power, runs counter to those fatalistic views which the weakness of human nature has so often made paramount; and which, out of harmony with all intellectual and spiritual progress, constitute man the torpid and abject slave, rather than the loving and obedient child; anxious to realise the high destiny to which he is called in this and other worlds.

The members of the Association have ever shown that they took large views of the duties of medicine in regard to man in his relations to nature. The very first volume of *Transactions*, published under the auspices of Dr. Hastings, contains no less than three valuable articles on medical topography: the first, on the furthest south-western extremity of Britain, by Dr. Forbes; the second, on Bristol, by Drs. Carrick and Symonds; the third, by Dr. Kenrick, on Stourport. Willingly would I dwell upon these, and many other similar productions by their successors in the same field; no less than upon the numerous evidences I might lay before you of the influence exercised by the Association upon the development of medicine in the various directions to which I have alluded; this would be impossible within the limits assigned to me. I may, however, be permitted to avail my-

* See *Times*' report of the Lord Mayor's banquet at Guildhall.

† Since these remarks were penned, Mr. Gladstone, in an address of great eloquence, delivered at the London Hospital Medical School, has dwelt on the same topic, and has drawn attention to the increasing importance of medicine and the medical profession. "That profession," he said, "presented a future of the highest interest. There was in that future the probability that it would gain increased influence, greater as compared with other professions." (See *Times*, Friday, July 14th, 1876.)

‡ Hippocrates is supposed to have been born in 460 before Christ. It is scarcely a poetical licence to assume that this work was composed when he was sixty year of age.

§ Mr. Buckle's work appeared in 1857.

self of this opportunity of inquiring whether the members of our Association have continued to take that interest in medical topography, which appears especially to have attracted its earlier members. We may hope for valuable information on the subject in connection with the locality in which we have to-day met, and with the extraordinary development of certain branches of manufacture for which Sheffield is famous. I would suggest that medical topography, comprising as it does the geology, water-supply, temperature, and sanitary statistics of a district, is especially a subject worthy of our annual meetings. The researches that it involves demand much labour, probably more directly useful to the community than to the inquirer who undertakes it; and I venture to ask whether it might not well constitute a subject to which every year a portion of our available balance might be allotted for the remuneration of an acknowledged worker in this branch of science. We should thus gradually accumulate a valuable amount of information, which would serve as a beacon and a guide to future inquirers. Could not the Council of the Association be empowered to select one or more members residing in the town where each successive annual meeting is to be held, to devote themselves specially to this work, and to present their report at the meeting? It appears to me that the duties we owe to one another and the State would here find a fitting expression, while at the same time we should be attending to the call of medical science, our relations to which embrace the second topic, to which in my opening remarks I invited your attention.

Allow me to advert again to a fact which not unfittingly connects these two branches of my inquiry. It is, that medical topography first enlisted the interest and established the reputation of a name whose bearer afterwards did more for the advancement of scientific medicine in this country, and towards securing its recognition at home and abroad, than any other of the great men who have belonged to our ranks. I allude to one, now no more—unselfish, honest, brave, a Bayard of medicine, "*sans peur et sans reproche*"—the author of the first article on medical topography in the first volume of the *Transactions* of the Association, Dr. (afterwards Sir John) Forbes. Would that he were still amongst us, to see that his labours and his sacrifices were not wasted! Having won his spurs in the literary field which the Association opened for him, Forbes commenced his career as a provincial physician; he terminated it as a regenerator of medical science, and may almost be said to have succumbed after a great and abiding victory, as a martyr to the truth which he loved above all things.

The second event of modern times, on which I beg your leave to dwell for a brief space, as specially connected, in my estimate, with the advancement of scientific medicine in England, is closely associated with the name of Sir John Forbes; from 1836, when he resided at Chichester, to 1846, when he had long been a denizen of Old Burlington Street, editor of the *British and Foreign Medical Review*, of which it would be difficult to speak too highly, whether we consider its literary merits, its thorough honesty and impartiality, or its grand and cosmopolitan scientific breadth.

The October number of 1846 concluded the editorial labours of Forbes; and in the parting summary which he presents to the reader, of his work in connection with the journal, the editor, among other reasons, mentions the diminished sale, which he attributes in part to an article which he had published, and of which he acknowledged himself the author, in the January number of the same year. It is this article to which I venture to assign the maternity of a new era of the medical profession in its scientific position in Her Majesty's dominions. It was entitled "*Homœopathy, Allopathy, and Young Physic*."

This article was essentially a protest against the polypharmacy of the day; and a summons to the practitioner seriously to consider and studiously to examine the resources and the methods of treatment at his command. It was, without intending to be so, an amplification of the Hippocratic views so ably propounded by our departed friend, Dr. Warburton Beggie, at our last annual assembly, as to the physician's duties in the face of his great enemy—Disease. Though most of the arguments used by Forbes were as old as the hills, his boldness in bringing them forward at this particular time which he selected, startled the profession like a thunderclap, and the author was subjected to much animadversion and misrepresentation.

Thirty years have gone by, and I may assume that few among my present audience are familiar with the article in question; or if they are, that they would hesitate to subscribe to most of the doctrines with which Forbes shook the withering tree of routine. Thirty years ago great agitation prevailed in the profession, owing to the warmth with which many members of the upper classes of the community received and supported Hahnemannian tenets and practice; the hostility which the article aroused, was due to its being represented by its cavaliers as favouring those views, "I am not one of those who can subscribe to

the ancient doctrine, that in all diseases we find a *vis conservatrix* or *medicatrix*, inherent in the system of the patient, which has simply to be allowed her own way, to lead the patient to a happy release from his malady. There is, according to my observation, no less a *vis destructrix*," which has to be met boldly and decisively. But modern English medicine paid too exclusive attention to the latter, while it ignored the former; it placed its trust in the *armamentarium pharmaceuticum* to an extent which we, of the present day, neither follow nor applaud. The trade spirit also had some part in these aberrations; hence it was but natural, as the laity discovered that they might put aside the customary six bottles a day, in addition to the pill at night and the draught in the morning, sent in (and charged for) by the family attendant, without necessarily becoming a unit in the Registrar's death list, that they often attributed a cure, which we know the *vis medicatrix* is capable of effecting in many cases, when aided by a suitable regimen, to an infinitesimal dose of sepiæ, pulsatillæ, or nux.

In an ancient work on medicine, published in 1559, the author, Mr. Bullein,† introduces two friends, discussing the merits of their physicians; one says, that being very ill, he had called in three physicians at once, to the astonishment of the other, who fears that his purse would scarcely suffice for the discharge of the customary fee. The reply is, that Doctor Diet, Doctor Quiet, and Dr. Merryman had effected a cure, which had cost the patient nothing in the coin of the realm. These three doctors have never been overlooked with impunity, as some of the most valuable contributions to the literature of the present generation testify. It is, however, not to be denied that, when Forbes's article roused the indignation of his opponents, the elements in treatment which they allegorically represent, had given place almost entirely to what was termed heroic methods. Bleeding from the jugular vein and temporal artery, large and repeated doses of mercurial and antimonial preparations, constant venesection and leeching, were in daily use; and it was not to be wondered at, that as physiology and pathology came to be more thoroughly studied, the difficulty of finding a satisfactory reply to an inquiry, why these things were done, should arrest the thoughtful practitioner. Homœopathy gave him a rude shake, and he found it necessary to unlearn much and to retrace his steps, so as to recover the true path of nature. But it was only on the principle, *fas est et ab hoste doceri*. Forbes made himself the spokesman of many, who, by the support they rendered him, showed that while they recognised this error, they were as far as he was from regarding homœopathy as a development of science. Listen to what he says. After analysing other evidence in favour of homœopathy, he very carefully reviews *An Inquiry into the Homœopathic Practice of Medicine*, by Dr. Henderson, a professor of medicine in the University of Edinburgh, who had become a convert to Hahnemannian doctrine; Forbes remarks upon the cases he reports, and the deductions he adopts: "Men capable of admitting cases of this kind as evidence, and we could extract fifty from Dr. Henderson's book much feeble than this, are demonstrably disqualified to treat of things which demand for their handling the stern logic of a masculine mind." Forbes sums up the results of his entire inquiry into the value of homœopathy in the following words: "If, for the sake of argument, we were to admit that homœopathy were partially true, and therefore that it might fairly be received as one of the recognised methods of treating disease, it would appear to us, according to our present light, to be very unfortunate if this were done. The guiding principles of homœopathy appear to us to be of that character, which must render its exercise very injurious to medicine, as a branch of science. Based as it is on mere extrinsic secondary phenomena or symptoms, and exclusively engaged in the search for and adaptation of specific remedies to such phenomena, we cannot but regard it as calculated to destroy all scientific progress in medicine, and to degrade the minds of those who practise it. Its direct tendency seems to be that of severing medicine from the sciences and establishing it as a mere art, and thus converting physicians from philosophers to artisans. Of course if, by such a conversion, diseases were to be better treated, and more speedily and frequently cured, it would not only be absurd, but transcendently wicked so to sacrifice the welfare of humanity for the sake of a scientific phantom; but as we have said, it is anything but proved that such a result would follow the change, and therefore, until the proof is obtained, it behoves all who regard the prosperity and dignity of true art, to resist its progress."

The writer further examines the causes of the success which homœopathy enjoyed in his day, and gives numerous interesting and striking

* "*Destructrix*" is not a Latin word; "*conservator*" and "*conservatrix*" are Ciceronian. "*Destructor*" occurs in Tertullian; but although I have no authority for the use of the word "*destructrix*," I trust it may, from the context, and in accordance with etymological precedent, be considered justifiable.

† *New Boke of Physic*, by W. Bullein; 1559. Black letter.

illustrations, which lead him to the conclusion, "that the curative powers of Nature suffice to explain all the triumphs of homœopathy". He then adduces some of the influences which we, at the present day, certainly do not regard as in any way the special property of the system, and to which Forbes thought they might be fairly ascribed; they are essentially those which Mr. Bullein more than three hundred years ago summarised in the short allegory above recounted.

I have not the slightest desire to revive the controversy on homœopathy; but the preceding remarks and quotations seemed necessary to bring before you an important phase in modern medicine, and from the slight indications that the time and the place permit me to give, to ask you to realise the strides that the last three decennia have effected in the diffusion of scientific views among the great body of British practitioners. We are approaching so near our own time in the consideration of these matters, that it would be invidious to go into further detail. Many of the great workers in the various fields of observation who achieved the present results, are still among us; and, if I mention one or two subjects of inquiry which pertinently indicate the progress that has been made, it is rather by way of illustration and example, than because it is possible to exhaust a subject which might fruitfully occupy entire volumes.

Consider the vague manner in which formerly the influence of air and water was treated; the cosmic, telluric, and atmospheric agencies that were accused of affecting man, without any precision greater than that belonging to dreamland; consider, on the other hand, the rigid investigations that have engaged scientific physicians from the days of Snow (whom Dr. Wilson designated in his Harveian oration before the College of Physicians, as "*Nix per aethera notus*"), but whose claim to the gratitude of posterity rests much more on his inquiries into the origin of cholera in contaminated water than upon his connection with anæsthetics; consider the investigations into the causation of disease by impure water, and the brilliant results that have been achieved as regards the influence of that first necessary of life in the origin and propagation of morbid processes; ponder upon the equally important, though as yet, perhaps, not equally decisive investigations, that have been made in regard to the aerial germs of disease, the invaluable aid afforded to precise knowledge of morbid processes by microscope and thermometer (instruments unknown to the student of my day); the searching examinations into the operation of medicinal agents; the revelations of the various sources of disease from food contamination and adulteration; and say whether medicine in its totality does not fully deserve the title of a science, and has not already reaped rewards scarcely recognised by the younger generation of medical men, and certainly not appreciated as they deserve by our non-medical contemporaries; rewards such as Forbes and his coadjutors looked for when they challenged their contemporaries to a more reasonable inquiry into the nature and history of disease, and the real value of the various agents at our command for its removal.

And, for practical results to the community at large, look at the increased duration of life wherever the medical man has been listened to; to the enormously increased value of life in the army (in connection with which question allow me to advert to the loss the nation has but just sustained in the death of that great man, our Associate, Edmund Parkes); to the general reduction of the death-rate; the check put upon the inroads of disease in many noxious trades and occupations; the reduction, nay, almost arrest of mortality in some diseases that under "heroic" treatment more frequently succumbed than recovered, diseases of the head, of the chest, of the abdominal viscera. May we not quote the remarkable revelations with regard to trichiniasis and other parasites as permanent victories? Is it too early yet to speak of what some of us may regard as a victory over the bane of England's youth and early manhood, rheumatic fever, by salicylic acid? Look at the advances of surgery in regard to its conservative labours, its anæsthetics, its antiseptic treatment! Who that scans the changes in medical training and conduct during the last thirty years, can deny that mankind is the better for the more scientific development of medicine, and that the more we encourage true scientific work, the grander will be the beneficial results that we and our descendants may reckon upon?

But while we rejoice over our reminiscences, we must not forget that every step in advance opens out to us a new vista of further and higher responsibilities. Many of the inquiries that have been initiated have not yet been terminated; many results attained by the man of science have not yet found their practical application in daily life. An association can do little directly to promote science. Scientific work is rarely well done by large assemblies. The student works in the quiet laboratory, in the secluded library, or at the bedside of his patient; and though he may be encouraged by the sympathy and approval of his contemporaries, science and its results are and ever will be

his chief rewards. But it is our duty as an Association to assist in rendering his results, if not beneficial to the inquirer, at least to his fellow men, and preventing impediments from being put in his way, that thwart his undertaking, damp his zeal, and enfeeble his powers by the chilling effect of neglect and discouragement. In this direction our Association has already done much. We cannot create the *solters ingenium*, but we may smooth the difficulties in its path, and assist in securing its recognition by those less competent to judge, and yet willing to benefit by its activity.

It appears to me especially the function of an Association like ours to spread the knowledge of scientific results, and to secure their application to society. No true work is barren, but it often remains hidden, because its seed falls on uncongenial soil; and it is our part to see that the particular work of the philosophic physician is duly appreciated by those who rule our commonwealth, partly because we are bound to show our gratitude to the benefactors of our race, and partly because the general public are by no means educated in such a direction as to enable them to appreciate the advantages conferred by medical science. Hence, again, I say that the British Medical Association, if it wishes to deserve well of mankind, is bound to exert itself to secure a more public recognition by the State of the aims of the profession, and to obtain for those calculated to represent them properly a more fitting method of realising them than is at present possible. The recognition of State Medicine to a claim for university honours is already a step in the right direction, and shows that some of the educated classes are beginning to appreciate the importance of the questions at issue; but how much yet remains to be done is shown by the apathy, of which we forbear to adduce special instances, evinced so frequently by municipal and other legislative bodies, in regard to measures of vital importance to their own welfare and that of those around them. Here I hold that our Association has a great sphere of action before it; and what we are able to do in this direction must, if my views are just, be mainly realised by the influence we are able to exert on education in schools and universities.

These observations bring me to the consideration of the *third element* in the modern development of our profession, or our relations to education, to which I crave your indulgent attention yet a little while.

Nearly a quarter of a century ago, the poor Welsh apothecary, as he was wont facetiously to denominate himself, and to whom all honour is due, conceived the idea of founding an institution which should, besides providing a home for the invalided and impoverished members of the profession, supply a liberal education, at the lowest possible cost compatible with its scope, for the sons of medical men, many of whom were, as foundation-scholars, to receive their training free of all cost. The proposition was warmly received and well supported, so that we may now, in 1876, speak of large and beneficial results. The feeling that animated the supporters of Mr. Probert was doubtless, in the first instance, one of Christian benevolence; but it was also largely based on the desire, now becoming more and more urgent, to give expression to the sense of unity and co-operation pervading the entire profession of medicine. Of course there were some who found fault, and who would have preferred that less money should have been spent upon bricks and mortar; but I much doubt whether any scheme would have commanded similar success that had not been accompanied by the conspicuous and tangible product of such a group of buildings as now adorns the heights to the south of Epsom. The eleemosynary character of the institution has been extended, and its typical feature as a centre of professional harmony has insensibly acquired a firmer hold upon the medical public; but it is now gradually achieving for itself a position in the educational institutions of the country which I apprehend will effect a more wide-spread influence than even its sanguine founder anticipated. And it is right that it should do so.

If we look around at the system of education still prevailing in our country to a large extent, can we admit that it accords with the spirit of the times? and do we not rather find that even now the rules that regulated the Trivium and Quadrivium of the Middle Ages hold good to an extent that would seem incredible in a day of railways, electric telegraphs, and penny postage, were the fact not too patent? The bed of Procrustes is still too much the type of modern education. The mind of our youth, whatever its tendencies or aspirations, is still uniformly sought to be moulded upon one monastic system. The glories of Homer, Demosthenes, Horace, or Tacitus, are still forced upon minds incapable of appreciating them, or are made a preparation for a life in which Nature and Nature's laws, a knowledge of mankind in his various relations to internal and outward circumstances, is the first desideratum. No one is more convinced than I am of the value of a knowledge of the literary and social work of the great nations of antiquity; but the question that I would submit to your careful consi-

deration is not how great their value, but how much the manner in which these subjects are taught, and the time that is bestowed upon them when the youthful energies should be trained for the work of life, has interfered with our progress as a nation. Under our prevailing system, the highest power that we are endowed with—that of observation and comparison—is forcibly kept down; and even the first requisite of a liberal education, the knowledge of our own language and its marvellous achievements, the power of using and enjoying it to the utmost, is deadened instead of being quickened. At the Epsom College, as is right in an institution which is ruled by medical men, it is sought, so far as it is compatible with the requirements of other scholastic bodies, to set an example in giving prominence to the teaching of natural science; and the results, small perhaps as yet, are already giving promise of a greater future, and cannot fail to make a wider impress upon our national system of education.

But is it right that we should wait for the slow progress which our small institution may make in public estimation, without taking further steps to secure what, in and out of our profession, is almost universally admitted to be a desirable or necessary object? Can we not do something to secure better education at large, and a more general adoption of principles which we believe to be irrefragable? It would be useless to put such a question if I saw no remedy; but I believe the remedy is at hand, and that it largely depends upon the medical profession, though it is not their immediate function to occupy themselves with educational matters, to cause a gradual and peaceful revolution in the prevailing system.

To do so, however, we must go, not so much to the primary schools, as to those fountain-heads of English education, which put the stamp and die upon what they regard as success, and thus compel all dependent upon their fiat to work as they list. It would be quite impossible now to discuss the history and growth of our universities; but we, as Englishmen, can scarcely admit that they do now, or ever have, taken that position as teachers of the great body of the nation which we see aspired to or occupied by continental universities. An university should be, as its name denotes, an *universitas literarum*, and not limit its teaching to one or two disciplines, which though valuable in themselves, are simply means, not always appropriate, to an end to be attained elsewhere. To my apprehension, an university does not deserve the name, which does not within itself teach the principles and theory of all science, and which adopts a *régime* and habits that exclude from its precincts all whose mental calibre cannot adapt itself to one formula of a classical or mathematical shibboleth, or whose means compel them to enter a professional calling without unnecessary delay. I maintain that *all* members of learned professions ought to enjoy an university training, and that a country whose universities do not allow of their students acquiring the entire theoretic part of their respective professions within their walls, neglect the first duty for which they were called into existence. I will not now speak of any other profession than our own; but, as regards medicine, I conceive that many of the educational difficulties that have been so long under discussion, and that are far from being removed, will disappear when such arrangements are made at our universities that the great body of practitioners can avail themselves of their advantages. In order that this may be possible, it is necessary that a standard of preliminary training be fixed which shall qualify for admission into the university, and that, at the age of eighteen or nineteen, when young men generally put on the cap and gown, they should be permitted to pass at once from the subjects they have been learning at school to those professional studies which the universities ought to be able to teach infinitely better than the small, self-supporting academies of medicine now scattered over the country.

It is no small credit to the energy of the medical schools as they exist, that they have done as much as they have done; but, with the increase of knowledge and the demand made upon the lecturers, it is simply impossible that the latter should keep pace with the times, unless they are exempted from the *res angusta domi*, and are enabled to devote themselves entirely to science. At present, the majority of lectureships are treated simply as stepping-stones to medical practice, and hospital physicians and surgeons pass from one subject to another, not so much by virtue of special qualification, as by the all-powerful influence of professional seniority. Something may doubtless be said in favour of our present system of competition; but I would ask whether the balance of argument is not in favour of professorships at our ancient universities, where the increased numbers of alumni would render a professorship not only a place of high and laudable ambition, but would make its emoluments worthy of acceptance by those of our body who desire to devote themselves to, and merge themselves entirely in, scientific research. Botany, chemistry, natural philosophy, physiology, anatomy, comparative anatomy, pharmacy, and materia medica, the theory of medicine and surgery—might all be better and more profitably

taught at an university than in provincial or metropolitan schools of medicine. The numbers that would flock to our universities if they held out such advantages, would render necessary the endowment of more than one professorship for each discipline, and thus a salutary rivalry, without which stagnation would ensue, would be preserved. And if our present university arrangements are insufficient to provide for the two thousand medical students who annually inscribe their names on the registers of our schools, what is there to prevent the establishment of more universities in towns willing to advance the growth of the sciences, and possessed of fewer of those sanitary defects which mar the beauties of Oxford and Cambridge?

It is utterly against my views that an university should belong to a class; and therefore, while I maintain that we physicians and surgeons of England may legitimately labour for the foundation of a new university, which shall embody certain methods and principles, if the older institutions cannot receive us, I should regard the attempt as futile, unless provision were made at once to establish professorships required by all the faculties, so as to insure an influx of ingenious youth, destined for all the various walks of life. Has Germany suffered either by the poverty or the number of its universities? Has that great country not ever been to us a model, both in the manner of teaching and in the achievements of the taught?

I value political independence, honour, and integrity even higher than scientific growth; but, as the former are secured to us, as far as institutions can make them sure, is it not time that we throw some of our superfluous energies into the cultivation and development of the scientific growth of the nation, and emulate our cousins on the other side of the German Ocean in the number and power of our universities, as they are essaying to walk in that path of constitutional freedom which has so long been the Briton's birthright? It is not found in Germany that the transition of a student from one university to another either interrupts his studies or checks his professional career. There is a sufficient understanding among these bodies to allow the thread that was broken at one to be taken up at another, the attendance at one admitting to its equivalent position at the other. The benefits that I would thus confer on medical students would react most beneficially upon the community. Students of medicine would enjoy the advantage of the highest teaching intellect that could be commanded, and they would benefit by that free interchange of thought and opinion which is the characteristic feature of the intercourse at an university between young men treading the different paths of life; they would feel themselves to be, more than they now are, an integral part of the republic of letters, of which an university ought to be the type. But I question whether the gain to the nation would not be even greater than that conferred upon the medical student; for, indirectly, the members of the legal and clerical professions, and that large number of the gentry who visit the universities rather for the purposes of general education than with the view to following a profession in after-life, would of necessity interchange opinions with their medical colleagues, and imperceptibly become imbued with a respect for, and a knowledge of, nature and nature's laws, which could not but favourably react upon their execution of future duties.

The gulf that even now in England separates the inquirer into God's laws in Nature from his "educated" fellow citizen, could not be more distinctly shown than has been done by the recent discussions on vivisection, in which the non-medical community have thought it right and honest to hurl at us all the opprobria of language from an entire misapprehension of the means, the scope, and object of our researches. Our legislators would rival the enemies of Galileo; if their views had been in the ascendant when Harvey's discoveries were made, we might still be running after the will-o'-the-wisp of an Archæus; and, if our detractors had their way, the progress of science and humanity might even now receive a check that would retard the advancement of civilisation. What but a free interchange of thought and opinion between the most educated of the rising generation can prevent the recurrence of similar bathos?

One of the great obstacles to the diffusion of sanitary knowledge, and of a due appreciation of the unselfish labours of physicians, consists in the ignorance which still prevails so largely, even among the higher classes, as to their object and scope. The free intercourse of young men of different professions would do much to remove existing prejudices, and to widen the actual amount of knowledge; so that their co-operation in after life would be more certain and effective, from the community of feeling and interest created in them by early association.

The practical question remains, whether our present social constitution admits of the realisation of a plan like that suggested. Does it not resolve itself mainly into one of pecuniary means? The greater demands now made by our examining boards appear to answer this in one direction; while the success attending the establishment of a Col-

lege, like Keble College, seems to answer it in another. The present extravagant cost of residence at Oxford and Cambridge, which elicits the groans of many a *paterfamilias*, is shown not to be a necessity; if it were unavoidable, it would be an argument against the admission of the bulk of medical students to the universities which would silence me. There are many who value their university residence rather because it is a proof of their parents having been wealthy, than because they have any superior acquirements to boast of; but I do not think so meanly of the ruling powers as to believe that they would desire to make property the qualification of primary consideration in the test of admission. The heartiness with which the universities have, during the last twenty years, thrown themselves into the great question of educational reform, and given material aid to its intrinsic development, is the best proof that they recognise their high mission. At the same time, it may be doubted whether their energies in directing middle-class examination are not somewhat misplaced. We all know one or more benevolent ladies, whose labours for the clothing-clubs, soup-kitchens, visiting and missionary societies of their parish, are unlimited, but whose children are allowed to run wild from want of that home-supervision which their mother's expansive benevolence prevents her from exercising.

Does not *Alma Mater* also tend, with due reverence be it said, to a partial neglect of those duties which lie nearer home, in order that she may acquire the name of an universal foster-mother? At all events, if she has spare energies for the chickens that are wandering about untended and uncared for, she ought surely first to show that her own brood has received the necessary food and protection, and that she has guarded them from becoming the prey of the designing and watchful fox.

Whether our Association can take active steps towards the consummation of what I would fain hope many of my hearers may consider to be a desirable object, is a question that I dare not now dwell upon at large; but I entreat your permission to add a few more words on the subject. I apprehend we have in the first instance to consider, not so much whether it is possible for Oxford or Cambridge to receive our students, as to determine whether it is right and proper that the future generation of medical men shall receive their scientific training at an university or not. If the affirmative be adopted, we may then make our wishes respectfully known to the authorities of the old universities. If they read the signs of the times with our interpretation, we should do well to benefit by the *prestige* of their ancient names, and it would be a matter of rejoicing that those seats of learning would secure the advantages which it is believed would accrue to them. The alternative of a new foundation in a southern or northern county town would still remain. For my own part, I venture to think that, if you endorse the views I have offered to you, we should more speedily gain our ends if this great Association resolved that a new university, in which the professional element shall be paramount, is necessary; and proceeded to take such steps as prudent foresight may suggest to secure the realisation of so great an end.

If I have succeeded in obtaining your sympathies, I have little doubt that the ways and means will be forthcoming to enable us to meet what I regard as the summons of the spirit of progress and science, addressed to ourselves and our contemporaries. If you differ from me, I crave your pardon for having taken up your time unnecessarily; but I should scarcely have been true to myself if I had not seized an opportunity, such as the indulgent offer of your Council has given me to-day, of placing before you a summary of the great work that our Association has done, and the still higher objects that I believe it to be destined to achieve. *Salvovi animam meam.*

When I was first invited to deliver this address, I was told that I should meet you at one of the most frequented health-resorts of England, and I naturally asked myself whether I might not appropriately select some topic of general medical interest connected with hygiene, climatology, or balneology, to enlarge upon; but, on review of the past history of our Association and of its influence on our common profession, I could not resist the temptation to take a larger scope, and to ask you whether we are to rest satisfied with what our predecessors have done for us, or whether we should not rather emulate their great endeavours, and seek to place medicine on a higher social, political, and scientific platform. Sloth and stagnation are not to be thought of here, in the very centre of England's manufacturing greatness. Everything that surrounds challenges us with the watchword, "Excelsior!" Modern life is a continuous and hard-fought battle of the intellect. Muscular Christianity is necessary to sustain and invigorate the body; but the training requisite to sustain the mind at its highest point of development is surely now more than ever a question of national importance. The workers in brass and iron, no less than the practitioners of medicine, are indebted to science for their greatest achievements.

What say you? Is it possible for the British Medical Association to do more than has yet been done to place science on a footing worthy of an empire upon which the sun never sets? Can this very meeting take steps to inaugurate a new university in which none shall enter but those who, being well prepared for its curriculum, shall be capable of receiving a training by the highest intellects of the country for even higher work in all that adorns and elevates life?

I cannot hope to carry all your suffrages with me; but, however our views may differ, I am satisfied that we all agree in our reverence for the great names of the past, and in our desire to tread in the footsteps of those who have led us to the position we now occupy.

That we may more and more be enabled to work with and for the growth, physical and intellectual, of our fellowmen, that we and our children's children may become more and more identified with our country's greatness, has been the wish that has prompted the thoughts which thus imperfectly and fragmentarily I have ventured to lay before you, the Members of the British Medical Association.

ADDRESS IN SURGERY,

BY

W. F. FAVELL, M.R.C.S.ENG.,

Surgeon to the Infirmary, Sheffield.

MR. PRESIDENT AND GENTLEMEN,—In the first place, allow me to thank the members of the British Medical Association, and particularly those members who are my fellow-townsmen, for the high honour they have conferred upon me in putting this address into my hands; at the same time, when I consider how many amongst the wisest and most eminent of British surgeons have delivered this address in Surgery before me, I feel how little anything I can say can rival the memorable utterances of by-gone years, and how much I need (what I know I shall get), viz., the indulgent hearing of the distinguished company here to-day.

If I can tell you nothing *new* to attract your attention or excite your admiration, I hope I may be able to say something useful, and, at all events, to draw attention to facts which will bear investigation again and again. Bearing in mind the rapid advances made in surgery within the last few years, and bearing in mind also the constant changes in surgical practice, it has appeared to me that it is well sometimes, on an occasion like the present, to pass in review some few of the most important changes in practice, comparing them, as far as we can, with recorded results of past experience.

Alterations are by no means necessarily improvements; and, in this age of rapid progress, are we not sometimes in danger of setting too light a value on the things of the past, and of too utterly discarding some remedial measures to which our predecessors attached immense importance? Permit me, in illustration, to quote the words of one of the wisest and most eloquent of surgeons, Sir James Paget. In a very charming and graceful paper, read at the opening of the Section of Surgery at Norwich two years ago, Sir James, referring to his notebook of cases recorded forty years previously, says: "I found there some things which make me still fear, lest in our progress we should have let fall some things which we had better have held, and are now regarding some things too lightly that then seemed very grave, and, perhaps, are so still. For, among the records which I found, are records of methods of practice now almost completely disused, and yet in which I feel confident there was much right. I find, for example, a large and almost uniform practice of bleeding for all acute diseases, for many chronic, for most of those which were unknown and uncertain, and for a large proportion of those in which there seemed to be nothing the matter. Trying to learn something from these things, I come to one or two conclusions, which I am sure the younger members of the profession need to have much impressed upon them. One of them is, that at the present day we undoubtedly overvalue the blood, and estimate too cautiously the loss of it."

Gentlemen, these suggestive words from so profound a thinker and a man of such matured experience are worth pondering over; and may we not meet with many parallel cases in surgery? I know of no class of cases more important, more interesting, and in which more marked change of treatment has taken place within a number of years, than cases of fracture of the skull, and I think no records can offer a more marked illustration of this latter fact than the records of some of the master minds in surgery who have been connected with the hospital I specially venerate, St. Bartholomew's. Permit me briefly to quote the

opinion of three men following each other in rapid succession, Pott, Abernethy, and Lawrence.

In Pott's *Surgery*, published in 1808 by Sir Jas. Earle, we find that the use of the trephine in almost all fractures of the skull, whether simple or compound, is strongly insisted upon. He says, speaking generally of these fractures: "The number of cases of this kind which are necessarily brought into a large hospital, so situated as St. Bartholomew's, in the midst of a populous city, where all kinds of hazardous labour are carried on, has enabled me to make many observations upon them; and, although I have now and then seen some of them do well without the use of the trephine, yet the much greater number whom I have seen perish with collections of matter within the cranium, who have not been perforated, and for whom there is no other relief in art or nature, has, I must acknowledge, rendered me so very cautious and diffident that, although I will not say that I would always and invariably perform the operation in every case of simple fracture, yet the case must be peculiarly circumstanced, the prospect much fairer than it most frequently is, and my prognosis delivered in the most guarded apprehensive manner when I omit it."

And, again, he expresses his strong opinion, "that enlarging the opening of a fracture by means of a trephine will not produce or occasion much risk or hazard additional to what must be occasioned by the fracture itself that has already let in air upon the membrane; and, therefore, that *that* consideration is, at all events, in some degree at an end"; and so he goes on to argue that, as a matter of *prevention*, operation ought to be had recourse to in nearly all simple or compound fractures of the skull. Moreover, he did not confine his operation to one perforation of the skull, but occasionally trephined in two or three places, so as to embrace the whole of a fracture in the parts so removed; and yet I find, in spite of treatment so heroic, not a few successful cases recorded in his work on *Surgery*.

Abernethy differed in his practice from the course insisted on by Pott. He observed that a slight pressure from depressed bone did not interfere with the proper discharge of brain-function; and, whilst admitting that the pressure so exercised might in some cases set up irritation at a future time, he thought that generally the parts beneath became accustomed to it, and no evil results followed, and he thus cautiously expresses his view of the treatment to be pursued. "From all I have learned from books, as well as from the observations I have made in practice and from reasoning upon the subject, I am disposed to join in opinion with those surgeons who are against trephining in slight depressions of the skull, or small extravasations on the dura mater."

Lawrence held, perhaps, a more decided opinion than Abernethy, he being certainly opposed to interference in cases of fractured skull, except where symptoms or other conditions clearly indicated it. In an able article on Cases of Injury to the Head, by Mr. Evans of the Hull Infirmary, published in the third volume of *St. Bartholomew's Hospital Reports*, Mr. Evans says: "I well remember some years ago the late Sir William Lawrence saying, in the wards of St. Bartholomew's Hospital, where a case had been recently trephined by one of his colleagues, that his experience of forty years in the wards of that hospital was, that such injuries did as well without operation as with it."

Here, then, I have briefly epitomised the opinions of three representative men of one of our great surgical schools, men whose opportunities for observation were immense, and who brought giant minds to bear upon the question; and I could considerably multiply opinions both in favour of and against interference in cases of depressed fracture of the skull, expressed by the leading surgeons of their time. And, though I think I may assert that the balance of opinion is now in favour of interfering extremely rarely in such cases, except where marked symptoms develop themselves, and that certainly a great change in practice has taken place since the teachings of Pott; still, with all the light of past experience to guide us, and with all the recorded results of the practice of the great men of former years for our instruction, the propriety of immediate operation in cases of depressed compound fracture of the skull is still an undecided point in surgery. All authorities agree that, when symptoms of brain-pressure arise as a consequence of such injury, or where inflammatory symptoms develop themselves, not speedily yielding to antiphlogistic treatment, our duty is then to operate by trephining, or using Hey's saw or bone-forceps where practicable, so as to give exit to pus, or remove a source of otherwise fatal irritation; but it seems to me that the important and yet undecided question is, Are we to use these means *at first*, without waiting for the development of symptoms, in order to *prevent* their occurrence? Does the subject of a compound depressed or comminuted fracture of the skull run a greater risk by being trephined at once, though no symptoms exist, or by being left alone?

Two of the most eminent of living authorities strongly advocate im-

mediate interference; you will almost anticipate me when I mention Mr. Prescott Hewett and Mr. Erichsen.

Mr. Hewett distinctly says that, "in cases of compound depressed fracture of the skull, the rule is to operate, and at once"; and Mr. Erichsen speaks even more emphatically. In his very admirable book on *Surgery*, he makes the following remarks on the subject. "So far as my own experience is concerned, which is necessarily drawn purely from civil practice, I can say that, with the exception above referred to, I do not recollect ever having seen a case recover in which a compound depressed fracture of the skull occurring in an adult had been left without operation; but I have, on the other hand, seen several instances of recovery in which the bone had been elevated and fragments removed. The sooner this is done, the better; danger does not arise from early operation, but from delay; the presence of depressed, and spiculated fragments pressing into the dura mater must infallibly and speedily induce encephalitis. I have several times trephined under such circumstances as these with success, and have never had occasion to regret doing so. Indeed, there is no class of cases in which the operation of trephining is attended by such successful results as in those of depressed and comminuted fracture." To what circumstances, then, are we to attribute this diversity of practice amongst men so thoughtful and so well able to form opinions? Possibly the excessive use, I suppose I may say the abuse, of the trephine in former times has been one cause of its almost absolute disuse by British surgeons within late years. I think that, in the case of many powerful and active remedial measures, once highly esteemed and strenuously enforced, as extended observation and scientific research prove to us that their employment is frequently unnecessary and often harmful, we are too apt to rush into the other extreme and altogether discard them, overlooking the value of their cautious and carefully considered employment. Another reason, I think, may be the unfortunate results which statistics give in cases where the trephine has been employed; but here, again, if we carefully investigate the existing conditions in many such cases, we must conclude that the same results would have followed, in spite of any treatment. The rule of practice with many eminent surgeons is to have recourse to the trephine *at once* in the treatment of compound depressed fracture, *only* in such cases as are accompanied by symptoms of brain-compression, and rarely, I fear, with a fortunate result; and, although in loose statistics such cases go to swell the number of deaths recorded after trephining, has the operation itself anything to do with the fatal result?

I think that if we come to examine such cases after death, we should almost invariably find some serious brain-lesion which could hardly have terminated otherwise than fatally whatever treatment we had adopted. Permit me on this point to again quote Mr. Prescott Hewett. "It has never fallen to my lot," says he, "to meet with a single case of cerebral disturbance of a formidable or urgent character, in which such symptoms were wholly dependent upon depressed bone. In every case which I have seen with these symptoms strongly marked, there was also some extensive extravasation of blood, or some serious lesion of the brain-substance itself."

Again, perhaps the most obvious cause of these diverse opinions lies in the fact that, in cases of depressed fracture, we can hardly lay down a hard and fast line of treatment—much must be left to the careful and anxious consideration of the surgeon unhappily meeting with such cases. I think recent experience has abundantly proved that compound depressed fractures of the skull in adults do get well without operative interference; and, in illustration of this fact, I beg for a moment to refer you to three cases published in the *BRITISH MEDICAL JOURNAL* of July 8th by Mr. Gamgee of Birmingham. Here we find rapid and uninterrupted recovery from compound depressed fracture of the skull in adults, one man being fifty-five years of age, and the other two twenty-five years old. They were all treated by perfect rest, cold to the head, and aperients. I could adduce other instances, but I refer to these as cases recently published, and probably familiar to many readers of the *JOURNAL*.

On the other hand, it is a well-known fact that such happy terminations are by no means constant, and that the trephine or some similar instrument has sometimes to be used to relieve inflammatory symptoms, which occur as the results of irritation set up by the fractured bone, or to give exit to pus; even then recovery is by no means to be despaired of, though, of course, operative interference under such circumstances is far less promising than when undertaken without the inflammatory complication. Referring to my notes of cases in the hospital, I find that only once in the last five years have I had recourse to the trephine, and I did so in what, I almost think, is a typical case for operation.

H. D., a woman, aged 39, was brought into the infirmary with a history that she was engaged in some street row, and was knocked down by a stone thrown into the crowd. I found a large wound lead-

ing down to a comminuted punctured fracture, the portions of bone being driven deeply down. There were no head-symptoms. Finding it impossible to pick out the depressed portions with forceps, I removed a semicircular piece of the sound bone with a trephine, and was able then easily to remove six comminuted portions of bone, some of them driven under the uninjured bone, and amounting in the aggregate to a piece as large as a half-crown. The dura mater was scratched, but not punctured. The woman was kept quiet, with cold to her head, and made a rapid recovery without any untoward symptoms. I think I may instance this as a case in which it is extremely doubtful whether so fortunate a result would have been obtained had I refrained from operation. I think, perhaps, there is a tendency in these days to overrate the danger of operative interference in such cases; for, where grave bone injury already exists, and where air has already had access to the dura mater, and probably also foreign bodies, such as grit and dirt, it is open to question whether an operation, such as I have just described, performed with all possible care and delicacy of manipulation, adds very materially to the existing danger.

Certainly, I should be little disposed to lay down a defined line of treatment in cases such as I have been describing. Much must be left to the discretion and anxious thought of the surgeon, and whilst bearing in mind on the one hand that depressed compound fractures of the skull, even in adults, do get well without operation, one ought not to hesitate to interfere where the existing conditions of the fracture are such as to make one feel that there is probably less risk in interference than in simply waiting for results.

But time warns me to leave this most interesting and important surgical question, and to pass on to the consideration of one or two others, with a few brief remarks; and whilst on the subject of bone-injuries, I should like to say a few words upon, and illustrate by an instructive case, and an equally instructive preparation, cases of fractures of bone in the immediate vicinity of important joints. I think there are few cases in surgery in which the accurate diagnosis is often more difficult, the anxiety involved greater, and the results less satisfactory, than in cases of this nature. Every practical surgeon is familiar with the impaired utility of wrist and hand which we occasionally see, particularly in old people, as a consequence of the fracture of the carpal end of the radius; and again, impaired mobility of the elbow-joint is not unfrequently seen, as a result of fracture through some portion of that complicated and important articulation; and I venture to say that such consequences are sometimes unavoidable, in spite of the most carefully conducted treatment; nay, I think I may go even further, and assert that cases do occur in which the surgeon, by skilful and carefully conducted treatment, has obtained the best results he could hope for, and which still are failures in the eye of the patient, ignorant as he is of existing conditions and almost inevitable consequences.

Surely, gentlemen, these considerations should teach us a lesson; they should teach us to look very charitably upon alleged failures in treatment, or upon so-called cases of malpractice. It is one thing to criticise the treatment of a deformed or distorted joint weeks, or perhaps months, after the receipt of injury, when all immediate effects of such injury have disappeared; but it is a very different thing when contusion, inflammation, swelling, and pain obscure the injury and interfere with manipulation, so to direct our treatment, as always to ensure a satisfactory result.

The case to which I wish to direct your attention for a few minutes, and which through the kindness of my friend Mr. Wheelhouse I am enabled to illustrate by a very instructive preparation, is one of dislocation of the hip, complicated, as I believe, by fracture of the acetabulum, that is, of the rim of the acetabulum.

A. B., a young man, a commercial traveller, was standing on the platform at a railway station, when he saw the train by which he wanted to travel passing rapidly through the station; he ran up to it, sprang upon the foot-board, and attempted to grasp the door of a carriage, but, being swung round by the momentum of the train, he was unable to keep his hold, and was thrown violently upon the rails, rolling over and over when he came to the ground. He lay stunned for a few minutes, and when he attempted to get up, found his right leg so injured that he could not rise. He was carried into the waiting-room, and was seen very shortly afterwards by Dr. M., the railway company's local medical officer. This gentleman made a very careful and deliberate examination of the injured limb, and, as manipulation gave great pain, he put the sufferer under the influence of chloroform, so as to give himself every opportunity of arriving at a correct estimate of the nature of the injury. After nearly an hour's examination, he came to the conclusion that there was no dislocation, no fracture, but that the man was suffering from severe contusion. Afterwards, the sufferer was carefully laid in a railway carriage, and conveyed to his home in Manchester. Here he sent for his own surgeon; the same examination again was

gone through, and the same result arrived at. As soon as the subsidence of swelling allowed it, a long splint was applied to keep the part perfectly at rest; and subsequently, as much pain about the hip was still complained of, his medical man, for his own satisfaction and that of his patient, called in a third surgeon, a man whose extended experience in cases of accident was undeniable. He found the limb lying flatly on the bed beside its fellow; careful measurements, conducted in the orthodox manner, proved that the injured limb was as long as, and at one time rather longer than, its fellow; and he coincided in the conclusions already formed, and in the propriety of the treatment adopted. And so the limb was kept at rest for some time longer. Here, then, we have three surgeons, separately and carefully examining this hip, and arriving at the same conclusions. But mark what followed in this singularly interesting case. When lapse of time and subsidence of pain warranted it, the splint was removed, and he was allowed to get up and attempt to move about. He did so, and attempted to bear some slight weight upon the injured leg, and after that he noticed, for the first time, that the injured leg was rather shorter than the sound one. This amount of shortening speedily increased to the extent of a couple of inches, with inversion of the foot; and, to cut a long story short, he consulted a fourth surgeon, who told him that his hip was dislocated; and eventually an action for damages ensued. In consequence of this, Mr. Wheelhouse of Leeds and I were asked to examine the case, and give evidence upon it. When we saw it, several months after the accident, the evidences of dislocation were clear enough; there were the characteristic shortening, the inverted foot, and the round head of the bone clearly resting upon the dorsum of the ilium. One of two things, then, must have happened in this case. Either (as was alleged) dislocation of the hip had occurred at the time of the accident, and had been overlooked, or else dislocation had taken place subsequently, as a result of some obscure injury to the joint. Against the first hypothesis were the testimony of three surgeons, who had all examined it carefully for dislocation or fracture, the fact of the absence of deformity, and the absence of shortening of the limb; whilst in favour of the latter hypothesis, in addition to what I have just stated, was the fact that no shortening took place till the man put weight upon the leg, and then it was immediately noticed. The only way in which one could reconcile the fact of undoubted present dislocation, with a history so opposed to its existence for some time after the accident, was on the hypothesis that, at the time of the accident, which was a very violent one, there was fracture of the rim of the acetabulum; that, so long as no weight was put upon the leg, the head of the femur remained *in situ*; but that as soon as weight was borne upon the leg, the head of the bone escaped from the damaged acetabulum, and was soon drawn up upon the dorsum of the ilium. This theory was very ably argued by Mr. Wheelhouse, and surely it was a reasonable one—more reasonable than that a dislocation presenting such marked features as dislocation of the femur on the dorsum illi, should have been overlooked, though carefully searched for, by so many surgeons of ability and experience; and, though the probability of such an occurrence was denied, I am in a position, through the kindness of Mr. Wheelhouse, to show you a preparation taken from a case of accident admitted into the Leeds Infirmary, since the occurrence I have just related, which admirably illustrates the argument then urged. The case was admitted into the infirmary for injury to the hip and severe internal injuries. Dislocation was diagnosed, and reduction readily effected. The patient lay in bed some days, and then died from internal injuries. During the removal of the patient from the bed, the hip, which had been in perfectly good position so long as the man was at rest, again became dislocated, and a *post mortem* examination revealed the condition I now show you, viz., "fracture of the rim of the acetabulum".

Erichsen, speaking of the treatment of such cases, says: "But with every care, a return of displacement will readily take place, and an unsatisfactory result can scarcely be avoided—shortening of the limb, and consequent lameness, being almost inevitable". Cases such as this one I have just related are of immense practical interest both to the surgeon and his patient; certainly the patient has a right to expect that everything shall be done for him that careful judgment and judicious management can effect; but how often does the surgeon get undeserved blame, when he has the misfortune to treat an injury so complicated that, in spite of all care and skill, he cannot avert an unsatisfactory result. I can imagine and excuse a man being angry, when he finds himself permanently crippled by an accident, which at first, to all appearance, may not have seemed of a very formidable nature; but surely we, fellow-workers, all so fallible, ought to criticise the work of our brothers in a spirit of the widest charity.

The mention of Mr. Wheelhouse's name in connection with this case, in which I was associated with him, reminds me how this address was originally placed in his hands, and how generously and gracefully he

relinquished it when the place of meeting was changed, and gives me the opportunity of paying a passing tribute to his surgical enterprise, by a few remarks on what, as far as I know, is an important and an ingenious novelty in surgery. Some months ago, I had an opportunity of examining in the Leeds Infirmary a case then under treatment, in which Mr. Wheelhouse had cut down upon, resected, and united by ligature, the divided ends of a sciatic nerve, which had been accidentally cut across some months previously. The history of the case was briefly as follows.

The patient, a man aged 22, nine months before admission, was climbing over a fence, when the railings gave way, and he fell backwards upon a scythe which he was carrying. The wound, which must have been an extensive one, as the cicatrix measured nine inches, was situated just below the left buttock. At the time of admission, he was able to walk with difficulty, there being considerable dragging of the left leg, and, as he lifted it, the toes fell to the ground. He was unable to use the muscles of the back of the leg, and there was loss of sensation on the outer side of the leg and foot, the inner side retaining sensation. These conditions, taken in connection with the situation of the cicatrix, led to the inference that the great sciatic nerve had been divided, resulting in paralysis of parts supplied by that nerve below the seat of division. The operation consisted in making an incision six inches in length in the course of the sciatic nerve, when the divided extremities were found an inch and a half apart, the upper segment being bulbous, the lower one flattened, and somewhat incorporated with the cicatrix. The two extremities were then cut off, the divided ends brought together, and retained by sutures of carbolised catgut. This was facilitated by flexing the leg upon the thigh, in which position it was retained for some time. The man made a rapid recovery. When I saw him, two or three weeks after operation, cicatrization was almost complete, though the leg was still retained in its flexed position; but there was ample evidence afforded of returning sensation on the outer side of the leg and foot. In this case, the restoration of sensation and motion appears to have been very gradual; but Mr. Wheelhouse informs me that, since his discharge from the hospital, the patient has gone on steadily improving, and gaining power in his former paralysed limb.

I have also the notes of a case of division of the median nerve by a wound from glass. It was treated in the same way, ten weeks after the accident happened; but the result does not appear to have been so satisfactory, as, though some amount of return of sensation and motion followed the operation, as the wound healed and cicatrization progressed, the sensation gradually diminished and numbness increased.

Two other cases I have records of, in which the divided ends of the nerves were brought together by suture immediately after the accident. In one case the median nerve, and in the other the ulnar nerve, were entirely divided. Both cases were boys of fourteen years of age. In one month from the occurrence of the accident, both boys were discharged with their wounds healed, and sensation was perfect in each instance.

Now, I think I may instance these as four very suggestive cases. Perhaps they teach us no new facts in pathology; but, practically speaking, I think they are of importance. It will be observed that in the two cases in which some weeks elapsed between the receipt of injury and operation, the results were in one case very gradual and slow in their development, and in the other case satisfactory; but in the two cases in which operation immediately followed the accident, sensation, at all events, was rapidly re-established. Now, experience has amply proved that regeneration of nerve-tissue after nerve division readily takes place more or less perfectly under favourable conditions. Dr. Hassall says: "The regeneration of the primitive nerve-tube admits of proof both by experiment and direct observation. The experimental proof consists in the simple division of nerves, or even in the removal of portions of them. The parts to which the nerve is distributed of course at first lose their sensory and motor endowments; these, however, after a variable time, are more or less perfectly recovered, thus completing the experimental proof. The recovery of the power of a nerve after the excision of a portion of it, argues strongly the fact of the regeneration of the nerve-tubes; and this result, by a careful microscopical examination, can be positively demonstrated. The number of tubes in the renewed part of the nerve is stated, however, to be less than in the original portions; and this, in part, explains the reason of the restoration of the functions of a divided nerve being usually but imperfect." Every surgeon, too, is familiar with the fact, that parts which have been completely severed, such as tips of fingers, will, if re-united, regain sensation, though the nerves have been completely divided. Thus, under favourable conditions of position, we may look for such an amount of return of sensation and power of motion in parts supplied by divided nerves, as shall not ma-

terially interfere with future usefulness; but the practical lesson to be learnt from such cases as these is, that we may with safety so manipulate nerves as to insure such conditions of position. Perhaps the very painful, and sometimes even disastrous, result which has followed the ligature of an important nerve, has deterred surgeons from interfering with them when divided. Sir A. Cooper records two cases of death from this cause—one from the ligature of the sciatic nerve to arrest hæmorrhage from an artery in its substance, and another in which the popliteal nerve was accidentally included in a ligature put round the artery. In both cases violent pains and death resulted.

In the cases I have recorded, I find complaint of much pain after operation in only one case—the first one operated on, in which the sciatic nerve was the one implicated. In this case there seems to have been great pain on the day of operation and the day following, but in the other three no mention is made of any disturbance caused by the operation. Probably the use of catgut-suture, which, we know, soon dissolves, and the fact that the sheath of the nerves was carefully selected, as the portion to be principally included in the sutures, may have had much to do with such fortunate results.

As a beginning, then, I think these four cases are both interesting and encouraging. If in the case of a limb left paralysed by division of an important nerve, we can afterwards cut down upon, resect, and reunite such nerve, so as to restore power and sensibility to the parts supplied by it, at no great risk, much has been gained; and in cases of extensive wound or laceration, involving important nerve-trunks, these records raise the question whether it is not better not to be simply content with ligaturing bleeding vessels, and leave the nerve-trunk to the chance of assuming its original position, by carefully and accurately closing the wound, but to insure the co-adaptation of its divided ends by the careful introduction of catgut-suture.

I wish to say a few words upon Esmarch's elastic bandage and constricting band; for the case of cure of aneurism in the popliteal space, recently published by Dr. Reid of the Naval Hospital at Plymouth, as effected by the application of Esmarch's method for restraining hæmorrhage, is well deserving of consideration.

Operating surgeons constantly come into contact with cases in which, either to themselves or their patients, the application of Esmarch's apparatus is a great advantage. In a town like Sheffield, where very heavy manufacture is going on, and where much machinery and steam power are employed, severe accidents, entailing great hæmorrhage, are very common; and repeatedly have we found the advantage of Esmarch's method in the amputation of mutilated limbs, where every drop of blood is of consequence. And, again, how much the work of the surgeon is facilitated in such operations as the removal of sequestra surrounded by new bone, and in the midst of soft structures, often unusually vascular from long-continued local activity. Here his view of parts is not obscured by the constant welling up of blood, and he is able to remove dead bone with the least possible damage to the new formation surrounding it, and acting as a substitute for it. In such operations, too, as those upon the foot, necessitating the disarticulation of small bones, with anatomical relations often obscured by disease and swelling, its advantages are obvious.

Esmarch's method thus secures a twofold desideratum, in cases where its application is practicable, for it procures for the surgeon as clear a view of the parts he is operating upon as if he were operating on a dead body, and it secures for the patient the great boon of undergoing operation with the least possible loss of blood. I know it has been urged, in objection to its employment, that there is the risk of squeezing up into parts above inflammatory products, blood-clots, or partially disorganised blood, but I think with care in the application such accidents can rarely happen. Often as I have applied it, I never remember to have come across such results. The only unfortunate effects I have seen, I think, have been minor ones, such as some bruising and subsequent swelling of the stump, when probably the elastic ligature has been applied more energetically than was necessary. The method can hardly be called a new one, though I think to the ingenuity of Esmarch we are indebted for devising the means of making it so widely and generally practicable. But over and above these well known and generally acknowledged advantages, I must for a few minutes draw your attention to its employment for another purpose—the cure of aneurism. The subject of aneurism was so fully and exhaustively treated by Mr. Pemberton of Birmingham before this Association, four years ago, that little can be added to what he then advanced; but in the case recorded by Dr. Reid, when ordinary appliances failed, a rapid cure was effected by the application of Esmarch's bandage and ligature. The subject was a sailor, aged 37, with popliteal aneurism. Compression was first tried by genuflexion, which caused so much pain and oedema of the leg that it had soon to be discontinued. Afterwards, Carte's compressor was applied at the brim of the pelvis, and again in Scarpa's

space; but after four hours' continuous compression, severe pain again put a stop to treatment; and though pulsation in the tumour had ceased, it shortly returned, the opinion being that, although circulation through the femoral was controlled, a free supply of blood entered the sac through the collateral branches. It was then determined to try the effect of Esmarch's apparatus, not so as to empty the sac of blood, but keeping it filled, so to cut off all circulation through the limb as to allow of the coagulation of the contents of the sac. The limb was enveloped in the bandage from the toes upwards, but the bandage was passed very lightly over the knee, so as to exercise little pressure on the sac, and the thigh was then enveloped to the middle third. The elastic ligature was passed round the thigh, and kept on for fifty minutes, when pain above the seat of the constriction necessitated its removal. It was then found that all pulsation had ceased; the aneurismal tumour was hard, and, as a means of precaution, a tourniquet was applied, at intervals, over the femoral for a few hours longer, to moderate the current of blood through the artery. Pulsation never returned, however, and the man when seen some months afterwards was perfectly well. The striking feature in this case is the rapid cure. One can readily understand stagnant blood, in a vessel in a limb almost deprived temporarily of vitality, speedily coagulating; but it will be observed that this is not precisely the method of cure which we have been in the habit of considering the most desirable in aneurism. The efforts of surgeons, from John Hunter's time, has been so to retard the flow of blood as to encourage the deposition of laminæ of fibrine till a sac becomes filled. In his address in surgery at Birmingham, Mr. Pemberton says: "What we want is a stream of blood flowing into the aneurism, that it should be more or less retarded there, and that there should be present something of the nature of a foreign body—for example, the fibrous laminæ—on which blood would coagulate and deposit its fibrine, for I strongly hold that what we want in these cases is a deposition of fibrine rather than a coagulation of blood. Surely, the slow deposition, layer after layer, of solid fibrine in the sac, until filling in is complete, is a surer guarantee against future mishaps than if it were closed by a mass of suddenly coagulated blood." Now, whilst fully admitting the soundness of the views here expressed, I still consider this case well worthy of the attentive consideration of the surgeon. Certainly, I would prefer the gradual consolidation of the aneurismal sac by the deposition of fibrinous laminæ; but I am sure I have seen cases in which, either from the shape of the aneurismal swelling, or from the briskness of the collateral circulation, attempts to obtain consolidation by retarding the flow of blood have been useless; and, again, the pain induced by long-continued compression, or the nervous irritability of the sufferer causing him to be intensely sensitive to pain, may thwart our efforts to produce this gradual consolidation. Without presuming to draw conclusions from a single case, I still venture to bring this interesting one before the members of our Association, affording as it does another and a novel illustration of the benefits conferred upon surgery by Esmarch. And if further experience prove that, in cases where we fail to obtain the gradual consolidation at which we have hitherto aimed, we can obtain rapid and lasting coagulation by actually stopping circulation in a limb, we shall have made another very important addition to the methods already in use for the cure of aneurism.

Gentlemen, I feel I have already trespassed long enough on your patience. I wish my crude and imperfect remarks had been more worthy of your consideration. I have been able to tell you little that is new, and nothing that is original. It is given only to the gifted few to originate ideas and introduce innovations. But still I may hope to have completed a far from useless task if I have succeeded in interesting this large representative gathering, in even one or two important surgical questions; for it is only by the accumulation of facts, and by the interchange of experiences, that we can hope to throw light upon those delicate and difficult problems in which the profession we love so well abounds.

Wholly occupied, as many of us are, in the pressing practical work of our profession, too little time can frequently be devoted to the scientific and more attractive side of it; and yet the humblest worker in our great field of labour, diligently and conscientiously doing his daily work, may reap a rich reward; for, even before wealth and honour, welcome as they are, is the gratitude of our fellow-men for benefits conferred upon them, and the peace that comes from a life spent in trying to alleviate the sufferings of our fellow-creatures.

A REPRIEVE arrived in Leicester, on Saturday night, for the culprit Cornelius Asher, aged 77, herbalist, sentenced to death by Mr. Justice Field, at the recent Leicester Borough Assizes, for the murder of Ann Gee, on May 2nd, and whose execution had been fixed for Monday morning.

ADDRESS IN PUBLIC MEDICINE, BY ALFRED CARPENTER, M.D., C.S.S.CAMB.

A PARLIAMENTARY leader has spread far and wide the proposition: *Salus populi suprema lex*. We are bound to believe that, when he uttered that sentiment, he honestly gave adhesion to the principle involved in it. Nay, the harassing legislation which a belief in its correctness helped to promote, has assisted to bring about the ebb-tide in the promotion of sanitary work which we are now witnessing. It may be thought that a proposition which has become a proverb, cannot be accepted as an axiom; the epitome of abridged wisdom which is wrapped up in its meaning being lost sight of. Such is the proposition to which the then Prime Minister gave utterance nearly three years ago, and which should be the watch-word of the Health Department of this Association. The questions which are involved in the proposition are manifold, and their prosecution by the members of the medical profession has produced a greater number of enemies than it has brought friends.

Ebb-tide in sanitary work, however, is not to be wondered at. Terence wrote in ancient times:

"Obsequium amicos, veritas odium parit";

and as in times of old so it is now, obsequiousness has no place in the performance of duty, and as a natural consequence its prosecution promotes opposition. It is my present purpose to show why opposition is attended with so much apparent success, to point out simple lines of progress, and propound a theory as a basis for continued exertion.

It is scarcely more than forty years since the first national platform was established upon which satisfactory observations could be made, and successful operations carried on in the cause of preventive medicine. The statistics which have been prepared by William Farr, have been true pioneers of sanitary work. I would by no means decry the observations made by the older sanitarians. Howard and Pringle, Harvey and Jenner, with many other older workmen, are worthy of the highest regard by those who value the work in which we are engaged, and who think prevention of greater national importance than cure. If it had not been for the work of these eminent men, followed as it was by that of the enlightened politicians who framed and passed the Factory Act of 1833, and the Registration Act of 1834, William Farr's records would not now be matters of history, and we might still be groping in the dark as to the natural laws which regulate the health of the people, and be theorising as to the causation of disease, instead of calling upon Parliament to legislate for its prevention. The facts which have been brought to light by Farr's tables, the enormous mortality which has been shown to exist in defined districts, among defined classes of persons, and at particular epochs in their lives, together with the philosophical and suggestive papers which have been prepared by, or at the suggestion of, one who deserves as much of his country as any living man—I mean John Simon—have led to a flood of legislative measures, sometimes contradictory, passed in paroxysms; too often spasmodic in their character and unsatisfactory in their working; culminating at last in the enactment of a measure, which made the appointment of medical officers of health compulsory upon all local sanitary authorities. This measure has laid a foundation which enables us to apply particular observations to defined localities all over the country. The compulsory appointment of those medical officers was preceded by a permissive stage—permissive, first, in the application of sanitary work to a particular district—permissive, in the way in which that work should be applied, but at the same time accompanied by the stern resolves of the courts of law that, in applying those works, and bringing them into practice, the rights of individuals should be respected. The antagonism between the *suprema lex* and the liberty of the subject; the opposition between *salus populi* and the rights of property, continued to throw serious impediments in the way of sanitary progress, because the truths of sanitary science were few, whilst the *ipse dixit* of its professors; both medical and engineering, were numerous and contradictory. Especially has this been the case with the comparatively new profession of sanitary engineers, a profession which has sprung up to execute the works which sanitary science has called for; the members of which profession, in a large number of instances, were ignorant of natural science. Is it to be wondered at that Parliament in its wisdom passed permissive

measures? Is it not a natural thing that those who had faith in the truth of their dogmata should ask for a trial of the principles they wished to be carried into practice, before making it compulsory on local authorities to entertain them? Was it not natural that those who desired healthy and satisfactory progress should prefer to see the suggested enactments in operation, and that they would wish to have an opportunity of studying their effects, before committing the legislature to a course of action which would have to be retraced if it happened to be projected on wrong lines?

Hence the value of permissive measures; the promoters of antagonistic schemes for the improvement of the health of the people have had a fair field: the principles upon which these schemes are based may have been correct, but unfortunately the advice of the medical expert has been but too often only half acted upon. The principles which govern the application of sanitary law have been only half understood by those who have had to carry them into practice, and have been only half applied. Medical men are not acquainted with the first principles of engineering work. To engineers has been most naturally intrusted the duty of devising and carrying out the works which were required for the removal of the causes of disease, with the too frequent result of partial failure in effect, because sanitary law or a study of biology have not been the guiding stars of the engineer; whilst the medical adviser, being totally ignorant of the requirements of the former, has unwittingly passed over serious defects in the proposed schemes. The lesson which has been learnt is, that medical officers of health must know something of the first principles of sanitary engineering, so that they may be able to detect any grave defects in the works which a local authority may determine as requisite to be carried out in a given district. Such first principles must be a part of the education of everyone, so far as they are connected with drainage, water-supply, and building construction.

Registration of the causes of disease tells us in conclusive figures that disease is irregular in its incidence; that it coincides in its incidence with certain social conditions; that certain forms of disease decrease or increase as those social conditions alter for the better or for the worse. The study of the statistics of a given locality is a mariner's compass to the student in prevention; whilst the rise and fall of certain forms of disease in that locality constitutes a barometer whose daily readings point out to the pilot the course which he should steer, and advises him of coming storms. It is only recently that every place has had its recognised pilot, whose duty it is to watch the indications afforded by registrations, and to advise the local authority accordingly. The indications are, however, not afforded to that officer at the most important and essential time, viz., at the very onset of epidemic or infectious disease. Registration of death is not in itself sufficient for the welfare of the state. The only information which a medical officer of health receives officially at present is, that disease of an infectious character has been fatal in a given place some time previously. This information is conveyed to him many days or even weeks after the event, and he finds, on inquiry, that the *materies morbi* has already been spread far and wide, that the contagia which have been produced by that case have been passed into the public sewer, the nearest water-course, or other receptacle for human excreta, and, as a consequence, have most likely multiplied indefinitely. It is also probable that many cases of the same kind occurred before one was fatal, and that no efficient steps were taken to localise or circumscribe the effects of the disease in that locality. It is more than probable that if the proper officer could have had information of the first appearance of that disease in the locality, the general distribution of its contagious particles would have been prevented, and the people saved some of the consequences of that distribution. A natural sequence to the registration of death is the registration of these forms of disease, for the repression of which a sanitary organisation is by law established. That registration will be effected in due course. It is a coming wave of legislation, waiting for the time when the natural history of those diseases which it is intended to encounter is more fully understood by the public, and more perfect knowledge obtained by ourselves, as to the way in which preventive measures are to be used. We must be agreed among ourselves as to the proper steering course, before we can have sufficient influence with the legislature to procure the enactment of a satisfactory measure. We must be agreed as to the class of disease which should be registered, and agreed also as to the persons who should give the information to the registrar. I cannot support the opinion that it is our duty, as a profession, to give information on this point. A medical man, or, indeed, any other person, is out of place in undertaking a duty which may follow upon, but which is not a part of, the work he is asked to perform by his employer, especially if that work appear to be to the detriment of the latter. It would be morally wrong for a medical adviser to conceal the nature of a given case, if of an infectious character,

from the knowledge of his employer or the responsible head of the establishment in which his employer resides; but, the medical man having communicated that knowledge to him, the latter should be the party to give the information to the State, and be responsible to the local authority if he withheld it. The members of our profession cannot claim the protection of privilege in any case. If called upon, they would be obliged to convict the employer of neglect if the latter failed to comply with the requirements of the law, if such should be enacted. The employer, or the person responsible for his welfare, should give notice, just as at present the owner of cattle is bound to send information to the inspector that disease of a certain kind exists on his farm. It was felt, when the Contagious Diseases Act was passed, that to call upon veterinary surgeons to give the required information would defeat the object of the Act. It would no less defeat the object in the case of human beings if medical men were to be called upon to forward the information to the local authority; there would be an immediate premium on the employment of unregistered persons, and an effort made to suppress the discovery; and unless medical officers of health are to be entirely restricted from private professional work, it is quite impossible for such an enactment to work satisfactorily to the State, whilst, under any condition, it would be unjust to the private practitioner.

The progress which has been made in recent years in the repression of disease is marvellously great. The compulsory measures which are already on the statute book are extensive. The various factory acts, nuisance removal acts, registration, vaccination, and adulteration of food acts, acts for regulation of lodging-houses, of water-supply, and numerous other fetters which are placed upon disease-production, both afloat and ashore, are very galling to a large portion of those affected by them; they are restive under the yoke, and will not understand the reason why those acts have been enacted. As a consequence, the unwritten and unexpressed object of our legislators is to prevent the rigid application of the laws of health to their own particular locality. It is true that many among them are energetic, but many too frequently follow the shadow rather than the substance, they raise some question on some trivial side-issue, and make a strain at a gnat, but on great questions, which affect themselves, they swallow the camel with the greatest ease. No better illustration of the truth of this proposition could be afforded than the action of a portion of those persons who have been recently agitating for a so-called Vivisection Bill. Some of these persons are permitting cruelty of the most excruciating character to be daily inflicted on their flocks and herds. They allow castration and other painful operations to be performed in the most painful manner on all classes of animals on their estates. They allow the cottages of their poor tenants to continue in a condition in which morality and chastity are impossibilities; whilst drunkenness, wife-beating, and child-murder are the natural sequences to such states of habitation. These things go on every day before their eyes. They have the power to prevent them, but they do not; yet they do raise their voices in shrill clamour against comparatively humane actions which they do not understand, which have for their objects the diminution of suffering in the future, and an elucidation of the truths of physiological and pathological science. The truths of those sciences are so telling against certain forms of quackery and delusion, that it is not surprising to find the supporters of quackery among the promoters of the Vivisection Bill. They would stop the study of physiology if they could, for it deals death blows at the —pathys and —isms in which they delight.

I would not, however, have it considered that we are in favour of the cruelty which is said to be practised by scientific students in demonstrating physiological facts. When I was myself a student, I was never cognisant of such, and I believe that the statements are gross libels on our profession—libels which are quite unworthy of any Government to have countenanced, and are an indication of a desire on the part of some of the ruling powers to put a slight upon science, and especially upon that profession which includes among its members a large portion of the searchers after the hidden truths of nature.

An idea is now present in the minds of the ruling powers that they do not intend to be doctor-ridden. They have done a great piece of satisfactory work; they have made the appointment of Medical Officers of Health compulsory. Some local authorities have even conscientiously performed their duty, and have appointed efficient officials.

The medical officers so appointed have zealously set to work to find out the sanitary defects which exist in their district, and have made elaborate reports regarding the same. Many are astonished to find that, although appointed to do certain work and to make certain suggestions for action, no action is taken, and things remain much as they were before the appointment was made. There is nothing very extraordinary in this. It is the rule in every-day life. The custom of the unit is necessarily the custom of the aggregate of units; and the local authority

does that as a body, which the majority of individuals comprising it do in their daily life. It is the same result which naturally follows when a medical man offers his gratuitous advice to his wealthy patient at the wrong moment. The country is now passing through a phase of this kind; honest and conscientious medical officers of health are bringing down upon themselves a shower of indignant remonstrances, of wide-spread abuse and energetic opposition from local John Bulls, who do not recognise the fact that the State is suffering from mischiefs which can be removed if proper measures be taken for their removal. The reports of medical officers of health lie on the table, and very little concerted action is taken for the removal of those causes of disease which have been so ably and clearly pointed out. The patient is saying pretty plainly that he does not intend to rigidly obey the laws of health or to be doctor-ridden, and until some wave of epidemic disease arises, and compels him to reconsider his determination, he will not alter his course or take a different line of action; he may then instruct the sanitary engineer to carry out costly works which remove the most flagrant nuisance, but when carried out, they often do not effect all the objects intended, because some first principle of sanitary law is altogether overlooked.

These results, though not due to defects in sanitary science so much as to construction of works, are leading the public to inquire for themselves and to criticise our actions. Fortunately for science, physiology is taught in some of our elementary schools, whilst honours are taken at our universities in natural science by men who do not intend to enter the medical profession. The youth of both sexes are learning more and more the laws of nature and imbibing the first principles of physics. A portion of the public believe that it is the duty of the physician to give a reason for the line of treatment he is pursuing; they will not be satisfied with an evasive answer, whilst the more sensible portion will not be led astray by a false one. Our explanations must be either strictly correct or so framed as to apply to a possible hypothesis, and not be contrary to the laws of natural science. To the medical profession the country owes in a great measure the knowledge which has been obtained of the laws which apply to the prevention of disease. As a profession we must continue in advance of laymen, and we must not allow the idea to gain ground that prevention and cure are different studies, and may be entirely separated from each other. It may be even that one will supersede the other and become the more noble study, but to give currency to the proposal that medical men should not be called upon to consider the means to be used for the prevention of disease, and that they may ignore the operations of the engineer, would be suicidal. We must know how to prevent disease if we would retain the confidence of the public. If we are properly acquainted with the best principles of prevention as well as of cure, our objectors will not be long in finding out that they had much better be doctor-ridden, as they style it, than put their trust in delusions. At the same time, it is our duty to advise, not to dictate, to recommend, not to command, and to support our recommendations by arguments based on sound science. If the doctor be unskilful, addicted to dogmatise, and to advance opinions which are not founded upon scientific truths, he is doing serious harm, and helping to promote those forms of quackery which are so rife among the idle, the self-willed, and half educated ignoramus of society. We require a clear insight into the conditions which give rise to disease, to reduce the principles of preventive medicine to the plainest lines, and to bring it into formula which may be at once assented to; perspicuity being the basis of all true knowledge in every branch of study.

I will set out what I believe to be some of these bases. The first principle of sanitary work is *motion*. Any plan which entails stagnation as a part of its scheme must have the cause for that stagnation very clearly expressed, and a sound reason given for it, or the scheme is bad in design and not calculated to effect the object for which it is proposed. This is a canon law with reference to the first great purpose of the sanitary officer. From the moment of excretion until it is utilised, motion of the excreta is the first sanitary law. If the excreta of carnivorous animals be kept moving, those combinations which produce epidemic disease are not forthcoming. For this purpose, sewers are required in crowded localities. They are the necessary evils which follow upon the aggregation of individuals into crowded communities, though they are quite out of place in the village and the isolated mansion. Any sewer so constituted as to allow stagnation of any of its contents in any part of its course is wrongly made. If arrangements be introduced which necessarily produce stagnation in the air, if only for a few feet of house-drain, a manufactory or vineyard is allowed to exist in which contagious particles may vegetate, and may be the starting point of a fresh epidemic; any trap on a sewer which is not accompanied by a corresponding ventilator may become a trap to catch men. Any sewer so constructed as to allow of deposit of solid

matter, or which allows sewage to stagnate in any part of its course, is in a similar condition. Sewers must contain a current of sewage constantly passing down, with a corresponding current of air always passing one way or the other, if they are to be kept free from the power of manufacturing mischief. Ventilation must be free and absolute, ingress being allowed as well as egress, in a way which cannot be counteracted. For every house in connection with a public sewer there should be at least two free openings provided in the house-drain, an inlet as well as an outlet. If this arrangement be carried out, and the openings contrived so as to effect the object in view, and not for the purpose of defeating it, the natural forces will more effectually ventilate the sewers than any artificial aids. The diffusion of gases, the tension of vapour, the differences of temperature, in the sewer as compared with the outer air, the constant movement of external air, together with the movement of sewage in the sewer, will suffice to produce a free ventilation at all times. If this be done, no contagium particle will have a chance of reproduction in the contents of sewers, and no sewer gas will be discharged which will convey elements of mischief.

Deposit must not be allowed to take place; sewers must flush clean. The engineer who constructs sewers so that a deposit is probable in the invert of the arch has failed to effect the object for which he was engaged, and has erected an elongated cesspool. A sewer must flush clean under all circumstances. If sewage be always moving in the sewer there will not be time for deposit, there will not be time for those changes to take place upon which the production of contagia depend, so that motion prevents evil. Sewage must continue in motion and pass on to its destination. There is another point worthy of mention which is too often forgotten—fresh sewage does not smell. If a sewer stink, it is defective in its workmanship somewhere. It is not sanitary science which is at fault, but engineering work. Sewers which give out unsavoury odours ought not to be accepted. They are defective either in their ventilation or in their levels; they are either wrongly designed or badly executed; and the engineer should be called upon to rectify the mistake.

Sewage cannot be retained in a sewer or anywhere else for more than twenty-four hours without producing a chance of evil; long before that time has elapsed, it ought to be on its way to be utilised. The moment utilisation of sewage has properly commenced, from that moment the evils which might result from sewage recede into the far distance, and it becomes ineffective as a focus of infection. At present, nineteen-twentieths of the sewage produced by the thirty-two millions of Great Britain is cast into the sea, or allowed to decompose after it has set up an immense amount of disease. Some of it becomes food for fishes, but the major portion is lost for ever by its reduction to its original elements.

It is not assumed that the utilisation of sewage by irrigation is possible in every place. It is, however, simply a matter of cost. At the first sewage conference ever held in this country, which took place at Leamington in 1866, evidence was produced which showed the safety and success of the plan when managed by those who understood it. But the resolution which I submitted to the meeting, and which was ultimately carried without a division, stated that, whilst sewage-irrigation was a method of utilisation which would quite prevent the pollution of our rivers, yet there were places to which it was not applicable, and for which some other means of utilisation must be provided. I wish now to show what can be done by irrigation. The Croydon Sewage Farm at Beddington is at this moment utilising the sewage of 50,000 persons on 460 acres of land. It has been in action for sixteen years, and some of the land has been irrigated more or less night and day for the whole of that time. The farm is close to a dense population; it is immediately surrounded by residential property of the most valuable kind. The efficiency of the soil is becoming greater year by year, as the management of sewage land is becoming better understood. The population of the parish in which it is situated, and of which it occupies nearly one-fifth of the whole area, has trebled since the farm was first laid out, an increase of population which is greater than has taken place in any neighbouring village or town. The rateable value in the parish books has risen by reason of the increase of building from £11,000 a year, at which it was rated in 1861, to £36,000 a year, at which it stands now. The death-rate, which averaged 20 in the 1,000 before the establishment of the farm, has not risen above 17 since it has been in operation. The birth-rate is high, tending to raise the death-rate higher than it otherwise would be. Sewage-farming at Beddington has neither depreciated the value of property nor injured life, but has actually acted in a contrary direction. It has also done much more than that. The land, which was naturally poor before it was taken for sewage utilisation, was let at the agricultural value of 24s. per acre. The neighbouring land has, however, risen in value since then, and now lets at £2:10 to £3:10 per acre as market

garden land. But the Croydon local board have been obliged to take the land on lease at the enormous rental of £12 per acre, which is rather less than its cost would have been to us if we had purchased it compulsorily. The landlords, instead of receiving £525 *per annum*, now obtain £5,500 a year without any trouble to themselves; they become rich men, if they were not so before. The farm employs more than three times the number of hands, and raises at least five times the amount of produce. There is at this time upon the farm a herd of nearly one hundred and twenty head of cattle, many of which have been bred on the farm, including fifty milch cows; they are as free from disease and as healthy looking as any herd in any part of the kingdom. Let us bear in mind that the landowners have become rich men, the wages paid have more than trebled, the produce raised has increased by five times; there has been no depreciation of value to neighbouring property, no production of infectious disease or miasmatic influences, but there has been a complete destruction of the contagium-particles which a large population necessarily produces, whilst the effluent water discharged into the river after it has passed over the farm, has seldom been less pure than that supplied to many places as potable water, although I would not, for obvious reasons, be in favour of such water being used for drinking purposes. This result is brought about by continuous movement; from the time the sewage is discharged into the house-drain, until the time when the effluent leaves the farm, is from six to twelve hours. The most important operation which takes place on a sewage farm is the destruction of contagious particles. The moment they are brought into contact with the spongioles on the root-lets of sewage grown crops, as may be easily seen in any field of ryegrass which is being irrigated with sewage, the spongioles seize upon the albuminous matters in the sewage by a kind of elective affinity, including the contagium-particles, remove them from the water, and digest them with an avidity which is most remarkable; no putrefaction takes place, no retrocedent decomposition arises, but the albuminous matter is digested as perfectly as white of egg is digested by the human stomach. Putrefaction is no part of sewage utilisation, and if putrefaction take place, there is a corresponding decrease of productive power, and also a proof that sewage-farming is not properly carried out there. There are three simple rules to be observed. (1.) The sewage must be kept near to the surface of the land, so that the contagium-particles which may be contained therein shall not get beyond the reach of the spongioles of the crop, but shall be digested at once, before they can become reproductive. (2.) The amount of produce removed from the land must bear a constant and regular ratio to that of the sewage put upon it; and (3rd) there must be a rotation of crops, so that the materials common to sewage which one kind of crop does not take out from the land may be removed by another class of vegetable produce.

The utilisation of sewage by agriculture is one of the most important actions which the political economist, as well as the sanitary officer, can promote. It is a large field for the investment of superabundant capital, which must bring a handsome return to the inhabitants of the land in which it is invested, even if the investor fail to get a large premium. If one-tenth part of the sum which has been lost in Turkish, Egyptian, Honduras, and other worthless securities, had been invested in sewage utilisation, tens of thousands of acres of land which are now comparatively useless, might be bringing in a yearly revenue of five pounds an acre to the present owners, whilst the produce raised upon them would assist to reduce the famine price of butchers' meat, and be a boon to the country. It is proposed to spend ten or fifteen millions of pounds in the formation of a channel tunnel, which by a slight accident may be entirely lost. A similar sum expended for the purpose of utilising the sewage of London would make 10,000 acres of barren land as fruitful as the Beddington fields, and could not be lost. Motion in contact with atmospheric air in the sewer, on the farm and from the farm, constitute the first principles of sewage utilisation. I say, in contact with atmospheric air, because this is the *sine quâ non* of utilisation. Even in the next best way of dealing with sewage, viz., by intermittent downward filtration, it is an absolute necessity, although in such case the utilisation is secondary and partial only.

Experience has taught us that in dealing with sewage there are two other canon laws which are simple and absolute in their character, and which cannot be departed from without danger. One has reference to the communication between the house and the main sewer. No matter how careful the architect or the sanitary engineer may have been in his plans, the drainage portion of the work is carried out by a class of workmen who habitually slur over their work, and the common laws of hydraulics and pneumatics are studiously ignored. The natural result is occasional or even frequent stoppage. To obviate this danger, no sewer should have any direct

communication between it and the interior of the house. Such communication should always be by indirect channels only.

The other canon law is also absolute. It is, that no water-pipe conveying potable water for use into any house should ever come into direct contact with a sewer or house-drain in any part of its course, especially at the orifice of discharge. The reckless way in which plumbers and house-fitters disobey these laws is producing danger to individuals in all ranks of society. Sewer-air from imperfectly constructed sewers is laid on to our bed-rooms, dressing-rooms, kitchen departments, and lavatories, as regularly as if it were a necessary of life, whilst the water-pipe is in a thousand of instances so placed as to render it perfectly impossible to be used without the contingency of air finding its way to the water from the impurest of impure sources. People reputed to possess common sense do not see the danger of such proceedings, because every one using water liable to be so contaminated is not affected on all occasions and at all times. They argue that the precaution of keeping water-pipes away from the neighbourhood of sewers is unnecessary, because a fatal result does not immediately follow. They might as well argue that a battle-field is not dangerous, because the hero of a hundred fights died a natural death in his own bed.

I am inclined to make seven distinct classes of zymotic disease, and to include among them several which, at present, are assumed to be peculiar to animals alone. But the classification includes all the diseases which appear as epidemics in this country. The conditions are analogous under which one or other of them may arise, according as a concurrence of circumstances come together or not. The first class includes small-pox, cow-pox, chicken-pox, and sheep-pox. Its reproduction requires a germ or atom of potent matter which must be introduced into the animal economy from without. Now and then an individual is found who is insusceptible of the disease. If we could discover the reason for this insusceptibility, we should get the clue to the means which are required for the entire prevention of small-pox, and even render vaccination unnecessary. Attention to ordinary sanitary detail will not prevent its appearance, though it may diminish its fatality. A person who is apparently most healthy, very cleanly in his habits, who always inhales pure air, drinks pure water, and who is but little exposed to the influence of decomposing fecal evacuations, may yet suffer from the disease. It is true that it is much more fatal in a dark, ill-ventilated house, with the insanitary surroundings which usually belong to such; still the fact remains, that small-pox is not prevented by sanitary regulations alone, and is not so capable of prevention by municipal and personal cleanliness, as most of the zymotic class.

A distinguished member of this Association has made out that the milder exanthem, cow-pox, acts as a preventive of the severer form of the disease, simply because it is a modified form of small-pox, modified by its transmission through an animal; the germ which produces it having been a germ of small-pox, changed in its nature by passing through the body of the cow. It is an instance of the way in which Providence places in our hands means whereby we may extract the sting of disease if we set about it in the right way. The recipient of the slighter disease is insusceptible of the severer form of malady for a long time; until most of the tissues of the body have been altogether changed, and new matter laid down in their place.

This insusceptibility to take on a similar form of malady a second time is peculiar to most zymotic diseases. A person having suffered from enteric or scarlet fever, is less liable to suffer from that form of disease again. In this they differ materially from constitutional and functional diseases. If a person have suffered once from gout or bronchitis, he becomes more liable to recurring attacks. He has established a custom which will possibly set up an outlet in his system for the discharge of effete or used-up matter. It has one privilege attached to it; there is often a smaller quantity of the particular material in which the germ or potent matter of zymotic disease delights, than in that person who is apparently in a healthier state, which accounts for the fact that delicate people suffer less severely from epidemic maladies than those who are strong and hearty. The manifestation of zymotic disease represents the result of some potent force, or the effect of some living organism acting upon the humours of the body, and altering the condition of the system, which requires years to efface. It removes from the system the whole of the matter in which the active principle of infectious disease can revel; and until production of its particular pabulum takes place that particular disease cannot arise again, because there is no food for the active principle to live upon. I much doubt if this potent force or living organism, take it as we please, could have any effect upon the body, if the recipient were perfectly healthy; if no impurity existed in the fluids of the body; if the blood contained nothing foreign to a healthy and natural state. If this be so, a question arises, as to whence these impurities proceed, and how their effects are to be guarded against. I venture to put forth an hypothesis for

consideration, which will explain much which is difficult to understand on any other view. Some impurities must exist; they are the used-up matter, the result of the act of life, or they may be inherited tendencies, which have resulted from former neglect of sanitary law, and which have depreciated the quality of the stock, and rendered it more susceptible to bad influences. The impurities naturally increase if there are any defects in the sanitary arrangement of the individual corpus. Their presence is of no moment if they are not in excess, and if they are removed from the body as fast as they are formed, or in the course which they naturally follow. Let us represent them by x , in an equation in which the factors x , y , z (as a total) represent any form of epidemic disease. The problem is to assess the value of each factor in the equation. Divide the factors with two parts: centric elements, or those which are proper to the body; and excentric, or those which act upon it from without; x , y , z , may equal zymotic disease of any kind. Let $x = u$ and e ; u being the used-up material, the formed material of Beale, always in the act of formation, is not foreign matter, and is not in ordinary proportions injurious to life. It is always being diminished as fast as it is formed, by one or other of the excretory organs which exist for the purpose of removing it. If all the excretory organs and all functions be healthy, and all doing their work properly, the body is in good health, there is no excess of used-up material, no *débris* of combustion. If, however, one or other of the excretory organs fail to do its duty, from either overwork or inertness, something is left in the humoral system, and e is added. It becomes a positive quantity, and represents the excess of matter which should have been removed, $u + e = x$. They have a common origin, being the *débris* of the act of living; e will differ in quantity as well as in quality. It will be modified by personal character, by actions, by non-actions, and even by attainments, but especially by attention to or neglect of sanitary and moral laws. Still more will it vary according to the circumstances of the community among whom the person resides, the moral and the sanitary state, or the habitual neglect of sanitary law in which that community may indulge. Thus, a municipal authority who allows overcrowding, foul air, immoral acts on the part of the people, impure water, or bad food, is providing an excess of e , and increasing the danger which may arise from the introduction of the potent principle of infectious disease. If e be absent, x is not complete, and x , y , z cannot arise; x even may be complete from the circumstances I have detailed, but y , z , are still required to establish an epidemic. If z be made to correspond to an atom of potent matter, a germ or living organism, the particulate contagium of any kind of zymotic disease, the multiplying focus of infectious disorder, and one of the eccentric elements in the equation, it has to be introduced from without, and is capable of modification according to the character of the soil into which it may happen to be transplanted. Like the *torula cerevisiæ* or the *Penicillium glaucum*, upon which fermentation depends, and without which alcohol is not produced if z do not gain admission to some part of the humoral system, the entity, zymotic disease, cannot arise. Just as *Penicillium glaucum* requires the sugar and the temperature to produce alcohol, so z , the contagium-particle, requires the food upon which it increases and multiplies, as well as certain meteorological states for its proper development. These latter conditions are represented by y . The severity of the disease will depend upon the quantity of x which exists in the factor x . The epidemic will be more or less general and fatal, according to the greater or lesser quantity of e in each individual, not according to the character of z ; z will be reproduced according to the quantity of food in the recipient upon which it can increase and multiply. If e be absent, the effect of z will be nothing, for there is nothing for it to feed upon. If, therefore, personal cleanliness be attended to, if all the excretory organs of the body be properly exercised, if the municipal authority have insisted upon obedience to sanitary law, if moral laws be obeyed in each unit of sanitary work, the effect of z , whenever it happens to be introduced, will be reduced to a minimum, and z may be so dwarfed as to be unable to effect a lodgment, or it may die out entirely. It will be by directing attention to the necessity of diminishing the growth of e that we shall prevent epidemics from spreading, rather than by useless attempts to keep out z ; by correct sanitary administration, rather than by trying to establish an all but impossible quarantine. If e in the factor x abound, and quarantine be not effectual, if z once pass through the cordon, the power of the latter is lost, and all our work in that direction has come to nought. The equation stands thus: $x = u + e$, and represents the used-up material, the result of the act of life; y = the meteorological conditions, such as temperature, moisture, and certain atmospheric states which are required for the rapid increase of epidemics; z = the contagium-particle upon which the nature of the disease depends. The fatality of the disease will depend upon the quantity of e in the factor x . The rapidity of growth will depend

upon certain meteorological states represented by y , but the character of the disease itself will depend upon z . We can diminish x to a minimum by personal, municipal, and sanitary arrangements; we cannot alter y , but we can impede the introduction of z , and prevent epidemic disease, unless it can be shown that zymotic diseases may arise *sua sponte*. As regards small-pox, there is not any difference of opinion on this point. It certainly requires the introduction of z from without, and if the contagium-particle be absent, small-pox cannot arise. It has been clearly shown that the contagium-particle is a living organism requiring certain forms of matter for its development, and if it do not meet with that matter its character is altered, and it is no longer the same entity.

There is a class which includes measles, whooping-cough, influenza, catarrh, and eczema epizooticum, in which z appears to be a germ of living organic matter, most probably of vegetable origin, possibly the fructification of a class of organisms which have recently been called schizomycetous, and which are too minute for separate identification with present microscopical powers. That vegetable matter can produce similar effects, is seen in the action of the pollen of *anthoxanthum odoratum*, and also of the fine powder of *ipeccacuanha*. The effect of these reagents upon the mucous membrane is not constant, it only arises in some persons. Year by year we find the persons affected to be more numerous. They probably have e in the factor x , in some form or other in their systems. The action produced is immediate, and it may be likened to that set up by mustard. The latter affects every one alike, in which it differs from hay-asthma. The action produced by fungi is not immediate; there is a period of incubation, a period sufficiently long for the production of an immense multiplication of fungus-growth, and, as a sequence to that growth, the production of a chemical result. Growing fungi produce carbonic acid or other acid or etherial products; there is always a considerable formation of gaseous matter produced by such growth. This can set up irritation in the tissues, just as formic acid can, if injected under the skin. The germination, and, as a sequence, the multiplication of fungi in acid media, is one of the wheels within wheels often met with in nature, where reproduction is more rapid, because reproduction itself produces material which increases growth. There is a marked difference between the effect of the *matrices morbi* which sets up epidemic catarrh and that of pollen upon mucous membrane. The one is reproductive, the other is not. It is in the result of reproduction that the cause for the catarrh is to be found. In that reproduction, a material is set free which acts in a manner similar to the pollen of the *anthoxanthum*. Those who live in close ill-ventilated rooms, and who object to admit fresh air, are said to take cold when they do so. It is not the fresh air which injures them, but it brings into contact with the patient's mucous membrane some germ from without, or else it disturbs some such in the ordinarily undisturbed part of the room. The fruit takes root and grows in its new home, reproducing itself, perhaps, like cow-pox, under altered conditions, and in that reproduction sets free a material which is the actual cause of the catarrh.

The effect of copaiwa in producing a rash similar to, and which cannot always be distinguished from, measles, except by the absence of fever, is a proof that a vegetable product can excite a similar state. It has not been shown that the rubelloid eruption which sometimes follows the use of copaiwa has any protective influence against the measles. An extended series of observations are required to prove this point; and it may be that there is an opening for information which is worth following up. Measles is more generally prevalent in mild damp seasons: it always appears more or less about cleaning time, when old heaps of rubbish are being disturbed, and decaying organic matter from homesteads and farm-yards are being spread over the soil. It appears then as an epidemic, as if there were a sequence in the operation. It is possible that the schizomycetous organisms may be altered forms of some particular mould or smut, altered in the character of their fructification, and altered in their mode of growth by transplantation to a new home; just as the contagium-particle of small-pox is altered by its transit through the humours of the cow. Alterations of this kind do occur: the connection between the *echinococcus* and the tapeworm is a case in point; and it does not follow that the organisms themselves are distinct species which require a continuous existence in that form for their occasional appearance as epidemics. Just as with small-pox, some persons never have measles, or whooping-cough, or scarlatina, though frequently exposed to the influence of the contagion. Whoever discovers the cause of this exemption will confer a boon upon humanity, as in that discovery will follow the establishment of a means for preventing altogether that class of disease.

The class which includes diarrhoea, cholera, dysentery, enteric and intermittent fever, is essentially one of filth-disease, arising from the effects of a sewage soaked soil, of polluted water or air, rendered foul by

miasms, from decomposing organic matter. Wherever any of this class puts in an occasional appearance, diarrhoea is certain to be a regular visitor, whenever the temperature rises above the ordinary standard, and continues high for any time. It has been imputed to the rise and fall of the water-line in the subsoil in connection with the rainfall of the district. A close investigation of conditions under which summer diarrhoea arises in those towns in which it is prevalent—such as London, Leicester, and Berlin—shows conclusively that, although the highest mortality corresponds with the lowest level of ground-water, there is no relative proportion in any other point. A relation does exist between the origin of the disease and heat. The greater the heat the greater the mortality; the lower the amount of moisture in the air, the higher the death-rate from diarrhoea. A fall in the death-rate follows upon the return of atmospheric saturation. The fall in the level of ground-water, the increase of temperature, and the diminution of water in the air, all occur together. Then it is that those who inhabit cellars, underground dwellings, dark ill-ventilated houses, houses in which dry rot is taking place, all places likely to get an excess of carbonic acid in the air, suffer from the disease. Hand-fed children suffer first and most heavily. This appears to prove that the food is the main starting point. The food, when given, is about to undergo some change, promoted by living organisms, which flourish most luxuriantly under the conditions mentioned. They obtain a lodgment in the mucous membrane of the alimentary canal, and destroy the child by destroying the nourishing properties of the food exhibited. Pettenkofer thinks that locality has more to do with the disease than the introduction of any particular germ—that removal from the place will prevent or even cure the disease. He imputes it to some influence produced upon the people by the rise and fall of water in the subsoil. This rise and fall is connected, but it is as a coincidence. The conditions which give rise to infantile diarrhoea are those which promote the growth of certain living organisms. Such growth takes place most rapidly at high temperatures, when evaporation is rapid, and when the underground air has an excess of carbonic acids in its composition, together with the organisms which accompany that excess—conditions which are likely to be in association with a low water-line, conditions which are always followed by heavy rainfalls. The z in the equation $x y z = \text{infantile diarrhoea}$, is some living organism developed by continuous heat, by dry air, excess of carbonic acid in that air, and some other unknown condition. This organism finds admission into the stomach with the food, sets up a fermentation, by which the nourishing power of the food is destroyed; produces an irritating material, which, uniting with x , causes prostration; and, if this be not fatal, the child is starved to death. The localities in which diarrhoea arises are the favoured haunts of cholera and enteric fever, under other meteorological states in which heat and dryness are not contingencies. Pettenkofer considers their origin to be due to local and personal considerations, and believes that quarantine is useless. The conditions which herald the approach of cholera are progressive from place to place. The factor x may be brought in, and the disease produced earlier than it otherwise would if it had to wait for development *sub sponte*. The observations of Dr. Klein have established the coincidence of living organisms and typhoid in a way which is beyond cavil. In solving the power of each member of the equation $x y z = \text{enteric fever}$, we may be certain that the factor z is a living organism capable of reproducing its like in any situation in which faecal contamination has occurred, and in which the products of filth-decomposition are to be found.

Do any of these diseases arise *sub sponte*? The sudden way in which some of them develop sanctions the idea. This is especially the case with enteric fever and scarlatina. Many intelligent and accurate observers have been unable otherwise to account for the appearance of those diseases in given cases. Yet, the ordinary laws of natural history would forbid the suggestion. Growths, apparently spontaneous, are common in the vegetable kingdom, but in no case is it supposed that the growth has taken place without the previous presence of appropriate spores or seeds. The sudden and wide-spread appearance of eczema epizooticum among cattle, or the destruction of potato by potato-blight, seem to be spontaneous, yet those diseases spread by contagium-particles; we may reasonably suppose that the propagation depends upon spores like to *Penicillium glaucum* or *mucor mucedo*. Those spores are to be always found only waiting for a suitable situation to grow and become fertile in a few hours. They are both aerial and aquatic, and produce different results, according to the dryness or moisture of the position in which they are found, and are modified by the acidity or the alkalinity of the media in which they multiply. Bacteria of different kinds are found in one, vibrios in another; why should not those forms produce a potent matter in their growth, capable in itself of producing disease? We know that certain kinds of fish may be eaten to-day with impunity, but to-morrow they set up serious disturbances in

the animal economy. Vibrios to-day may be harmless, but to-morrow they may produce disease. The secretion from the peritoneum to-day may do no mischief; to-morrow an irritative action may arise which will set up a most virulent and infectious complaint. In peritonitis, a most fatal form of infective disease may be set up, and the infectivity arises *sub sponte* because certain circumstances have been altered, and the bioplasm, existing normally in the tissues, has taken on a new action. The germs were there, but, the vital conditions being altered, a comparatively harmless secretion is turned into a virulent poison.

I believe this to be the case with those specific forms of contagion which are multiplied by filth. Scarlatina and typhus, enteric fever and cholera, arise apparently *sub sponte*, because certain germs or foci of potent matter have been altered by the circumstances in which they are placed, and infective power has been added, just as infectivity is produced in the peritoneal secretion by inflaming the membrane which secretes it. The ordinary excreta of carnivorous animals which contain the *debris* of animal food may or may not be so placed as to produce the germ upon which filth-disease depends, just as dry rot may or may not arise in a building, according as to whether ventilation has been provided for and new wood kept out of the fabric. But if those germs be introduced into the human economy, the disease arises and spreads in the usual manner. So again with scarlatina, long continued observation and analogy forbids the idea of an origin, except from some bioplasm finding a suitable soil in which it may develop its poisonous character.

Time fails me to go through the list of zymotic diseases, and show the character of z in each class. There is a close analogy, a continuing alliance, and a similar explanation can be made as to the value of z in each member of the class.

Zymotic disease, in the majority of instances, has its power of producing evil more in the character of the recipient than in the quality of z . Obedience to sanitary law in private life, together with the performance of public duty by local authority will give comparative immunity from epidemic and infectious diseases, and render us in a great measure independent of the trammels of imperfect quarantine.

As zymotic disease has its main impetus in the disregard of duty, those who advocate the performance of that duty must be prepared to encounter opposition and witness an ebb-tide in sanitary work. It is imperfect knowledge on our part which gives strength to opposition. It is our duty to persevere in the prosecution of a more perfect work. Motion as opposed to stagnation, simplicity as opposed to complexity, should be our cardinal points; and if to this we add the peremptory utilisation of animal *debris*, the sting of epidemic and infectious disease will be taken away, and in the words of the Psalmist, "we need not be afraid of the pestilence which walketh in darkness, nor of the destruction which wasteth at noon-day."

It is our duty to strive to reach this point of perfection. It can be obtained only by educating the people as well as ourselves aright, and we must trust to Providence for our reward.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MEDICINE,

At the Annual Meeting of the British Medical Association,
in Sheffield, August 1876.

By CHARLES CHADWICK, M.D., F.R.C.P.,

Consulting Physician to the Leeds Infirmary; President of the Section.

IN the true interests of this Association, I should not have accepted this position; but, when offered it, I could not resist the temptation of meeting my old friends in the West Riding in friendly discussion, and thus manifesting my interest, still strongly existing, in my old profession, though, through circumstances, I am forbidden the exercise of its functions for a time. Again, I wished to embrace, it may be a last opportunity of expressing my opinion, formed through much experience, of the general tendencies of professional inquiry, and to say how warmly I hail the greater attention now paid to therapeutic science, and the registration of facts under this head; in this way remedying the fashion which has prevailed since the days of Forbes's *Young Physic*, a fashion natural, it may be admitted, when remembering the then customs of our practitioners, but, unfortunately, carried to a dangerous and, to the profession, damaging extent. I have noticed this tendency to a restoration of a rational balance in the teaching of Sir J. Paget and many others. We are building up a structure of medical science which, as we are progressing, will require ages to bring to perfection; in the

meantime, and under the sanction of this so-called scientific providence, we have neglected to some extent our proper duties—the cure of disease. I had purposed to bring this view of our position before you, but I have abandoned it to a more convenient season, as the following will prove I have been warranted in doing. I am old enough to remember, and to have attended, the last meeting of our Association held at Sheffield, and the inquiries then made into disease prevalent here. Previously to this, I had been associated with the late Dr. J. Thompson, and his assistants, Dr. W. Thomson and Sir James Simpson, and very much interested in their inquiries into the collier's black spit, a spurious melanosis, then only supposed to occur in Scotland. At this early period, too, I had found, in extensive infirmary and dispensary practice, many results of inhalation of flax-dust and stone-chippings in producing or aggravating lung-diseases. Returning, then, in our annual migrations, as we have done, to this important seat of one of the typical diseases of this class, it occurred to me that, if I could obtain a series of papers on the entire question of the disease due to inhalation of irritant substances in trades, it would form a very important and interesting addition to our knowledge, by showing the present position of this question. And in this I have been successful beyond my expectation; but with this likewise has come the conviction that our time will prove very short for what we have before us. I have therefore determined to absolve you from my half-hour infliction, in order that more time may be at the disposal of our section, and be content with a simple opening of five minutes' duration. I feel that I shall thus be justified in insisting more rigorously, although always prepared to bow to the decision of the section, on the observation of the time allotted to each reader of papers and speakers in the discussion. And looking to you for support in this particular, I trust we shall go through the business of the session with pleasure equal to the profit.

I may observe that nearly all the writers of the series of papers to which I have referred are here in consequence of my personal application to them, and I here tender to them my special thanks. But I cannot fail to refer particularly to my old friend, Mr. Robert Baker, the factory inspector-general, who, with all his experience on these subjects at command, has kindly consented to take part in our discussion, and thus renew an old friendship, after a separation of something like thirty years.

FORTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in SHEFFIELD, August 1st, 2nd, 3rd, and 4th, 1876.

FIRST GENERAL MEETING, TUESDAY, AUGUST 1ST.

THE first general meeting of members was held at the Cutlers' Hall, at 8 P.M. Dr. FALCONER, the President of the Council, occupied the Chair.

Dr. CARPENTER (Croydon) moved that the minutes of the last general and special meetings should be taken as read.

Mr. HUMPHREYS (Shrewsbury) seconded the motion, which was carried *nem. con.*

Election of President.—Dr. CHADWICK (Tunbridge Wells) said that he was honoured by having to propose the first resolution; and he was honoured still more by the references which he would have to make in proposing it. He moved that Dr. De Bartolomé be elected President of the Association for the ensuing twelve months. [*Cheers.*] One subject of regret suggested itself to his mind, and that was the absence of the late President, Sir Robert Christison, who would, no doubt, with greater force and better effect have spoken on the matter than he could do. Because he had recently enjoyed the honour of the presidency, he would necessarily feel all the more interested in devolving it upon his successor, who, he was aware, stood very high in the opinion of Sir Robert Christison. He had been recently in communication with Sir Robert, who had explained to him the reasons why he was compelled to forego being present on this occasion, and the regrets which he felt in regard to that necessity. The greatest of all those regrets was, that he was not able to be present to do honour to an old pupil and personal friend. [*Cheers.*] In the highest possible terms he had spoken of their President-elect; and, from his (the speaker's) former knowledge, and from the fact that he had personally fulfilled the duties of the office, he had the greatest confidence in proposing that Dr. De Bartolomé do occupy the Presidential Chair for the next twelve

months. [*Cheers.*] He was sure that the honour and the interests of the Association would be maintained untarnished during his period of office by the gentleman whom they were about to elect. [*Cheers.*]

Dr. SIBSON (London) had great pleasure in seconding the nomination. At the same time, he felt that the cordial support accorded to the formal proposing and seconding of the nomination, although it was general, did not come with so much force from the members of the Association, who had come from all parts of the United Kingdom, as it did from the professional gentlemen of Sheffield, who knew Dr. De Bartolomé. [*Cheers.*] The medical men of Sheffield knew that by honouring the nomination they also honoured themselves and the Association. [*Cheers.*] And undoubtedly, as far as he could look back—as far back as the year 1843—upon the history of this Association—perhaps the most important and the most delightful part of its work had been that year after year it had honoured men in different parts of the country, who had from time to time been selected to fill the presidential chair by their fellow physicians and surgeons. He said that that did more to raise the standard at which they should all aim, and which they should all admire and practise, and it had done more to keep up a high tone in the profession, than all the rules of ethics which might be laid down by any body of ethical societies that might exist. [*Cheers.*] Of this he was quite sure, that, if Sir Robert Christison had been present to welcome his old pupil—and more than his old pupil—the friend who worked with him as a fellow-student in his laboratory at Edinburgh, he could not do more honour to Dr. De Bartolomé than those would do who were now present. [*Cheers.*]

The motion was carried *nem. con.*, amid loud applause.

Dr. FALCONER said that, in the absence of the retiring President of the Association, it became his special duty to induct Dr. De Bartolomé into the presidential chair. [*Cheers.*] Those who had heard the speeches of the mover and the seconder of the resolution would require no other reason to account for the honourable position in which he had been placed.

President's Address.—Dr. DE BARTOLOMÉ having taken the chair amid loud applause, said: Gentlemen, I sincerely thank you for the warm manner in which you have received my nomination. My feelings are overflowing with congratulation, as well as with gratitude, towards you, for the gratification which I feel at being appointed to this high honour, which, if it could be enhanced, has been enhanced by the terms in which the mover and seconder of my nomination—formerly my fellow-students—have spoken of me. The honour would have been still more enhanced if my old and valued friend Sir Robert Christison had been present, but the reasons stated for his absence to-night are sufficiently cogent to convince me that he would have been here if it had been possible for him, at his advanced age and with his increasing infirmities, to have made the journey. Gentlemen, I was never an eloquent speaker, and, upon the present occasion, my words almost fail me; permit me, however, to thank you most sincerely for the elevated position which by your kindness, and not through my own merits, I have now the honour to occupy [*loud cheers*]. Dr. De Bartolomé then delivered his Address, which is published at page 169. During its delivery the address was repeatedly applauded.

Vote of Thanks to Sir Robert Christison.—Dr. MCINTYRE (Odiham) said that he felt highly honoured by having had a motion entrusted to him which required no eloquence in its introduction to the meeting, inasmuch as it spoke for itself—it was its own happy introduction—for approval. It referred to the services of a gentleman in his official capacity, and he would go further and say that, whether they looked upon Sir Robert Christison either as a gentleman, as a physician, or as the late President of this great Association, he knew that he should carry their sentiments with him, when he said that it would be long before they would “look upon his like again” [*cheers*]. He had, therefore, great pleasure in proposing “That the cordial thanks of the Association be given to Sir Robert Christison for the able and courteous manner in which he has presided over the Association during the last twelve months.” [*Cheers*].

Dr. OGLE (Derby) cordially endorsed the remarks of the last speaker. Personally for him to speak of the merits of Sir Robert Christison would be to insult the members present, every one of whom was well acquainted with his ability. Those who had ever had any dealings with him, either in a public or private capacity, would be able to appreciate his worth, and would acknowledge that he was a thoroughly able and courteous gentleman. He had much pleasure in seconding the motion [*cheers*].

The motion was carried by acclamation.

THE PRESIDENT said that he should not be going much out of his way in cordially thanking them, on behalf of Sir Robert Christison, for the manner in which they had carried the resolution. The absence

of their ex-President had grieved him more than they could imagine, but, as he had before stated, he was aware that it had arisen from causes over which he had no control [*hear, hear*]. From the warm friendship which had existed between Sir Robert and himself, for the last forty years, he felt certain that he would have been present had he felt himself able to undergo the necessary exertion and fatigue to accomplish that purpose [*cheers*].

REPORT OF COUNCIL.

Dr. FALCONER, President of Council, read the Annual Report of the Council, as follows.

"Your Council, after an interval of thirty-one years, have again the pleasure to meet the members of the British Medical Association in the important manufacturing town of Sheffield. Some of those now present may remember the meeting held in this place in 1845, at which about 130 members registered their names; your Council have every reason to believe that this present meeting will, in point of numbers, show a remarkable contrast.

"Your Council have to report that, in consequence of the lamented decease of the President-elect, Sir Cordy Burrows, they considered it desirable that the Annual Meeting of the Association should not this year be held at Brighton. The medical profession of Sheffield, including the members of the Association in the district, at once determined to invite the Association to that town. A large reception fund was raised, and an influentially signed invitation was presented by a deputation from Sheffield to the Committee of Council. The Committee of Council, without delay, summoned an extraordinary meeting of the members of the Association at Birmingham, when it was unanimously decided to accept the cordial invitation from Sheffield. Dr. M. Martin de Bartolomé was appointed President-elect. The Council feel assured that the action taken in this matter will meet with your approval, and the election of the President-elect be confirmed by formally appointing Dr. M. Martin de Bartolomé President for the ensuing year. Your Council gratefully acknowledge the public spirit and loyalty to the Association manifested by their Sheffield brethren.

"The accession of new members to the Association continues to be satisfactory. 726 new members have been elected; 51 have been lost by death, and 83 by resignation. The Association now numbers nearly 7,000 members.

"The financial statement for the year 1875, which has been audited by a public auditor, and published in the JOURNAL in accordance with the By-laws of the Association, is generally satisfactory. The receipts for the past year have been £9,964: 16: 1, against £9,225: 1: 1 in 1874, an increase of £739: 15: 0. The subscriptions have increased by £519: 6: 0; the receipts for advertisements by £150: 8: 3; the sundry sales of JOURNALS by £75: 11: 7. On the other hand, the actual expenditure for the year has been £9,757: 6: 9, against £8,468: 11: 11, an increase of £1,288, principally in the following items:

JOURNAL, increase in issue 1,000 copies weekly	£585	0	0
Editor - - - - -	138	0	0
Legal Expenses - - - - -	115	0	0
Furniture - - - - -	62	0	0
Scientific Grants - - - - -	100	0	0
Additional Clerk - - - - -	70	0	0
Rent - - - - -	37	10	0
Salary of Secretary and Manager - - - - -	100	0	0

"Irrecoverable debts to the amount of £600 have been written off. Your Council have, however, the pleasure to report that the Balance-Sheet shows a satisfactory excess of assets over liabilities, viz., a total of £3,177: 15: 7, and the assets now due may all be considered good.

"The Committee of Council, having adopted the recommendation of the JOURNAL and Finance Committee to purchase the paper for the JOURNAL direct, tenders were issued to three or four large firms in London, and your Council are happy to inform you that a considerable saving has been effected in this important item.

"Your Council greatly regret to have to report the death of many members of the Association during the past year, comprising Mr. Southam of Manchester, one of your Vice-Presidents, whose valuable services to the Association for many years cannot be too highly estimated; Sir Cordy Burrows, the President-elect; Dr. Parkes, the lamented Professor of Hygiene in the Army Medical School at Netley, whose loss is national; Professor Hughes Bennett and Dr. Warburton Begbie of Edinburgh, and many other estimable members.

"Your Council have to report the gradual increase of members who have signed the Articles of Association. The incorporation of the Association, which was effected at the Annual Meeting in 1874, is therefore satisfactory, and your legal adviser will be instructed to

register a large additional number of members who have signed the Articles.

"Upon the recommendation of the Scientific Grants Committee, confirmed by the Committee of Council, a sum of £300 has been granted for scientific inquiries. The reports of the investigations will be presented during this meeting, and published in the JOURNAL of the Association.

"At the last Annual Meeting, the following resolution was passed in the Public Health Section:

"That excessive intemperance is in many cases a symptom of a special form of insanity which requires special treatment with a view—1. To the recovery of those affected; and 2. To the protection and advantage of them and society; that, in the present state of the law, such treatment is not attainable; and that it is desirable that legal provisions be made to render it attainable."

"This resolution was referred by the General Meeting to a Sub-committee. This Committee has held several meetings, but has found the subject beset with difficulties, not the least of which has been the want of an influential member of the House of Commons willing to lay the subject before the Legislature. From this and other reasons, it has not been found possible to take any action this year. It is proposed that petitions should be presented early in the next Session of Parliament, from all parts of the country, in favour of the proposed legislation.

"Your Council have the pleasure to report, as the result of the meeting in Edinburgh, the formation of two new Scotch Branches, viz., the Edinburgh Branch, including the Lothians and County of Fife, and the Glasgow and West of Scotland Branch.

"Your Council welcome with sincere pleasure so large an accession of Scotch members into the Association. While congratulating you on this important increase, your Council must not omit to mention the formation of a Branch in the West of England, viz., the South Devon and Cornwall; also the formation of a Shropshire and Mid Wales Branch, as it was considered desirable to dissolve the Scientific and the Shropshire Ethical Branches, and to form one united Branch. These alterations and additions in the Branches must conduce to the more organised action and closer social intercourse of the members of the Association in those districts. The Council feel that the best thanks of the Association are due to those members who have taken an active part in the formation of these Branches.

"The Report on State Medicine by your Committee of Council has been forwarded to the General Council for Medical Education in accordance with your instructions at the last Annual Meeting, and your Council received from that body the following resolution:

"The Committee are of opinion that the communication on the subject of State Medicine from the British Medical Association should be acknowledged, and that the Association should be informed that the subject of a Qualification in State Medicine or Public Health has long occupied the attention of the Council. The Committee would recommend the Council to express their opinion that any Degree or Diploma in State Medicine should not of itself (that is to say, apart from any of the present qualifications) constitute a claim to be enrolled in the Medical Register. Whether the Diploma, though not separately registrable, might properly be admitted to registration on the footing of an additional qualification, is a matter which does not at present admit of being brought to a satisfactory practical settlement."

"With regard to the foregoing resolution, your Council would notice that the matter was under consideration by a Sub-committee appointed for that purpose, of which our distinguished colleague Dr. Rumsey, F.R.S., was Chairman, as far back as the year 1873, and a report was brought up by that Committee to the General Meeting at Norwich in 1874, but, as the subject was one which required serious consideration, it was not adopted at that meeting, but referred to the Committee of Council. Your Council think it but just to those gentlemen who gave so much time and attention to this subject to mention these facts, as a modification of the suggestions of the Report has since been adopted at Cambridge, Oxford, and other Universities. Your Council have the pleasure to report that the attempts to obtain recognition by successive Governments of the importance of sanitary legislation, and other public services on the part of Dr. Rumsey, have been presented to the Prime Minister, and Her Majesty has been pleased to grant him a pension of £100 per annum from the Civil List.

"At the last Annual Meeting held at Edinburgh, a resolution was adopted to the following effect:

"That it be an instruction to the Secretary, between now and the next Annual Meeting, to issue a circular addressed to every member of the Association, requesting an opinion 'Yes or No, as to the admission of female practitioners to membership', and your Council have to report that 6,250 circulars were sent out to all who were members, in accord-

ance with the terms of the resolution, 4,161 of which were returned, the particulars of which are as follows :

No	3,072
Yes	1,051
Neutral and returned irregularly filled up	16
Returned through the Dead Letter Office	22
	4,161

"The following resolution, passed by the Surgical Section, was brought before the meeting :

"Resolved : 'That this Section is of opinion that it is desirable that a Committee be appointed to inquire into, and report upon, the use in Surgery of various anæsthetic agents and mixtures of such agents ; that it be part of the object of such Committee to collect and summarise the evidence of British Practitioners of Surgery and Medicine, as to the relative advantages of Chloroform, Ether, Nitrous Oxide Gas, and other agents, and to carry on suitable experimental investigations ; that Professor Lister of Edinburgh ; Professor Perrie of Aberdeen ; Mr. Annandale, Dr. Thomas Keith, Dr. J. Duncan, Dr. McKendrick, and Dr. Crum-Brown, of Edinburgh ; Dr. Burdon Sanderson, Mr. Spencer Wells, Mr. Ernest Hart, and Mr. Clover, of London ; Dr. Macdonnell and Mr. J. Morgan, of Dublin, be requested to act as a Committee for this purpose, with power to add to their number ; whereupon the following resolution was passed, viz. : 'That, in accordance with the resolution now read from the Surgical Section, a Committee on Anæsthetics, consisting of the gentlemen therein named, with power to add to their number, be hereby appointed, and that the application for a grant be referred to the Scientific Grants Committee.'

"This Committee have been unable to meet ; but your Council would recommend that the Committee be reappointed and requested to report to the next annual meeting.

"The Joint Committee on State Medicine of the British Medical and Social Science Associations, after careful consideration, and after obtaining the consent and approval of the Executive Committees of both Associations, by whom, especially by your Association, which contributed £100, the necessary funds for holding a Sanitary Conference in the month of May were provided. This Conference, which was presided over by Lord Aberdare, was attended by gentlemen holding official positions in connection with local authorities in all parts of England and Wales, and adopted a series of resolutions, regarding the local government of the country, which will form the basis of a memorial to Her Majesty's Ministers. A report of its very important proceedings will be presented by the Joint Committee.

"The Medical Reform Committee regret that they are again unable to report any definitive settlement of the question of Medical Reform, notwithstanding the efforts of the English medical authorities in favour of a conjoint scheme of examination. The Committee have, however, succeeded in securing the promised aid of influential members of the Legislature in furtherance of the principles so long and so persistently advocated by the British Medical Association. The proceedings of the Committee will be laid before the Association in a special report.

"The work of the Parliamentary Bills Committee for the year has been chiefly concentrated on the Poor Law Amendment Bill (Scotland) and the Cruelty to Animals Bill. The attention of the Association was drawn by papers read at the Edinburgh Meeting in 1875 to the desirability of securing for the Poor Law Medical Officers of Scotland permanence of tenure, half payment of salaries from the consolidated fund, and exemption from the supply of drugs. Resolutions were passed on this subject ; a Special Committee was appointed, and a great deal of evidence has been accumulated in the JOURNAL. Early in the present Session a Bill was introduced by the Lord Advocate, which included the above desiderata. The Parliamentary Committee have assisted to secure for this measure a large amount of support, and even if not passed into law this Session owing to pressure of other business, its favourable reception has already afforded the best reasons for anticipating an early and satisfactory amelioration of the position of the Medical Officers of Scotland on the basis approved by the Association.

"The Cruelty to Animals Bill, introduced by Lord Carnarvon, has been the subject of frequent meetings of the Committee in conference with leading physiologists of the three kingdoms ; it has prepared memorials remonstrating against the general character of this Bill, and urging its withdrawal, or, as an alternative, the introduction of important amendments. The action of the Committee has been supported by two deputations more influential and more numerously attended than any medical deputations which have on any occasion waited upon Ministers. The effect of these deputations upon public opinion was very strongly marked, and Ministers made large concessions to their

wishes ; but the Bill as amended in the House of Lords, and with such further amendments as Mr. Cross was willing to accept, was still regarded by the profession at large with great disfavour, as imposing undue restrictions upon medical research, and implying an unjust stigma on the most humane of professions, and especially upon those highly respected members of it whose lives are devoted to abstract studies of the greatest value to the welfare of mankind. The Committee have spared no effort to afford organised means of giving pressure and effect to professional opinion on this subject ; and its success in this respect has increased the influence of the Association both with the profession and the public, by affording striking evidence of the power of the Association when vigorously employed and intelligently directed.

"The Registration of Disease Committee has this year carefully considered the subject of returns of all cases of infectious disease in both public and private practice ; and, whilst they cordially support the movement to obtain a complete registration of these diseases, they express their opinion that the proper person to make the return should in the first instance be the householder, and not the medical attendant upon the case.

"Supported by resolutions from a large number of the Branches, your JOURNAL has effected during the year a great reform in suppressing the prevalent custom of advertising medical works in the daily and other newspapers. The Association are largely indebted to the Editor, Mr. Ernest Hart, for the vigour and ability which he devotes to the work of the JOURNAL.

"Dr. Jukes de Styrup, Mr. Samuel Wood, Dr. A. B. Steele, Mr. R. H. B. Nicholson, and Mr. J. Woodman, have resigned their offices as Secretaries of their respective Branches. Your Council return their grateful thanks to those gentlemen for their effective services, not only to the Branch, but also in the Committee of Council. To the other Branch Secretaries who have so ably and satisfactorily done the work of their Branches a grateful recognition of their ability and zeal is eminently due.

"Nine Essays have been received in competition for the Hastings Prize Medal. In consequence of this unusual number, the adjudicators have been unable to report their decision in time for the present Meeting. Your Council regret that no Essay has been sent in for the Prize so liberally offered by Mr. Wood, of Shrewsbury, for the best Essay on Pyæmia. The Committee of Council have referred to Mr. Wood for his decision as to the course to be adopted.

"Your Council, in conclusion, congratulate you on the continued prosperity of the Association. The JOURNAL continues to ably represent the progress of Medical Science ; the financial position of the Association is sound and satisfactory, and its influence with the profession and the public year by year steadily increases."

Mr. FAVELL (Sheffield) moved "That the report of the Council, together with the financial statement for the year ending December 31st, 1875, be received, adopted, and entered upon the minutes". The highly satisfactory nature of the report which they had just heard read, recommended the motion for their emphatic approval [hear].

Mr. MASON (Bath) seconded the motion, and congratulated the members of the Association upon its satisfactory progress, as evidenced by the balance-sheet, which showed that they had a balance in hand of upwards of £3,000.

The motion was carried *nem. dis.*

Proposed Alteration of Laws.—The PRESIDENT said that the next notice on the agenda referred to the proposed alteration of the by-laws, of which notice of motion had been given by Mr. Lawson Tait at the last meeting. But, within the last two hours, he had received a telegram from Mr. Tait, which he would read to the members. The telegram was, "Detained by a case of hæmorrhage, so that I cannot move my amendments at the meeting. Please explain my absence." Of course it would be unnecessary for him to trouble the members with any explanation, because he did not know any more than the telegram told him, and that he had already read to them [laughter]. He would, however, simply observe that, Mr. Tait not being present to support his proposals, his notice of motion fell *ipso facto* to the ground [cheers]. The proceedings then terminated.

On Wednesday, Dr. SIEVEKING delivered the Address in Medicine, which is published at page 172.

A vote of thanks to Dr. Sieveking was proposed by Dr. ATTHILL, seconded by Dr. MARION SIMS, and carried unanimously.

The Sections met in the afternoon.

In the evening, the President gave a *soirée*, which was very numerously attended.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 5TH, 1876.

THE SHEFFIELD MEETING.

THE meeting now in progress in Sheffield will take rank among the most successful and agreeable meetings which have been held. The attendance has been large—larger, we think, than at Norwich the year before last, although not so large, of course, as last year at Edinburgh, or previously at London. The great hall of the Cutlers' Company has been crowded at all the addresses, and was, indeed, completely filled at the first general meeting on Tuesday evening to hear the address of welcome by the President, and to transact the general business of the year. Dr. De Bartolomé, the new President, was received with the hearty and effusive greeting due not only to his personal and professional character and position, but also to the representative of the profession in Sheffield and its vicinity, who have extended to the Association a hospitality so generous, so prompt, and so complete, that it needs nothing to enhance its claims on the grateful recognition of all the members of the Association. If it had required any setting for such a purpose, that also would have been found in the delicacy, the sincerity, and the most prompt liberality with which the whole profession in Sheffield have supported the invitation which was tendered so opportunely.

In Dr. De Bartolomé, the Sheffield members have furnished the Association with a President who had already, before the meeting, and while President-elect, shown how highly he appreciates his responsibilities, and how ready he is to sacrifice his personal ease, his time, and thought. Dr. De Bartolomé has not only given close attention to all the onerous duties of preparation for the meeting, but on each occasion when the deputations of the Association have addressed Ministers on the subject of the Cruelty to Animals Bill, Dr. De Bartolomé and Mr. Arthur Jackson have personally attended.

Dr. De Bartolomé's address, which we print in another column, gave an interesting account of the locality in which the meeting is being held, and touched upon other topics of importance, especially referring to the necessity of strengthening the public health service, and improving the position of public health officers.

The Report of the General Council showed satisfactory evidence of the progress of the Association during the year; it announced an accession of numbers to the extent of not less than seven hundred members, and an excess of assets over liabilities amounting to upwards of three thousand pounds.

The work of the Committees has been most active and important. The Report affords a summary, and the separate reports of individual committees will furnish the details.

The addresses of Dr. Sieveking, Mr. Favell, and Dr. Carpenter we shall discuss separately; we publish their text to-day. They maintain the high standard which has been set by the illustrious men who have, during past years, filled the office of orator, and were warmly received by large audiences.

The business of the meeting has proceeded very smoothly: four notices of motion, as to changes in the by-laws, which were on the paper, and which have been published already in the

JOURNAL, fell to the ground, the member not appearing to support the motions of which he had given notice. The telegram announcing his absence, and [the reason, was received with much laughter, and the meeting separated earlier than had been expected. Special interest attaches to the valuable report read by Professor Rutherford, upon the results of his further research on the action of medicines on the secretion of bile; and to the address of Dr. Brown-Séquard, both of which we shall publish *in extenso*. An interesting incident was afforded by the brief statement which Dr. Bucknill interposed in the course of the second general meeting, in vindication of the character of the medical superintendents of lunatic asylums in America. They have been very foully aspersed lately by a medical paper in this country, which appears to think that "sensation" is not bought too dearly even at the expense of professional honour, and which has sacrificed equity and fair dealing to the desire of making a horrid example of the American asylums; with this view, it has treated the wild aspersions of political scribes of an order of scurrility happily unknown in this country, as grave matters of proved fact, ignorant or careless of the recklessness with which, under the political system of America, professional proceedings and personal character are slandered for political purposes. It has accepted the "Senate reports" of political agitators as established judgments, and has vilified persons as guilty of horrible cruelties in the conduct of asylums, who are in fact quite innocent, and have been proved to be so. Dr. Bucknill, who has a full general knowledge of the conduct of the American asylums, took occasion to disclaim, on the part of the English profession, any complicity in this promulgation of scandals against our American brethren; and his declaration will be received with sympathy on this side of the Atlantic, and with cordial satisfaction on the other.

The meeting is proceeding while we write. The large and abundant hospitalities of the chief residents of Sheffield have greatly aided our professional brethren in rendering it a complete success.

THE ANNUAL ADDRESSES.

THE forty-fourth annual meeting of the British Medical Association has been held during the week at Sheffield, a place representative of many of the most marked features of modern life. It was natural that the President's address should deal with topics suggested by the place and the circumstances, with the natural wealth and industrial pursuits of Sheffield, with the changes which have recently taken place in the social conditions of its inhabitants, and in the type of disease. But the main point made at the close of the address, that which demanded free scope for medical officers of health and their deliverance from all restraints of a local or petty kind, must be sympathised with through all ranks of the profession. That the men who perform these difficult and laborious duties should have their character and their bread protected against the arbitrary and irresponsible self-sufficiency of men invested with a brief authority, who, while apparently discharging a public duty, may in reality be only gratifying a private pique, was a sentiment which must be endorsed not only by the medical profession, but by all well-disposed citizens. The limits which bound down the President, and which prevented his touching upon many points which special workers would most probably deal with during the meeting, did not confine the President of the Medical Section; and, in consequence, we have had from Dr. Sieveking an address at once interesting and full of suggestion. Building upon what ought to be the common possession of all medical men, the facts of the history of medicine in England, and referring to the recentness of the time when it was not possible for men to obtain medical instruction in this country at all, Dr. Sieveking went on to give a sketch of the origin and progress of our own Association from the time when, in 1832, Dr. Hastings induced fifty gentlemen of the medical profession to assemble, under the presidency of Dr. Johnston of Birmingham, in the Board-Room of the Worcester Infirmary. How the

fifty became three hundred; how the *Provincial Medical and Surgical Journal* appeared; how it afterwards became the *Association Medical Journal*; and how the Association grew till it has become the most powerful as well as the most numerous body of men ever banded together for the furtherance of medical interests. These and other points were graphically set forth. Those who wish to know something both of the kind of work that has been done by medical men in past times, and of the sort of spirit which ought to animate those on whom it now falls to carry on and to perfect that work, ought by all means to read this address. In it, they will see well set forth what the best minds in the profession are now strongly feeling, and what the rank and file of the profession are now dimly striving after, a just appreciation of what the profession owes to its own members and to the State, of what it owes to medical science, and of what it owes to education. Particularly appropriate, it appears to us, is the appearance of this address at the present time, which it requires no prophetic sight to see, is one preparatory to a great change—the change, namely, which medicine is on the point of making from an empirical to a scientific method. Already in several ways have the first steps been taken in this direction, as they who can read the signs of the times perceive. The principles underlying this change rise with clear definition to those who care to look for them. That medical men should know the structure and the function of the various parts of the human and other organised bodies; that they should know the effect upon them of that interaction between these and external conditions which results in health; that they should know the conditions which disturb normal relations and induce disease; and, lastly, that they should know what will help to re-establish the normal—these are all questions for the medical mind, and they are capable of receiving, if they have not yet done so, a scientific answer. Accordingly, following the course of the originator of our science, Dr. Sieveking lays much just stress on a study of medical topography. What phenomena are exhibited by men and animals living on certain soils, with certain water-supplies drawn from given geological formations; what facilities the nature of the soil gives for drainage, and how, therefore, moisture or dryness may be maintained, and what effects these conditions may have on the persons living among them; what physical conformation and what mental and moral characters are induced by hilly and what by flat countries—these are only a few of the main questions which such a study raises. These questions naturally lead to the consideration of the appointment of medical officers of health who, relieved from the pressure of professional practice, may have time to devote to these and allied subjects. With them it will in part rest, aided, as they no doubt will be, by those who work more directly for the public, to decide these questions, and to agree upon a set of practical directions how to avoid for the future the errors committed in the past.

We have not space, and it is not necessary, in addressing a body of men who are themselves as much alive as we can be to the importance of these matters, to follow Dr. Sieveking through the rest of this able address. If we had, we should refer to the broad and comprehensive manner in which he has discussed the homœopathic controversy, and to the criticism he offers of it, not heard now for the first time, that, whatever incidental advantages the system might have derived from the attention it paid to diet, rest, and regimen, that never could be a comprehensive law in medicine or, in fact, in any department of science, which is based, as this avowedly is, “on mere extrinsic secondary phenomena or symptoms”. But the “expectant” plan of treatment fares no better at the hands of Dr. Sieveking, who points out to those who are so fond of waiting to see what nature will do, that she as often kills as cures her patients; and that, in fact, there is more reason, or at least quite as much, to assert the existence of a *vis destructrix* (apologising for poor Latinity) as of a *vis medicatrix* in nature.

Probably the most important part of the address will be found to be that in which it is urged on the ancient universities of England that they should identify themselves, more than they have done in the past, with the life of the people of the country; in particular, that they

should offer facilities for scientific studies, such as the medical student specially requires. We cannot help joining in the fervent wish that this may take place. The foundation, out of the enormous resources of Oxford and Cambridge, of a college where science should be the special feature of the course, and in which the professional element should be strong, would be a proceeding fraught with very great consequences, which would be beneficial to all. For, on the one hand, the university life would not be broken up, and those links would be maintained which unite all departments of learning with one another; and, on the other, there can be little doubt that those ancient seats of learning would, in turn, derive new lustre from those on whom they set their seal and impress. Already, throughout the country, several educational centres are striving to supply the demand for scientific instruction; and, unless Oxford and Cambridge wish to be entirely set aside in this competition, they ought to bestir themselves to remedy this defect in their educational course. Failing this, and if it should continue to be the case that, practically, only the sons of the rich can be admitted there, there will be no alternative left to us but to found, in accordance with Dr. Sieveking's suggestion, a college elsewhere, which will do for us what we so much require, and what the wants of the time demand.

When so much remains to be done, it is scarcely the fitting time to say much about what medicine has achieved in the past. They who are putting on their armour should not boast, as those who are taking it off. Nevertheless, it is an encouragement to those who are engaged in the work to know what has happened before they themselves came upon the scene; and, for this reason, we are glad to notice the grateful remembrances by Dr. Sieveking of those men whose labours, often unrewarded, have enabled us to enter at a great advantage, as compared with them, upon pursuits to which their lives were freely given. The continuity of existence gives it a real unity amid the phenomenal breaks in the chain; and an inheritance, rich and full, from the past, ought to be a constant stimulus to further and larger efforts for the present and the future.

THE Local Government Board have, we are glad to learn, decided that the Sanitary Authority of Harrogate were not justified in giving notice to Dr. Deville of their intention to dismiss him.

WE understand that Her Majesty ex-Queen Isabella of Spain has been pleased to appoint Dr. William Jelly, consulting physician, Madrid, as her personal medical attendant.

IT will gratify Sir William Fergusson's many friends to hear that he left on Wednesday morning last for Scotland, wonderfully improved in health—a proof of which was shown in the fact, that he walked across the street to see a friend previous to leaving.

MR. SAMUEL MESSENGER BRADLEY, F.R.C.S., has been appointed Lecturer on Practical Surgery at Owens College, Manchester, the professorship of surgery being retained by Mr. E. Lund, F.R.C.S., who had previously held this office conjointly with the late Mr. George Southam.

WE have received a communication from Professor Pasteur, through Professor Tyndall, on the subject of the changes in urine, *à propos* of Dr. Bastian's recent paper. We regret that the pressure on space, owing to the full report which we give of the proceedings of the annual meeting at Sheffield this week, compels us to postpone the publication of this paper until next week.

APPLICATION was recently made to the sitting magistrate of the Hammersmith Police-court, by the clerk of the Chiswick Improvement Commissioners, in regard to a man suffering from small-pox, who insisted upon going into the street, to the danger of the public. Mr. Bridges directed that a letter should be sent to the man, informing him that he was liable to a penalty of £5 every time he went out.

THE SULTAN MURAD.

OUR special correspondent at Constantinople writes to us under date July 20th:—On June 4th, when the Sultan was told that Abdul Aziz had committed suicide, he felt so shocked at the event, that from that moment he became ill, and has not yet completely recovered his health. A carbuncle manifested itself over his left shoulder-blade, and this was followed by boils in various parts of his body. He was subsequently attacked with ague, which afterwards assumed a remittent type, but has now subsided. This complicated illness has reduced His Majesty's strength very much; but I am assured by his medical attendant that he is now convalescent, and will soon be quite well again. Whether this statement can be relied on or not, is more than I can vouch for. This, however, is certain: 1. That Sultan Murad has not yet been invested with the Sword of State (a ceremony corresponding to the coronation of Christian sovereigns); 2. That he has not yet received officially any of the *corps diplomatique*; 3. That he has not even been able (as I hear) to transact business with his own ministers; 4. And that on two occasions, when he publicly went to mosque, he was so weak that he had to lean for support on the arm of his brother-in-law Noori Pasha.

THE SUFFERERS FROM THE "THUNDERER".

We are glad to have a favourable report of the progress of the poor fellows injured by the boiler-explosion on board H.M.S. *Thunderer* at Spithead. There are now twenty-one under treatment, seventeen of them out of danger, and four in more or less of it, in the stage of extensive suppuration of the surface. All internal complications having subsided in all but one, where it has been of laryngo-bronchitic character, now declining, a favourable result is to be sanguinely hoped for. There have been six deaths since the public funeral on the 18th July, but none since the 23rd; and Death would appear to have stayed his hand, as all the remainder, however low their condition, are gradually getting better, and fourteen have been discharged to their homes. Of seventy-seven within range of the boiler and its steam-blast, forty-three have perished; and this is a terrible percentage, such as few field or frigate actions have ever shown; and much of the favourable result is due to the accident having occurred within an hour of a great naval hospital. Had it happened at sea, in a ship boxed up as the *Thunderer* class is, it would have been impossible for any of the seriously hurt to have recovered. Of the cases that fall within the degree marked *serious*, from eighteen to twenty have recovered, or are now in a fair way to recovery. It is very satisfactory to us to know that with marked readiness the Admiralty have communicated to the medical staff, through Inspector-General Smart at Haslar, their satisfaction with the prompt and efficient manner in which the sufferers were received into hospital, and the zeal and ability displayed in ministering to their wants and alleviating their sufferings: an award as honourable to those who give as to those who receive it. The treatment observed has been, in the first stage of serous exudation, with olive-oil and lime-water emulsion on cotton-wadding; and in the second stage of suppuration, with carbolised oil, similarly applied on the limbs, and desiccant absorbent powder of oxide of zinc, carbonate of magnesia, and starch-powder, applied by sifting dredges to the face and neck; also, in some cases, to the limbs, retaining it on them with Lister's gauze-bandage. Certainly, it may be said, that very successful results have attended on this treatment in rescuing many of the very serious cases.

THE REGISTRAR-GENERAL ON THE PUBLIC HEALTH DURING THE THREE MONTHS ENDING JUNE.

THE Registrar-General's weekly return, embracing as it now does the mortality-statistics of twenty of the largest English towns, with a population little short of seven millions of persons, living in fifteen different English counties, affords, from week to week, trustworthy evidence of the general state of the public health, and of the varying fatality of zymotic diseases. The quarterly return, however, deals with the entire

population of England and Wales, and that just issued gives certain particulars relating to the 126,212 deaths registered therein during the three months ending June. The cold unseasonable spring, and the low temperature which prevailed from the beginning of May to the 18th of June, appear to have been favourable to the health, as the death-rate of the quarter was below the average rate for the corresponding period of the last ten years. The births were unusually high, and emigration as unusually low, so that the increase of population in the quarter was considerably in excess of the usual increase. With reference to the fatal prevalence of zymotic diseases, it was below the average. The deaths from scarlet fever showed a further decline, and those from fever were unprecedentedly few. On the other hand, measles was more than usually prevalent, and the fatal cases of small-pox were 501, against 149 and 262 in the two preceding quarters; of these 501, however, 391 occurred in Lancashire, where this disease was epidemic in Liverpool, Manchester, Salford, and Southport. We shall have occasion again to refer to the information contained in this quarterly return, and shall therefore now only add that the Registrar-General reports the mortality-statistics of forty-six English and Welsh watering-places, to afford evidence, in the aggregate, of satisfactory sanitary condition.

EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner of this Club was held on Tuesday, the 1st inst. (Capping Day), at St. James's Hall, Regent Street. Sir Joseph Fayrer, K.C.S.I., presided, and was supported by the Right Honourable Lyon Playfair, C.B., M.P. There was a large attendance of members. During the evening a telegram was despatched to Professor Lister, the Promoter of the Medical Faculty for the day, sending greeting and good wishes to the new graduates. A reply was received from Edinburgh, while Sir Joseph Fayrer was giving the toast of *alma mater*, in which the kind feelings were warmly reciprocated. A handsome silver punch-bowl was presented to the Club, by Dr. Duckworth, in the name of about fifty members who had subscribed for it, as a memorial of the late hon. treasurer, Dr. Alexander Halley; and a very beautiful specimen of Scottish art, in the shape of an inlaid silver paper-knife, was also shown, this being intended as a gift from the members to Mrs. Halley, in memory of her husband's services to the Club. Dr. Lyon Playfair responded, in a long and interesting speech, to the toast of the University. Amongst the medical members present, we noticed Dr. Priestley, Dr. De Chaumont, of Netley; Surgeon-Major Combe, R.A.; Dr. Dickson, R.N.; Dr. W. Playfair; Dr. Withers Moore and Mr. Jardine Murray, of Brighton; Dr. Allfrey, of St. Mary Cray; Dr. Lavies, etc.

THE WEATHER IN NEW YORK.

THE correspondent of a contemporary writes: "We have the heat of Bombay or Calcutta without the habits or appliances which render even an Indian summer endurable. For twenty days, with breaks not exceeding in the aggregate a dozen hours, we have had the sweltering experience of the torrid zone; day and night the excess has continued until one wonders how the human system endures it, and retains the capacity for daily duty. For many hours in the daytime the thermometer has, these three weeks, less only one day, averaged from 93 deg. to 95 deg. in the shade; and there have been periods during which it has exceeded 100 deg. It is a close and stifling heat, with scarcely a whiff of wind at the more exposed corners to blow the dust into your face, and night brings no relief. It is too hot for rest or sleep. The houses are not built to provide against so severe a trial—more distressing and more injurious far than the dry, piercing cold of winter. There is no midday rest from labour and business, as in tropical countries; and custom exacts a dress which aggravates the torture inflicted by the scorching sun. The effect upon the public health may be imagined. Infant mortality is frightful. The number of sunstrokes is beyond precedent. The hospital ambulances are busy from noon till 4 P.M., conveying persons who suddenly stagger and fall, prostrated and helpless. Even those who guard their health most carefully experience a debility which renders sustained attention and effort almost impossible. The

same story comes from Philadelphia and Baltimore and Washington, from Chicago and St. Louis, from New England and from Canada. At Ottawa, the capital of the Dominion, the thermometer has more than once registered 105 deg. in the shade, and the proportion of sun-strokes has been quite as great in other parts of Ontario as in the Middle States. The difference in favour of the far North is that the heat has been less constantly maintained, having occasionally been mitigated by cooling showers."

THE BRUSSELS INTERNATIONAL SANITARY EXHIBITION.

MAJOR KEMMIS, of the Royal Arsenal, Woolwich, Professor Longmore, C.B., of Netley, and Lieutenant-Colonel H. Breckenbury, of the Royal Artillery, have been sent by the War Department to inspect and report upon the large collection of carriages and other equipment connected with army hospitals, which are now being exhibited by various governments and societies at Brussels.

MAGISTERIAL APPOINTMENTS.

RICHARD JONES, Esq., and Charles William Marriott, Esq., have been placed on the commission of the peace for the borough of Leamington.

MR. PRESCOTT HEWETT.

MR. HEWETT has consented to sit for his portrait to Mr. Oulless. The repute of the artist, and the good study he will have in the President of the Royal College of Surgeons, must result in satisfaction to all parties concerned. Although this memorial was initiated at St. George's Hospital, upon Mr. Hewett's resignation of the post of surgeon, the subscription-list (strictly confined to the medical profession) contains the names of most of those who have gained any eminence in the profession.

FATAL BITE OF AN ADDER.

ON Thursday afternoon, a young man named George Thompson, who was on a walking tour with a friend through Surrey and Sussex, was ascending the celebrated elevation of Leith Hill, when he accidentally trod upon a black adder. Thompson, who was wearing knickerbockers, was bitten by the reptile in the calf of the leg. Apprehending no danger, he continued his ascent, and had reached a small village on the other side, when he was taken ill. He was assisted to the inn, and a medical man was sent for. The virus from the bite, however, had so impregnated his system that, despite every attention, he died on Saturday.

THE WAR IN THE EAST.

A MEETING of gentlemen and ladies who sympathise with the sufferings which must be entailed both upon the Turks and upon the Servians, in the struggle now raging in Turkey, was held on July 29th, at the house of Sir Edmund Lechmere, M.P., Bolton Row, Mayfair. Among those present were Major-General Sir John St. George, Lady Strangford, Captain Perrott, Captain Knottesford Fortescue, Major Burgess, and other members of the Order of St. John, and also Dr. Laserson, who is proceeding on a mission of medical inquiry to the seat of war. It was resolved, firstly, that the meeting recognised the necessity of some active efforts being made on behalf of the sick and wounded and other sufferers in the East; and, secondly, that Dr. Laserson should be requested, on reaching Turkey, to send home full reports on the medical and sanitary provision made for the sufferers, addressed to Sir Edmund Lechmere (the secretary of the Order), with a view to their publication. A committee was appointed, and it is understood that a public meeting will be shortly held, in order to consider the best mode of taking further action in the matter.

ST. MARY'S HOSPITAL.

THE recent improvements in this hospital have been in the matters of ventilation, of setting the closets outside the wards, and of giving more light and more convenience in the *post mortem* rooms. Tobin's tubes, each six feet high, have been placed in the wards, according to a plan

which secures cross currents of air from the outside. In the accident ward, for instance, of the tubes which are arranged along the central passage, those on the right hand communicate with gratings in the left hand wall, and those on the left hand with the right hand wall; besides these, there are other tubes along each wall, after the usual mode. Three or four Sherringham valves are placed near the ceiling, on either side. We believe that Mr. Tobin would consider these rather as impairing than improving his arrangements; but, at any rate, the general result is considered by the hospital authorities to be eminently satisfactory. The wards are probably the loftiest in London, being between twenty and thirty feet in height; and at the time of our visit, on one of the hottest days of this season, were cool and fresh, and well-aired. There are Venetian blinds to louvered windows. The larger wards formerly terminated with closet and lavatory arrangements; but these have now been very advantageously set in corner towers built out from the hospital, and having a cross draught and doors of separation; and instead of them, a three-light window gives additional light and air to the ward. This is the greatest possible improvement. The original plan of ventilation was by an open shaft, running along the ceiling of each ward, and opening into a central shaft, which was kept continually warmed. The latter part of the arrangement does not seem to be now required, and has been discontinued.

MEDICAL EDUCATION IN AMERICA.

A CONVENTION of representatives of numerous medical colleges of the United States was held in the hall of the Jefferson Medical College, of Philadelphia, June 2nd and 3rd, 1876. The following bodies were represented: Jefferson Medical College; Medical Department of the University of Pennsylvania; College of Physicians and Surgeons of New York; Medical Department of the University of Louisville; Hospital College of Medicine of Louisville; Long Island Hospital Medical College; Medical Department of the University of Iowa; College of Physicians and Surgeons of Syracuse University; Chicago Medical College; Medical Department of the University of Georgia; Indiana Medical College; Medical Department of the University of Wooster; Cleveland Medical College; Detroit Medical College; Starling Medical College; Medical Department of the University of Vermont; St. Louis Medical College; Atlanta Medical College; Medical Department of the University of Nashville; Medical Department of Vanderbilt University; Missouri Medical College; Keokuk College of Physicians and Surgeons; Columbus Medical College. Professor J. B. Biddle, of Jefferson Medical College, was elected President of the Convention. The following resolutions were (*inter alia*) carried:

"That the action of the Convention shall not be considered binding upon the Colleges represented unless endorsed by their respective faculties.

"That it is the opinion of this Convention that no two consecutive sets of lecture tickets shall be regarded as fulfilling the usual prerequisites of instruction for graduation, where the time between the beginning of the first course and the end of the second is less than fifteen months.

"That in the hope of inducing students to prolong and systematise their studies, this Convention recommends to all medical colleges to offer to students the option of three courses of lectures, after a plan similar to the following: Students who have attended two full courses of lectures on anatomy, chemistry, materia medica, and physiology, may be examined upon any of these subjects at the end of their second course. During their third course, such students may devote themselves to the lectures upon the theory and practice of medicine, surgery, obstetrics, and diseases of women and children, upon which subjects only they shall be examined at the final examination for the degree of M.D.; their standing, however, to be determined by the results of both examinations.

"That the advisory resolutions upon matters of College policy passed by this Convention, be printed and forwarded to all regular medical colleges in the United States, for their consideration.

"That in the opinion of this Association, medical colleges ought not to recognise or hold fellowship with any school or its alumni in which irregular medicine is taught as a part of the curriculum.

"No degree in medicine should be conferred, under any circumstances, except after an examination in person of the candidate upon all the branches of medicine."

SCOTLAND.

ON the 24th ult., the body of Duncan Ferguson, a medical student, was found in Loch Voil, Perthshire, he having been drowned while bathing a few days before. Mr. Ferguson was a promising student of Glasgow University, and recently gained several prizes. He leaves a widow and child. His father was drowned about seven years ago in the Tay at Perth.

CHEMICAL REPORT ON WATER AND MILK.

IN consequence of gastric fever prevailing to a considerable extent in Selkirk, the police commissioners, at the suggestion of their medical officer, Dr. Thomas, have forwarded to Dr. Macadam of Edinburgh, for analysis, a sample of milk from a farm-dairy of about sixty cows, from which more than half the milk-supply of the town is derived; and a sample of the water taken from the reservoir, on which Dr. Macadam reports:

"The water received for examination was practically clear and transparent, and free from all visible contamination. The results of concentration and analysis prove that the water contains a small amount of saline matter in solution, and the hardness is small. The ingredients in solution are the same as those found in all wholesome natural waters; and the water, under examination, is free from sewage or other noxious organic contamination. I am, therefore, of opinion that the water is of wholesome quality, and is eminently suited for the domestic supply of any populous place, and may be confidently employed for drinking and cooking, and any other dietetic purpose, such as the baking of bread. I have also analysed a sample of the milk supplied to the town of Selkirk, and which was also forwarded to me in a jar closed with the burgh seal. The results demonstrate that the milk is of good average chemical quality and composition, and the qualitative chemical and microscopical analysis did not reveal the slightest trace of any ingredient or form of material foreign to ordinary milk. I am, therefore, of opinion that the milk is of genuine and wholesome quality."

THE REGISTRAR-GENERAL'S MONTHLY RETURN.

THE monthly return of the births, deaths, and marriages registered in the eight principal towns of Scotland during the month of June 1876 shows some points of interest. The births were 3,737, of whom 1,912 were males, and, 1,827 females—a considerable excess of males; while the deaths were 2,170, of whom 1,099 were males, and 1,071 females. Of the births, one in every twelve, or 8.3 per cent. of the whole, were illegitimate; the highest ratio of illegitimacy being in Aberdeen (11.4 per cent.), and the lowest in Greenock (5.2 per cent.). The marriages were considerably under the average of June for the past ten years. The number of deaths (2,170, as mentioned above) is 429 under the average of the corresponding month for the past ten years, allowance being made for the increase of population. During June, the annual mortality has been at the rate of 18 per 1,000 persons in Aberdeen, which has the lowest ratio of the eight towns; and 29 per cent. in Perth, which has the highest. Thirty-nine per cent. of the deaths were of children under five years of age; Paisley showing the lowest mortality in this respect, viz., 27 per cent.; and Leith the highest, 51 per cent. The zymotic or epidemic and contagious class of diseases proved fatal to 301 persons, thus constituting 13.9 per cent. of the whole mortality. This is the lowest number and also the lowest proportion of deaths from zymotic diseases that has occurred in the eight towns during any month since the Registration Act came into operation in 1855; and, allowing for the increase of population, the number is 275 below the average of June for the last ten years; that is to say, it is little more than one-half of it. There is a marked decrease in the mortality from whooping-cough, which has been so long the most fatal of the epidemics in Scotland; the deaths having fallen from 121 in May to 57 during June. The deaths from inflam-

matory diseases of the respiratory organs, exclusive of consumption, amounted to 18.2 per cent. of the whole mortality; those from consumption alone numbered 327, or 15.1 per cent.

THE LATE DR. LONSDALE.

THE death is announced of Dr. Henry Lonsdale, at his residence in Cumberland, on the 22nd ult. Dr. Lonsdale was a native of Carlisle; where he was born in 1816. In 1834, he entered on his medical education in Edinburgh, where he passed with great distinction. During his career as a student, and subsequently, he devoted great attention to natural history; and when the late Dr. Knox, the anatomist, left Edinburgh, his course of lectures was continued by Dr. Lonsdale for several years. Removing in 1846 to Carlisle, he settled there as a general practitioner; and, meeting in that capacity with great and rapid success, he afterwards became a leading consulting practitioner in that part of England. The later years of his life were mainly devoted to literary pursuits. Besides contributing to the medical journals, he published a Life of Dr. Knox and other biographies, chiefly of "Cumberland worthies". Dr. Lonsdale was a man of genial and kindly temperament, and will be greatly missed by a large circle of friends both in and out of the profession.

IRELAND.

At a special meeting last week of the guardians of Newtownards, it was resolved that the salary of Dr. MacArthur, Medical Officer of Greyabbey Dispensary District, should be increased from £100 to £125. It was also determined that Dr. R. C. Parke, Medical Officer of the Workhouse, should receive an addition to his salary of £10 per annum.

SMALL-POX.

A CASE of small-pox was reported last week as occurring at Erne Street, Dublin, the patient being a woman lately arrived from Manchester. It is sincerely to be hoped that the utmost precautions will be taken to isolate this and other cases which may be expected to occur; the communication between Manchester and Liverpool, where an epidemic of the disease exists at present, being so constant with Dublin.

COOMBE LYING-IN HOSPITAL.

IN consequence of the death of Dr. Ringland, an election for Master of this institution took place at a meeting of the governors held on the 22nd ult., when Dr. George H. Kidd, Obstetric Surgeon to the Hospital, was unanimously appointed for the ensuing seven years.

LUNACY IN IRELAND, 1875.

FROM the Twenty-fifth Report of the Inspectors-General of Lunatic Asylums, we learn that there were on the 31st of last December 11,777 insane persons in Ireland, being an increase of 194 over that of the previous year. Of these 11,777, there were 7,741 in district asylums, 172 in the Central Lunatic Asylum, 29 in Lucan Government Asylum, 653 in private asylums, 3,179 in poorhouses, and 3 in gaols. By adding to these the epileptic, idiotic, and unregistered lunatics, etc., the aggregate would bring the total to 18,625, or equivalent to 3.20 in every 1,000 of the population. During 1875, there were 930 discharged as cured; 236 as "improved"; whilst 742 died from natural causes, 2 from accidents, and 4 from suicide. The mortality last year among the insane was greater by 1 per cent. than in 1874, being attributable to an injudicious power of committing lunatics in a dying condition as dangerous and violent. Of the insane, no fewer than 5,243 are incurable; and the inspectors consider that these cases should be removed from the asylums and placed in the poorhouses. The improvements still required in public asylums, in the opinion of the inspectors, are, a better supply of furniture, more facilities for amusement, and the enlargement of the space allowed for farm-operations. The cost of the twenty-two asylums for the past year amounted to £190,174, of which £2,735 was contributed by private patients, and £2,948 from farm and garden produce sold.

THE VIVISECTION BILL.

MOVEMENT OF THE BRANCHES OF THE BRITISH MEDICAL ASSOCIATION, AND OTHER BODIES.

STAFFORDSHIRE BRANCH.

A SPECIAL meeting of this Branch was held at the London and North-Western Hotel, Stafford, on Thursday, July 27th; Dr. DAY, President, in the Chair.

The members considered and discussed the provisions of Lord Carnarvon's Cruelty to Animals Bill. It was moved by Dr. DAY, seconded by Dr. FOTHERICK, and carried unanimously:

"That this meeting unanimously agrees in the opinion that Lord Carnarvon's Cruelty to Animals Bill should be strenuously opposed, and this for the following reasons.

"1. That the entire gist of the Bill seems to be directed towards preventing, or at any rate very considerably limiting, experimental research, such research being undertaken in the interests of humanity.

"2. That, fettered by such restrictions as this Bill would place on so-called vivisection, it would almost inevitably follow that many truths not yet arrived at would be left undiscovered, to the great disadvantage of all classes of people.

"3. That, the medical profession having been always distinguished for its benevolence and kindness, to pass the Bill in its present form would be to cast an unmerited stigma on an honourable and humane body of gentlemen."

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual meeting of the Medico-Psychological Association was held in the Hall of the College of Physicians, on Friday, July 28th, under the presidency of Dr. Parsey of Warwick; Dr. Duncan of Dublin, the President of last year, resigning the chair. Dr. Fielding Blandford was elected President of the Association for 1877. There was a very large attendance of members.

Dr. Parsey delivered an address in regard to the provision which, he thought, ought to be made for the chronic insane at present crowding the wards of our county asylums. He spoke in high terms of the Scotch system of boarding out the chronic and harmless cases in private houses, and recommended its adoption in the rural counties of England among the cottages of the English within a fixed radius from each county asylum, supervision and general management being conducted by the committee and officers of the asylum. The arrangements for supervision he considered the weak point of the Scotch lunatic colonies. For the urban districts of England, he recommended asylums of different grades of elaboration in structure and management, with facilities for interchange of patients within the same districts.

In the discussion which followed, Dr. Bucknill took occasion to refer to the charges which had lately been made against the management of American asylums. While he did not defend all American asylums or all medical officers, he asserted most strongly, from his personal observation, that a spirit of humanity prevailed in a large number of those institutions, and that, as a body, their medical superintendents were men of great ability, zeal, and kindness.

The Association then, on the motion of Dr. Bucknill, seconded by Dr. Clouston, passed a resolution of sympathy with their brethren engaged in the arduous and difficult duty of the treatment of the insane in America, who have been unjustly accused of inhumanity and ignorance.

Dr. Clouston read a paper on Attendants on the Insane, advocating a systematic professional training being given them, which led to an animated discussion.

Dr. Lalor of Dublin read a paper on the Education of the Insane. Dr. Hack Tukey, in connection with this paper, gave an account of a recent Report of the Committee of the Charity Organisation Society on the subject of making provision for the education of the chronic harmless insane, the idiotic and imbeciles, by the State. The Association then, on the motion of Dr. Hack Tukey, came to a resolution, supporting generally the recent proceedings of the Charity Organisation Society in regard to this matter.

The Association appointed a Statistical Committee to extend the present tables of the Association; Dr. Lockhart Robertson, Dr. Maudsley, etc., being among the members.

CIVIC GIFT.—The Clothworkers' Company have voted an annual subscription of Twenty Guineas to the funds of University College Hospital.

CORRESPONDENCE.

THE SOUND OF THE HEART.

SIR,—The JOURNAL of July 22nd contains a communication from Dr. C. J. B. Williams on the uses of vivisection to medical science founded on "personal facts", in the argument of which every sane person, whose judgment is not warped by prejudice or carried away by silly outcry, must cordially agree.

No one can entertain a higher opinion than myself of the soundness of Dr. Williams's scientific work, or of its great value to the profession. But as, in all the world, one human being only claims to be infallible, I may be excused for taking exception to a portion of what he has stated. Speaking of the sounds of the heart, he says, "I made the series of observations on the sounds and on the means of stopping and altering them, which gave the first complete knowledge of these sounds".

Dr. Williams intended by this to convey, that the mechanism of the sounds of the heart was there and then definitely settled. I must beg to differ from him. Pathological changes in the sounds make it certain that his explanation of the first sound, at one time almost universally received, is incorrect. With some diffidence I venture to assert, that the true explanation was given by myself many years ago. This explanation is at length being accepted in works by the best authorities, and notably in the last edition of Dr. Walshe's *Practical Treatise on Diseases of the Heart*.

I am, sir, your obedient servant,

ARTHUR LEARD, M.D., F.R.C.P.

London, July 29th, 1876.

MEDICAL DEFENCE ASSOCIATION.

SIR,—Mr. Hoar's letter in your issue of July 22nd demands only a brief reply. I am glad to observe that his remarks at the Maidstone meeting were mis-reported, and that he had no intention of deprecating the conduct of the executive of the Medical Defence Association. As he admits, we have done and are doing work that no other public body has ever taken in hand; and I venture to hope that our proceedings will meet with the approbation of the general body of the profession. For the present, we shall proceed to carry out the main object for which our society was formed; but that need not stand in the way of the South-Eastern Branch of the British Medical Association, or indeed of any other Branch, employing its energies in preventing illegal practice. Why the fact of two or more associations working independently of each other in furthering the same object should necessarily lead to evil consequences, I am at a loss to conceive; and I hope he will not permit the possibility of such results to deter him from urging the members of the South-Eastern Branch of the British Medical Association to perform that which he so strongly maintains it is their bounden duty to do.—I am, sir, your obedient servant,

GEORGE BROWN,

Honorary Secretary Medical Defence Association.

12, Colebrooke Row, N., July 25th, 1876.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-MAJOR CUFFE AND SURGEON SHEPHERD, Army Medical Department, have been detailed to take medical charge of the Camp of Artillery Volunteers now formed at Shoeburyness.

THE NEW ARMY MEDICAL WARRANT IN INDIA.

THE new Army Medical Warrant has been largely commented upon by the Indian press, and the short service system introduced by it has been universally set down as a retrograde step. There is one error, which our contemporary the *Pioneer* has fallen into regarding it, which it may be useful to correct. Our contemporary remarks as follows:

"Perhaps the most extraordinary part of the Warrant is the omission of all allusions to the age of the candidates, and whether they are to be bachelors (as heretofore), or may be taken in with a wife and family. As the Warrant now stands, there is nothing to prevent a medical man of forty-five years of age, with a wife and ten children, presenting himself for examination; and, provided he is able to pass the qualifying tests, and is physically fit, he cannot be rejected. No tests, even of moral character are demanded, and there is no provision to prevent a man serving a second or even a third tour of ten years, and taking his bonus of £1,000 at the end of each; *e. g.*, a man enters at twenty-one years

of age, he serves, say, ten years, takes his bonus, and presents himself at the next examination; he cannot be refused, and may repeat the game ten years later; for, so long as it is possible for him to complete ten years' service before he is fifty-five, he cannot, by the terms of the Warrant, be refused."

The detailed instructions on the qualifications required of candidates for commissions in the medical department of the army have never been included in medical warrants, but have always been issued separately. Fresh instructions on these particulars were published with the War Office circulars of the 1st of July last. The limit of age for candidates was then fixed at thirty-two years. The usual certificate of moral character was still required, but the old rule requiring the candidate to be a bachelor was abrogated. Instances have occurred in which bachelor candidates have married directly after passing their entrance examinations.

HOME AND FOREIGN SERVICE IN THE ARMY MEDICAL DEPARTMENT.

ONE of the complaints most strongly urged against the administration of the Army Medical Department has been the inequality of home and foreign services done by different medical officers. Instances have been pointed to in which medical officers have performed nearly the whole period of their service in England, while others have been constantly serving in distant and unhealthy climates. On the other hand, complaints equally loud are made against exchanges not being permitted among medical officers. But it is evident that if exchanges are permitted, those who have the means at command to effect exchanges, and so to escape foreign service, must have a greater amount of home service than other officers in the department who have not the same advantages. The two things do not admit of being reconciled, that the inequality of home and foreign service among medical officers shall cease, and that exchanges between home and foreign service shall continue. Much may be said on each side, as well that exchanges should be allowed, as that all alike should take their turn of foreign service; and it must be admitted that it is not an easy matter to decide between the advocates for the two systems, if individual interests be alone considered. Looking at the subject, however, from a higher point of view, there is so much obvious injustice in allowing some medical officers to remain in England, while others are kept a long time abroad, and exposed to greater risks in consequence, the number of medical officers who have returned from foreign service broken down in health is known to be so large, and the appeals against protracted service abroad by others so strong and unanswerable, that the only just system seems to be the one which will ensure an equal share of home and foreign service to all alike. If equality of home and foreign service be declared to be the rule of the medical department, and it be strictly enforced, no real ground will be left for complaint; and were all the members of the department polled on the subject, we believe that the results would show this to be the view of a large majority of the army medical officers themselves.

ROYAL WARRANT FOR MILITIA SURGEONS.

THE long-expected Warrant for the medical officers of the Militia has just been published. It is a document of a most sweeping character, and entirely changes the existing state of things. All the duties hitherto performed by the Militia surgeon are to be transferred to the Army Medical Department. The Militia surgeon is, however, to attend the training of his regiment, the only work left for him to do. A new departmental list is to be formed of those Militia surgeons who elect to serve under the direct supervision of the Director-General of the Army Medical Department; and those who do not, before the 31st of December next, signify their wish to be placed on the list, shall not be entitled to any of the advantages specified in the Warrant. These advantages (being 2s. 6d. extra a day during the training, and the relative rank of lieutenant-colonel) are no very great inducements, truly, to join a department of the working of which he can know nothing. What is to happen to those who do not enter the new department is not stated, and it is impossible for many to do so; the majority must of necessity retire, and take the compensation for losses incurred so frequently promised by both Lord Cardwell and Mr. Hardy.

NAVAL MEDICAL APPOINTMENTS.

BETTS, Surgeon B. L., to the *Royal Adelaide*.
BURGESS, Staff-Surgeon, M.B., to the *Duke of Wellington*, for service at Haslar Hospital.
CURTIN, Surgeon P., to the *Philomel*.
ENRIGHT, Surgeon J. F., to the *Duke of Wellington*.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Thursday, July 27th.

Ship-Surgeons.—Sir C. ADDERLEY, in reply to Captain Pim, said the number of non-registered surgeons who were permitted to proceed to sea in medical charge of passengers and crew was thirty-six. Of that number, twenty-five were on board ships where the number of passengers and crew were under one hundred, and that, consequently, the 230th Section of the Act of 1854 did not apply. In ten other cases, it arose from a misconception of the meaning of the Act, and had since May last been rectified; and, in the remaining case, the Board of Trade was then in communication with the owner of the ship.

Friday, July 28th.

Medical Officers of the Indian Army.—In answer to Colonel Jervis, Lord G. HAMILTON said no alteration had been made in the Furlough Regulations of 1796, in regard to the pensions of medical officers of the Indian army.

Water-Supply in Rural Districts.—Replying to Mr. A. Brown, Mr. SCLATER-BOOTH said that the attention of the Local Government Board had been directed to the polluted condition and inadequacy of the water-supply of some rural districts; first of all, in the most practical manner by the distress during the water famine of 1874; secondly, by the constant reports of mischief arising from the inadequate and polluted condition of the supply; and thirdly, by an influential deputation introduced to the Local Government Board by the right honourable member for the University of Edinburgh. The deputation desired that the Government should appoint a Royal Commission. After carefully considering the recommendation, the Government came to the determination that no Royal Commission was necessary; they had ample information as to facts, but the difficulty was how to apply a remedy. During the time he had been at the Local Government Board, he had passed two Bills, giving great facilities to authorities, both rural and urban, for supplying water to their districts. In the Act of 1874, powers of purchase were given; and in the Act of 1875 those powers were increased, one notable provision being that the sanitary authority could extend their mains out of their own district with the view of carrying water elsewhere. The rural sanitary authorities were rapidly awakening as to the necessity of exercising these improved powers. In the year 1873, no larger sum than £1,992 was sanctioned by the Local Government Office to be raised by loan in the rural districts; in 1874, that amount had increased to £16,628; in 1875, to £31,274; and in the current year, so far as it had gone, £73,000 had been sanctioned to be raised for the same purpose.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is the list of candidates who have passed the recent Preliminary Scientific (M.B.) Examination.

First Division.

Atkinson, John Mitford, London Hospital
Ball, James, King's College
Barnes, George Frederic, Melcombe Regis School
Bayes, Frederic Thomas, Guy's Hospital
Booth, Edward Hargrave, private tuition.
Bowe, Francis, St. Bartholomew's Hospital
Bull, George Coulson Robin, Epsom College
Chadwick, William Fitton, Owens College
Chisholm, William, B.A. Sydney, University College
Clarke, Ernest, St. Bartholomew's Hospital
Clarke, Walter James, Queen's College, Birmingham
Colquhoun, Daniel, Charing Cross Hospital
Cook, Augustus Henry, University College
Cotton, Robert Hammond, B.A., Owens College
Cutfield, Arthur, Epsom College
Dallmeyer, Andrew William, University College
Dalton, Norman, King's College
Dawson, Arthur George, Owens College
Deane, Edwin, St. Thomas's Hospital
Edmonds, Henry, private study
Faulkner, Joseph, St. Bartholomew's Hospital
Fooks, George Ernest, St. Bartholomew's Hospital
Fox, Joseph Fregelles, London Hospital
Freem, William, Royal College of Science, Dublin
Groom, Henry Thomas, St. Bartholomew's Hospital
Hartley, Robert Nightingale, private study
Holberton, Henry Nelson, St. Thomas's Hospital
Honeyburne, Richard, Liverpool Royal Infirmary School of Medicine
Hormazdj, Robert Nesbit, St. Mary's Hospital
Hoyle, William Evans, Owens College, and Christ Church, Oxford
King, David Alexander, St. Bartholomew's Hospital
Kirsopp, Thomas, St. Bartholomew's Hospital

Larmuth, Leopold, Owens College
 Lukis, Charles Pardey, St. Bartholomew's Hospital
 Macartney, William Norton, Allesley Park College
 McDonnell, Denis, King's College
 Maguire, Robert, Owens College
 Milton, Herbert Meyrick Nelson, St. Thomas's Hospital
 Newsholme, Arthur, St. Thomas's Hospital
 Nicholson, John Williams, private tuition
 Norie, James, University College
 Northcote, Arthur, University College
 Parkes, Louis Colman, University College
 Paul, James Hugh, private study
 Permevan, Arthur Edward, University College
 Pratt, Reginald, University College
 Rake, Beavan Neave, Guy's Hospital
 Sayer, Mark Fetham, University College
 Silcock, Thomas Ball, private study
 Sisley, Richard, St. George's Hospital
 Spicer, Robert Henry Scanes, private study
 Sykes, William Ainley, St. Bartholomew's Hospital
 Walters, Frederick Rufenacht, St. Thomas's Hospital
 Yardley, Robert Blake, University College

Second Division.

Adams, William Coode, University College
 Adolphus, Theodore Frederick Pennington, King's College
 Anderson, W. E., University College
 Atmaram, Anundrao, University College
 Barling, Gilbert Harry, St. Bartholomew's Hospital
 Boswell, John Irvine, Guy's Hospital
 Burchell, James Lodwick, London Hospital
 Buxton, Dudley Wilnot, University College
 Chaffey, Wayland Charles, St. Bartholomew's Hospital
 Collingwood, David, Liverpool Royal Infirmary School of Medicine
 Davidson, John, King's College
 Dickinson, Thomas Vincent, St. George's Hospital and private study
 Diggle, John Arthur, Owens College and private study
 Dingley, Arthur William, University College
 Donovan, Denis William, University College
 Dummere, Howard Howse, St. George's Hospital
 Fenwick, Edwin Hurry, London Hospital
 Fielden, William Eckott, Guy's Hospital
 Forsbrook, William Henry Russell, Westminster Hospital
 Harper, James, University College and St. Bartholomew's Hospital
 Hawkins, Walter Robert Thomas, London Hospital
 Hodges, Edward James, private study
 Hope, William More, University College
 Hoskyn, Donald Templeton, University College
 Isherwood, Thomas, Owens College and private study
 Johnston, Edward Cocks, Queen's College, Birmingham
 Marso, George Ryding, Guy's Hospital
 Maudsley, Henry, Giggleswick Grammar School
 Milligan, Robert Arthur, Guy's Hospital
 Norvill, Frederic Harvey, King's College
 Potts, Edward, Queen's College, Birmingham
 Rhodes, James Havelock Alexander, Liverpool Royal Infirmary School of Medicine
 Smith, Henry, St. Bartholomew's Hospital
 Snell, Bernard Joseph, B.A., New College
 Stephens, Julian, University College and private study
 Stonham, Thomas George, private study
 Sutton, Samuel Walter, St. Thomas's Hospital
 Wagstaff, Ernest Hamilton, King's College
 Walton, Robert Spence, University College
 Watkins, Christopher James, University College and private study
 Wickham, Walter, St. Bartholomew's Hospital
 Williams, Walter Treiving, London Hospital
 Wood, Louis Edmund, St. Thomas's Hospital

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted members on July 27th, 1876.

Burrell, Edwin, M.D. Aberdeen, 20, Endsleigh Street, W.C.
 Dixon, Edward Livesey, M.D. St. Andrew's, Preston
 Dreschfeld, Julius, M.D. Wurzburg, Manchester
 Holland, Edmund, M.D. London, 3, Titchfield Terrace, N.W.
 Warner, Francis, M.D. London, Birmingham

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on July 27th.

Messrs. Daniel G. Lewis, Merthyr Tydfil; Peter H. Metcalfe, Bungay; J. R. Webb, Fairford; Arthur W. May, Launceston; Thomas Johnson, Birmingham; George J. Kelle, Dunbar; Tom Smith, West Bromwich; Wm. M. Evans, Cardiff; John Price, Harrow; William R. Nicholson, Burnley; Alfred Chawner, Ryde; Joseph R. James, Sishow, Monmouthshire; George S. Bayly, Launceston; Thomas Jones, Ningiro; Walter Pratt, Billesdon; Hyde F. Walker, L.S.A., Balsall; and Chas. F. Middleton, Sydney, New South Wales.

The following gentlemen passed on July 28th.

Messrs. H. S. Michell, Truro; Wm. Norman, Adelaide, South Australia; R. Heald, Sleaford, Lincolnshire; J. Christian, Barrow; J. A. Richardson, Newport, Pembrokeshire; J. G. Garbutt, L.S.A., Princes Square, Bays Water; E. T. Smith, Stanhope Street, W.; E. B. Turner, Sussex Gardens, W.; A. D. Blackader, M.D. McGill, Montreal; J. Brett, North Kensington; A. B. Harris, Wootton-under-Edge; W. P. Reynolds, Norwood Road; G. C. Bouton, L.S.A., Dinan, France; H. R. O. Sankey, Cheltenham; E. A. Roche, L.S.A., Sunderland Terrace, W.; H. L. Gilbert, M.D. McGill, Sher-

brooke, Canada; J. Davies, L.S.A., Treveky, South Wales; J. B. James Hackney Road; C. W. Lacey, Cotes, Loughborough, Leicestershire.

Two candidates passed the examination in Surgery, and when qualified in Medicine will be admitted members of the College. Four candidates were referred to their professional studies for a period of not less than six months.

The following gentlemen passed on July 31st.

Messrs. J. C. Irving, Dinnington, Spalding; C. Gross, Erith, Kent; D. Jones, Llandysut; T. K. Felt, L.S.A., Ulverstone; W. Strover, L.S.A., Jersey; W. Pye, Ealing; H. L. Palmer, Haverfordwest; E. A. Snell, L.S.A., St. Wilfrids, Richmond Road; F. H. Low, L.S.A., M.B. Aberd., Blackheath; J. R. Thomas, Llanelly; J. Whitted, Sutton, St. Edmunds.

Five candidates passed the examination in Surgery, and when qualified in Medicine will be admitted members of the College. Eight candidates were referred to their professional studies for a period of not less than six months.

The following gentlemen passed on August 1st.

Messrs. O. T. Slatter, Chepstow; H. F. Weiss, Chester Terrace, N.W.; C. W. E. Gay, L.S.A., St. Albans; M. Gaisford, Ilfracombe; W. Walker, L.S.A., Bath; F. F. Perry, Hornsey Rise; H. P. Dunn, Warkworth; J. Mortimer, Exeter; R. F. Cumming, Exeter; G. S. Johnson, Savile Row; J. Todd, L.S.A., Blackheath; W. H. Packer, L.S.A., Cheltenham; K. Clapp, Teignmouth.

Five candidates passed the examination in Surgery, and when qualified in Medicine will be admitted members of the College. Six other candidates were referred to their professional studies for a period of not less than six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 27th, 1876.

Bain, David Stuart Erskine, The Elms, Newbury
 Bourke, Ulick Joseph, Castlebar, Ireland
 Harris, William Spencer Claber, Middenhall, Suffolk
 McCarthy, Justin McCullum, Oakengate, Salop
 Moulin, James Alfred Mansell, Porchester Terrace, W.

The following gentlemen also on the same day passed their primary professional examination.

Andrew, John Edward, Manchester Hospital
 Browne, Henry, St. Bartholomew's Hospital
 Denby, Timothy Curtis, Leeds Hospital
 Harrison, James, St. Bartholomew's Hospital
 Smith, Herbert Arthur, Middlesex Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

BALLATER, Aberdeenshire—Parochial Medical Officer. Salary, £30 per annum. Applications on or before August 7th.
BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications on or before August 7th.
BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Acting Physician. Salary, £60 per annum. Applications on or before August 4th.
BRIGHTON and HOVE DISPENSARY—Resident Medical Officer and Dispenser. Salary, £130 per annum, with furnished apartments, etc. Applications on or before September 4th.
DAVENTRY UNION—Medical Officer. Salary, £25 per annum, and fees. Applications on or before August 8th.
HALIFAX INFIRMARY—House-Surgeon. Salary, £80 per annum, with board, lodging, etc.—Also, Assistant House-Surgeon. Salary, £50 per annum, with board, etc. Applications on or before August 15th.
IPSWICH BOROUGH ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, etc. Applications to the Superintendent.
NORTH STAFFORDSHIRE INFIRMARY, Stoke-upon-Trent—House-Surgeon. Salary, £120 per annum, with furnished apartments, etc.—Also, House-Physician. Salary, £80 per annum, with furnished apartments, etc. Applications on or before August 30th.
ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications on or before August 9th.
ROYAL SOUTH HANTS INFIRMARY—House-Surgeon. Salary, £85 per annum, with board, lodging, etc. Applications to the Secretary.
SUSSEX COUNTY HOSPITAL, Brighton—House-Surgeon. Salary, £80 per annum, with board and lodging. Applications on or before August 23rd.
SWANSEA HOSPITAL—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, etc. Applications on or before August 16th.
WESTERN GENERAL DISPENSARY, Marylebone Road, N.W. Honorary Physician. Applications on or before August 14th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BURNES, Alexander G., M.D., appointed Medical Registrar to the Hospital for Sick Children, *vice* Thomas Barlow, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATH.

DAVEY, Edward Myhill, M.R.C.S.E., L.R.C.P. Ed., of Florence Villa, Old Ford Road, Bow, aged 43, at Eastbourne, on July 29th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

COMMUNICATIONS TO THE "JOURNAL".

WE have again to impress upon our correspondents that, as the bulk of communications addressed to the JOURNAL is considerably in excess of its space, the task of selection will be greatly facilitated by the observance of studied conciseness.

MEDICAL ETIQUETTE.

SIR,—There is no "perhaps" about my prudence in declining to stoop to have my statements attested as Mr. Jackson has done his. I hope it is not customary for the medical men in England to hawk about the medical journals, and canvass for signatures to attest their statements. I have already mentioned the names of two medical gentlemen in connection with this case. I could give one or two more, who would be able to speak as to the amount of trust to be placed in the attesters; but as Mr. Jackson declines any further correspondence, I need not bring forward any more facts.

Thanking you for your courtesy in opening your columns to this correspondence, I remain, yours truly,
DAVID ALEXANDER.
Clydesdale House, Hull, July 31st, 1876.

CHRONIC DIARRHŒA.

SIR,—I should feel thankful if any of your numerous correspondents will tender me a little advice in the following case.

Mr. A., aged 72, came under my care two months ago, suffering from diarrhœa, with slight tenesmus, which had continued for three months. There never had been any blood in the stools. He had had a similar attack five years ago, which, after resisting all treatment, ceased spontaneously at the end of eighteen months. On examination, I found nothing about the rectum likely to account for the mischief, except one small pile and an enlarged and tender prostate.

In my treatment of this case, I have tried all the usual remedies for diarrhœa in vain. I have tried suppositories of morphia, tannic acid, and I acetate of lead with belladonna, with the same result; in short, the only remedy which I have found of the least benefit is injections of opium and chloral hydrate by the rectum; and the good effect of these is only temporary. I am now at a loss what to do, and a little advice from some one of more experience would be acceptable.—I am, sir, yours faithfully,
A YOUNG PRACTITIONER.

DR. W. M. BRETT's letter shall be handed to the JOURNAL Committee.

EXAMINATIONS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.
SIR,—In a recent number of the JOURNAL, you published the annual report of the Royal College of Surgeons relative to the number of candidates from the various metropolitan schools who have presented themselves for examination during the past year. Several hospitals, according to this document, have forwarded to the College decimal parts of a candidate to undergo the ordeal. Now, I can suppose, sir, that, under peculiar circumstances, the intrinsic value of an unsuccessful candidate might advantageously be noted by the decimal 0.5; but how, in the name of wonder, an examiner, far less a whole board of them, can arrive at the conclusion that the total number of candidates from a school is best represented by the figures 21.83 or 41.47, utterly exceeds the feeble powers of
Brighton, July 30th, 1876.
YOUR PUZZLED READER.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

MEDICAL EVIDENCE.

A CORRESPONDENT writes:—Sir William Gull has been unfortunate lately in his evidence at coroners' inquests. Your comment of last week expressed the general opinion of the profession on the subject of his evidence at the Bravo inquest. His evidence at an inquest on a Mr. C. Todd is thus reported.

"Sir William Gull was sworn, and deposed he had known Mr. Todd since July 15th, 1875, when he came to witness to consult him, being in a dreadfully low state of nervous depression, and suffering from internal disorders. He used to bring strange written reports of his several maladies, and was most eccentric. Witness fully expected the suicide."

When a physician "fully expects" suicide, it is usual to take some steps to prevent it. It does not appear whether any such steps were taken, and this gentleman does not seem to have been under any guard. Possibly the report is incomplete; it certainly does not leave a favourable impression on the public mind.

[Similar comments have been forwarded to us from more than one correspondent. We imagine, however, that the defect here is rather in the form of language used. It seems probable that Sir William Gull meant that, looking back now at the peculiarities of the deceased, he regards the suicide as capable of explanation on the ground of melancholia. Had he fully expected suicide, he probably would have exerted himself to have the patient placed under restraint. Possibly he did so ineffectually.—ED.]

GRADUATION WITHOUT RESIDENCE AT DURHAM UNIVERSITY.

SIR,—That "half a loaf is better than no bread," is doubtless a true proverb, and on this ground the Durham University authorities deserve the thanks of the profession for the facilities offered by them to practitioners desirous of obtaining the degree of M.D.; but I would venture to point out that, had they proceeded more in the spirit of the Hippocratic aphorism, *ὁ βίος βραχύς, ἢ δὲ τεχνη μακρὴ*, and made their age-limit shorter and their "technical" examination longer, they would have secured more numerous candidates, and, perhaps, more accomplished graduates. Surely, fifteen years' experience in his profession (and I would suggest that in this term be included the years spent in the study as well as in the practice of medicine) should be enough to guarantee a practitioner's fitness to be promoted, after a stringent examination, to a medical degree, without the further requirement that he must "not be under forty years of age." I am not aware that the fortieth is a "grand climacteric" for the practitioner (except, indeed, in the popular sense, that "every man is at forty either a fool or a physician"); rather should I think that most practitioners of ability and ambition have made by their thirtieth the turning point of their career. I believe I am right in saying, that of the foreign graduates who lately signed a memorial to the Medical Council with reference to the registration of their degrees, a majority were under forty years of age, although men of good professional standing and position. From such as these it seems to me that the ranks of Durham graduates should be recruited; and it would appear unwise to draw the line so arbitrarily as to leave these men, who feel the desirability of possessing a registrable degree, and other mature practitioners whose very prosperity in their profession depends them from complying with the conditions of residence, ineligible for graduation until they have reached forty years of age.

With regard to the examination requirements for the Durham degree, I will only observe that it is desirable on every ground that a high standard be maintained, and that it is not obvious from the regulations (though of course much depends upon the manner in which they are carried out) that the degree will be of equal examination value with those conferred on practitioners by the best continental universities.—I am, sir, your obedient servant,
JULY 1876.

UNDER FORTY.

E. W. W. ASKS: What is the best application for the semi-erysipellatous state, caused by exposure to the sun?

ANIMAL VACCINATION.

SIR,—Let Medics apply either to Mr. Greene, Friday Bridge, Birmingham, or to M. le Docteur Warlomont, Rue Royale, Bruxelles, who is director of the National Vaccine Institution there, and he will get a supply of pure vaccine lymph from the heifer, but not from the cow. The resulting inflammation in children from this latter kind of lymph is always alarming, and not free from the possibility of danger; but, after cow-pox lymph passes through the body of the younger animal, it becomes very much modified in its action, both locally and generally, without having its protective power weakened. Pure heifer-lymph is, however, very active in its effects, much more so than ordinary human lymph; but even the former loses much of that activity, and, doubtless, a large share of its power as a protective, after it becomes humanised by passing through the body of the young child. Even though the effects of the pure heifer-lymph be severe, there is no danger from them, and no after ill results.

On this subject I may be allowed to speak with some little authority, for not only have I been myself vaccinated with heifer-lymph, but my wife, all my children and friends' children, have been done with the same; and further, for many years before I gave up general practice, I was an "animal" vaccinator, to the exclusion of the "arm-to-arm" method; indeed, as the first one to introduce this method of vaccination from the heifer, and the only one to practise it in Scotland, I can say that out of the hundreds, young and old, whom I have vaccinated with this lymph, no ill effects resulted.

In conclusion, I may say that the results of the experience gained from this practice, carried on with the strictest regard to scientific accuracy, was to convince me that arm to arm vaccination in these days was mostly unreliable as a protective, a delusion and a snare; and that the nearest approach to complete protection from the influence of small-pox was obtainable and only is obtainable from pure and fresh heifer-lymph; and further, that it is not possible to exterminate small-pox till the practice of vaccination from the heifer becomes general.—Yours obediently,
JAS. PATTERSON CASSELLS.
2, Newton Terrace, Glasgow, July 22nd, 1876.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

HUMAN REMAINS.

At an inquest held early in the week, at the King Henry the Eighth Tavern, High Street, Lambeth, before Mr. Hull, it was stated in evidence that a German physician in the City has been in the habit of receiving from some medical student portions of dead bodies for the purpose of anatomical research; but instead of burying them, he ordered his servant to throw them into the dustbin. Here three skulls and the skeleton of a child were discovered by the foreman of the dust contractors, Commercial Road, Lambeth. On the matter being reported to the coroner's officer, an inquiry was of course considered necessary. The coroner expressed his surprise that human remains should have been thus treated, and hoped that some further inquiry would be made into the matter. An open verdict was returned.

FICTITIOUS DUMBNESS.

Sir,—In your last number, Mr. Nelson of Plymouth reports a case of fictitious dumbness, which is open to criticism. He admits "that the boy was pale, nervous, and semi-hysterical; that he had him placed in bed, where he lay for twelve hours without touching either food or drink, moaning and pointing to his head, which at the visits he tossed on the pillow, as if in great agony"—a condition which, as every practitioner knows, is frequently accompanied by loss of voice. He states "that the lad had previously a better position, and consequently found his newly adopted profession rather irksome"; another circumstance powerfully conducive to the symptoms described, the chloroform test being still more conclusive of the character of the disease—"hysterical aphonia". A practical chloroformist gives as his experience that he never met with a case where the patient, when rendered semi-conscious, would not answer questions when spoken to. In young females, hysteria presents manifold and singular symptoms—the not infrequent one, loss of voice; and cases are recorded where males, especially lads, have been the subjects of hysteria. I have the most vivid recollection of a young man, of a somewhat nervous temperament, who, by romping with some girls in a hay-field, became excited, falling into a fit, evidently hysterical. Consciousness returned in a few hours; but he remained perfectly mute for two days, recovering his speech during the second night of the attack. Being a civilian and a private patient, "pinching his thighs, followed up by a sound flogging", was inadmissible as treatment, and, happily, was not required. No better remedy exists for rousing a patient, the victim of hysteria, than flapping the face with the wetted corner of a towel, or bastinadoing the arms and legs; but flogging is a remedy not tolerated in civil life, and one not calculated to add to the popularity of the navy.

I may here mention two cases of loss of speech occurring in two brothers, now medical practitioners. The first was in a youth aged 19, when a medical student. He was of an excitable disposition. He was returning from the hospital to his lodgings, when, without any premonitory symptoms, he found that he had lost his voice, and, on attempting to speak to his landlady, he could not utter a sound, consciousness being intact. The resident medical officer of the hospital was sent for: rest and an aperient were prescribed. Next morning, after a sound sleep, his speech was perfect. Would flogging be justifiable in this case? The second happened to a brother about the same age, when, at a picnic and its accompanying excitement, he lost all speech except one word, the only one he uttered in reply to all questions put to him. The next morning, without any treatment, his voice had been recovered.

I have been induced to pen these lines on account of the harsh and very questionable treatment the lad F. T. underwent, the case and its history presenting most patent characters of hysterical aphonia.—I am, sir, yours obediently,
Cardiff, July 17th, 1876. "PENDENTE LITE."

NERVOUS SHOCK COMMUNICATED TO THE SUCKLED BABE.

Sir,—In my letter contained in the JOURNAL of July 29th, I am made to speak of suffocation as a "disease". What I wrote was, "He also insists that the cause of death in these breast-cases is not suffocation, notwithstanding that every circumstance is favourable to such a disaster".—I am, sir, yours truly,
Aldershot, August 1876. H. ERNEST TRESTRAIL, F.R.C.S.

TREATMENT OF PARTURIENT WOMEN.

Sir,—The account given in the JOURNAL of July 22nd, reminds me of the treatment of parturient women by the ancient Mexicans, as given in Lord Kingsborough's *Antiquities of Mexico*. The whole account is interesting for other than medical reasons, but is perhaps too long for the purposes of the JOURNAL: the following extract may, however, be worth insertion.

"The time of the birth having arrived, they called the midwife . . . and when the woman felt the labour-pains, they gave her the bath, and afterwards to drink the root of a herb called cicapactli, which has the power of propelling or driving out the child: and if the pains were strong, nevertheless they gave her to drink as much as a middle finger of the tail of the animal called flacuatzin, ground, with which she brought forth easily; for the tail of this animal has such expelling power, that at one time a hunting dog ate one of those animals, and presently the dog voided upwards all his bowels and viscera, so that nothing remained in his body. In like manner, if any one should eat or drink, ground up, a whole tail of one of these animals, he would shortly void downwards all his intestines. And if the parturient woman, after having drunk the two above-named things, did not bring forth, then the midwife and those with her began to think that the child must die, and they began to weep, and the midwife commenced to utter 'certain pious and philosophical speeches'. Then the midwife raised the woman upright, taking her by the head with both hands, shaking her, and slapping her shoulders either with her hands or feet, and speaking to her after this manner: 'Daughter, mine, purge yourself. What shall we do to thee? We do not know how to help thee. Here are present thy mother and thy relations; see that thou alone hast to accomplish this affair, etc. And if a night and a day passed and the patient did not bring forth, then they put her in a bath, and in the bath the midwife manipulated her, and directed (rectified the position of) the child, if by chance it were placed to one side or across, ordering it so that it might proceed properly. If this did not profit, and with all this she could not bring forth, presently they put the patient in a closed room, with only the midwife, and then the midwife said many prayers, calling on the goddess Cinacoatl, or Quilazli, whom we call Eve, etc.; and there the midwife, who was clever and dexterous in her business, when she saw that the child was dead within its mother, because it did not move, and that the patient was in great danger, then she put her hand in the vagina, and, with a stone-knife, she cut the body of the child and took it away by pieces."

Here follow other chapters on the disposition of the body of the woman who died in her confinement, of the ceremonies to be observed, the treatment of successful parturition, and so forth.—Yours faithfully, G. CARRICK STREET.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed Mr. FOWKE, not later than *Thursday*, twelve o'clock.

PREMATURE LABOUR.

Mr. MARTIN HOWARD, assistant to J. Jamieson Cunn, M.B., C.M., Belper, Derby writes to say that on June 30th, a woman named G.; aged 27, residing at Milford gave birth to a six months' child, which survived three days. It was a fully developed male. The temperature throughout continued below the normal, and the mother said "it seemed to sleep itself to death". The patient had been twice married, a boy six years old being the issue of the first marriage. Last Christmas, after five years' widowhood, she again married. Almost immediately menstruation became scanty, and ceased altogether in February. The miscarriage is attributed to crushing in a railway excursion. The milk-secretion has now (July 3rd) begun and the patient is going on well.

Dr. PHILLIMORE, County Lunatic Asylum, Snettton, Nottingham, writes to us: Dr. Weir having in last week's BRITISH MEDICAL JOURNAL ascribed to me expressions and opinions that I have not uttered, I feel bound to protest against their accuracy. He states, amongst other gratuitous assertions, that "I admit that he was not under my control, but the control of the Committee of Visitors"; that I have declared the title of deputy superintendent "illegal"; that I admit having withheld my consent to the publication of another case because of a persona "whim"; etc. Any one of your readers may see, by turning back, that I have not once introduced or adopted any of these expressions in any part of the correspondence.

* * This correspondence must end here.

We are indebted to correspondents for the following periodicals, containing news reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Sir Robert Christison, Edinburgh; Dr. De Bartolomé, Sheffield; Mr. Jonathan Hutchinson, London; Dr. George Johnson, London; Dr. Rutherford, Edinburgh; Dr. W. Fairlie Clarke, Southborough; Dr. Sieveking, London; Dr. J. Birkbeck Nevins, Liverpool; Professor Tyndall, Bel Alp; Mr. Nicholson, Hull; Dr. J. Milner Fothergill, London; The Secretary of Apothecaries' Hall; Our Sheffield Correspondent; Dr. Riordan, Kingston, Jamaica; Mr. S. S. Alford, London; Mr. Holthouse, London; Dr. Squire, London; Dr. Clifford Allbutt, Leeds; Dr. C. Fox, Chelmsford; Dr. Alfred Carpenter, Croydon; Mr. John Simon, London; The Right Hon. Lyon Playfair, M.P., London; Dr. Bucknill, Rugby; Our Special Correspondent, Constantinople; The Registrar of the Royal College of Physicians of London; Mr. J. E. Adams, London; Mr. J. H. Houghton, Dudley; Dr. W. Brett, London; Mr. Leeds, Sheffield; Mr. Robert Torrance, Matfen; Mr. Lennox Browne, Llanbister; Mr. Charles Spurway, Paignton; Mr. W. K. Curtis, Canterbury; Mr. Bernard Walker, Rotherham; An Associate; Mr. Pasteur, Paris; Dr. Protheroe Smith, London; Mr. T. Vincent Jackson, Wolverhampton; Dr. James Murphy, Sunderland; Dr. H. C. Bartlett, London; Dr. Hime, Sheffield; Mr. W. G. Mortimer, New York; Dr. Phillimore, Nottingham; Dr. Edward Stephens, Ilminster; Dr. Quain, London; Mr. J. N. Radcliffe, London; Mr. Clement Lucas, London; Mr. Burdett, London; Dr. Spencer, Clifton; Dr. Mitchell, Sheffield; Mr. Hugh Robinson, Preston; Dr. Burney Yeo, London; Dr. Aust Lawrence, Clifton; Dr. Long Fox, Clifton; Dr. Foss, Stockton-on-Tees; Dr. Drysdale, London; Dr. Chadwick, Tunbridge Wells; Dr. Purdon, Belfast; Dr. Ashburton Thompson, London; Dr. Oxley, Liverpool; Dr. Stainthorpe, Heyham; Mr. T. M. Stone, London; Mr. B. Roth, London; "Anti-humburg"; The Dean of the Medical School, Owens College, Manchester; Our Edinburgh Correspondent; Dr. W. A. Hollis, Brighton; Mr. Trestrail, Aldershot; Mr. D. Alexander, Hull; Mr. W. L'Heureux Blenkarne, Buckingham; Mr. G. S. Elliston, Ipswich; Dr. W. M. Kelly, Taunton; Mr. W. Rhodes, Birmingham; Surgeon-Major P. W. Stafford, Portsmouth; Mr. W. Pugin Thornton, London; Dr. S. R. Lovett, London; Dr. R. Wood, Bromsgrove; Mr. G. S. Wells, Ventnor; Dr. T. B. Peacock, London; Dr. W. Munro, Cupar; Mr. W. Holder, Hull; L. M., Hull; Dr. A. Eddowes, Shrewsbury; Our Dublin Correspondent; Dr. Maclaren, Carlisle; Dr. K. N. Macdonald, Cupar; Mr. J. G. Butters, Gateshead; Mr. J. H. Lyddon, Norwich; Mr. G. C. Crichton, Sawbridgeworth; Mr. A. O. Francis, Derby; The Registrar-General of England; M.D. Ed.; The Registrar-General of Ireland; Dr. Joseph Rogers, London; Mr. J. Torkington, Accrington; Mr. George Eastes, London; Dr. Rabagliati, Bradford; Dr. J. B. Welch, Birmingham; "A Member", London; The Secretary of the Oxford Military College; Our Brussels Correspondent; Mr. W. F. Favell, Sheffield; Mr. W. D. Napier, London; Dr. C. H. Allfrey, St. Mary Cray; Dr. Heywood Smith, London; Dr. F. M. Pierce, Manchester; Dr. A. W. Edis, London; Dr. G. Bantock, London; The Honorary Secretary of the Edinburgh University Club, London; Sir Joseph Fayrer, London; Mr. T. Holmes, London; Dr. Bradbury, Cambridge; Dr. J. Burdon Sanderson, London; Mr. J. S. Gamgee, Birmingham; Dr. Parsons, Dover; etc.

LECTURES ON PARALYSIS AS AN EFFECT OF BRAIN-DISEASE.*

Delivered at the Royal College of Physicians of London.

BY
C. E. BROWN-SÉQUARD, M.D., F.R.C.P., F.R.S.,
Formerly Physician to the National Hospital for the Paralysed
and Epileptic; etc.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—In the first lecture of this course, I gave a broad view concerning the origin of the symptoms of brain-disease, and especially as it relates to paralysis. I perhaps committed the fault of not giving at full length, as I had not time enough for it, more information concerning the view that is to take the place of those that I consider as wrong. I will not to-day enter into that part of the subject fully, as it is to be the main purpose of the last lecture. But I can say, for the benefit of those among you who do not know the views that I have already published, not at great length, but with sufficient detail, that I consider there are nerve-cells endowed with certain properties distinct from the properties existing in other cells. But I dissent absolutely from all my friends, the localisers, in admitting that the cells that serve one function, or that are endowed with the same vital property—for instance, the cells which serve to the expression of ideas by speech—are congregated in one part of the brain; in other words, that they form there a kind of cluster, and can be considered as forming a kind of organ in the great organ, the brain. I do not agree with them in that point. I think that there is no definite place, and certainly not a cluster of cells, where a certain function has its seat. My view is, that the cells used in one function, or the cells endowed with the same vital property, are scattered in the brain; that they are diffused through the whole mass of it; so that if any experiment be made, such as that which Flourens performed long ago—that is, dividing layer after layer of the brain, from the front part towards the back—it is found that every property of the brain persists, every function persists, until at last, reaching to the hinder part of that organ, when very little is left at all, then everything disappears at once. I will not, however, say that I have grounded the view to which I have come on that fact, either solely or chiefly. I consider the fact as being valuable, of course, and of great importance for the establishment of the view that cells are scattered in the way that I have stated; but there are other proofs which I cannot, unfortunately, as time is not sufficient, dwell upon in this course of lectures. There are clinical facts which are of great importance also, and perhaps of greater importance than the purely experimental facts. I will not say more in this lecture on the views that I have to put forward, as I expect I shall have to dwell at length on them in the third lecture.

But as I have spoken of facts which are observed in animals after experiments, and of facts observed in man at the bedside, and have stated that one class of facts has less value than the other class, I may perhaps answer some questions that have been raised in the minds of a number of you, at the time of my first lecture, by stating that it would be absolutely wrong to come to the conclusion that I, a vivisectionist, after having passed all my scientific life without a week in which I have not performed some experiments on animals, look upon that means of obtaining knowledge as inferior, and still more as of very little value, as compared with clinical observation. I must say, and I state it fully, that I do not think it is possible to compare the two kinds of things. The value that comes from experimental researches at times, is infinitely greater than that which comes, and may come, from clinical observation. At other times, and perhaps more frequently, the results of clinical observation are infinitely superior; so that, what was concluded from something that fell from my lips the other day was quite wrong. I have stated that certain conclusions, obtained by experimenting upon animals, seem to me not to be right; but that has nothing to do with the value of the means. Everybody knows that medical men will sometimes make mistakes from observations in pathological anatomy. Everybody knows that medical men will publish

papers that are altogether wrong in their conclusions, although the paper is the result of clinical observation. That does not show anything against clinical observation as a means of progress; it shows that we are men, and that we are unfortunately able to commit mistakes; therefore, when I stated that there had been mistakes, as I consider them, and I may be wrong myself—that there have been mistakes committed by vivisectionists—I did not mean in the least to say that vivisection is a bad means, an useless means, for the progress of science. Having said this, I will proceed with my lecture.

I left off, in the last lecture, after having begun to speak of facial paralysis in cases of brain-disease. In the field of observation that relates to facial paralysis, we find most valuable arguments against the views that are held by everybody, so far as I know. I already mentioned that disease, in parts of the brain which are considered as being parts of the channels between the centre of voluntary movement and the muscles, or disease existing in what is considered as a centre for voluntary movement, instead of producing the ordinary form of paralysis, can produce only a paralysis in the face; while the number of cases is now very large showing that disease in the corpora striata, disease in the optic thalami, disease, in other words, in any part of the brain above and in front of the pons Varolii, can produce only paralysis of the face. And this paralysis of the face can be of two kinds; it can be a paralysis only of those muscles which are usually paralysed in cases of cerebral disease above the pons, and that is a disease in which the orbicularis oculi is hardly affected, or, if affected, only for a few days; and there is also that other form of paralysis of the face, resembling that which takes place when the facial nerve is divided, in which every muscle animated by that nerve is paralysed. There are not many cases of this last kind where the disease was not in the pons Varolii; and when it exists in the pons Varolii, as you well know, it is very natural that there should be a complete paralysis of the facial nerve, or a paralysis of all the branches of that nerve, more or less complete, on account of the injury to the nerve itself, which starts from that organ. But in cases in which the disease was in other parts of the brain, there are, to my knowledge, at least five instances in which the aural nerve was paralysed. One of these instances was published by a very good observer indeed, Dr. Diday of Lyons, and others by a Dr. Duprès, who was a most excellent observer. The other cases also were published by men of merit, so that there is no possibility of doubting that, in cases where certain symptoms seemed to show that there was hæmorrhage in the brain, as in four of these cases it was hæmorrhage that brought the trouble on, at the same time that the symptoms of hæmorrhage in the brain occurred, the facial paralysis occurred, although there was no paralysis elsewhere. Facial paralysis can occur either on the side of the disease or on the opposite side; and in that respect it does not differ from the other forms of paralysis caused by brain-disease, which, as you may remember, I stated in my last lecture to occur either on the same side or on the opposite side. The number of cases, however, of paralysis on the side corresponding with the disease and occupying the limbs, is relatively small, compared with the number of cases of paralysis on the opposite side to the disease in the brain; taking all the cases I know, there are but about two hundred and fifty in which the paralysis existed on the same side as the lesion in the brain. As regards facial paralysis, the relative frequency of its appearance on the side of the disease is greater; but it is not in those features that facial paralysis is important to show how wrong all the views that I contradict are. It is chiefly on account of what I will now explain. We know that in the ordinary forms of hemiplegia, due to brain-disease, there is, according to circumstances with which we are not quite familiar, only a small number of muscles in the face that are paralysed—usually there are but three. Those three muscles, at any rate, are always paralysed, if there be others when the cause of the disease is above the pons Varolii. Now, as the disease that we find may occupy any part of the brain that has a name—and I have such a number of cases to show this, that certainly there cannot be a doubt about it—as the disease which produces this paralysis of three muscles can be found anywhere in the brain; if we conclude that it is because the centre serving to the movements of those muscles, or the fibres establishing a communication between those muscles and the brain, are diseased—if we conclude that it is because, in other words, there is a loss of function either of the centre moving those muscles, or of conductors going from that centre to the muscles—then we must admit that that centre is everywhere, and we must admit also that these conductors are found everywhere. This conclusion is so absurd that we must give up the explanation which leads to it. Now, we must the more give it up if we take the other side of the question. As we find that there is no part of the brain which, in some cases, has not been destroyed without any facial paralysis at all, we would have to conclude, from the second series of facts, that the facial nerve does not

* Specially reported for the BRITISH MEDICAL JOURNAL.

send fibres anywhere in the brain; that it has no centre anywhere in the brain. The second conclusion, which is just as well founded as the first, is in direct contradiction to it, and each one of the two conclusions would destroy the other. I will not insist more on this point.

I will pass now to what relates to paralysis of the tongue in brain-disease. As you well know, it is not rare indeed that the whole of the tongue is paralysed in its muscles, when there is a disease in the left side of the brain. It is paralysed; not because the patient does not speak, as most aphasics can move their tongue pretty well, and can utter sounds very distinctly; but without aphasia or with it; that is, whether it exists or not, in cases of disease of the left side of the brain, it is not very rare at all. I have myself seen what I mention more than ten times; and on record there are a great many cases that I have analysed, in which what I describe exists. The patients in this case cannot put out the tongue at all. They may be perfectly conscious, they may be without any aphasia, they can move their tongue enough inside to utter sounds, but they cannot put it out. That kind of paralysis which belongs not exclusively to the left side of the brain, but almost exclusively to it, implies an influence exerted by the disease in one side of the brain acting on the nuclei of the nerves of the tongue—certain parts of them, at least—those that move the tongue forward. It implies an influence exerted on those nuclei on the two sides of the base of the brain. Thus it is one of those facts, of which I spoke in the last lecture, in which a disease in one side of the brain produces paralysis on the two sides of the body.

Now, as time presses, I will only mention one fact more about the hypoglossal nerve. If that nerve were affected in the way it is believed to be in cases of brain-disease; if, in other words, the fibres of that nerve went up to the brain, to some centre either in the corpus striatum or in any other part that you like, having no place of passage except through the pons Varolii, it is extremely remarkable that there are on record a good many cases of disease occupying the whole of one-half of the pons Varolii without having produced a paralysis of the tongue, without having produced any change either in speech or in the faculty of moving the tongue while eating, or in the power of putting the tongue straight out.

I will not insist on other kinds of local paralysis; but I will say, in a general way, that they are on record; and I will publish cases, showing that every muscle in our system may be thus affected by groups generally, but individually sometimes—the muscles of the trunk, the neck, the pharynx, the abdomen. There is a case of paralysis of the right anterior muscle of the abdomen; and as regards every muscle, in fact, which you could name, there is a case to show that that muscle was paralysed when the brain was diseased, the paralysis existing alone in some few cases, but generally with paralysis more extensive, attacking the limbs generally, and other parts also.

After having dwelt so far to-day, and in the last lecture, on the appearance of any kind, any form, and any degree of intensity of paralysis anywhere; and having shown, as I hope I have done, that those various kinds and forms and degrees of paralysis can appear, wherever is the seat of the disease in the brain, I have to come to the question which is just the one to complete the demonstration that I have in view—that is, cases in which disease has existed in the brain without producing paralysis. I have here an immense number of very short notes of cases, amounting to not far from a thousand, in which disease, and generally considerable disease, existed without producing a marked paralysis, or paralysis at all anywhere. Those cases, strange as it may seem to many of you, are chiefly cases of disease attacking those parts of the brain which are considered as being the channels between the organ of will and the muscles. Most of these cases of disease are cases of disease in the pons Varolii, in the medulla oblongata, in the crura cerebri, in the internal capsule, and the great ganglia round the internal capsule, that is, the optic thalami, both the internal and outside corpora striata; so that it is more common by far to find a case of disease having destroyed tissue in those parts which are supposed to be the path of the will towards the muscles. There are by far more cases showing that disease has existed in those parts, without producing paralysis, than cases of disease in other parts of the brain considered, on the contrary, as having little or very little power, either as conductors or as a centre for the action of the will on muscles. One cause for that is, perhaps, that the frequency of disease on that track is by far greater; still the proportion of those cases of absence of paralysis in cases of disease on the track itself, seems to be greater than the proportion of cases of non-appearance of paralysis in cases of disease in other parts of the brain than that track. This is certainly quite contrary to what we might be inclined to believe. It is bad enough for the old view that there is a single clear case of destruction, for instance, of one-half of the pons Varolii, without any marked paralysis, or any paralysis at all; it is bad enough that there is but one of those cases,

without having, as I have said, an immense number of such instances.

I will now pass to a demonstration which, I think, will complete what I have said against admitting that paralysis appears from the destruction of the conductors of the will to the muscles, or from the destruction of centres that act on muscles. There is here a drawing which will serve for the demonstration. You see that there are fibres upon the pons Varolii and the medulla oblongata. You well know that some physicians admit that the decussation of the conductors of the will to muscles take place, not only in the pyramids, but also in the pons Varolii. Admit that it is proved, and let a disease exist in the pons Varolii alone; that disease in the pons Varolii, admitting the decussation that takes place under it, should produce a complete paralysis in all cases on the opposite side of the body, and should produce also an incomplete paralysis on the same side. It would attack, at the same time, fibres that are decussating; but, supposing the disease to be in the left side of the pons Varolii, it would attack fibres that are coming down there, and pass into the opposite side of the body; and it would attack fibres that make their decussation below. It would produce, therefore, a double hemiplegia in all cases, necessarily, as it would strike fibres that are decussating there, and it would attack fibres that decussate below that place. There would be necessarily, then, if the view were right, a paralysis on both sides of the body, greater on the one side or the other, according to the number of fibres, be they greater or smaller. Should the disease exist in one-half of the medulla oblongata, there again we would find, if the disease exist just below the pons Varolii, that it strikes some of the fibres that decussate and some of the fibres that do not decussate. There are some that have made their decussation above that would escape. Thus the disease in the pons Varolii and the lower part of the medulla oblongata would produce a paralysis on the same side, and also paralysis on the opposite side. There would be the incomplete paralysis in all these cases. What do we see? That the paralysis is sometimes complete, whether it exists in the pons or in the medulla oblongata, and that on the opposite side or on the corresponding side; but it is extremely rare, though there are such cases, that it will produce an incomplete paralysis on the two sides of the body. I may say, if the disease be extensive and occupy nearly the whole of the pons Varolii, it produces an almost complete paralysis on the opposite side, but very little, if any, on the corresponding side. There are other cases, and I have already given details about some of them, in which a disease there has produced a paralysis only on one side. There is one most important case, published by Mr. Stanley, in which paralysis existed on one side of the body, both in the face and in the limbs. The paralysis in the face was very well explained by the fact that the nerves of the face were destroyed, and it was very natural that there should be a paralysis on that side; but, as regards the body, there was no appearance of paralysis on the opposite side, and there was an almost complete paralysis on the corresponding side. Hence, facts are entirely in disagreement with the view that there is a double decussation, one in the pons Varolii and the other in the medulla oblongata.

Now, suppose you try any other way of explaining the phenomena. Suppose you admit, as I did, and I may say I published a paper to prove it—I confess it very willingly, indeed, and I think it is only due to truth that I should—I published that paper to establish that the decussation of voluntary motor conductors takes place only at the lower part of the medulla oblongata, and not at all in the pons Varolii. Facts, that were then apparently quite decisive, showed that disease, beginning from the crura cerebri, and going down to the lower part of the medulla oblongata, occupying almost the entire lateral path of those parts, caused paralysis, no matter where the disease was, on the opposite side, and only on the opposite side. Since then, I have come to know that there are other cases, and that we must give up that view; and among the facts there are especially a number of cases, like the one that I mentioned the other day, of disease occupying the two anterior pyramids without any paralysis, the patient walking in the wards, and that a few days before death; and the disease in the anterior pyramid was one of slow growth, so that it had not been produced in a few days. There are also a great many other cases. There was a case that I translated and published in an American journal, by a Professor of Utrecht, in which the whole half of the medulla oblongata was diseased, the disease affecting at the same time the anterior pyramid on one side, and also the anterior pyramid of the other side as it extended into the spinal cord, so that the fibres on the two sides were diseased. In that case there was paralysis, it is true; but it was on the wrong side, according to the theory—it was on the side of the disease, and not on the opposite side. I myself maintained for a long time, and I stated in my lectures at the College of Physicians in 1858, that the conductors of sensation decussate all along the spinal cord; and that

disease in the medulla oblongata, if it occupies one side, strikes fibres that have made their decussation all along the cord, so that anaesthesia always exists in a case of disease of the medulla oblongata on the opposite side, and only on the opposite side; and it is perhaps known by a good many among you, that some medical men have called a certain kind of spinal hemiplegia by my name, owing to the fact that, by help of experiments on animals, and by help of a good many clinical cases of disease of the spinal cord, I had, as I thought, established that a disease on one side of the cord produces complete paralysis, if the disease be considerable, on the same side in the limb, and complete anaesthesia on the opposite side. The case of which I have spoken was certainly a death-blow to the conclusion that I had drawn from the facts I had observed. I must say I have found a great many other cases which, if I have a chance of lecturing elsewhere on anaesthesia, will show that, as regards the conductors of the sensitive impressions, as well as the conductors for voluntary movements, the views previously entertained must be put aside; and that anaesthesia, as well as paralysis, amaurosis, aphasia, loss of consciousness, or any other loss of function, occurring from brain-disease, comes, not from the destruction of the function of the organ of the brain diseased, but from an influence exerted by that organ on nerve-cells at a distance, endowed themselves with the power that is lost. I will try, in the last lecture, to suggest what space is occupied by these nerve-cells, the function of which is lost, and to dwell on the production of that loss of function; but I repeat that all those symptoms consisting of a loss of function appear, not from the destruction of the organ we find diseased in the brain or the part of the brain we find diseased, but from an influence exerted at a distance. For instance, with regard to amaurosis, the facts are very striking. I can produce amaurosis in the right eye or in the left eye at will, and that by a very slight lesion. If I prick a medulla oblongata on the corpus testiforme, immediately the eye on the same side loses its power of sight. If, on the contrary, I injure the brain in any part of the middle lobe, and also in certain parts of the posterior lobe, without reaching the base of the organ at all, amaurosis appears immediately on the opposite side of the eye.

There are a great many other facts that I could mention, to show that, for amaurosis, as well as for anaesthesia, paralysis, aphasia, and all the symptoms consisting in the loss of a function, the production is through an irritation at the place where there is disease, acting at a distance on nerve-cells endowed with the function, so as to destroy their activity.

I now pass to some other phenomena. There is very frequently, in cases of brain-disease, an appearance of loss of motion, which is quite deceptive; and that appearance has led experimenters lately to draw conclusions from taking away certain parts of the top of the brain, which I conceive to be wrong. If we take away those convolutions of the brain, which have been considered by Dr. Ferrier and others as the centre for the movement of the arm—for instance, if we take away that centre, very frequently there is an appearance of paralysis, existing for a few days. That paralysis always disappears, and indeed it does not exist, if, instead of taking away the organ itself, you cut the brain at a distance from that organ, and take away by far more matter than if you take away the organ itself. If you take away the organ without irritating its neighbourhood, that is, without cutting nerves that have a power to produce an arrest of activity on the cells at a distance, then you find that there is either no trace of paralysis, or very much less than if you take away simply the organ; as the experimenters I have named have done. But, coming to what I meant to say, it is not the interference with voluntary action that causes this paralysis of the muscles; at least, if there be any paralysis of voluntary action, it is so much increased in appearance by deficiency of the muscular sense, that certainly the muscular sense is the part generally affected. That alteration of the muscular sense in animals, from various injuries to the brain, is by far more frequent than any other paralysis. In man, it is not so common, but it exists, and particularly in cases of disease of the convolutions in the beginning of the general paralysis of the insane. In the beginning of the inflammation of the grey matter of the brain, that leads to the phenomena of the paralysis of the insane, it is chiefly the muscular sense which is affected. The seat of the muscular sense, if I had time to speak of that, is not to be looked upon as being in the cerebellum, where many persons have placed it. Facts would seem to show that the convolutions of the brain are the centres for the muscular sense; but, as I have said already, there is an intermediate element between the injury we make and the phenomena we observe; there is something which takes place between these two extremes; there is some alteration which is the real cause of the phenomena.

I now pass to another series of facts. Paralysis may appear just as an attack of epilepsy can appear, although there is an organic disease in those parts of the brain which are considered as being either centres

or conductors for the voluntary action. I have collected a good many of these cases, in which paralysis comes and goes, although the cause is persistent—that is, the supposed cause of disease—in some parts of the brain, such as the corpora striata or the optic thalami. Lately, a friend of mine, Dr. Raymond, has published a very striking case, in which the ascending frontal convolution, the one just in front of the fissure of Rolando, was diseased. In that case, which seemed to him to be decisive in showing that that part is a centre for the movement of the arm, there was considerable alteration of the part, and the patient was attacked with paralysis for a few hours, and then the paralysis disappeared, just as convulsions may come on, or a fit of coughing or any kind of fit; and although he concluded that the fact proved the correctness of the view generally admitted, that there lies the psychomotor centre for movements of the arm, the fact itself was quite contrary to the view. It is clear that, if the destruction of that part had destroyed the organ which is the psychomotor power of the muscles in the arm, the paralysis would have appeared from the destruction and would have remained; it would not have come and gone. Hence facts of that kind are decisive to show that paralysis, as well as other phenomena which show an irritation—that is, either convulsive movements or any other kind of proof of an irritation existing in the brain—may come and go in a very similar manner to what occurs in the production of convulsions. There is much to be said also against the views that I contradict in this, that paralysis due to an organic cause of disease in the brain may disappear suddenly; and indeed there is a very striking case which, perhaps, may prove to have more value than many of you may think, in which it was found by mere accident that pressing on the dorsum of the foot, the patient being completely hemiplegic or very nearly so on that side, produced a cessation of the paralysis so long as it was made. Legros mentions seventeen cases in which he obtained the same result; and many of you are acquainted with the peculiar form of myelitis where there is a spasmodic state of the lower limbs, the limbs being generally quite rigid, and at times having rapid movements, in which, as Legros shewed me first, by merely pressing on the big toe of the patient, everything disappears; there is an absolute relaxation; the convulsions of stiffness cease altogether, and it disappears in all cases; so that there is a cessation for a time of these attacks. In these cases there is just the same thing, after all, that we see in cases of epileptic attacks in which the patient, before losing consciousness, has his head drawn towards one shoulder; if that take place, almost invariably, if the head be pushed firmly over to the opposite shoulder, the fit is averted, and there is no attack. It is the same as we see in cases of pretended aura. The ligature, which is applied in those cases, does not act in preventing something from forming, but, on the contrary, is sending something to the brain which produces an arrest of the morbid activity of the cells. Thus there may be some chance of rescuing, for a time at least, certain hemiplegics by acting on the skin in certain parts of their body—I would not say the foot only—and of producing a temporary change in their paralysis; and if the temporary change be produced, indeed I do not know if it would be going too far to be hopeful that, perhaps, more would be obtained than a temporary arrest of the trouble. This leads me to say that, if I am right in the views that I am now trying to put forward, it will be necessary to change a great deal of our treatment in paralysis due to an organic disease in the brain. Evidently, if we are to look upon paralysis as a mere effect of an arrest of activity of certain cells, which of course does not imply an organic disease, and does not imply an alteration of structure in those parts; if that view is right, the field of treatment ought to be somewhat enlarged, if not utterly changed. Although our means of diagnosis may be less than we thought they were, we can usually come to a diagnosis when an affection is in the base of the brain. Finding where the disease is, we usually try to apply means in agreement with our knowledge of the place of the disease, and I do not think that that is the proper treatment—whether the parts which are affected, and which really are the seat of the lesion producing paralysis—whether those parts are in the spinal cord, in the base of the brain, or in the whole of the brain itself, as I believe it chiefly exists, makes no difference. It is quite certain that we have to look upon another seat of disease, or alteration of nutrition, than the one we knew; and, therefore, our means of treatment must be changed. There is no possibility, so far, of knowing exactly where are the alterations which really give rise to paralysis. I have said, in the beginning of this lecture, that I believe that the cells that serve to voluntary action are scattered through the brain; but although I have said that, it is not certain that paralysis does not appear from the influence exerted in a direct way on the cells of the anterior cornua of the spinal cord; and there are cases of disease which really show that these cells are affected by disease in the brain. We can produce a change in the cord immediately by certain injury to the brain; but there are also cases of disease in men in

which, with the descending alteration along the lateral column of the cord, there is also a disease of the cells of the anterior cornua with the cord; and there is certainly a kind of paralysis, of which I have already put together some five or six clear cases, in which the paralysis is developed very slowly indeed, progresses very slowly, and, at the same time that it progresses, phenomena appear showing that the spinal cord itself is being injured, so that the disease in the cord seems to be the real cause of the paralysis. In the next lecture I will conclude this subject.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OBSTETRIC MEDICINE.

*At the Annual Meeting of the British Medical Association,
in Sheffield, August 1876.*

By LOMBE ATTHILL, M.D.,

Master of the Rotunda Hospital, Dublin; President of the Section.

I THINK, gentlemen, I may safely assert that the proceedings of this section of the British Medical Association, which is devoted to the consideration of the subjects comprised in the term "Obstetric Medicine", attract, on the whole, more general attention from the great body of our profession, than do those of any other section. The reason for this is sufficiently obvious, for while the busy practitioner may be wholly unable to devote time or attention to the study of the important subjects included under such heads as those of "Physiology" and "State Medicine", or find that in practice cases of operative surgery are comparatively rare, he is certain to discover that the conditions and affections brought under discussion here, are of daily occurrence amongst his patients; hence he seeks to improve his acquaintance with the nature of the conditions, and to learn the best means of successfully treating those affections, which are peculiar to women; the more so, as the study of these diseases has probably been neglected, possibly entirely overlooked by him, during his student's career.

Another reason for the interest evinced in the proceedings of this section is this, that marked and rapid progress has of late years been, and still is being, made in the department of obstetric medicine. The very name of the section proves this. A few years ago the term "obstetric medicine", if used at all, would hardly have been understood. This section of the British Medical Association was until very recently termed that of "midwifery". Consider for a moment what this change of nomenclature implies—it implies this, that the study of the process and phenomena of parturition, important though they be, is by no means all that is now required of the obstetric practitioner; that is, not of those alone who make obstetrics their special study; but of all, and their name is legion, who are called upon to treat the diseases of women.

This section then includes subjects of a most varied and extended nature; it includes midwifery proper, the diseases of the puerperal state, and those incidental to pregnancy, the considerations of disease of the vagina, bladder and uterus, of the breasts, and last and surely not least, of the ovaries. Diseases of these latter organs are doubtless, in one of their aspects, within the domain of surgery proper; but that condition which demands the performance of the capital operation of ovariectomy, is by no means the most common of those requiring treatment, and, moreover, not a few able and successful ovariectomists are to be found amongst the ranks of obstetric surgeons. Some such I have the pleasure of seeing around me here to-day.

Gentlemen, we deem the practice of midwifery to be in no way derogatory. It is our honourable function to succour woman in her hour of trial, to shorten or relieve her sufferings, often to save her life or that of her offspring; to meet with promptness and decision the numerous dangers and difficulties which frequently and unexpectedly occur during labour, and which tax to the utmost our courage and endurance and skill; but these duties, though most important, form but a small portion of those which now devolve on us daily. The affections I have already indicated as coming within the province of obstetric medicine are so numerous and of such constant occurrence, that the right treatment of them is all important, as well for the sake of the sufferer as for the reputation of the practitioner.

The truth of this is now on all sides admitted, and the study of ute-

rine disease, in its protean forms, is consequently steadily becoming more general; but unfortunately our knowledge of the pathology of these important affections is as yet imperfect, and our treatment consequently in many respects empiric and unsatisfactory. Still great strides in advance are steadily being made, and we may look forward hopefully to a time not far distant when phenomena and symptoms at present overlooked or misinterpreted will be explained, and our treatment consequently become more scientific and efficient.

To the late Sir James Simpson, without doubt, is due the credit of inaugurating an era which has been marked by great and rapid progress in the department of obstetric medicine. His master mind perceived how vast an amount of unrecognised disease, and what an extensive field for pathological investigation, existed with reference to the reproductive organs of women; before his day little was known of uterine disease, and as to treatment, it consisted of little more than in exposing the cervix uteri, and applying to its vaginal surface, if it happened to be abraded, a solution of nitrate of silver, or of some other mild caustic. Of disease of the body of the uterus almost nothing, of its interior absolutely nothing was known. A morbid, and as we now know, an unfounded dread existed of attempting to interfere with, or to investigate the condition of the cavity of the uterus. All this is now changed. We know that disease of the cervix uteri is of less frequent occurrence, and of less serious import than that of the body, and that its cavity may with impunity be trespassed on, and disease occurring within it successfully combated. Without doubt the most important practical result of the teachings of Sir James Simpson is this, that we do not now hesitate to dilate the uterus and investigate the condition of its interior, when symptoms indicative of serious mischief within the organ require us to do so.

I am well aware that by some practitioners the dilatation of the uterus is still looked on with dread, and that the attempt, if made at all, is undertaken with the greatest hesitation. I can only say that I believe these fears to be groundless, and that, if due care be taken to select suitable cases, and proper methods of carrying out the process be adopted, the treatment is a safe as well as a justifiable one. My own experience in the dilatation of the uterus has been great. I have practised it very frequently indeed during the last ten years, and as yet in no single instance has a bad symptom followed, nor have I even once been compelled to abandon the attempt. But I am far from throwing doubt on the accuracy of the statements made by others, who have recorded the occurrence of alarming symptoms, or even of death, as consequent on the attempt to dilate the cervix uteri; and I am quite prepared for the possible occurrence of such, for all are aware that cases must occur in which the most trifling exciting cause will be followed by serious symptoms, though no grounds existed beforehand for anticipating the occurrence of such. But these are exceptional, and I believe, as a rule, that when serious symptoms arise, either during the process or in consequence of dilatation of the cervix uteri, they do so either because an unsuitable subject has been selected in whom to practise the treatment, or an unwise method adopted for carrying it out. On examining the records of the cases in which serious or unpleasant symptoms followed the attempt to dilate the uterus, I find they have generally occurred when practised,

1st. Either for the relief of dysmenorrhœa depending on the existence of a narrow cervical canal;

2nd. When the cervical canal is encroached on by a fibroid of large size and unyielding structure;

3rd. When the process has been attempted to be carried out rapidly by means of metallic dilators, or,

4th. When it has been protracted over several days.

I have therefore, in order to guard as far as possible against the serious results recorded by others as following attempts to dilate the uterus, laid down for myself the following rules, which I can recommend with confidence to others.

1. Never to dilate the cervix uteri for the cure of dysmenorrhœa or sterility depending on a narrow cervical canal or conical cervix.

2. Never to dilate in cases in which a large and dense intra-uterine fibroid presses on and partially obliterates the cervical canal.

3. Never to use metallic dilators of any kind, but to choose for the purpose either sponge- or sea-tangle-tents, which expand slowly and gradually.

4. Never to continue the process of dilatation for more than forty-eight hours. I prefer, in the few cases I have met with in which, after the lapse of that time, the cervix was not sufficiently opened to suit the purposes I had in view, to postpone all operative interference for some weeks, rather than risk the result by prolonging the dilating process.

With respect to the first of these rules, I look upon the treatment of what is termed "mechanical dysmenorrhœa" by dilatation as being

altogether a mistake. I doubt if any permanent benefit has ever resulted from it; while in several cases grave symptoms, and in one death, has to my knowledge followed the attempt. Equally, it is of importance not to prolong the dilating process. My own experience in the treatment of uterine disease requiring dilatation leads me to this conclusion, that unpleasant symptoms are likely to occur in a direct ratio to the length of time over which the process of dilatation extends. Again, I have known death to follow the attempt to dilate the uterus in a case where a large fibroid of dense structure, giving rise to menorrhagia and causing intense pain, was developed in the uterus, and encroached on the cervical canal. In such cases, dilatation is doubly objectionable, because the process is useless as well as dangerous: useless, because you will generally find that any attempt at operative interference from the interior of the uterus will be impossible; and dangerous, because inflammation is liable to follow, and that too in patients in the worst possible condition for resisting the attack.

Hardly second in importance to the knowledge that the uterus may be with safety dilated to an extent sufficient to enable us to remove large tumours, is the fact of which we are now certain, that remedies of even a powerful nature may, not alone with impunity, but with the greatest advantage, be applied to its interior. But at this point our knowledge becomes defective. Some practitioners prefer one, some another agent; for intra-uterine application. It may be carbolic, chromic, or nitric acid, or iodine, or the solid nitrate of silver; but as yet there has not been, it seems to me, sufficient care exercised in watching the action of these various agents, or in recording the effects they severally produce. Hence we are without dicta on which to base our treatment, or to guide us as to the agent to be selected in the treatment of the various forms of disease requiring intra-uterine medication. It is evident that no one of them can be suitable to all cases. For myself, I prefer carbolic acid in mild, and nitric acid in severe ones; but I freely admit I have much to learn on this point, and I look to others to aid me with their experience in deciding this important question. But it seems to me that, as with the dilatation of the uterus, so it is with respect to the application of agents to the interior of the uterus: that a groundless dread prevails as to their use. Here, too, as in the former case, the treatment is safe if carefully conducted, and if only practised in suitable cases and at the right time. Thus, if a caustic be applied through a narrow cervical canal, trouble is likely to occur. Equally will it probably follow if the fundus be tender to the touch, and chronic inflammation present; but, if the tenderness be first mitigated, and the inflammation lessened or removed, the application will, in all probability, prove beneficial.

In the treatment of uterine fibroids, too, we have made progress, but not as yet to a satisfactory extent. This much we know for certain, that many such cases, if menorrhagia be not excessive or pain intense, are best left alone; and it is astonishing in how many instances, even where menstruation is profuse, this course proves to be a wise one, treatment being restricted merely to what is absolutely necessary to prevent the flow being excessive. But, unfortunately, exceptions are of but too frequent occurrence; and how are we to treat these? The removal of large fibroids by abdominal section has been successfully practised, but the risk of life involved in the operation is great; and the attempt to remove smaller ones by means of the *écraseur*, after dilatation of the cervix, is, I can vouch from personal experience, a difficult and eminently hazardous process. Again, enucleation is tedious, unsatisfactory, and often dangerous.

We have, however, at our command a resource which, if not all that we desire, is still generally efficient in controlling hæmorrhage, often sufficient to arrest the growth of the tumour, and sometimes apparently capable of reducing its size. I allude to the hypodermic injection of ergot, which, if it has failed in this country to produce the almost marvellous results ascribed to it by Hildebrand, is, if properly carried out, a safe as well as an efficient remedy. In my first cases, the results obtained were not only uncertain, but unsatisfactory, for troublesome sores sooner or later formed at the seat of the injection. Of late, however, I have obtained much better results. In not one of ten cases recently under my care, in which I fairly tested this treatment, has the hypodermic injection of ergot been followed by the formation of an abscess or sore; in all it had more or less effect in restraining hæmorrhage; in one, the injection was repeated almost daily for five months, with the effect of absolutely restraining excessive menstruation, but with no other beneficial result, for the bulk of the tumour remained unaltered, and the pain was as intense as ever. Still it was no small matter to have transformed a profuse and exhausting flow, which formerly lasted for twelve or fourteen days, into one of moderate character and of but two or three days' duration. It is evident, then, that in ergot, employed hypodermically, we have a power-

ful agent, one capable of exerting a marked influence on uterine fibroids, but still uncertain in its action, and not altogether to be relied on.

Again, with reference to displacements and flexions of the uterus, much still remains unknown, and authorities seem to be as far as ever from agreement as to the important question of cause and effect. It is much to be desired, that the pathology of these conditions should be carefully investigated, and the obscurity which surrounds some of them at least, if possible, cleared up. In fact, to whatever subject we turn, we see that, great as are the grounds for satisfaction at the advancement made in the knowledge of uterine disease, much remains to be done, and much careful observation is still needed, if this department is to hold its position as one eminently progressive. The great obstacle which retards the investigation and consequent elucidation of many points of interest and importance connected with the study of obstetric medicine is doubtless this, that comparatively few patients afflicted with chronic uterine disease die actually of these affections. They may be doomed to a life of constant suffering, and existence itself may become an actual burthen; but most probably they will be carried off by some intercurrent disease; and, if a *post mortem* examination be made at all, the investigation will be directed to other organs than those of the reproductive system. It would be of the greatest advantage to us, if those gentlemen who have the good fortune of being attached to large general hospitals in the capacity of obstetric physicians would direct their clinical clerks to attend all *post mortem* examinations made in the hospital on the bodies of females, and record the condition of the uterus and its appendages, and especially of the ovaries; for though doubtless, in the absence of clinical records of the history of the patient with reference to her uterine functions, much of value will be lost, still from time to time facts of great importance will be ascertained, and valuable information gained.

Information is specially needed with respect to some forms of ovarian disease. Some patients suffer for years from pain and tenderness of the ovary, from mammary pain and nausea of a most distressing character. Such I have seen reduced to a condition of actual despair; for all treatment seems useless, so utterly inefficient does it prove. In these cases, the ovaries are in general plainly enlarged, but the exact pathological condition of them is in many cases unknown. Here is an affection most deserving of investigation, both as to its causation, pathology, and treatment. I know of no form of disease which produces more real suffering, equally of mind and body. An American surgeon, Dr. Battey of Georgia, convinced of the inadequate results produced by ordinary treatment, has recommended the extirpation of the ovaries in such cases, arguing that, from the results on animals, the operation would be safe as well as justifiable in the human female. I confess that to my mind his views contain much of truth, and that, were I satisfied that I did not endanger life, I would in some cases sanction the operation; and I think we may possibly yet see it practised even amongst ourselves, as I believe it has been in America. But such a practice would, after all, be a lamentable confession of the inadequacy of medicine to cope with what should be a curable disease. Let us hope that, as light is let in on these obscure questions, this reproach will be removed.

Gentlemen, I have I fear exceeded the limits of the time allotted to each paper, and it would ill become one who has to enforce a rule, to break it himself; but I cannot conclude without some allusion to what has been termed "the burning question" of the day. I have no intention here of discussing the advisability or otherwise of the admission of women into the profession of medicine; but I must refer to the course proposed to be adopted by the College of Surgeons of England, which decided on granting their midwifery diploma to persons but partially and most imperfectly educated; a step than which I cannot conceive one more retrograde, or so calculated to lower the profession in public estimation, or to inflict injury on the poorer classes among whom such persons would necessarily practice. I am happy to say that the example set by the College of Surgeons in England has not been imitated by any other licensing body, though more than one had the power of doing so; and to the credit of the University of Dublin be it said, that it has recently been decided to grant a special degree in midwifery to persons who have previously obtained one in medicine or surgery, being thus the first British University which has recognised the position gained by obstetric medicine, an example which I trust will yet be imitated by the sister universities.

Gentlemen, I believe I am but expressing your unanimous opinion, when I say that the best thanks of this section are due to those eminent men, Drs. Barnes, Arthur Farre, and Priestley, who by their courageous conduct have compelled the Council of the College of Surgeons to reconsider, if not to retract, the rash step they were about to take.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PUBLIC MEDICINE,

*At the Annual Meeting of the British Medical Association,
in Sheffield, August 1876.*

By J. B. RUSSELL, M.D.,

Medical Officer of Health to the City of Glasgow; President of the Section.

GENTLEMEN,—Although, fortunately for me, the usage of this Association does not impose upon the Presidents of Sections the duty of delivering an address in connection with their departments, still I am desirous, on the occasion of my first appearance before you as your President, to ask your indulgence for a few remarks. This I the more readily do, that the colloquial work thus afforded me suits my want of leisure for the set phrases and connected thought of a paper.

You are aware that I am medical officer of health for the city of Glasgow, and Glasgow is notorious for its unhealthiness and for the vigorous efforts being put forth by the local authority for its improvement; especially in the direction of clearing out and reconstructing the older and most unhealthy portions of the city. It is not my intention to repeat before you any details of the nature, extent, and operations of the Glasgow City Improvements Act (1866), which were fully narrated and discussed in the introduction and passage through the Houses of Parliament of the Artisans' Dwellings Act, and for which we certainly have had ample credit awarded. But the fact that there is now an imperial measure declaring that "various portions of many cities and burghs are so built, and the buildings thereon so densely inhabited, as to be highly injurious to the moral and physical welfare of the inhabitants", and enabling communities so situated, without the trouble and expense of a local Act, to institute improvement schemes, makes me think that a short statement of the more obvious results of our operation, and some remarks flowing therefrom on reconstruction, density, etc., may be useful to such of you as advise authorities or practise in communities who may take action under the general Act.

That portion of the city of Glasgow which was included in the powers of the Improvement Act of 1866, embraced about 88 acres, on which a population of 51,300 persons lived in upwards of 10,000 houses, using that word not in the structural sense attached to it in England, but in the social sense customary in Scotland, meaning that fraction of a building rented and occupied by one family. Although the Act was passed in 1866, the demolition of houses was not commenced to any important extent until 1870, the intervening years being devoted to the acquisition of the properties involved in the scheme. When such operations are carried out, the advantages anticipated are of two kinds, 1, immediate; and 2, remote. In terms of the Act, the extent of the demolition and displacement at any one time is defined by Section 28. Within six months, no number of inhabitants exceeding 500 can be displaced without a certificate from the Sheriff of the County, granted on evidence, that accommodation exists or shall be provided for the inhabitants displaced. In Scotland, the times of year when houses are let are May and November. The May term has been preferred for the greater part of the evictions and demolitions, being the summer, when least hardship is likely to arise. On two occasions, viz., in May 1874 and May 1875, a minute test of the immediate results upon the people displaced has been instituted. The investigation extended to 1,169 families, containing 3,710 persons. The houses were fair samples, situated in the oldest parts of the city, of the whole property to be dealt with, and their inhabitants were of that class of our urban population which is the source of so much trouble and anxiety to authorities of all kinds. I shall not trouble you with more than a general statement of results, merely adding this assurance, that they are not guesses or approximations, but based on accurate statistics. When a householder is summarily ejected from his house, and the house demolished, the necessary immediate results are manifested in changes as regards the size of his house, its rental, the readjustment of the number of inmates per house, the position of the house relative to the centre of the city, and the facilities afforded for the disposal of the excreta of the inmates. Taking up those points in succession, the following are the immediate results of our action.

As to *size of house*, it would have been better had it been possible to state the cubic contents rather than the number of apartments; for, in reference to the comparative size as well as comparative rental, the words house and apartment, without further explanation, mean very

different things as applied to the dwellings demolished and those into which the inmates removed. But, while 84 per cent. of the old houses were hitherto under the Glasgow Police Act, *i.e.*, their cubic contents were marked on the doors, with a statement of the corresponding number of inmates allowed, the majority of the new houses were not so ticketed, and consequently a sufficiently laborious inquiry would have been made still more so by the necessity of measuring those houses for the sake of comparison. After all, however, the result would have been merely to express in figures what, you may accept my assurance, is the fact, that the dwellings which those people were compelled to leave were, on the whole, so bad that it was impossible for them to find their equal or their like; and you may take it that the words house or apartment mean something more as applied to the new dwellings than to the old, more in the way of space, comfort, and convenience. You must keep this before your mind in interpreting the meaning of the following bare figures, and estimating the facts to which they give most meagre expression. We found 478 families occupying dwellings of only one apartment. Of these, 296 removed to dwellings of the same size, and 138 to larger, while 25 gave up householding and took to lodgings, 1 removed to the suburbs, 9 to the country, and 9 are otherwise accounted for by emigration, imprisonment, the poor-house, etc. We found 330 families occupying dwellings of two apartments. Of these, 217 removed to dwellings of the same size, 34 to larger, and 68 to smaller; while 2 went into lodgings, 1 removed to the suburbs, and 1 to the country, leaving 7 to be otherwise accounted for. We found 62 families occupying dwellings of three apartments. Of these, 15 removed to houses of the same size, 8 to larger, and 33 to smaller; while 1 went to lodgings, 3 removed to the suburbs, and 1 to the country, leaving 1 to be otherwise accounted for. The remaining 28 families occupied dwellings larger than three apartments; and of these, 3 removed to houses of the same size, 1 to a larger, and 23 to smaller, leaving 1 to be otherwise accounted for. The general result is that only 13 per cent. of the families displaced by our operations removed to smaller houses, even if we estimate the comparative size on the rough basis of the number of apartments, while 20 per cent. removed to larger.

In a sanitary aspect, the meaning of the size of a house depends upon the relation between the *number of the family* and the capacity of the house. Applying this test also, the results are satisfactory. Both in May 1874 and May 1875, it was found that the average number of inmates in the houses of one apartment into which those families assorted themselves was decidedly less than in those which they had left; that in houses of two apartments also, the average number was less, though not so decidedly; while in houses of three apartments and upwards the numbers were considerably greater. All this is just as it should be. The operations left the families displaced living in houses better adapted to their numerical requirements than those in which it found them.

This fact is all the more important and gratifying when we turn to the matter of *rental*, and observe that, of all the changes forced upon those people, that of increased expenditure for house-rent was the most decided, and very probably to themselves the greatest and most obtrusive. For every class of house there was an increase of rent, amounting to 20 per cent. on the old rental of a one-apartment dwelling in 1874, and 17 per cent. in 1875; to 20 per cent. on the old rental of a two-apartment dwelling in 1874, and 21 per cent. in 1875. The purely fictitious nature of the accommodation provided in these wretched dilapidated properties is made glaringly manifest by the comparative rental of the houses above two apartments. To say that a dwelling of three or four apartments could only be got in the new localities at an increase of 50 to 58 per cent. over the rental of the same size of dwelling in the old localities, is to misrepresent the case and do an injustice to the honest landlord, quite as great as would the quotation of the prices of the merchant of adulterated goods against those of the fair dealer. The same remark applies to the smaller houses, though not to the same extent. What would a house of one apartment be at 2s. 6d. or 3s. 6d. per month, or a house of two apartments at 5s. per month, or a house of three apartments at 5s. 10d. per month, or one of four apartments at 7s. 10d. or 8s. 6d. per month? Yet these are all quotations of rents actually paid. A house means something more than a hole. The burrow of a Bosjesman is not a house. But are there people in our large towns who can contribute no more monthly towards the provision of a dwelling-place than such sums as these? If there be those, for the public safety and for the sake of our civilisation, philanthropy or taxation must provide for such; but my experience does not lead me to believe in their existence except as the product of vice and improvidence. My invariable experience is that in those hovels you do not find those who are poor from necessity of circumstance, but those who live by unlawful callings or who divert from their families and their houses

every possible penny in order to spend it in self-indulgence. In 1865, in his Report to the Privy Council on the Housing of the Poor in Towns, Dr. Hunter said: "From one point of view, crowding in Glasgow means the diversion of income from rent to supply whiskey." The same remark, I have no doubt, applies to the same class in all large towns.

Another item in the changed circumstances of those people which admits of numerical statement, is the method of excrement disposal. In 1874, we found that only $4\frac{1}{2}$ per cent. of the families displaced had water-closets, the remainder using ashpits and privies. In their new abodes, $13\frac{1}{2}$ per cent. were supplied with those conveniences. In 1875, the proportion was increased from 7 per cent. to 14 per cent by the compulsory change. Here, again, we must recall your minds to the improved conditions which cannot be expressed by bold figures. The ashpits and privies of the new localities are much more inoffensive and innocuous than in the old, where, from want of space, they were close to the dwelling-houses, often at the bottom of enclosures, which were simply pits or tanks, in which the foul effluvia stagnated, and surrounded by windows through which they passed freely into the houses. In the new localities, also, in 1874, 63 per cent., and in 1875, 45 per cent., of the water-closets were situated, not in the houses, but on the common stair; indeed, but for this I should hesitate to enumerate among the advantages of the change the fact, that houses of this class were provided with water-closets. It is scarcely possible to find a position in a house of four or five apartments where a water-closet will not be a dangerous nuisance; and it is simply abominable to introduce such a thing into a house of three apartments or less. Apart from those objections on the ground of space and structure, there is this other of wider application, that a certain amount of culture and intelligence is necessary for the proper management of those social conveniences; and, wherever a water-closet is common property, as a rule it is abused: it is essentially suited only for the use of one family living in a self-contained house. In Glasgow, unfortunately, where we have proved that our Improvement Trust operations are increasing the proportion of our excretions which passes into the sewers, we have not seen the last of the nuisance. We are increasing the pollution of the Clyde beyond the increase proportioned to the growth of our population: but, after all, in relation to public health, it is a question of degree. On the one hand, we have the filthy ashpit or privy in our confined courts and yards; and, on the other, the filthy river flowing through a long open space, and exposed freely to the open air. Still, it is not a case of "How happy should we be with either", but how gladly would we part with both.

The last of the immediate and numerically measurable results of our demolitions, is their effect in accomplishing the *dispersion of our population* more equally over the area of the city. We shall discuss the matter of density and its relations to health immediately; but meanwhile we shall assume that the expulsion of masses of the community from the centre outwards is at once to effect an improvement in their general hygienic position. We must go down into the city to earn our bread, but the nearer to the outer verge we can sleep and rear our families, the better in the aggregate. The Cross may be taken as the centre of the city of Glasgow, being almost equidistant from all points of the municipal boundary, and also the nucleus round which the city has grown—the oldest, most densely inhabited, and most unhealthy part of it. The general result of our investigation in 1874 was, that before our operations only 27 per cent. of the families displaced lived beyond half a mile from the Cross, but that afterwards no less than 60 per cent. were dispersed to various stages beyond that distance, two per cent. flowing over into the suburbs. In 1875, we found that, as in the former year, before being disturbed, only 27 per cent. lived outside a circle within half a mile radius from the Cross, but that afterwards 54 per cent. had settled down outside that circle, 1 per cent. having gone to the suburbs. In each year the rest of the wave of dispersion was at the three-quarter mile circle from the Cross. If we confine our attention solely to the families primarily displaced, the internal movement resembles that of a wave gathering up to a crest, then breaking and flowing outwards in a diminishing stream; but if we have regard to all the units of the population in whose midst this commotion takes place, we shall discover a process of displacement and substitution whose only limits are the very outer confines not merely of that which is artificially termed Glasgow, but of that great community of which Glasgow is the vital centre. Those people go into cast-off houses just as they wear cast-off clothes, and the demand is met by "making-down" houses, connecting one large into a cluster of small, a process to which I shall not allude further than to say that it is rapidly reproducing the evils to get rid of which we are expending so much money.

Such are all the facts capable of statistical expression concerning the sanitary results of the Glasgow Improvement Act which I can adduce.

They are, you will observe, facts concerning the very people whom the operations of the Act immediately affect, and they are the immediate effects upon those people. As to the ulterior effects upon the health of those people, and upon the health of the general community, I am not yet able to speak. A necessary condition of all effects upon health is time. On general principles, we believe that all the changes to which I have given numerical expression are of a nature to benefit the citizens involved in those changes; but for the manifestation of those benefits, until they also admit of statistical expression, time for their development is absolutely essential. It seems to me they have begun to show themselves, but it would be premature to appeal to figures in proof of our belief.

I may, however, allude shortly to other procedures under the Improvement Act which have been adopted in the direction of the amelioration of the unhealthy conditions of city life. The first of these is the provision of *common lodging-houses*. In the course of our investigations, we found that between 3 and 4 per cent. of the families displaced went into lodgings. The keeping of lodgers is quite a feature of small house-keeping in Glasgow, and a very unpleasant one it is, both in its social and its sanitary aspects. At the census of 1871, it was found that 23 per cent. of all the families kept lodgers, and the practice prevails among those who must necessarily sacrifice both decency and health in the exercise of it. Even of families living in one apartment, 14 per cent. had lodgers, and of those in two apartments, 27 per cent. As three-fourths precisely of all the dwellings in the town are of that size, you will understand what an important element in the community in every aspect is the unattached lodging population. To my mind, the introduction of lodgers into the family circle of those small houses is to be regretted and discouraged. In a one-apartment house it is simply abominable to contemplate; and in all cases the close personal contact and want of privacy either of the general or family functions which must prevail are made doubly injurious, morally, by the introduction of strangers, besides the physical injury of overcrowding. Of this, lodgers are the frequent cause, being crammed into houses which, without them, would afford tolerably decent and wholesome accommodation to the natural inmates. Hence, as the Scotch Registrar-General pointed out in his Report on the Census, "the larger house for the operative, built with a view of effecting the better separation of the sexes, is in reality found to have no such effect; but, on the other hand, holds out an inducement to him to crowd his family to a greater extent than when he occupies a house of one or two rooms" (vol. i, p. 35). In destroying those fictitious houses, let at nominal rents, which I have described, the Improvement Trust were adding to that vagrant class of people who occupy common lodging-houses, and for them only did they of themselves provide accommodation in the shape of large lodging-houses, with day-rooms, lavatories, and every convenience, where each has a separate bed, and the use of a cooking-range and utensils, at the charge of $3\frac{1}{2}$ d. per night. They are each under the charge of a superintendent, and are kept in admirable order. They are self-supporting, and return 5 per cent. on the capital expended. From this we may have some idea how lucrative the lodging-houses provided by private enterprise must be.

Now we come to the most important branch of all improvement schemes, the reconstruction, the *provision of buildings for the people displaced*, and their supervision so as to check the upgrowth of like errors of plan and occupation. In a memorandum addressed to Mr. Secretary Cross, and contained in papers presented to Parliament before the introduction of the Artisans' Dwellings Bill, the sub-convenor of our trust (Baillie Morrison) says—"We do not build houses, as a sufficient number of these are erected by private enterprise to meet all the wants, and no case of real hardship is known. The houses now built are under restriction (so far as within the Glasgow municipal boundaries only). (See Glasgow Police Act, 1866, particularly clauses 370 and 371, through which provision is made for ventilation, etc., and these are rigidly enforced in every case.) We are opposed to competing with private enterprise, as such a course checks building. Neither do we consider it prudent to become philanthropic landlords, to let houses below the actual rents to any class, as this has a decided tendency to pauperise and destroy that feeling of independence in our working class population to which they are already too prone." I do not question the propriety of this decision, to leave to the action of the ordinary law of supply on commercial principles for the demands of a public necessity; but it ought to be an essential condition of such a decision on the part of a local authority carrying out such operations, that they have the power of impressing upon the new buildings of the present all the sanitary lessons of the past; that in short, they should have a liberally constructed Building Act. This we unfortunately do not possess in Glasgow, as is sufficiently manifested by a resolution of the Committee of Health, of date 18th January, 1875, to this effect;

"The attention of the Committee having been directed to the evil effects resulting from the occupation of buildings of a certain construction, now being erected in different districts of the city, particularly tenements of dwelling houses erected on what is known as the hollow-square system, the Committee remitted to a sub-committee of their number, along with the medical officer and master of works as a special committee, to examine these buildings relatively to the width of the adjoining streets, and open spaces inside of these squares, and to report what steps should be adopted by the Board in reference thereto."

I shall not occupy your time with any details of the defects in the powers of the local authority over new buildings, noted and reported by this committee. It is enough to state that they were numerous and most important, and that their labours resulted in the appointment of a deputation, which waited upon the Home Secretary and Lord Advocate, and strongly represented to the Government the necessity of statutory provision for the enforcement of an uniform system of building regulations in the cities and large towns of Scotland, and beyond the boundaries thereof, within a certain defined radius from the centres of such cities and towns, according to their population and area. The important lesson which I wish to impress upon your minds is this, that to enter upon any large scheme of demolition of the dense unhealthy areas of large towns, without first looking narrowly into the existing building regulations, is to adopt a course which necessitates extensive reconstruction and erection of new buildings, without a sufficient guarantee that they shall not, in any degree, reproduce the evils of the old, and, indeed, shall be in all respects the best that the most advanced sanitary requirements can demand. Let the example of Glasgow, therefore, be a warning to other communities. A full quarter of our total inhabited houses has been erected since 1866, when our Improvement Act was passed; and of that quarter, 93 per cent. were dwellings of one, two, or three apartments. Yet while we have enforced all the powers we possess of regulating those new buildings, and while they are undoubtedly improvements upon the old, we confess that we have let slip a golden opportunity of erecting a model city.

The operations to which I refer, have enhanced enormously the value of property in the city, and of land suited for building purposes in its neighbourhood. The tendency of both is always upwards in the vicinity of towns; but the artificial stimulus of those extensive central clearances, and the outward pressure caused thereby have, in Glasgow, added to house-property and land all at once a marketable value, which in ordinary circumstances would have been the slow increment of years. In this way the great problem which presents itself at the very outset of any attempt to provide working-class houses on commercial principles, has been rendered still more difficult of solution. I mean the value of land, the primary cost of sites for buildings, and the difficulty of so planning our buildings, as to secure a sufficient return upon capital, and yet not overlimit and overcrowd the soil. It seems to me that the question of the health of towns has now passed out of the hands of the architect, the engineer, and the capitalist. Speaking, for the moment, in a representative sense, I do not feel called upon to be architect, and economist, and hygienist all in one. In the latter capacity I am prepared to lay down general principles, and to criticise and approve; and unless it be that architects cannot draw plans which will satisfy both the hygienist and the capitalist, I see no reason why I should be asked to do more.

If you go out into the clear for your building ground, there is no doubt my demands will be more easily satisfied; but you must persuade the people to go thither; you must get manufacturers to transfer their factories, foundries, and workshops to the outskirts, where they would, in these days of private telegraphs and railways, be nearer the town counting-house than they were half a century ago; and you must facilitate the means of bodily transit between the town and the city. If you desire to make a trial of the dearer city soil, then you will find my requirements more stringent, and my conditions more difficult to combine with profit.

However the task of providing healthy houses is to be accomplished, I believe our knowledge of the necessary conditions is sufficiently advanced, and our convictions of their practicability sufficiently clear, to warrant the legislature in taking the same position as in the case of trade-nuisances, and say, These are our conditions, and you must comply with them. It was never intended that cities must either cease to grow or become huge sarcophagi, because architects and engineers could not satisfy the hygienist on the one hand, and the capitalist on the other.

In addition to the area of which they become proprietors in the course of their operations, the Improvement Trust also purchased two small estates on the outskirts of the city, which they disposed of in the

ordinary way for the erection of working-class houses. In drawing the building plans, they availed themselves of their position, as superiors, to set aside free spaces, to control the arrangement of the building blocks; and otherwise to illustrate the power which the original holder of the land possesses of giving a healthy constitution, so to speak, to the new quarters of towns.

It is somewhat remarkable that, in the endeavour to work out this problem of house-accommodation and high-priced land, you, in the south, are turning with favour to the flatted system of tenements, on which we in the north look with misgivings. It requires no great consideration or exercise of ingenuity to discover that the simplest way to solve the problem of dear land is to build upwards into the air. Still you will readily understand that the public of Glasgow, paying a yearly tax to disperse densities averaging 800 the acre, convinced that they were building houses too tall, and packing them too closely in districts which did not carry about a fourth of that number, and only just recovering from the alarm of a death-rate of 66 under the smothering blanket of the previous winter's fog, were startled in the spring of 1875, when news was brought to them from London, that people were being exhibited there, living in tall tenements like steeples, seven flats high, and 1600 to the acre. You may fancy with what eagerness and anxiety the officials and members of the corporation seized the first chance of being in the metropolis to go and see this wondrous sight. I must add that when the Chairman of our Health Committee, our Master of Works, Dr. Gairdner, late Medical Officer of Health, and myself, looked upon those erections in Farringdon Road, we recognised too much of the features of the High Street and Salt-market, to take readily to the belief that we saw before us a solution of the question of house-accommodation for urban communities. Still a rash inference or a misleading statement, uttered with authority, often gives much trouble to persons who are striving for a principle; and from the amount of attention which the above statement has attracted in Glasgow, it seems worth while to look narrowly into it. I wish also to add, that while reference is made to one set of model dwellings alone, I have various others in London, such as the Peabody, Corporation, Waterlow, etc., in my mind also, to all of which the same criticisms apply, as in the case of the buildings specially quoted.

In February 1875, Mr. Charles Gatliff, Secretary to the Metropolitan Association for Improving the Dwellings of the Industrious Classes, read a paper before the Statistical Society of London "On Improved Dwellings and their Beneficial Effect on Health and Morals, with Suggestions for their Extension". It is an extremely able, exhaustive, fair, and, on the whole, accurate statement of the facts as regards the dwellings of the Metropolitan Association, to which the flatted tenements in Farringdon Road belong. I am anxious that nothing in the way of adverse criticism which I may make shall be taken as depreciatory of Mr. Gatliff's services in compiling such a paper. The Association was incorporated by Royal Charter in 1845, the dividend being thereby limited to 5 per cent. as the maximum. It has provided accommodation for 4,150 persons in flatted tenements in London, and for 1,150 in cottages in the suburbs, to which gardens are attached. The tenements are built in blocks from five to seven flats in height, standing vertical to the street. The cottages range in size from two to six rooms, and in rent from 5s. to 7s. 6d. per week. The dwellings in flats range in size from two to four rooms, and in rent from 4s. to 9s. 6d. per week. The average density of the inhabitants of those dwellings is 1,140 to the acre. At one part of the paper, the mortality is said during the last eight years not to have exceeded 14 per 1,000; and I have seen this quoted repeatedly, although it is an error, as we find from Table IV that it has ranged from 15 to 18 per 1,000. The birth-rate was 36 per 1,000. The death-rate of all London in the same time averaged 24, and the birth-rate was 34½. The financial results are, that for 1875 the maximum dividend of 5 per cent. was paid, and for the five previous years 4½. Mr. Gatliff puts forward, as the leading advantages of the metropolitan dwellings, decreased mortality and disease; less area occupied and greater number of persons provided for, notwithstanding large spaces for recreation and ventilation; the facilities for the detection and suppression of crime.

There are various minor criticisms which occur to me upon this paper, which I may rapidly mention before proceeding to the main question of principle involved. The average death-rate of those model dwellings in eight years is 16 per 1,000, calculated from Mr. Gatliff's data; but you will observe these are derived from all the buildings, urban and suburban, making twelve widely scattered groups of persons. It is eminently unsatisfactory to test such a system of building as the flatted tenement, by throwing along with its statistics those of self-sustained cottages with gardens, which every one admits must be a sanitary Arcadia. After all, we have no assurance that all

the deaths fairly referable to those tenements are included. In the discussion at the Statistical Society, a member "begged to submit that the death-rate was entirely fallacious, inasmuch as a considerable number of the inmates of these model lodging-houses died in the hospital". I put this by letter to Mr. Gatliiff, and find that this has not been inquired into; but he argues that his tenants are less likely to go to hospitals than those of inferior property in London, and that therefore his death-rate, if not absolutely correct, is sufficiently so for comparative purposes. It is a pity that, in a paper on which so much labour has been spent, a flaw so serious should exist. Isolated blocks of buildings, standing in districts widely separated, cannot be compared with districts, unless this matter of hospital deaths has been settled. The district generally contains a hospital and a workhouse; and the block of building, whether it retains all its cases of fatal sickness or parts with a few to an institution, has an obvious unfair advantage. This is altogether apart from fundamental objections to such a test of mortality or comparison in any respect subsequently to be taken. Another circumstance to be discounted from the value of Mr. Gatliiff's death-rates is contained in his own description of the process of selection of the population from which they are derived. In his own words, "the inmates of these model houses always undergo a twofold process of selection; that is to say, the inmates first select the model lodging-houses as harmonising with their own decent tastes, and are then chosen from a larger list of applicants, according to the discretion of the managers of these institutions". In short, the inmates as well as the houses are models; and from this assorted population we are asked to make inferences applicable to the mass of a city population, or rather to the residuum who are cast aside in this process of selection, and in whose ranks we shall find the very people who are the source of our perplexity, and for whom we are most anxious to provide. They have not the senses requisite for the discovery of the comforts of such dwellings, but the possession of which leads the skilled workman, the clerk, and the warehouseman towards the exotic circumstances of the model dwelling-houses, where, in the words of a valuable Report of the London Charity Organisation Society, "philanthropic agency.....supplies one of the chief necessities of life—viz., lodging—below its market-value". Mr. Gatliiff gives the occupations of his tenants. I find among the tenants of the flatted tenements only 5 per cent. designated as "labourers", and $2\frac{1}{2}$ per cent. as "charwomen"; the remainder are tradesmen and other persons who under any circumstances, at any rate in Glasgow, would have provided themselves, without the aid of an association, with the best article in the way of house-accommodation to be had, at its full market-value. There is yet another circumstance in the way of discount to be mentioned, and that is the supervision and discipline to which this model population is constantly subjected. Again to quote Mr. Gatliiff, "at each of these establishments a superintendent resides, to collect rents, supervise, and make himself generally useful; and there is a labourer to execute repairs, also residing on the premises. These men, in performing their duties, become acquainted with the tenants, their occupations and pursuits, and soon detect any drunkards, brawlers, prostitutes, receivers of stolen goods, or other bad characters, who occasionally resort to improved dwellings to evade suspicion." I only ask you to consider what influence on the death-rate of almost any sort of property would be exercised if the landlords set themselves thus to eliminate "all drunkards, brawlers, prostitutes, receivers of stolen goods, or other bad characters".

But the point to which I wish most particularly to direct your attention is the imperfect and fallacious ideas of density which pervade Mr. Gatliiff's paper and underlie his inferences; for example, in such a passage as this: "When we consider the diminished rates of mortality and disease which accrue to the tenants in them, notwithstanding that the average population is at least four times more to the acre than in the most densely populated parts of the metropolis, we have an irresistible argument in favour of the increase and extension of this class of buildings. In Westminster, which is the most densely populated part of the metropolis, the population is only 235 persons to the acre; whereas in the dwellings provided by the Metropolitan Association, including in the areas the large courtyards and gardens attached, the average is 1,140 to the acre; and yet the rates of mortality and disease are at the low figures just stated." In a foot-note, it is added: "In one instance (that of the Farringdon Road Buildings), the population is 1,625 to the acre."

It will be necessary for us to endeavour to form some clear conception of the doctrine of density in relation to mortality. It is not necessary now-a-days to prove that there is such a relation. From the date of the publication of the first of Dr. Farr's annual "Letters to the Registrar-General", appended to the Report for 1838, the fact has received yearly accession of proof and illustration. In the fifth Report,

on the basis of four years, Dr. Farr showed that the relation was so exact that it could be formulated thus: The mortality of two places is as the sixth root of their densities; and the mortality, calculated from this formula for certain districts during those years, is shown to be identical with the actual mortality. This rule, however, has not been found to apply to the decennial statistics of 1841-50, 1851-60, and 1861-70; but in each period the law prevails, that "there is a constant increase of mortality running parallel with the increase of density". The fact of density may be expressed in various ways: as persons to a certain unit of superficial area, e.g., square miles or acres; or as so many units of superficial area to a person; or both modes of expression may be combined in the proximity, which is as the square root of the density. But this is a mere matter of terminology. What we wish to ascertain is this: What is the essence of this relation between density and death-rate? What is the fact in Nature involved therein? and what is the broadest expression we can give to it? It seems to me to be the numerical expression of the fact that there are limits to the self-purifying process of Nature; that the laws of Nature, to which we trust for the purification of earth and air and water from the contaminations of animal life, are effective under certain conditions, with which aggregation interferes when it exceeds a certain proportion to the area occupied. The oxygenating powers of the ground-air are overmastered; the ground-water becomes impregnated with unreduced organic matter; the rivers are loaded with impurities; the cycle of interchange and evaporation of the animal and vegetable kingdoms is interrupted; the action of the law of diffusion in the atmosphere, and the influence of light and heat in promoting chemical change and mechanical mixture and dispersion, are crippled. These propositions are, theoretically, simple expressions of fact; but in various ways, when we come practically to illustrate their meaning, they become involved with so many modifying variables, that it is only by supposing simple cases, and introducing synthetically these variables, we can as it were build up before our minds the conditions under which we find populations living, and show through them all the operation of one law. This is the secret of the failure of Farr's law, that the mortality of two places is as the sixth root of their densities. We can modify the influence of density by certain sanitary expedients. Let us imagine a community or a series of districts with a density unchanged for a decade; the population stereotyped in their occupations, character, proportion of ages and sexes, etc., but advancing in their understanding of those laws of Nature which govern the action of density. By drainage, they will lower the level of the ground-water, increase the proportion of ground-air, and so increase the power of the earth to cope with impurities. By sewerage, they will convey to a distance their local filth, and so diminish the impurity with which the soil has to deal. They can make themselves entirely free of all local influences of the ground-water by leading into their midst a domestic water-supply from a distant source. Air they cannot directly bring from a distance; but it will be purified to some extent by the same means which promote purity of earth and water, and still more by restoring as far as possible those conditions under which pneumatic laws obtain the freest scope, by removing mechanical obstructions to diffusion, to the access of light and the free play of winds, and by calling in the aid of vegetation. Suppose all this done, and we have a series of districts with their density unchanged, but with their mortality diminished. If all the districts have made equal sanitary progress, the same relation of density and mortality will be apparent; but if they have advanced unequally, then this relation will be entirely overthrown. A case the very opposite of this may be imagined, in which a series of districts may be stagnant as regards every condition of their existence saving their density. They may spread themselves out to the density of rural districts, or rather in that direction; and the more nearly they approach that degree of tenuity of population, the more will their death-rate approach the rural standard. Yet another case may be supposed, in which, while the density and the general sanitary expedients are the same, the character of the population, their occupations, proportion of ages and sexes, etc., are revolutionised, and individual effort in the combat of circumstances is introduced. In that case, we should again have a lower death-rate, apparently inconsistent with this great law of density, but in fact proving this, that the same degree of aggregation is more destructive of one class of people than of another; that the habits of some people sooner than those of others break the laws on the observance of which a certain degree of health may be had—laws which become more exacting with every increase of density.

It will be apparent from these synthetic illustrations that, in studying the influence of density as we find it, we must remember the infinitely variable combination of circumstances in and through which it acts, and prepare to meet inconsistencies, which will disappear only after a

careful analysis of these circumstances. But of this we may rest assured; that, whenever two communities are absolutely comparable in all respects save that of the density or proximity of their vital units, the more dense will be the more unhealthy, above that, as yet, undetermined limit at which the element of density becomes measurable as a factor; and if two communities be of like density, but differ in health, then we shall find in the one, circumstances which intensify the morbid influences of density, or in the other, circumstances which compensate and neutralise them. Here, then, we are introduced to the practical aspect of the doctrine of density. Concentration of vital units is one of the features of civilisation, and an essential condition of its highest development. The point to be determined in this concentration is that where the maximum of common advantage is reached, and where deterioration and morbid influences begin to exceed; and that nation will reach the highest level, and, what is still more important, longest maintain its place there, which succeeds in discovering and preserving the maximum of concentration consistent with the minimum of deterioration.

We can now return to the Metropolitan Association. In the passage which I quoted, Mr. Gatliff contrasts the density and mortality of Westminster with what he calls the density and mortality of his dwellings. In the former, we have 233 persons per acre and a mortality of 27 per 1,000 (the average of last decade for Westminster registration district); in the latter, we have 1,140 per acre and a mortality of 16 per 1,000—may, we have even 1,600 per acre in one building, and yet see what material advantages remain. The question of whether 16 is or is not the mortality, is of little moment. We have, at present to ask, is this a logical comparison? and I have to answer that it is not. An essential condition of the notion of density, and an element which enters into its very definition as a law, is not the rate, but the area over which the rate prevails; and that area must be a continuous area, not formed of patches only brought together upon paper for statistical purposes. But Mr. Gatliff takes districts of land dotted all over the metropolis, with the flatted tenements thereon, and his cottages in the country with their gardens; adds together their area and this population, finds that the proportion is 1,140 to the acre; calls this their density, and then contrasts this with the density of between two and three hundred continuous acres in Westminster, and, by implication, with all that we know of the relation of density and death-rate, as illustrated in three decades of the Registrar-General's Returns, derived from square miles of country, urban and rural. Could anything be more fallacious? The fact is, the density of those buildings and cottages is simply that of the district in which they stand; if taken individually; and, if collectively, that of the metropolis as a whole, viz., 45 per acre. If you have 800 people living on half an acre of ground in the middle of Hyde Park, that does not mean that they are living at a density of 1,600 per acre; they are living upon the bounty of the surrounding acres. If such a block of buildings were transported into the midst of a semi-asphyxiated city, such as Glasgow, where every patch of soil has already been utilised, and the general stock of air is poor, the death-rate would soon adjust itself to the actual density. In short, we may be sure that, while the seven-flatted tenement, carrying 1,600 per acre of the area of its own site, may be a satisfactory solution of the difficulty of ground-rent and cheap house accommodation, between the architect and the individual capitalist who holds the ground or builds the tenements, it would be ruinous for the health of the community if applied to a large area, and intolerable, unless the Government or the local authority provided lungs in the shape of free space, on the bounty of which the tenants would live.

A few minutes ago I referred to Glasgow as a "semi-asphyxiated city," and I used the term with deliberation, as I believe that it is on the quality of the air that density of population most certainly tells. The influences on earth and water may be combatted and diminished with comparative ease; but it is to a great degree inevitable that, except in so far as purity of air and water lessens the impurity of the air, density must carry with it aerial contamination. In cities we have a conjunction of circumstances, all which co-operate to throw an excess of impurity into the air, and also of circumstances which obstruct and impair the natural arrangements for the reduction of those impurities. Just let me give a few details of my own city relative to this matter. What is called Glasgow, and for municipal and statistical purposes is embraced under the name, occupies an area of 6,033 acres, of which, we may say, 1,000 are unbuilt upon, but available for building; while 282 are devoted to public parks, and 137 are graveyards, of which 120 are still in daily use. On the remaining 4,614 acres, there were congregated, in 1875, 534,560 human beings, of whom three-fourths lived in dwellings of one and two apartments; 8,200 horses in 2,300 stalls; 1,770 cows in 330 cow-houses; 1,370 pigs in 140 piggeries. Each of these collections of animals has its attached heap of manure or refuse;

the human animals having 7,000 ashpits, or ashpits and privies with pans, the superficial area of which, at a moderate computation, will be $4\frac{1}{2}$ acres, and probably a third of this area is covered with a mixture of night-soil and ashes or night-soil alone. The emanations of this area are more injurious than if it were really continuous, as these ashpits and privies are all situated in confined courts, or inside those hollow blocks in which the Glasgow tenements are always built. Add to this the products of combustion of coal, poured out from hundreds of factory chimneys and thousands of domestic vents; and of some sixteen hundred million cubic feet of gas which is consumed, besides three million cubic feet which leaks into the soil. Then look at the hindrances thrown in the way of nature by our block-buildings, which are so many boxes of stagnant air; by our back-buildings standing inside those boxes; by our narrow streets and tall tenements; and at the subversion of the cycle of nature by the abolition of vegetation, partly through our avarice of the soil, which will not leave a yard to its natural uses, if possible; partly through the density of our atmosphere, which kills all trees, and in some places even grass, so that the influence of Glasgow is like that of a flight of locusts, it leaves not a green thing behind. Can it be a matter of surprise that bronchitis, consumption, and other diseases of the lungs constitute, year by year, from 31 to 38 per cent. of our entire mortality? The same fatal prevalence of pulmonary disease attends all urban communities, more or less; and when the sources of mortality are compared with the density of large areas over decades, it is found that they show characteristics consistent with, and proportioned to, density. Sometimes, this tendency to asphyxia in our large cities is brought out in an appalling manner by passing physical changes, which temporarily intensify all those obstacles to the purifying efforts of nature which we have enumerated. Such are the effects of combined cold and fog, of the influence of which an illustration was furnished in London in December 1873, when the death-rate was pushed up to 38, and the cattle in the Christmas Show at the Agricultural Hall died in great numbers, manifestly choked. But more shocking was our own case, in December 1874, when, during a ten days' continuous fog, ending on the 31st of that month, the death-rate of Glasgow reached the unprecedented point of 69 per 1,000 in the week ending January 2nd—this rate being calculated from the date of death, and not merely from that of registration, which at such a season may be unduly defined. And what were the causes of those deaths? Of the total 700, no fewer than 372 were pulmonary; only 107 were zymotic, and the remaining 221 were from other general causes. Hence, simply by drawing the curtain of the fog over a city during a time of intense frost, it is possible, under those circumstances of constantly impaired aëration of its organic effluvia, to well-nigh stifle it, and cause a mortality to which zymotic disease contributes comparatively nothing; and which, indeed, it seldom occasions under such degrees of prevalence of pestilence as are known in modern times in the temperate zone.

We are thus led up to the consideration of an exact measurement of density as a factor in relation to health. The simple numerical statement is subject to so many modifications by association with varying conditions in the other circumstances of the vital units, that it is very desirable to obtain some compendious exact expression of the meaning of density in each case. This would probably be afforded by analysis of the air. So far as density of population is a factor of disease, it must have a corresponding density of air, and thus the chemist could detect where, under given circumstances, we pass from a degree of density consistent with health in those circumstances to one productive of disease. This idea was floating in the mind of Dr. Farr in 1843; but he says, at that date, "chemists have hitherto failed to detect any excess of carbonic acid in cities," a statement which, though not historically correct, inasmuch as the younger De Saussure had, in 1827, clearly established a difference between the air of Geneva and of the fields outside that town, is indicative of the position of chemical analysis as practically applicable to the solution of the hygienic relations of the air. I need not remind you that, through the laborious investigations of Dr. Angus Smith, the most important of which were expended upon the air of the neighbouring city of Manchester, the outlines of the chemical climatology of cities have been clearly shown, and the chief difficulties of method have been overcome. When we recollect the special provision made by the laws of diffusion of gases for the dispersion of carbonic acid, we can estimate the importance of the establishment of the presence in excess of that gas in the atmosphere of cities. It prepares us to expect the presence also of foreign ingredients in the shape of solid particles of animal and other matter, which, unaided by pneumatic laws, depend for their dispersion upon mechanical transport by the fluid medium in which they are suspended. It is to this atmospheric dust, and the products of that portion which is organic, that modern pathology leads us to attach most importance, and also

that modern chemical processes have made most advance in their power of estimating. The mechanical obstacles to the effective operation of the laws of diffusion which accompany density of population, tend to the accumulation in the lowest atmospheric strata in which we live of a microscopic sediment which is both mechanically injurious to life, and productive of chemical deterioration in the quality of the vital air.

I have long thought that the most important aid which chemical science could furnish to public health would consist in the systematic publication of analytic reports on the quality of the air we breathe, similar to those which are habitually furnished of the water we drink. It is not so very long ago since we became familiarised with the fact that water differs in its intimate composition to a degree beyond the powers of our finest senses to detect; and the greatest possible advance in our exact knowledge of the conditions of health would follow a like familiarity with the fact, that chemical analysis can weigh and measure degrees of difference in air which are totally inappreciable by unaided sense. Angus Smith says—"it was a great day for the world when air was found to be something material, and to be capable of weighing down the scales of a balance"; but what he says in the previous sentence—"when we are children air is nothing"—is nevertheless true of the ordinary thoughts and conceptions of air current in the minds of the general public, whose intelligence is really the measure of sanitary progress. It is not what Angus Smith teaches, but what our mayors and aldermen, provosts and magistrates, believe and have some rough practical apprehension of, that will sustain and give effect to a medical officer's denunciation of overflowing middens, building in hollow squares, narrow streets, unconsumed smoke, and those other details which contribute to the great sum of aerial deterioration.

A short while ago, at my suggestion, the Health Committee of Glasgow resolved to give some assistance in the analysis of the air, in the healthy and unhealthy parts of the town, to Mr. Dixon, a gentleman who placed his personal services at our disposal without fee or reward. He has expended much time, ingenuity, and skill in devising an apparatus for the collection of the impurities of a large quantity of air in a short space of time. Even if it were prudent, at this stage, to enter upon any description of his arrangements or account of his analytic processes, I should only spoil an interesting subject through lack of chemical knowledge. Mr. Dixon will probably be in a position to make some provisional communication on the subject at the meeting of the British Association in Glasgow in September next. The quality of their air is well worth the attention of all large towns. The chemist seems now quite able to cope with all the most important foreign ingredients, as well as with the minute variations in the proportion of its normal constituents. What he requires is such aid as public funds alone can provide. We may shortly expect some interesting and valuable results from the city of Paris, which, in April last, resolved to devote an annual sum of 12,000 *francs* for meteorological observations in various districts of the city. They are to be carried out under M. Marié-Davy, director of the observatory of Montsouris, on the outskirts of Paris, and, besides the ordinary facts of meteorology, are to include atmospheric electricity and the comparative composition of the air. Before receiving this commission from the municipality of Paris, M. Marié-Davy had been gradually introducing air-analysis into the routine work of the observatory, both directly, by automatic continuous air-washings, and indirectly, by the analysis of the rain-water. The special design of those investigations was to contribute to the scientific knowledge of agriculture; but now, in their extension to numerous stations in Paris, they cannot but yield results of importance to a scientific knowledge of hygiene. Since 1865, indeed, ozone estimations have been continuously made at twenty different stations in that city, of the results of which M. Marié-Davy gives a diagrammatic summary in the monthly report of his observatory for May last. From this it appears that, while ozone abounds towards the periphery and in the open parts of Paris, it is present only as a trace in the denser central quarters. The fact of the recognisable presence of ozone, even in the populous parts, is something to boast of. The contents of the Montsouris monthly reports are very interesting. Much attention is being given to the photographic delineation of the microscopic particles of the atmosphere, as well as to the products of culture experiments with the living organic portion; and it looks like progress in the right direction to find a systematic table of "Matters contained in the air and rain" of each month, showing opposite each day, for the period of the day and the night, the proportion in 100 cubic *mètres* of air of ozone, carbonic acid, ammonia, nitric acid, and organic matter, and per *litre* of rain-water, of ammonia, nitric acid, saline residue, and organic matter. Similar systematic comparative information, collected at different points in the same city, will soon supply a solid structure of fact regarding its comparative hygienic conditions. The next step in the use of air-analysis will be as evidence in the enforcement of sanitary

work, in matters of ventilation, defective structure, and nuisance-removal, which at present are decided on the evidence of the senses or of experts, authorities which may differ. We have only to imagine that, to prove the impurity of the water of a well sunk in the neighbourhood of a cess-pit, we were deprived of the assistance of chemistry, to understand how great is the want of this assistance in the parallel case of air in alleged pollution from whatever cause.

Now, gentlemen, I have taken you over a considerable range of subjects, beginning with the endeavours of the authorities of Glasgow to improve the condition of their poorer citizens, passing through a discussion of the doctrine of density in relation to health, and ending with a reference to the important information to be anticipated from systematic air-analysis in crowded districts, as a key to the real truth in nature expressed by this doctrine of density. Laws of wide action may be lost sight of by the very scope of their influence; and if I have succeeded in convincing you that, however we may modify the effects of density upon health, they still exist, and are measurable in comparable circumstances, then the design of my remarks has been attained.

REPORT OF THE COMMITTEE ON REGISTRATION OF DISEASES.

At a meeting of the Association held at Norwich, on August 13th, 1874, your Committee reported that the arrangements made by the Government, with regard to the registration of cases of disease occurring in Poor-law practice, were imperfect and unsatisfactory; and they ventured to make certain suggestions with regard to the difficult subject of the fees that should be paid to the contributors of disease-returns.

Since that time no further action appears to have been taken in this matter, either by the Government or the Local Government Board. But, on the other hand, the reports of medical officers of health from all parts of the kingdom call urgently for the institution of an efficient registration of disease, as an all-important aid to them in their efforts to diminish the excessive mortality that now prevails.

These reports point especially to the need of registering all cases of an infectious character. The proposal for the compulsory notification of all such cases, was made in the first instance by the Manchester and Salford Sanitary Association, in 1872, and was afterwards endorsed by the Joint Committee of the British Medical and Social Science Associations; and the suggestion has, during the last two years, received ample support from many medical officers of health, who see in the measure the only means by which they can hope to prevent the spread of such epidemic diseases as scarlet, typhoid, and typhus fevers, small-pox, cholera, and diphtheria.

It is evident that any measure for the registration of all cases of infectious disease, occurring in both public and private practice, must take the compulsory form in order to be effective. But of late some controversy has arisen as to the person from whom the useful information should be required; whether, in fact, the onus of reporting the case should rest upon the householder or on the medical attendant.

The authoritative declaration of the nature of the disease must necessarily come in the first instance from the medical attendant; and it would probably be unnecessary to make any enactment for the purpose of ensuring that this declaration should be made, since it is a part of the unwritten law that guides the profession in their dealings with their patients. Compulsion on this point might, however, in some cases prove a help to the medical attendant.

On the other hand, to be obliged to furnish information to a public official, with regard to sickness occurring in a family, might reasonably be resented by the medical profession. It would be regarded by many not merely as an unnecessary addition to their work, but as an inquisitorial test of the extent of their practice, and as leading to a breach of professional confidence that might cause much annoyance both to doctor and patient.

Payment for the information given does not in any way affect this view of the question, but it would be practically an important objection to the medical reporting of all cases of disease of an infectious character. It could hardly be intended that no remuneration should be given for the responsibility and trouble involved in drawing out the necessary certificates. Even though the fee were small, and probably inadequate, still it would amount in the aggregate to a very large sum *per annum*. When it is considered that several hundreds of thousands of such cases would be registered in the course of a year if the measure were thoroughly carried out, it will be seen that the cost of the medical reports alone would be so great as practically to be a bar to the whole enterprise.

No such objections apply to the proposal to make the householder

responsible for the declaration of the presence in his house of diseases likely to be injurious to the community. It would indeed be in accordance with the precedent set in the Public Health Act of 1875, which enacts (Clause 84) that the keeper of a common lodging-house shall give notice of the presence of fever or any infectious disease, not only to the medical officer of health of the local authority, but also to the Poor-law relieving officer of the union or parish in which the house is situated.

It is for these reasons that your Committee, whilst they cordially support the movement to obtain a complete registration of these diseases, desire to express their opinion that the proper person to make the return should, in the first instance, be the person in charge of the case, or the householder, and not the medical attendant upon the case.

REPORT OF THE MEDICAL REFORM COMMITTEE.

THE Medical Reform Committee regret that they are again unable to report to the Association any settlement of the long-agitated question of medical reform.

The last special report of the Committee was laid before the annual meeting of the Association at Norwich in August 1874. In that report it was stated that the Bill of the Association was fully prepared, and that it had been drafted in concurrence with the late Right Honourable Mr. E. Headlam, whose name was so intimately connected with the Medical Act of 1858, in strict accordance with the principles for which the Association has so long contended, and which have been discussed and invariably approved at every meeting of the Association, whether general or special, when the subject has been considered. The Bill so drafted is known to members of the legislature as "The Bill of the British Medical Association". It provides for the admission to the General Medical Council of direct representatives of the profession, in the proportion of one-fourth of the number of the members of the Council, and gives to the Council thus modified more important and greater powers than it at present possesses. It enables the various Universities and Corporations to form conjoint examining boards for each division of the kingdom; but in the case of their not succeeding in doing so in either division of the kingdom, the General Medical Council will be empowered in any such event to form a conjoint examining board for such division of the kingdom; the conjoint boards to be formed on the principle of equal fees and equal examinations, so as to remove the scandal of men rejected by one examining body gaining admission to the profession without further study through the less stringent requirements of another.

At the meeting at Norwich, the general body of the Association directed that that report of the Medical Reform Committee should be transmitted to the officials of all the Universities and Corporations, and to the members of the General Medical Council.

Your Committee not unnaturally expected that some notice would be taken of a special report unanimously approved at a general meeting of the Association, and transmitted to the parties to whom it was forwarded, in direct obedience to the voice of the Association.

During the period which has since elapsed, your Committee have anxiously looked for some recognition of the views of the Association, so clearly and unmistakably expressed; but no reference has been made to them, either by direct acknowledgment or in any other manner.

In the year 1870, several of the Corporations petitioned Parliament in favour of the direct representation of the profession in the General Medical Council; but though three vacancies have occurred in the General Medical Council during the past year, through the regretted resignation of Dr. Sharpey, and the deeply lamented deaths of Dr. Parkes and Dr. Begbie, no recognition of the Association, or of the great body of general practitioners, was made in filling up the vacancies. This fact stands in striking contrast to what occurred when the General Medical Council was first formed, for then Sir Chas. Hastings, the President of the Council of the Association, and another officer high in the confidence of the Association, were both appointed, although the members of the Association were not then a third of their present number.

Your Committee have watched with great interest for several years the spontaneous efforts of the General Medical Council towards the formation of conjoint schemes of examination, and it has been their desire not to embarrass the Council in their labours. Your Committee regret that the Council have not succeeded. Your Committee have ascertained that the scheme has been rejected by some of the Irish Corporations, who at one time favoured it. In Scotland and Ireland, therefore, a conjoint scheme will not be voluntarily accepted; and, after years of effort, none has been yet definitely settled for England.

Your Committee, while regretting the disregard of the wishes of the Association in respect of the representation of the profession in the General Medical Council, continue to look favourably on the efforts of the Medical Council to establish a scheme of conjoint examinations; but they feel the statement in their report at Norwich is fully borne out, that "the past history of medical reform tends to show that the Association may eventually be called on to settle the vexed question of medical reform", and thereby to carry to a successful issue the great object of the General Medical Council.

Acting under this impression, your Committee, though not pressing legislation during the past session, were not unmindful of the future, and have held conferences in London and waited on many members of the legislature. They have been so fortunate as to conciliate the support of members on both sides of the house to the Bill of the Association. His Grace the Duke of Westminster, K.G., has kindly promised to introduce a deputation to the Government in support of it; and Mr. Goldney, M.P., and Mr. H. Mills, M.P., both leading and very influential members on the Government side of the house, have promised to take charge of the Bill when the opportunity for presenting it may arise. Your Committee will earnestly weigh the advisableness of introducing it during the next session of Parliament: they know that the management and advocacy of the measure by these gentlemen will insure a fair hearing; and it will then only remain for the Association to exert its influence, collectively and individually, in order that its weight may be felt in 1876 as powerfully as it proved itself to be in 1872.

Under these circumstances, your Committee have to recommend the reappointment of the Medical Reform Committee, with power to add to its numbers. Your Committee have to deplore the loss of two of the most valued members—Professor Hughes Bennett, and Mr. Southam of Manchester—whose thorough knowledge of the subject and untiring zeal rendered their services priceless. Mr. Southam, with the exception of Mr. Husband, the treasurer of the Association and a member of the present Committee, was, it is believed, the only remaining member of the Committee which represented the Association at the passing of the Medical Act of 1858, and distinctly remembered the understanding then arrived at, that, once the Act was passed, the profession should have its own representatives on the General Medical Council.

EDWARD WATERS, M.D., *Chairman and Convener.*

REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

THE Parliamentary Bills Committee have to report that they have, during the past year, been occupied with the consideration of various Bills before Parliament, dealing with questions affecting the duties and interests of the medical profession.

Two of these measures are of considerable importance.

The Poor Law Amendment Bill (Scotland), which was introduced into the House of Commons by the Lord Advocate on the part of the Government, embodied some important principles of reform of the medical department of the system of poor relief of Scotland, which had been repeatedly maintained in their general relation to poor relief by the British Medical Association. Their application to the Poor Law Medical System of Scotland had been especially considered at the last annual meeting of the Association in Scotland, in August 1875. On that occasion, after the reading of an able paper by Dr. Joseph Rogers, in the Public Health Section, resolutions were adopted, which were subsequently confirmed by the general meeting, and which affirmed the desirability of introducing into the Scottish Poor Law system the principles of—Permanent tenure of office by the Poor Law Medical Officers, subject to good behaviour; payment of half their salaries out of the Consolidated Fund; and the supply of drugs by the authorities, exclusive of the salaries of the medical officers. A considerable body of evidence, affording further proof of the necessity of such reforms in the Scottish Poor Law system, and of the great advantage to the country and to the sick poor which have resulted from their application in England and in Ireland, was accumulated in the *BRITISH MEDICAL JOURNAL*; and it was, therefore, with great satisfaction that your Committee found their reforms introduced in a Bill presented to the House of Commons on behalf of the Government by the Lord Advocate, who has for many years given great attention to the Poor Law administration subject, and whose authority in respect to it is deservedly great.

This Bill had the warm support of your Committee. They prepared a large number of petitions in its favour, which received numerous

signatures throughout Scotland, and were duly presented to the House by Members of Parliament prepared to support their prayer.

Had the Bill passed through Committee, it was the desire of your Committee to obtain some provision of Dispensaries and Dispensers in populous places, such as have been found to work with so much advantage, and economy of health, morals, and labour, in Ireland, and in many parts of England.

Unfortunately, however, although the Bill passed its second reading, and this part of it met none but favourable comment, other of its provisions raised some debate, and it has been sacrificed to the pressure of business at the end of the Session.

It is much to be regretted that so useful a measure, and one so greatly in the interest of the efficient medical relief of the sick poor, should have been postponed. There is reason for congratulation that its principles have thus far been put into legislative form, and stamped with the approval of the Government and the House of Commons. Your Committee trust that it will be revived early in the next spring, and will not fail to take such steps as they may be advised, as most likely to secure that object.

The "Cruelty to Animals' Bill", introduced by Lord Carnarvon in the House of Lords, has received the most earnest attention of your Committee. Its provisions go far beyond any measure which could be considered justified by the Report of the Royal Commission, or by the Bill which had been introduced by the Right Honourable Lyon Playfair, at the instance and with the concurrence of Professors Sanderson, Huxley, Mr. Darwin, and others.

Your Committee at once summoned a meeting, which was attended in Conference by a large number of physiologists, and to which all the leading witnesses before the Royal Commission were invited. They prepared a memorial, which was signed by upwards of two thousand members of the Association; and they arranged a deputation to Lord Carnarvon, at which the principal objections to the Bill were stated. At a subsequent interview with the Chairman of the Committee, Lord Carnarvon consented to certain modifications of the Bill, which partially or entirely met several of those objections; in other points, such as registration of places, Lord Carnarvon was not convinced of the desirability of amendment.

The Bill as passed in the House of Lords was still seriously obstructive to science, and it had been promoted and supported in a manner which seemed to imply serious imputations on the humane disposition of the profession generally, and of the class of British physiologists to whom the world owes so deep a debt of gratitude for the solace which the results of their labours have afforded to the worst sufferings of humanity, and whose contributions to knowledge of the laws of life, in health and disease, lie at the root of all medical knowledge and practice. Under these circumstances, it was resolved at further meetings and conferences of the Committee, to offer an energetic opposition to the progress of the Bill through the House of Commons, unless very large amendment was made in the machinery of the Bill. A very large and influential deputation attended the summonses issued by the Committee and a deputation to Mr. Cross. Sir William Jenner, Mr. Simon, and Dr. Wilks expressed with great force, on behalf of the deputation, their objections to the proposed legislation, and a memorial was presented to Mr. Cross, expressing the alternative form of legislation, which, if any, the profession could accept as far as possible. The public representations so earnestly made, the arguments used, and the character and position of those who put them forward and who supported them, produced a great effect upon public opinion, previously but little enlightened, and greatly misled by the exceedingly calumnious and hysterical misstatements which have been freely circulated on this subject. The leading agencies of public opinion manifested a just feeling of confidence in the known humanity of our profession, and Ministers have been induced to reconsider the provisions of the Bill by the light of information from members of the deputation and from other persons in our profession.

In the end, they have been able to satisfy themselves that all the amendments urged by the leading medical bodies and persons, and by our Committee, may be adopted with advantage, and without any detriment to the interests of humanity, which all alike desire to safeguard.

On this basis, it has been possible to arrange with Mr. Cross certain amendments to the Bill, which will, it is expected—and it may be hoped—satisfy all just claims of whatever kind, and obtain a permanent settlement of the question on a footing honourable to the profession and satisfactory to the House of Commons.

Mr. Cross will announce those amendments in moving the second reading of the Bill.

Your Committee have spent much time and labour on this question, in the sincere desire to further the best interests of science, of the profession, and of the public. They believe that a happy solution has been

attained; and it will be a great satisfaction to them to feel that they have been greatly instrumental in attaining this end, and that in doing so they have assisted to carry out efficiently one of the most important objects of the Association—that of maintaining and advancing the interests of medical science and co-ordinating them with those of the country at large, from which they can never properly be separated.

ERNEST HART, *Chairman*.

REPORT OF THE SCIENTIFIC GRANTS COMMITTEE.

THE Scientific Grants Committee have to report that they have held three meetings during the year, to consider applications and to receive interim reports from gentlemen who had undertaken to carry out scientific investigations in furtherance of medicine and the allied sciences.

The following are grants which were recommended by the Committee at their meetings in Edinburgh and London, and approved by the Committee of Council.

List of Grants for 1875-76. £ s. d.

Drs. Braidwood and Vacher : Life-History of Contagium...	25	0	0
Dr. Rutherford, F.R.S.E. : On Biliary Secretion	100	0	0
Dr. Crichton Browne : On the Action of Nitrite of Amyl alone, and in combination with other remedies	17	0	0
Dr. McKendrick and Mr. Jas. Dewar : Physiological Action of Chinoline and Pyridine Compounds	20	0	0
Dr. McKendrick : Antagonism of Medicines	30	0	0
Ditto : Dialysis of Blood	10	0	0
Dr. Mahomed : The Pathology of Albuminuria	15	0	0
Dr. Caton : The Natural Electric Currents of the Brain	15	0	0
Dr. Milner Fothergill : The Effect of Certain Agents upon the Circulation	10	0	0
Dr. Spencer : The Action of Uranium Salts in Diabetes	10	0	0
Dr. Munro : An Antidote for Chloroform	3	0	0
Dr. Galabin : Investigation of Pulse-Curves	20	0	0

Of these amounts, the following have been expended : Dr. Braidwood, £20 19s. 8d.; Dr. Rutherford, £90 9s. 5d.; Dr. Crichton Browne, £3; Dr. Richard Caton, £5 5s.; Dr. Fothergill, £10 11s. 4d.; Dr. Spencer, £2 8s. 10d.; Dr. Munro, £1 15s.; Dr. Galabin, £10 4s. 6d.

In consequence of absence from home, no returns have been received from Dr. McKendrick and Dr. Mahomed. The balances returned will be repaid as usual to the treasurer.

Reports.—Of the reports received, those from Professor Rutherford and M. Vignal, and from Drs. Braidwood and Vacher, have appeared in the JOURNAL with numerous illustrations. Interim reports have been received from Dr. Mahomed, Dr. Caton, Dr. Spencer, and Dr. Fothergill, some of which will be printed, and others will be held over till the researches are completed.

Your Committee have received applications and approved grants to the extent of £242. They recommend that a grant be made accordingly of a sum not exceeding £300 for the purposes of scientific grants during the year ending July 1877. The particulars of the grants recommended are as follows, viz.:

Drs. Braidwood and Vacher : Research in Life-History of Contagium, £25; and £20 for plates	£ s. d.
Dr. Crichton Browne : Further Researches in the Actions of Nitrite of Amyl alone, and in combination with other remedies	45 0 0
Dr. Fothergill : The Effect of Certain Agents upon the Circulation	7 0 0
Dr. Galabin : Further Research in Investigation of Pulse-Curves	20 0 0
Dr. Rutherford, F.R.S.E. : Further Researches on Biliary Secretion	25 0 0
Dr. Burdon Sanderson, F.R.S. : For Prosecution of Inquiries in the Pathology of Epizootic Pneumonia	50 0 0
Mr. William Bruce Clarke : Research on Syncope and Shock	50 0 0
Dr. Pye-Smith : Investigation of the Relation that the Retinal Circulation bears to that of the Brain	10 0 0
Dr. William Stirling : Research in the Physiological Action of Certain Substances on the Spinal Cord	15 0 0
Drs. Spencer and Shaw : The Action of Uranium Salts in Diabetes	10 0 0
Total	£242 0 0

REPORT OF THE COMMITTEE ON LEGISLATIVE RESTRICTIONS FOR HABITUAL DRUNKARDS.

THE Committee appointed by the Committee of Council to consider the advisability of legislative restrictions for habitual drunkards, on July 13th, 1875, have given the resolution passed at the last annual general meeting of members at Edinburgh their particular attention. They have held six meetings, several members attending from distant parts of the country, but hitherto have been unable to take any decided action.

The Committee inquired of the Home Secretary as to whether the Government intended to bring in a Bill to deal with the subject. He has informed them "That the Government had no intention of dealing with the question during this Session, and that any Bill on the subject would receive due consideration when its details could be examined".

The Committee have also communicated with the Medical and several other Members of Parliament, and have received encouraging replies from nearly all, but have not yet succeeded in finding a leader as a successor to the late Mr. Dalrymple, willing to press the subject upon the attention of the House of Commons.

The Committee also find that the outer world hold mistaken notions of the objects to be attained, and are suspicious of any action which appears likely to interfere with the liberty of the subject. To meet this difficulty, your Committee have sought and obtained the co-operation of the Social Science Association, and have also prepared a petition for signature by members of the profession, as well as by the general public, which sets forth objects to be sought for as under.

Unto the Honourable the Commons of Great Britain and Ireland in Parliament assembled, the humble petition of the undersigned

Sheweth,—That habitual drunkenness prevails extensively among both sexes, and all classes of society; is one of the most fruitful sources of domestic misery, of disease, pauperism, and crime; and calls loudly for the adoption of some remedial measures.

That the right of the State to deprive of their liberty, and even to subject to fine and imprisonment, not only the "drunk and disorderly", but the "drunk and incapable", has been long recognised by law, and is continually exercised throughout the realm; while more recently the Licensing Act, 1872, gives power to the police to take proceedings against persons found drunk, although neither incapable nor disorderly.

That the merely penal treatment of drunkenness, by committal to prison for short periods, far from influencing for the better the habitual drunkard, is shown by the evidence taken before the Select Committee of the House of Commons, 1872, to be "worse than useless"; confirms him in his evil ways, by utterly destroying his self-respect, and rendering him reckless of consequences; and thus runs counter to the whole tendency of recent legislation, which aims at the reformation as well as the correction of the offender.

That your petitioners fail to perceive any valid reason why this right of State interference with his personal liberty, so long recognised and so constantly put in force, should not be exercised for the reformation of the habitual drunkard.

That strong testimony was given in 1872, before the Select Committee of the House of Commons, that the treatment of habitual drunkards in Reformatory Institutions has been followed both in this country and in the United States of America, by the recovery of a large percentage of those subjected to it.

That the power of compulsory committal and detention for a term not exceeding a year, as recommended by the Select Committee of 1872, was, by the evidence taken before the Committee, shown to be in operation in various parts of the United States of America, and to be unattended by any evil consequences, the silent influence of the law inducing many voluntarily to submit themselves to the salutary discipline of the Reformatory Institutions for the time required to effect a cure.

May it, therefore, please your Honourable House to take this important subject into your careful consideration, and to pass into a law a measure for the control and cure of habitual drunkards.

And your petitioners will ever pray, etc.

Your Committee recommend that the petition be printed in the JOURNAL, and also distributed to the Secretaries of the Branches, requesting them to obtain signatures or place them in the hands of those likely to assist the movement, and then forward them to their representatives in Parliament, for presentation as early as possible in the next Session, by which time your Committee hope that either the Government or some private members may be induced to bring the subject

to the notice of the House of Commons, and give effect to the resolution proposed at the Edinburgh meeting.

Your Committee suggest that they be reappointed for the purpose of continuing their efforts in the same direction.

ALFRED CARTER, M.D., Chairman.

REPORT OF THE JOINT COMMITTEE ON STATE MEDICINE OF THE BRITISH MEDICAL AND SOCIAL SCIENCE ASSOCIATIONS.

THE Joint Committee having resumed consideration in the month of January of the proposal to summon a Sanitary Conference, unanimously resolved that it was desirable that such a Conference should be held; that the subject to be discussed should be the necessity for further sanitary legislation; that there should be invited to take part in it Mayors of Boroughs in England and Wales of 25,000 inhabitants and upwards, Chairmen of Local Boards, Chairmen of Improvement and Rural Districts, Medical Officers of Health, Engineers, Surveyors, and Clerks to Sanitary Authorities, and others interested in sanitary matters.

This proposal having been approved by the Committee of Council of the British Medical Association, which voted £100 towards the expenses of the Conference, and also by the Executive Committee of the Social Science Association, which voted £25 for the same object, it was decided that the Conference should take place in April. Subsequently, however, owing to the decision of the Society of Arts to summon a Conference on the 9th and 10th of May to discuss the question of the disposal of the sewage, and the kind permission given by the Council of that Society to make use of their rooms for the meeting about to be summoned by the Joint Committee, it was thought better to postpone the Sanitary Conference till the 11th and 12th of May.

The consent of Lord Aberdare to occupy the chair, and of Lord Alfred Spencer Churchill, Dr. Lyon Playfair, and Dr. William Farr to act as Vice-Presidents, having been obtained, the Conference was summoned by the following circular.

"In 1867, the British Medical Association resolved to apply to Her Majesty's Government for a Royal Sanitary Commission, and they then invited the co-operation of the National Association for the Promotion of Social Science, feeling that the care of the Public Health was anything rather than a purely medical question; that it touched so many interests; proposed for solution so many problems—scientific, economical, financial, moral, and judicial—of acknowledged difficulty, yet of the highest importance; and promised, in its satisfactory adjustment, so many advantages to all classes of the community, as to entitle it to rank among the foremost of great national questions. This conviction a Joint Committee on State Medicine, composed of members of both Associations, has striven during the eight or nine years of its existence, not only to cherish, but to carry out in practice.

"In the Memorial which was presented by an exceptionally large and influential deputation to Her Majesty's Ministers in May, 1868, the extent and manifold bearings of the subject were fully set forth. A Royal Commission of Inquiry was prayed for, which should embrace in its scope the whole kingdom, including the metropolis; and should direct its attention to the existing defects in the registration of the causes of death; to the feasibility of a national system of registration of sickness; to the highly unsatisfactory mode of conducting medico-legal inquiries; to the best method of sanitary organisation, including boundaries, extent of areas, the education, selection, qualification, duties, powers, tenure, and remuneration of the various officers; and to the revision and consolidation of sanitary law. It further asked for an adequate local inquiry, by personal visitation of large towns and other districts of the country—a measure the necessity of which, for the equitable adjustment of the difficult question of boundaries and local taxation was urged, but without effect, upon the Chancellor of the Exchequer, in a separate memorial during the following year.

"During all subsequent changes in the aspect of the sanitary question, the Joint Committee has seen no reason to abandon its original position, or to modify the opinions it has from time to time expressed in its printed reports and memorials in favour of large areas, as the only efficient and the most economical unit of administration, because alone rendering possible the employment of the highest professional ability, and tending to develop in the highest degree the spirit and resources of self-government. Not, while thankful for the appoint-

ment of the Royal Sanitary Commission; for the large amount of valuable evidence collected by it; for its recommendations regarding the consolidation of the Sanitary Laws, which paved the way for the comprehensive Act of last session; and for the appointment in some large districts, under the provisions of the Public Health Act, 1872, of highly skilled officers of health; can it forget, or permit the country to forget, that the registration of the causes of death is still very defective; that nothing has been done towards the establishment of a registration of sickness; that the mode of taking evidence in medico-legal cases continues unchanged; that the sanitary organisation and administration of the country remains confused and unsatisfactory; and that the great question of local taxation, which underlies all the others, has not yet been dealt with by the legislature.

"It has, therefore, been resolved to summon a Conference of those whose practical acquaintance with the details of local government, and with the working of the sanitary laws, entitles them to be consulted in reference to the revision of the Public Health Act, 1875, in the hope that the deliberations of such a representative assembly may lead to a substantial agreement on the principal amendments to be proposed for the adoption of Her Majesty's Government. The following are the points to which it is proposed specially to direct the attention of the Conference, at which your attendance and assistance are earnestly requested.

"1. Do the existing boundaries of urban and rural districts furnish such a division of the country as enables authorities to exercise their powers and fulfil their obligations for sanitary and other purposes of Local Government, in the most effective manner?

"2. What preliminary inquiries, if any, are necessary to determine the question? and if, ultimately, districts should be reconstructed—

"a. What principles should govern their reconstruction?

"b. How can this reconstruction be best carried into effect?

"3. Should there be more than one authority within the limits of any one of the boundaries so reconstructed, or should area and authority coincide, and should all authorities have the same obligations, be governed by the same sanctions, and be invested with the same powers? Should new authorities be constituted, and is it desirable to have any intermediate representative local board between sanitary authorities and the Local Government Board?

"4. Are the powers already granted to local sanitary authorities in any respect inadequate to fulfil their intention; and should all powers and purposes of local government be vested in, and carried out by, one and the same authority?

"5. What, if any, alteration should be made in the incidence of taxation for sanitary and other purposes, so as to insure that payments should, as nearly as possible, coincide in amount with direct benefits?

"6. What executive officers are essential to good local administration, and how should they be appointed, regulated, and paid?

"7. What alterations, if any, in the central executive organisation, are needed to augment the efficiency of local administration?

"An early reply, stating whether we may expect your presence at the Conference, will greatly oblige us. Yours faithfully,

"W. H. MICHAEL,

"WILLIAM CLODE,

"A. P. STEWART,

Hon. Secs.

"1, Adam Street, Adelphi, W.C., April 24th, 1876."

About one hundred and sixty gentlemen from every part of England and Wales responded to this invitation. As it has been publicly affirmed, by one who was present and took part in it, that the Conference was composed chiefly of medical officers of health, who came to ventilate their grievances, it is important to state that the whole number of medical men present was forty-five, of whom twenty-nine were medical officers of health, and that the great majority of the Conference consisted of representatives of local authorities, urban and rural—including mayors, town clerks, and chairmen of local boards—with some members of Parliament, barristers, civil engineers, and not a few others who are widely known as taking an active and enlightened interest in all that concerns the social well-being of the community. A meeting thus constituted afforded a pretty sure guarantee that the subjects brought under its notice would be treated in a broad and comprehensive manner, with reference to the interest, not of certain classes or professions, but of the whole population. Nor was this expectation disappointed; for, under the able and judicious guidance of Lord Aberdare, who remained at his post during the whole of the two days' discussions, much important information and many valuable suggestions were elicited. The shorthand writer's notes of the proceedings being very voluminous, and the work of editorial revision being one of great

labour, the report has not yet been fully prepared for the press, but will soon be ready for general circulation.

The proceedings were opened by Mr. W. H. Michael, who read a paper drawn up by him at the request of the Committee, and the following resolutions were, after very full discussion, adopted either unanimously or by large majorities, and will form the basis of a memorial to be presented to Her Majesty's Government early in November. The general agreement manifested as to the propriety of abolishing the distinction between urban and rural districts; the expediency of having one law for the whole area, and only one authority clothed with sufficient powers for all purposes of local government in each subdivision of the country; the necessity of large areas; the appointment of county boards; and the importance of weekly returns of sickness; of having, for the large towns and for the larger areas of counties, officers entirely devoted to their public duties, was as remarkable as it was satisfactory and encouraging.

1. Resolved: That the existing division of the country into urban and rural districts does not enable local authorities to fulfil their obligations in the most effective manner.

2. That the same sanitary laws be applied to the whole area of the country without distinction.

3. That in any reconstruction of local areas it is desirable to keep in view the advisability of securing one subdivision of the country for sanitary and other purposes of local government, such subdivision to be, as far as possible, on the lines of the existing municipalities, unions, and counties.

4. That, in the opinion of this Conference, it is desirable that a Commission be appointed to consider and readjust, with the concurrence of the Local Government Board, the boundaries of the existing districts, or any new districts to be hereafter formed.

5. That the appointment of a County Board, consisting partly of elected members and partly of others nominated by the Court of Quarter Sessions, is desirable.

6. That the duty of such county boards, so far as they relate to sanitary matters, should be to exercise a control over the salaries and dismissals of the officers of local boards not being municipal boroughs; to hear appeals from one portion of a district against the decision of their board as to the incidence of expenditure for works of only partial advantage, and to undertake the conduct and supervision of such works as from their nature and expense cannot be undertaken by separate local boards.

7. That the powers and machinery at present possessed by local sanitary authorities are inadequate to the purposes for which they are intended; especially, but not solely, in respect of means for preventing the spread of disease from the want both of early information of its existence, and also of the means of checking its progress; from want of power to prevent the erection of houses on unhealthy and improper sites, and to secure in certain cases due provision of water; and from want of means to acquire with sufficient facility and economy land for public purposes.

8. That the incidence of taxation for sanitary and other purposes of local government should, as nearly as possible, be proportional to the direct benefit accruing to the several parts of the districts.

9. That the officers of sanitary authorities should, so far as is practicable, be restricted from other than the official duties for which they are specially engaged, and that in order to promote this object it is essential that the area of supervision should be made as large as can be efficiently worked.

10. That a health officer or assistant should, where it is practicable, be appointed (a) to every Local Government District, or combination of districts, such districts to be constituted, as to area and population, as already suggested; and (b) to every county.

11. That the several officers should be in communication with each other, and with the health officer especially attached to the County Board.

12. That the salaries be such as to insure the services of first-class members of the medical profession, devoting themselves entirely to the health-service of the country.

13. That it is desirable in future to appoint, at least to the higher offices, men who have passed an examination in State Medicine.

14. That the above regulations are equally desirable in the cases of surveyors and inspectors of nuisances, so far as they are applicable.

15. That, in the opinion of this meeting, the powers of the Public Health and other sanitary Acts which are of a permissive character should, as far as practicable, be made compulsory.

WILLIAM CLODE,

W. H. MICHAEL,

A. P. STEWART,

Hon. Secs.

July 31st, 1876.

FORTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in SHEFFIELD, August 1st, 2nd, 3rd, and 4th, 1876.

PRIOR to the first meeting of the Association on Tuesday evening, at Sheffield, a full choral service was held, by request, at the parish church, and a sermon was preached by the Rev. Dr. Gatty, vicar of Ecclesfield, from the text, "They that be whole, need not a physician, but they that are sick." Matthew, chap. ix, v. 12. The service was attended by many members of the Association, and the sermon was highly appreciated by them, many expressing a desire that it should be published in a separate form.

SECOND GENERAL MEETING: WEDNESDAY, AUGUST 2ND.

The Second General meeting was held in the Cutlers' Hall at 11.30 A.M., under the presidency of Dr. DE BARTOLOMÉ.

The Address in Medicine was delivered by Dr. Sieveking. It was published at page 172 of last week's JOURNAL.

Dr. LOMBE ATTHILL (Dublin) said that, in thanking Dr. Sieveking for his address, he begged to do so in the best terms he could command. He was a warm supporter and admirer of the annual gatherings of the Association, because they were the means of bringing members of the medical profession, who lived widely apart, into personal contact with other eminent gentlemen, whom they had previously known only by reputation; and at the same time they had the privilege of hearing from their lips words of scientific import and valuable information. Nothing was so well calculated to dissipate the mists of prejudice, and to dissolve the crotchets which personal isolation often produced, as these annual gatherings. [Cheers.] He considered that the best thanks of the members were due to those gentlemen who, in the midst of their many public and private engagements, found time to prepare the addresses which they delivered to the members of the Association. [Hear and cheers.] It would be as irksome as it would be out of place for him to attempt to laud the address to which they had just listened. The reputation of Dr. Sieveking was well established, and needed no words of his in reference to it. He would, therefore, briefly move the resolution which had been entrusted to him, and which, he felt certain, would be unanimously adopted by all present, viz., "That the best thanks of this meeting be given to Dr. Sieveking for his able and interesting address in medicine." [Cheers.]

Dr. MARION SIMS (New York) said that it was always a source of happiness to say and do pleasant things, especially when the sentiments to be uttered were based upon truth and sincerity. [Hear, hear.] He was, therefore, exceedingly happy in being called upon to second the resolution; and he did so with the greatest pleasure, not only on account of the warm personal friendship which he entertained for Dr. Sieveking, but also from the fact that he considered it a personal honour and compliment to himself, which he should carry home with him, and pleasantly reflect upon hereafter. Eleven years ago, when he came to London to seek an asylum under rather melancholy circumstances, growing out of the terrible civil war which devastated his then unhappy country, he was welcomed by the medical profession of London in a very cordial manner, and by none more cordially than by Dr. Sieveking. [Cheers.] Since that time, he had the happiness to reckon him as a friend, among many others of those now present who lived in the metropolis, and whose acquaintance he had the honour of making at that time. The kindly words of sympathy, and the many kindly acts which he had experienced at the hands of Dr. Sieveking and others, he had never forgotten. They had sunk deeply into his heart. He did not think that he should ever forget them, and he had made up his mind that they should not forget him. [Cheers.] It was worth crossing the Atlantic Ocean once in a year or two to meet them, to hear their pleasant voices, to look at their welcome faces, to shake them warmly by the hand, and to give them the cordial salutation which sprang spontaneously from an honest and sympathetic heart. [Cheers.] It had been his good fortune to hear many of the addresses which had been delivered at the annual congresses since 1865; he had read all that had been delivered, and he could truthfully assert that the address to which they had just been listening would certainly take rank with those of the best which had been delivered by any of the great men who had preceded Dr. Sieveking. [Hear and cheers.] The address must, in the very nature of things, confer very great honour

upon the Association, and upon medical literature, and it could not fail to carry the name of Dr. Sieveking still further among the ranks of the foremost medical men of the day. It, therefore, afforded him great pleasure to second the resolution. [Cheers.]

The PRESIDENT said that he need hardly put the resolution, because it admitted of no alternative. They must all cordially approve of it, and approve of it with their best thanks. The speeches of the mover and seconder of the resolution foreshadowed the reception which would be accorded to it. [Hear, hear.]

The motion was carried *nem. dis.* amid loud applause.

The PRESIDENT, addressing Dr. Sieveking, said: It affords me great pleasure in announcing the unanimous thanks of the members to you for your very able address. I have personally been much gratified by its delivery, and, were you a hundred miles away from here, I might perhaps say a little more on the subject. [Cheers.]

Dr. SIEVEKING said that he would not detain them any further, except to convey the expression of his heartfelt thanks for the vote awarded him. [Cheers.]

Committee of Council.—Dr. FALCONER announced that the following gentlemen had been elected to act upon the Committee of Council for the ensuing year: T. Clifford Allbutt, M.D.; J. Wright Baker, Esq.; G. W. Callender, Esq., F.R.S.; A. Carpenter, M.D.; J. W. Eastwood, M.D.; B. Foster, M.D.; E. L. Fox, M.D.; R. Harrison, Esq.; G. F. Hodgson, Esq.; C. Holman, M.D.; Arthur Jackson, Esq.; F. E. Manby, Esq.; R. H. B. Nicholson, Esq.; E. Morris, M.D.; E. H. Sieveking, M.D.; T. H. Smith, Esq.; T. Underhill, M.D.; W. F. Wade, M.B.; C. G. Wheelhouse, Esq.; E. Wilkinson, M.D.

The Sections met in the afternoon.

THIRD GENERAL MEETING: THURSDAY, AUGUST 3RD.

The Third General Meeting was held at the Cutlers' Hall, at 10 A.M.; Dr. DE BARTOLOMÉ, President, in the chair.

Report of Committee on Registration of Disease.—Dr. A. RANSOME (Manchester) read the report, which is published at page 211.

Dr. SIMON (London) said that he admired the sagacity with which the committee had considered this very serious and important question. They had not attempted to force the matter with a high hand either upon the public or upon the profession, but, on the contrary, had taken wise counsel, and, in the result, had suggested a sound and practical method of carrying out the object which they had in view. [Hear and cheers.] He moved that the report of the committee be received and adopted.

Mr. HUMPHREYS (Shrewsbury) seconded the motion, which was adopted.

Report of the Medical Reform Committee.—Dr. E. WATERS (Chester) read the report of the Medical Reform Committee. It is published at page 212.

Dr. MORRIS (Spalding) said that the report was one of the most important of those which would be brought before the meeting. The report had been long under consultation, was full, complete and had been carefully drawn up. Under these circumstances, he considered that it would be advisable to approve the report, and reappoint the committee, because without the careful watching of the "reform" question they would not be able to get along satisfactorily. He had great pleasure in moving "That the report of the Medical Reform Committee be received and adopted, and that the committee be reappointed".

Dr. DAVIES (Swansea) seconded the motion, which recommended itself for the approval of the meeting. The report was adopted.

Report of the Parliamentary Bills Committee.—Mr. ERNEST HART read the report of the Parliamentary Bills Committee. It is published at page 212.

At the conclusion of the reading of the paper, Mr. ERNEST HART said that he had much gratification in being able to state that the committee had, within the last week, been enabled to arrive at a satisfactory solution of the difficulties which had presented themselves in the clauses of the Vivisection Bill, as introduced into the House of Commons. The committee, in bringing about that result, had taken a much more active part in privately organising opposition to the measure, and in making representations, as to amendments needed, to the Government, than they had done in taking public steps to effect that object. [Cheers.] The committee did not think it advisable to state the precise terms of amendment to which Mr. Cross had assented, but he might inform the members that they included all the points which had been urged by the General Council, and all the points which had been put before Ministers by deputations. [Cheers.] The settlement was deemed satisfactory by all the leading physiologists of the country, and by the leading scientific medical societies, and, therefore, he hoped it was one

that would prove entirely satisfactory to the profession. [*Hear and cheers.*] In conclusion, he formally moved the adoption of the report. [*Hear, hear.*]

Mr. NICHOLSON (Hull) said that, after the very clear and lucid statement to which they had listened, he had much pleasure in seconding the motion.

The adoption of the Report of the Committee was sanctioned with cheers.

Dr. DAVIES (Swansea) moved: "That the Parliamentary Committee be reappointed, and that the best thanks of the members of the Association be given to Mr. Ernest Hart and the Committee for their labours during the past year."

Dr. FARQUHARSON (London) seconded the motion, which was carried amid applause.

The Medical Profession and Press of America.—Dr. BUCKNILL (Rugby) next addressed the meeting. He said that this was an age of international reciprocity in regard to many matters, and he thought that it should be no less an age for reciprocity among the members of the scientific and medical professions under any circumstances in which such an expression of sympathy might be deemed advisable. [*Hear, hear.*] He wished on the present occasion to ask the kindly feeling of his medical brethren in this country on behalf of one of their own tongue and race who was now practising on the other side of the Atlantic. We were prepared to criticise American medical men honestly and fairly, and to invite a similar meed of criticism in return. But there was one point to which he wished to call their particular attention—they must be extremely cautious of the accuracy of what they read of their American professional brethren in the American press. The licence of the American political press was not generally known in this country in its attacks on private and professional characters. In America, when a man was said to be "too bad to live" and "too wicked to die", it generally meant that he voted with the opposite political party to that represented by the newspaper which said so. [*Laughter.*] And if a medical man who had the charge of a public institution in any way got into trouble which became the subject of inquiry, either before a civil or a criminal court, the newspapers of America were not prevented by any of the usages of the country from making the most severe comments upon the defendant during the trial, and not only upon him, but upon the judge, the jury, and the witnesses. They wrote such things habitually as would subject the editors of newspapers in this country to be cited to appear before the court, and probably punished either by fine or imprisonment. A man might be abused in the American press—and such attacks were constantly made—who might be a most honourable man, and highly esteemed by all who knew him. Therefore, if the comments made by the American press were copied into the journals of this country, they were apt to mislead their readers very much, and ought to be received with due caution. In this country, if a medical man connected with or having charge of a public institution was charged with malpractice and extreme misconduct in carrying out his official duties, it was tolerably fair to presume that there was some basis for the charges made, because, if such were not the case, the proprietor of the newspaper could be quickly proceeded against under the law of libel. Recently, an injustice such as he had alluded to had occurred in America, the subject of the attack being Dr. Nicholls, the Superintendent of the Government Asylum for the Insane at Washington, and an old friend of his (the speaker's). Dr. Nicholls had been the subject of a political persecution in the shape of a secret committee of inquiry of the Congress. Some of the incidents of that inquiry leaked out during its progress, and were published in the *New York World*, and from thence quoted in the columns of some of the journals published in this country. Now, even if those charges had been to some extent proved, yet the mode of proceeding adopted would have been altogether unjust to their American brother; but, when he told them upon the authority of Dr. Marion Sims, with whom he had had an opportunity of conversing upon this matter, that the investigation had resulted in the full acquittal of Dr. Nicholls, the committee finding that the charges made against him were entirely unfounded, he thought they would agree with him, that this was a case in point, which demonstrated the necessity of English journals being extremely cautious before quoting and circulating charges made against professional gentlemen practising in America. [*Hear, hear.*] He felt certain that their American brother would in this matter, so far as he had been in any way unjustly accused, have the entire sympathy of the members of the Association with him. [*Hear, and applause.*]

Report of the Scientific Grants Committee.—Dr. SIMON (London) read the report of the Scientific Grants Committee. (See page 213.)

At the conclusion of reading the report, Dr. SIMON said that the most effectual aid which they had in that Committee was their Treasurer—[*hear, and cheers*—] who, with a wise generosity which was

economical in its results, favoured every grant asked for, which was likely to lead to good results. Last year, the Committee asked for £300, but of that sum between £40 and £50 had been returned. He thought it would be found that for that annual sum the Association was working out a very great and enduring resolution. He moved the adoption of the Report, and that a sum of money not exceeding £300 be appropriated to scientific grants during the current year. [*Hear, hear.*]

Mr. FAVELL (Sheffield) had much pleasure in seconding the resolution.

The resolution was adopted unanimously.

Legislative Restrictions for Habitual Drunkards.—Dr. CARPENTER (Croydon) read the Report of the Committee on Legislative Restrictions for Habitual Drunkards. (It is published at page 214.)

Dr. CARPENTER, in moving the adoption of the Report, referred to the importance of the objects they had in view for the reformation of this class of drunkards, and the necessity that existed for properly educating the public mind upon them. It was only by continually endeavouring to educate the public that they would be able to attain the object which they had in view. He urged that the petitions should be extensively circulated amongst those who take an interest in the matter, and, when filled up, placed in the hands of members of Parliament early next session. By thus bringing influence to bear upon the Government and private members of the House, they might, perhaps during the next session of Parliament, obtain a satisfactory solution of the question.

Dr. CHADWICK (Tunbridge Wells) seconded the motion, remarking that he had no doubt all present were agreed upon the matter.

Dr. BUCKNILL (Rugby) entirely disagreed from the proposed petition. In the first place, it stated that which was not correct; but in the last paragraph it said that the power of compulsory committal and detention of drunkards for a term not exceeding one year was shown to be in operation in various parts of the United States. Had they been to America as recently as he had, and investigated the law on the subject, they would have known that this statement was in opposition to the fact. There was in America a great difference between the law of a State and the law of the United States. Take, for instance, the State of New York. It passed a law to the effect that habitual drunkards should be imprisoned. That went on for a few years, but a case was taken before the Supreme Court, and it was found that the law was not in accordance with the constitution of the United States. It was ruled that drunkenness was not an offence, and that the New York Legislature had no right to pass such a law as the one above referred to. He objected to the committal of the Association to the term "not exceeding one year". He would read a paragraph from the evidence taken before Dr. Dalrymple's Committee. He found there that a witness said: "I am inclined to think that, unless you confine a man for three years, it will be very little use." That is my experience, and I have had a great number of patients under my care. "I have never cured anyone without keeping him from drink that time." That evidence was fully confirmed at a meeting of the Superintendents of Lunatic Asylums in the States, in which he took part, and where it was agreed that, unless confinement were secured for three years, it would be of very little use. Therefore, he thought that the recommendation of the Committee was based upon lines of evidence which it would be difficult to sustain. He questioned the correctness of the statement that a large percentage of habitual drunkards had been reclaimed; and he also disagreed with the assertion that penal legislation with regard to them "is worse than useless". [*Hear, hear.*] As regarded the action of Mr. Dalrymple's Committee, and what had taken place since, he was of opinion that a case had been made out against habitual drunkards among the working and poorer classes in this country, but they proposed to legislate for a superior class, against whom no case had been made out. That great mistake had been made before by Mr. Dalrymple's Committee, and by the very excellent and well-intentioned members of this Association, who had followed up his work. He did not believe that there was the slightest probability of passing such a law through the legislature of this country at the present time, and upon the amount of information which was at present available on the subject. Therefore, he thought the petition was futile, and he proposed as an amendment: "That the Report of the Committee be not adopted, and that it be referred back to the Committee for their reconsideration." [*Hear, hear.*]

Dr. MORRIS (Spalding), in seconding the amendment, warned the Association against lending itself to any legislative measure for muzzling any section of the community. It was quite beyond their functions to attempt such a thing. The Association was appointed for a very different purpose from taking up political questions of any kind. [*Cries of "No, no", "It is not political", and cheers.*] He admitted that

habitual drunkenness was a great sin and a great curse to the country, but again cautioned the Association against taking up the question with a view to obtaining legislative action upon it. [*Cheers.*]

Mr. WATKIN WILLIAMS (Birmingham) said that no doubt there were two opinions in the meeting about this question. [*Hear, hear.*] He differed from Dr. Bucknill, and could hardly think how any sane man could think they were wrong in trying to cure drunkardness. [*Hear, hear.*] The object of the Committee was not "imprisonment", but "amendment"; they merely wished to "detain" habitual drunkards as they detained persons afflicted with insanity. [*Hear, hear, and "No, no."*] The gentleman might say "No, no", but perhaps he did not understand what was meant. If he (the speaker) understood the meaning of the Committee and the object of the Association, it was to cure inebriates, and not to punish them. [*Hear, hear.*] Dr. Bucknill had had large experience in lunacy, and had kept in confinement large numbers of persons who had committed no offence. All they desired was that unfortunate inebriates should be kept in confinement, with a view, if possible, to cure them. He could not for a moment understand that they, as an Association of medical men, could have a better object in view. [*Cheers.*] They claimed to be great philanthropists, and one of their grandest objects was to cure all disease to which the human kind were subject. [*Cheers.*] Dr. Bucknill had said that Mr. Dalrymple's Committee made out a strong case for the habitual drunkard who was poor, but that the Association was legislating for the upper classes. He did not know what Dr. Bucknill's experience had been, but he was sorry to say that he knew a great many ladies and gentlemen who were habitual drunkards, and who had committed no crime but the crime against morals. For this reason, he thought the Association could not have a better object in view than the detention of these drunkards in some place of confinement, not penal, for one, two, or three years, or for life, if necessary, as he would rather see the head of a family confined for life than be a disgrace to her husband and children, and the laughing-stock of her servants. [*Loud cheers.*]

Dr. CARPENTER (in reply) said that he was utterly astonished at the statements which had been made by Dr. Bucknill, who said that the statements made with regard to the petition were untrue, and that the Act referred to was not in operation in various parts of the United States of America. He was not prepared to hear that statement made, or he would have been prepared with the evidence necessary to rebut it, to submit it to the meeting, in order to demonstrate that, so far as the Americans were concerned, they were satisfied that the law was in operation. He had in his possession a number of representations from medical men in various parts of the United States, to that effect, and if any gentleman liked to see the documentary evidence he could do so. A portion of it was printed in a paper which he read before the Social Science Association a few months ago. That information came into his possession in the month of March last, and if matters had altered since then Dr. Bucknill might be correct, but he was not aware that it had been altered, and, therefore, any resolution which had been come to by a court of law in one particular instance, could not, in his opinion be binding upon the whole of the citizens of the United States. Dr. Bucknill had entirely misunderstood the object of the petition, and had totally misrepresented it. [*Cheers.*] They were not asking that persons might be detained in confinement for a period not exceeding one year; but they were stating facts which had appeared in the report of the Select Committee which sat in 1872. Dr. Bucknill might deny, if he liked, that short terms of imprisonment were worse than useless, but the evidence given before that committee showed that it was true. As a magistrate in the south of London, he had to hear these cases day by day, and had to commit these poor drunkards over and over again, knowing that as soon as ever they came out of prison they would be before the Bench again. He had no hesitation in saying that in such cases short terms of imprisonment were worse than useless, and that to treat habitual drunkards in such a way was a great mistake. [*Cheers.*] He never sent a person to prison in that way without feeling that he was doing an injustice in punishing as a crime that which, in reality, was a disease. [*Cheers.*] They had no more right to send these poor people to the treadmill for a fortnight for getting drunk than they had to send them to a lunatic asylum. [*Cheers.*] The treatment required was not penal, but curative; and that was the great object for that Association to promote. All evidence showed that to confine them for less than one year was useless, and it might be that that period would be insufficient to effect a cure. He denied that they had made out a case in regard to any particular class, and said the petition dealt with all. He knew from his own experience that private drinking, during the last few years, had greatly increased in the middle and upper ranks of life, and that it was not confined to the lower classes. [*Cheers.*] It was a mistake to suppose that it was confined

to the lower classes. Unfortunately, the drinking which used to take place, in former times, late in the day, now commenced in the early part of the day. [*Hear, hear.*] He hoped that they would not respond to the appeal made by Dr. Bucknill, but that they would reject the amendment, and support the resolution and reappointment of the committee. [*Cheers.*]

The amendment was then put to the meeting, and only ten voted for it.

The original motion, adopting the report and petition, and reappointing the committee, was carried by a large majority; only five voting against it. The result was received with loud cheers.

Election of Honorary Member.—Dr. CHADWICK, as president of the medical section, said he had arranged for the reading of a series of papers on the injurious effects of the inhalation of noxious fumes and minute particles in industrial trades, and it had been suggested to him that they would have material aid from the presence, the long experience and acute observations of Mr. Robert Baker, Inspector-General of factories in Wales and the West of England, and, in order to carry out that object, he had great pleasure in proposing that Mr. Baker be elected an honorary member of the Association.

Dr. FALCONER seconded the motion which was carried unanimously.

The Address in Surgery was delivered by Mr. W. F. FAVELL, Surgeon to the Sheffield Infirmary. It was published at page 178 of last week's JOURNAL.

Mr. J. HUTCHINSON said that he rose with a great deal of pleasure to move "That the cordial thanks of this Association be given to Mr. W. F. Favell for his able address in surgery". [*Cheers.*] They had already anticipated this vote, and it was scarcely necessary that he should propose it, but he did so with peculiar pleasure. They had all admired the extremely practical address which Mr. Favell had given them. There were three kinds of addresses which might be given on this subject by the gentleman in charge of it. There were retrospects of the past, history of the present, and speculations as to the future. Mr. Favell had put all three before them in a practical light. He had never known an address in which selection of special subjects had been better chosen, better met, or dealt with with more ability. [*Hear and Cheers.*] Mr. Favell's address was not only able and practical, but it recommended, with boldness, some of the most recent novelties in surgery, and contained many other points which could not fail to interest the profession. [*Cheers.*]

Mr. HUSBAND said that, as an old hospital surgeon, he felt privileged in being selected to second the resolution which had just been proposed in favour of a gentleman of whom Yorkshire had so much need to be proud. [*Hear and Cheers.*] Those who were present to-day had recognised in their orator the thoughtful, calm, judicious, and enterprising surgeon who was a credit to his profession. [*Cheers.*] But they who lived in the district not only knew him in that capacity but were aware of the high moral qualifications which he possessed. [*Cheers.*]

The resolution was carried with much applause.

The PRESIDENT said that they would allow him to add to the resolution, the testimony that Mr. Favell's colleagues felt proud of the vote of thanks which had just been awarded to him.

Mr. FAVELL acknowledged the compliment.

On the Use in Therapeutics of our Knowledge of Inhibition.—Dr. BROWN-SÉQUARD (Paris) delivered an extempore address on this subject, in the course of which he dwelt at length on the phenomena arising in lung affections and brain diseases, and described experiments which he had made, by means of which he had demonstrated that the action of the heart and lungs could frequently be diminished by inhibition; that palpitation of the heart could often be stopped thereby, and the force of breathing reduced. He described the beneficial effects produced by the inhalation of oxygen and carbolic acid in spasmodic actions of the chest, and stated that he would shortly publish his address in a printed form.

The PRESIDENT conveyed to Dr. Brown-Séquard the cordial thanks of the Association for his address, and the members then adjourned for luncheon.

FOURTH GENERAL MEETING: FRIDAY, AUGUST 6TH.

The Fourth General Meeting was held at 10 A.M., Dr. DE BARTOLOMÉ, President in the chair.

The Address in Public Medicine was read by ALFRED CARPENTER, M.D., of Croydon. It was published at page 182 of last week's JOURNAL.

Mr. RHODES (Huddersfield) said that most of the members present who had heard the eloquent address of Dr. Carpenter, had also for some time past felt considerable interest in the work which he had

long had in hand, in trying to enlighten both them and the public upon these subjects. He was pleased to find that Dr. Carpenter had laid stress upon the present system of connecting houses with the sewers. He thought that the old-fashioned sinks running from the building, and being connected outside with the main sewer, a much better plan than that now in vogue of "trapping" the drain. With regard to the disposal of sewage, he considered that the example of Beddington, cited by Dr. Carpenter, was a sample of the results which could be obtained by adopting it throughout the whole country. If it were properly extended, it would undoubtedly increase the wealth of the country. In conclusion, he moved, "That the thanks of the Association be given to Dr. Carpenter for his able address." [Cheers.]

Dr. PARSONS (Goole) seconded the resolution. Dr. Carpenter had shown the necessity of avoiding stagnation in water courses, and he wished to state that one of the rivers running through Leeds became, twenty miles lower down, pure enough to be drinkable. Another great mistake, which was very commonly made, was overlooking the improper construction of drains. The idea of constructing a drain in Yorkshire was, in reality, the idea of keeping everything upon the premises. [Laughter.] They seemed to think that the greater the number of cesspools the better the drainage. It was not at all uncommon to have a large cesspool, three feet square, close to the house door. He had made inquiries into every case of diarrhoea which had come under his supervision in his district, and he found that it was generally owing to the rapid putrefaction of meat and fruit, partly partaken of, whilst in that state, in hot weather. There could not be two opinions as to the value of the paper which had been read, and therefore he had much pleasure in seconding the resolution.

The motion was carried *nem. con.*

CONCLUDING GENERAL MEETING.

THE concluding General meeting of the members of the Association was held in the Cutlers' Hall, at 1.30 P.M., on Friday, under the Presidency of Dr. DE BARTOLOMÉE.

Prosecution of Illegal Practitioners.—Mr. HUSBAND (York) read a resolution forwarded to the Association by twenty members of the Hull and North Lincoln Branch, who, at a recent meeting, considered the desirability of prosecuting illegal practitioners, and now urged the members of the Association to take the matter into serious consideration, adding that it was also desirable to form committees of defence, to take such steps as were necessary to prevent unqualified persons from practising, and to protect the public from illegal practitioners. He moved "That the resolution be referred to the Committee of Council, with power to carry out the suggestions contained therein".

Dr. EASTWOOD (Darlington) seconded the motion, which was carried unanimously.

Report of the Joint-Committee on State Medicine.—Dr. FALCONER brought up the report of the Joint-Committee on State Medicine (see page 214), together with a recommendation that the Committee for the following year consist of—Dr. J. T. Arlidge, Stoke-upon-Trent; Dr. Edward Ballard; Dr. Bond, Gloucester; Dr. Bourke, Dublin; Dr. Corfield; David Davies, Esq., Bristol; T. J. Dyke, Esq., Merthyr Tydfil; Dr. Falconer, Bath; Dr. W. T. Gairdner, Glasgow; Ernest Hart, Esq.; Alfred Haviland, Esq., Northampton; Dr. James Lewis, Oxford; John Liddle, Esq.; Dr. Parsons, Goole; Dr. G. H. Philipson, Newcastle; Dr. Arthur Ransome, Bowdon; Dr. M. K. Robinson, Dover; Dr. Joseph Rogers; T. Heckstall Smith, Esq.; Dr. J. W. Tripe; Dr. N. Tyacke, Chichester; Dr. Edward Wilson, Cheltenham; and Dr. A. P. Stewart, Secretary, with power to add to their number.

Mr. ARTHUR JACKSON moved "That the report of the Joint-Committee on State Medicine of the British Medical and Social Science Associations, be received and adopted, and the Committee re-appointed". It was certainly an important matter that they should all make the subject one of careful study, because it was through sanitary legislation that they should be able to increase the health of the country.

Dr. PROCTER (York) seconded the resolution, which was adopted unanimously.

Place of Meeting in 1877.—Dr. CHADWICK moved: "That this meeting directs and hereby empowers the Committee of Council to arrange for the place of the annual meeting in 1877, and further to appoint a President-Elect."

Mr. CLUBBE (Lowestoft) seconded the resolution, which was carried.

Vote of Thanks.—Dr. J. B. RUSSELL (Glasgow) moved: "That the best thanks of the Association be given to the Mayor and Corporation of Sheffield for the use of the Council Chamber for the purposes of the meeting." He was glad that this resolution had fallen into his hands,

because, as he had presided for the Public Health Section which sat in the Council Chamber, he was fully sensible of the advantages which the use thereof had conferred upon the members of the Association.

Dr. PARSONS (Goole) seconded the motion, which was carried unanimously.

Mr. IRWIN moved: "That the best thanks of the Association be given to the members of the Association and the public and the profession in Sheffield, for their cordial and hospitable reception."

Mr. GALT (Ashton-under-Lyne) seconded the motion.

Mr. J. W. BAKER (Derby) said that no words which could be uttered by the members could do adequate justice to the profession and people of Sheffield for the excellent arrangements which had been made, and for the unbounded hospitality which had been shown to them during their visit. [Cheers.]

Dr. DRYSDALE (London) echoed the sentiments of the preceding speaker, and expressed his extreme gratitude for the fraternal way in which the members of the Association had been received by their friends and by the inhabitants of Sheffield. [Cheers.]

The motion was carried.

The PRESIDENT said that the local members of the Association had enjoyed those meetings as much as had the visitors. They started with a firm determination of succeeding, and they had attained as much success as they could possibly expect. But he had only been pressed on by those around him. He had been the culminating point, but they must not look upon him as the cause of the effect which had been produced. His efforts had been directed by two or three gentlemen who were well known. He would not mention more than one, and that was Mr. Arthur Jackson. [Cheers.] He mentioned that gentleman because he was present; had Dr. Keeling been there, he would have been mentioned as well. But, *ex uno disce omnes*, a more able or willing Committee never existed. They and others were the gentlemen who had done the work; and, although he had presided over their meetings, he had really done nothing. ["No, no."] Mr. Arthur Jackson deserved the credit of the whole affair, and they would see from the way in which he conducted himself on the previous evening how anxious he had been to minister to their comforts. [Cheers.]

Dr. CRICHTON BROWNE moved: "That the grateful thanks of the Association be given to the Local Secretaries, Mr. Arthur Jackson and Dr. Keeling, for their great exertions to secure a successful meeting." [Cheers.] He said that, if he were inclined to exhaust all the terms of commendation which were possible upon an occasion like the present, he should not be able to do justice to the exertions of Mr. Arthur Jackson, who had been here, there, and everywhere during the meeting. It was not, however, merely for the last few days that he had exerted himself, but for months past the Local Secretaries had been organising the details of the meeting. [Hear and cheers.]

Dr. FARQUHARSON (London) seconded the motion with great pleasure. As the Secretary of one of the Sections, he could speak with much satisfaction of the way in which the arrangements had been made to conduce to the comfort of those who attended. [Hear, hear.]

The motion was carried.

Mr. MORGAN (Lichfield) moved: "That Dr. Thomas and Mr. Snell be gratefully thanked for their efficient labours as Honorary Secretaries of the Museum Committee." [Cheers.] He would only say that he was exceptionally glad when the annual museum was established, and he thought its existence was more fully justified every year. It gave them an opportunity of seeing many things which they could not see at other times. [Hear, hear.]

Mr. CULLINGWORTH (Manchester) seconded the motion. He was of opinion that, considering the short time at the disposal of the Museum Secretaries, they had got together a wonderful and interesting collection. The museum could hardly have been more perfect if they had had twelve months at their disposal for completing the collection. [Hear, hear.]

The motion was adopted.

Dr. McDOWALL (Wadley) moved: "That the cordial thanks of the Association be given to the Duke of Devonshire, the Earl Fitzwilliam, and the Earl of Wharfedale for their hospitality to the members of the Association."

Dr. MERSON (Wakefield) seconded the motion.

Mr. ARTHUR JACKSON, as a member of the Excursion Committee, and knowing the whole of the circumstances, desired to say how cordially the hospitality of the noblemen referred to was offered, and how much it had relieved the Committee in making their arrangements for the excursions. They were all deeply grateful for the kindness which had been shown to the members of the Association. [Cheers.]

The motion was carried with applause.

Dr. DAVID RUSSELL (Neston) moved: "That the best thanks of

the meeting be given to Messrs. Firth and Co., to Messrs. Cammell and Co., Rogers and Co., Dixon and Son, and Kenyon and Co., who have kindly thrown open their works and exhibited objects of interest to the members."

Dr. HENRY (London) seconded the motion.

Dr. DRYSDALE and another gentleman urged that, at future meetings of the Association, it would be advisable that the visits to works should be timed so as not to interfere with the work of and attendance at the Sections.

Mr. ARTHUR JACKSON pointed out, however, that such operations as were carried on at works could not be always delayed to suit the convenience of the members. Their best thanks were due to the first-named for the facilities which had been afforded to the members, and he had reason to believe that the latter would have been dissatisfied if they had not viewed the operations. But if they wished in future not to visit works, it lay with the Association to carry out this desire.

The motion was carried.

Vote of Thanks to the President.—The President having vacated the chair, it was taken by

Dr. FALCONER, who moved a vote of thanks to the President for his great exertions on their behalf, and regular attendance at their meetings. Dr. Bartolomé persisted in saying that he had done nothing, but they knew better. [*Hear, hear.*] He moved "That the cordial thanks of the Association be given to the President, Dr. M. Martin De Bartolomé, for his able and courteous conduct in the chair, and for his hospitable attention to the members who have attended the Forty-fourth Annual Meeting".

Mr. HUSBAND (York) seconded the resolution. He said the courteous and able conduct of the President had been sufficient to ensure a successful meeting, and it was in no small degree owing to his efforts that they had just held one of the most successful of their meetings. [*Cheers.*]

The resolution was carried with three cheers.

Dr. DE BARTOLOMÉ said that he would rather go over the whole of the work again, for the sake of the pleasure, satisfaction and excitement which it had afforded him, than have to return thanks for their kindness which he felt was not deserved by him. He was proud of his profession, and he honoured the high position to which they had elevated him. It had been to him a source of the highest gratification to hear from scores of visitors that they were satisfied—[*cheers*]—and he hoped that all the members of the Association who had honoured Sheffield with their presence, would accept this public acknowledgment of his thanks to them for the great courtesy and kindness with which they greeted him personally, and for the cordial way in which they had supported his election. [*Loud cheers.*]

The proceedings then terminated.

[We are obliged to defer our report of the dinner and excursions to next week.]

REPORT OF MEDICAL OFFICER OF HEALTH.

NEWTON ABBOT (RURAL), WOLBOROUGH, AND DAWLISH (URBAN) DISTRICTS.—Mr. Leonard Armstrong states that the sanitary condition of each of these three districts is separately considered.—In *Wolborough*, the births were 38, and the deaths only 17.98 per 1,000 inhabitants. The deaths under five years were 32.7 per cent. of the total deaths, against 53 last year; whilst there were only 81 deaths of infants under one year out of each 1,000 born, which is singularly low. There were not any deaths from diarrhoea, but 4 from enteric fever, which is a large percentage. The medical officer reported several cases of overcrowding of courts in the old parts of the place.—*Dawlish*. The population of this town is a stationary one, as there were 85 births and as many as 84 deaths, whilst in 1874 there were more deaths than births. The annual death-rate was 22.59; of children under five years, 26 per cent. of total deaths. The mortality from seven principal zymotics was as low as 0.53 per 1,000 population. The medical officer says that he believes the population of Dawlish to be chiefly made up of persons who come thither to spend the evening of their days in quiet retirement. He objects to the amount of pig-keeping, and the accumulations of house-refuse in the back-yards.—*Newton Abbot*. There were 660 children born, which give 25.7 per 1,000 population; and there were 481 deaths, which give a death-rate of 19.34. Of these, 146 deaths occurred in children under five years of age, or above 30 per cent., whilst the deaths of infants were 138 per 1,000 born. The most fatal epidemic disease was scarlet fever; and there was also a very large proportion of deaths from phthisis, pulmonary affections, and nervous diseases. The sanitary works carried out do not appear to have been at all numerous.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st.

Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 12TH, 1876.

THE SHEFFIELD MEETING.

THE conclusion of the Sheffield meeting has been quite in harmony with its prosperous commencement and successful course. The attendance amounted to nearly 500 during the business meetings. The soirée and concert, to which were bidden numerous guests, residents of the town and friends of the members, were highly successful: they were attended by from 1,500 to 2,000 persons, and were graced by the presence of ladies. The most important scientific features of the meeting, in addition to the three public addresses and those of presidents of sections, were contributed by Professor Rutherford and Dr. Brown-Séquard. The sectional proceedings were of considerable volume, and included in the Section of Medicine a most valuable series of papers on industrial disease, which we shall bring together in an early number, and from which there is reason to expect that useful results will be derived. The excellent suggestion out of which this series arose is due to the clear judgment and thoughtful mind of Dr. Chadwick, late of Leeds, one of the former presidents of the Association, and one to whom it owes a great debt, from his constant attention to its business and unflinching solicitude for its interests. It were much to be wished that all the past high officers of the Association, and those who have been entrusted with its most important positions and distinguished by its highest honours, should feel equally bound to maintain a close connection with its subsequent proceedings, and should emulate Dr. Chadwick's watchful care for the judicious conduct and successful management of the great Association with which their names have been connected. The enlargement of the General Council, so as to include the readers of addresses and sectional presidents of the year, gives them an official place in the management of the affairs of the Association, and makes them eligible for the Committee of Council; and that is now a position which enables those who occupy it to exercise no small influence in the social, professional, and scientific advancement of the medical body.

The reports of committees presented at this meeting were unusually full and important. We print them all in another column, and recommend them to the thoughtful consideration of the members of the Association. They represent much good work already done, much that is in favourable progress, and much more which is yet far from realisation, but which we can all help to accomplish. One of the greatest works in which this Association has ever taken a leading part is that of sanitary organisation, commenced by the appointment of the Royal Sanitary Commission, instituted at the instance of the Joint Committee of State Medicine, brought into legislative form by Mr. Stansfeld's Sanitary Act, but unfortunately left still incomplete, owing to the imperfections with which that minister loaded it. Early in the present year, the Committee of Council, at the request of the State Medicine Committee, and especially of its public-spirited secretary, Dr. A. P. Stewart, voted a sum of £100 towards the expenses of a public conference in London of medical officers of health and sanitary authorities, at which the principles and details of the working of the Sanitary Acts were discussed with great fullness and with varied knowledge.

The conclusions as to a further Government inquiry, and the principles of future amendments of the law, were determined with practical unanimity; and the presence and concurrence of Lord Aberdare, chairman of the conference, gave a special political significance to the meeting, which lasted three days. The summary of proceedings at this conference is stated in the report, and an abstract of the speeches appeared at the time in our columns. A very full separate report will, however, shortly be published, and early next autumn means will be taken to bring the conclusions of the conference under the notice of the Government in a public and influential manner, and to endeavour to obtain their concurrence in such official inquiry as the conference have recommended with a view to future legislation.

The "Habitual Drunkards Committee" have undertaken a task of which it is useless to disguise the difficulty. The lay mind is as yet far from being educated up to the point of regarding drunkenness in any form as a disease, or dipsomania as a form of insanity which renders the individual irresponsible, or which justifies restraint on the same grounds and in the same manner as other forms of insanity. Even in our own profession, men as highly competent and as largely experienced as Dr. Bucknill, lately Lord Chancellor's Commissioner in Lunacy, hold opinions strongly adverse to those which were endorsed by the meetings of the Association in Sheffield and in Edinburgh, and for which it is the object of this committee to obtain legislative sanction. Dr. Bucknill was very successfully answered by Dr. Carpenter, who carried the meeting altogether with him; and happily this committee is animated with feelings of so much earnestness, and even enthusiasm, for a cause which they believe to be one of the most sorrowful and intense interest to the community at large, that there is reason to hope that they will not be dismayed by discouragement and delays; and the appeal which they make to the support of earnest-minded men, both within and without the ranks of the profession, cannot fail to meet with sympathy, and arouse the energies of those who desire to see medicine and the medical profession take a foremost place among the philanthropic agencies of society.

Of the work of the Parliamentary Bills Committee we need say little. It has already in various ways come very fully before the profession during the past year, and its results are still being felt in the modifications which the Government have this week conceded in the Cruelty to Animals Bill.

The Medical Reform Committee still pursues its course of hoping and acting and striving, without any brilliant prospect, as far as we can see, of immediate success.

In all the features of amusement, recreation, and public and private hospitality, this meeting has been most singularly and happily distinguished. The public dinner, the quality of which, judging from the communications we received prior to the meeting, many of the members seemed to consider a matter of decided importance, was an unusually excellent repast in all its gastronomic details. It was attended by about two hundred and fifty members. Mr. Roebuck delivered a capital speech, full of compliments to the profession and denunciation of the Vivisection Bill; and Mr. Jonathan Hutchinson, in proposing the Clergy, made one of the most notable speeches that has ever been made at an Association dinner, proving himself once more to be a man of the most varied accomplishments of mind, and one of the profoundest thinkers of his profession.

The kindness of the proprietors of the great industrial works of Sheffield in showing their manufacturing processes to the members under most advantageous circumstances, was very highly appreciated. The number who flocked to the works of Messrs. Firth to see the casting of a large gun, and to those of Messrs. Cammell to witness the rolling of a ten-inch iron plate and the Bessemer process of making steel, was such as at the time to seriously thin the attendance at the Sections, and so bring to mind once more the rule that was established in conse-

quence of the experience at Plymouth, that it is undesirable to arrange any great counter-attraction while the Sections are at work.

The hospitality and courtesy of Earl Fitzwilliam, the Earl of Wharncliffe, and the Duke of Devonshire, and the kindness of the profession at Matlock and Buxton, afforded opportunities for excursions of unrivalled beauty and interest, which were favoured by very fine weather. On the whole, the Sheffield meeting will be remembered as a great and unclouded success.

THE VIVISECTION BILL.

THE temperate and guarded statement with which Mr. Cross introduced the "Cruelty to Animals Bill" into the House of Commons, and the full statement which he made of the amendments which he is prepared to introduce in Committee on the Bill, have done much to disarm the opposition which the Bill must otherwise have encountered. Without dissecting the preliminary statement, which, brief as it was, might very easily be shown to fail in accuracy and in applicability to existing facts, we may content ourselves now with a short analysis of the amendments, and of the general effect of the Bill when amended.

In the first place, the Government have consented to limit the Bill to warm-blooded animals, a limitation which commends itself to common sense, and which physiologists will approve. Warm-blooded, or vertebrate, Mr. Cross said; but those who watch the Bill in the interests of science and of reason must see that the Government adhere to the word "warm-blooded", which is that to which they agreed, and which made an essential condition in the withdrawal of opposition from the representatives of science. On this point, we look to Dr. Playfair and to Dr. Ward to see that there is no change from the word "warm-blooded". The next most important amendment is that by which "registration" is limited, as a rule, to places of instruction; registration of places in which licensed persons perform experiments being otherwise abolished, except where, in any particular case, the Secretary of State, for special reasons, thinks registration of the place exceptionally necessary. Then an important amendment limits the reports to be required to exceptional cases, in which the Secretary of State thinks it necessary to call for a report. The "common informer" is taken out for "licensed persons", as he had been in the House of Lords for "registered places"; and, by a special provision, to which we attach great importance, no prosecution whatever can be instituted under this Bill, except by the special sanction of the Secretary of State. Then, as to the cat and dog clause, all that is objectionable is removed by the introduction of the words "without anæsthetics", which, in fact, without removing the clause, relegate cats and dogs to the same place in the Bill as other animals, whilst preserving all the safeguards against the abuse of them which the most tender sensibilities can reasonably require.

Thus, it will be seen that the result of the deputations to Mr. Cross, and of the numerous personal conferences with him, with Lord Carnarvon, and with leading members of the Commission which have followed those deputations, has been to convince ministers of the propriety of all those modifications which were claimed in the interests of science. We are not concerned now to follow Mr. Lowe or Dr. Ward through their speeches. We agree with every word that can be said of the abstract inconsistencies and imperfections of such a Bill; and of the absurdity of legislating in the name of humanity against abuses by the most humane class of persons in the kingdom, whose practices are, in fact, so far as experiments in this country show, untainted by abuse, while the results of their labours have been in the highest degree conducive to the welfare of humanity and to the mitigation of suffering. This, too, was the right moment for such speeches as those of Mr. Lowe, Dr. Playfair, Dr. Ward, Mr. Wyndham, and Sir John Lubbock; nevertheless, we are by no means ill-pleased with the Bill as it stands, considering the extreme ignorance, the hysterical calumny, and the worse than theological odium and bitterness with which the controversy was ini-

tiated, and with which a large section of those of whom it is the fashion to speak as very worthy persons, are still disposed to pursue it.

The Bill is illogical, is partial, and touches only a corner of the subject of infliction of pain. But it is one corner; and we are well content, and we believe that the profession at large will be well content that we have been able to bring this question, so far as it concerns our profession, into a position in which we can fairly say that the medical profession have shown a great readiness to submit to even unnecessary restrictions, to accept legislation against even unproved and only possible abuses, and to vindicate in the face of the country and of Europe our principles of mercy and our love of tenderness. Let the sportsmen, let the traders, let the fine ladies, let our legislators and our preachers now take this new point of departure. The medical profession have shown the way in accepting legislation unnecessary for them, but useful as an example to others. They have met the Government with a willing hand, and have helped to shape the Bill so that it will effectually safeguard the principles of humanity, at the cost of no small inconvenience to themselves. This Bill is needless for physiologists, but it is, although inconvenient, now harmless to science, and it may serve as a stepping-stone to some essentially useful Acts for prevention of a great deal of needless pain inflicted on animals in the field, the farm, and the market.

In bringing about this successful result, the British Medical Association has, through its Parliamentary Bills Committee, and by its Branches, played a part which will never be forgotten, and will always be remembered with satisfaction. Looking back now upon the exertions which were required, and the numberless interviews, memorials, deputations, and communications, which have been necessary, the work was great; and the profession is much indebted to the influence of the Medical Council and some of the principal corporations, especially the London Colleges and the Universities of London and of Edinburgh. The *Times*, *Standard*, *Pall Mall Gazette*, and, not least, *Punch*, after his own peculiar fashion, have given help, of which the value cannot be overrated; and the medical press generally has lent its aid vigorously and without any reservation; to this there is one only exception in the *Lancet*, which gave little or no help to the profession in the matter, and would have left it altogether in the lurch. What little influence it could have excited by a vigorous and earnest protest, it omitted to employ, and it has throughout followed the movement feebly, and in a half-hearted and useless way. The work of the last few weeks has been mainly accomplished by personal conferences with Ministers in charge of the Bill, and in this work we have to acknowledge our especial indebtedness to Dr. Quain and Mr. Simon, whose assistance in these conferences has been invaluable.

THE ADDRESS IN SURGERY.

THE progress of surgery is like the progress of the nation or of the national revenue: sometimes it advances by "leaps and bounds", as in the times when anæsthesia was discovered, when ovariotomy was shown to be practically successful, or when conservative surgery was introduced by that great surgeon who is now closing his professional career amidst the regrets and the admiration of his contemporaries. Perhaps we ought to add to these onward leaps the introduction of antiseptics into surgical practice. But at other times, and strikingly at the present, "things are quiet". No rash innovators spring up to revolutionise our art and trouble the repose of the "practical" man, whose only wish is to jog on in the grooves to which he has grown accustomed. Accordingly, our associate Mr. Favell of Sheffield, who so worthily represented surgery at the annual meeting, had the difficult task before him of composing an address which should be practical, interesting, and instructive, though it must treat of well-known subjects. Our readers, if they turn to the address itself, will see that the task has been admirably accomplished. Luckily for us, novelties are not the essence of surgery; and there are some topics which, though they are as old as the art itself, can never lose their interest. One

of these is the question of trephining the skull for fracture, which Mr. Favell puts first in his address, commencing with a very interesting contrast of the opinions entertained on the subject by the three eminent surgeons of St. Bartholomew's, Pott, Abernethy, and Lawrence. On this question, though the author wisely declines to dogmatise, he evidently shows an inclination to return, at least to a certain extent—i.e., as far as recent fractures are concerned—to the practice of Pott, who made the application of the trephine the rule; so that a surgeon would have, in treating a case, to give a distinct reason to the bystanders or himself why he should *not* trephine. The modern practice is certainly the reverse, and the greater number of surgeons incline to the opinion here attributed to Lawrence, "that such injuries do as well without operation as with it"; so that in any given case, if the surgeon propose to trephine, he is expected to give a definite reason why he interferes. It is not for us to dogmatise where Mr. Favell hesitates to do so. We can only say that the opinion of one who enjoys such excellent opportunities of seeing this class of injuries must be of great weight. Yet the advocates of "non-intervention" have almost as strong a position on this surgical question as they seem to occupy just now in the political world. Mr. Favell points out forcibly, and adduces Mr. Hewett's evidence to show, that there is no "single case of cerebral disturbance of a formidable and urgent character in which such symptoms are dependent upon depressed bone", apart from lesions of the brain-substance; and he might have pointed out that preparations exist in which depressed fractures have been found sticking through the membranes into the brain, and yet the patient has survived, and died of other causes long afterwards; so that Mr. Erichsen's opinion here quoted, that such "depressed and spiculated fragments passing into the dura mater must infallibly and speedily induce encephalitis", can hardly be accepted as universally true. While saying so much in favour of non-interference, we may readily admit that the dangers of the operation *per se* have been probably exaggerated. But have not its benefits been exaggerated also? Do not surgeons usually argue about trephining as if it were certain to succeed in its primary object—that of elevating all the sharp edge which is pressing on the dura mater—forgetting the indubitable fact that in many cases some part of this edge is left by the fault of the surgeon; and that in others, and those, perhaps, no inconsiderable proportion, the whole of the depressed edge cannot be removed, however thoroughly and perseveringly the trephine may be applied? The question is evidently one on which no general rule of universal application can be laid down; and the conclusion expressed in Mr. Favell's address, that the decision must be left to the discretion of the surgeon in each case which comes before him, is the only one which will bear the test of practice.

The important subject of the diagnosis of injuries occurring near the great joints is another of equal scientific interest, and perhaps of greater practical importance—at least to the personal interests of the surgeon. We most fully endorse what Mr. Favell here writes as to the duty which is incumbent on those who see cases of apparent mistakes in such diagnosis to avoid rashly expressing blame of the original consultant. The longer a man practises surgery, the more proofs does he obtain that none of his colleagues are infallible, and the more convinced does he become that he himself is no exception to the universal law. The injuries above spoken of are amongst the most difficult of diagnosis (in some cases, though, it must be allowed, not very often); and the instance which Mr. Favell here produces is one of the best we have met with. The surgeons against whom the action was brought were fortunate indeed in having to deal with consultants of so much sagacity and fairness as Mr. Wheelhouse and Mr. Favell.

The next topic in the address is that of the reunion by suture of large nerves, when divided in a wound—a subject on which the very interesting cases here recorded are an acceptable contribution to what is at present a moot point in surgery. Reference to the most recent textbooks (as Mr. Bryant's second edition, or Mr. Holmes's recently published work on *Surgery*) will show that their authors speak on the subject with hesitation; and, indeed, when it is considered how com-

pletely the function of large nerves is often recovered after their total division, without the use of any suture, and how much risk the presence of the foreign body in immediate contact with the nerve-tubes must induce, it is plain that the operation will be reserved chiefly for cases like Mr. Wheelhouse's here quoted, in which the injury is old, and the loss of function permanent and considerable.

The only other topic remaining is the very interesting and novel one of the applicability of Esmarch's bandage to the treatment of aneurisms, as employed by Dr. Reid of Plymouth. But as this case, singularly enough, is up to the present time solitary, as far as we know, the real value of the suggestion cannot yet be estimated.

These few remarks are only intended to direct the reader's attention to the address itself, in which he will find fresh proofs of the high tone and the great practical accomplishments of the provincial surgeons of the present day.

The degree of Doctor of Medicine of the University of Würzburg was last month conferred, after the necessary examination, on a Japanese gentleman, Mr. Tannuin Hassimoro of Jeddo.

PROFESSOR BARDELEBEN has been appointed Rector Magnificus of the University of Berlin; and the same dignity in the University of Leipzig has been conferred on Professor Thiersch. Professor Virchow is the new Dean of the Medical Faculty in the Berlin University.

DR. WILSON, who has been Demonstrator of Anatomy at Cambridge for several years, has received the appointment of Demonstrator of Anatomy and Superintendent of Practical Anatomy in the Medical School of the London Hospital.

THE Harveian Oration of 1876, by the late Dr. Parkes, has been republished. The outline of the works and character of Dr. Parkes, which Sir William Jenner appended to it, is not in this little monograph republished, which will perhaps by many be regretted. With characteristic modesty, Sir William Jenner effaces himself as much as possible, prefacing only the notice that this last literary effort of Parkes was, at the request of the president, "read by Sir William Jenner, F.R.C.P."

ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIATION.

WE are indebted to the General Secretary for the following list of towns at which the annual meetings have been held, since the foundation of the Association. 1833, Worcester; 1834, Birmingham; 1835, Oxford; 1836, Manchester; 1837, Cheltenham; 1838, Bath; 1839, Liverpool; 1840, Southampton; 1841, York; 1842, Exeter; 1843, Leeds; 1844, Northampton; 1845, Sheffield; 1846, Norwich; 1847, Derby; 1848, Taunton; 1849, Worcester; 1850, Hull; 1851, Brighton; 1852, Oxford; 1853, Swansea; 1854, Manchester; 1855, York; 1856, Birmingham; 1857, Nottingham; 1858, Edinburgh; 1859, Liverpool; 1860, Torquay; 1861, Canterbury; 1862, London; 1863, Bristol; 1864, Cambridge; 1865, Leamington; 1866, Chester; 1867, Dublin; 1868, Oxford; 1869, Leeds; 1870, Newcastle-on-Tyne; 1871, Plymouth; 1872, Birmingham; 1873, London; 1874, Norwich; 1875, Edinburgh; 1876, Sheffield.

SIR WILLIAM GULL.

THE following is the rule of the Royal College of Physicians of London relating to consultations of physicians. As we pointed out in our remarks on Sir W. Gull's evidence at Balham, although his statement was objectionable, it did not, in fact, apply to the course which he pursued at the consultation, which was not in any way objectionable, nor was it objected to at the time. It is very unlikely that there will be any formal reference to the College of Physicians on the subject, as there was nothing in the facts which could justify the interference of the College, although there was more than enough in Sir William Gull's statement to call for our comment, which has met with general pro-

fessional approval, and is of course unobjectionable from the legal point of view, which is not in any way affected.

If two or more physicians, fellows, or members of the College be called in consultation, they shall confer together with the utmost forbearance, and no one of them shall prescribe, or even suggest, in the presence of the patient, or the patient's attendants, any opinion as to what ought to be done, before the method of treatment has been determined by the consultation of himself and his colleague; and the physician first called to a patient shall, unless he decline doing so, write the prescription for the medicines agreed upon, and shall sign the initials of the physician or physicians called in consultation, he placing his own initials the last. If any difference of opinion should arise, the greatest moderation and forbearance shall be observed, and the fact of such difference of opinion shall be communicated to the patient or the attendants by the physician who was first in attendance, in order that it may distress the patient and his friends as little as possible.

HEALTH OF FOREIGN CITIES.

A SUMMARY of the weekly returns with which the Registrar-General is favoured by various local authorities abroad shows that the average annual death-rate during the second quarter of 1876, in twenty-four Indian and foreign cities, was 28.2 per 1000, against 22.6 in twenty of the largest English towns. The population of these twenty-four foreign cities is estimated at nearly eleven millions of persons. The lowest death-rates in these cities were 21.1 and 21.2 in Brooklyn and Boston; whereas the rate was equal to 38.1 in Munich, 38.3 in Alexandria, 38.5 in Breslau, and 45.9 in Buda-Pesth. Small-pox caused, in the thirteen weeks taken to represent the quarter, 1138 deaths in Bombay. Diphtheria was fatally prevalent in Berlin; small-pox in Vienna; measles in Breslau, Buda-Pesth, and Turin; and in Rome 314 deaths were returned from "eruptive fevers", against 440 in the first quarter of the year. The indefinite heading "eruptive fevers" in the Roman returns has led to exaggerated reports of the fatality of "fever" in that city, whereas the deaths referred to this heading were principally the result of small-pox and measles, which have there been epidemic since last autumn.

THE "BRITISH PHARMACOPEIA".

THE Medical Council are about to issue a reprint of 5,000 copies of the *British Pharmacopœia*, making a total of 35,000 since the first publication of the edition of 1867. This extensive circulation of the book indicates very distinctly the favour with which it has been received. There has been some rumour that the additions which were recently published as an appendix are to be incorporated with the reprint. This, we learn, is not to be the case, since the change in the numbering of the pages which such insertions would necessitate would lead, in the case of what is a re-issue, and not a new edition, to much confusion.

SUNSTROKE.

SIR JOSEPH FAYRER, M.C.S.I., than whom there can be no higher authority on the subject, has recently published an excellent paper on sunstroke, from which we extract the rules which he lays down for treatment: "In cases of simple exhaustion, ordinary treatment is all that is needed. Removal to a cooler locality, the cold douche (but not too much prolonged), or the administration of stimulants, may be beneficial. Tight or oppressive clothing should be removed, and the patient treated as in syncope from other causes. Rest and freedom from exposure to over-exertion, fatigue, or great heat, should be enjoined. In that form of sunstroke where the person is struck down suddenly by a hot sun, the patient should be removed into the shade, and the douche of cold water being allowed to fall in a stream on the head and body, from a pump (or as in India from the mussuck, or other similar contrivance), should be freely resorted to, the object being twofold—to reduce the temperature of the over-heated centres, and to rouse them into action. During the assault on the White House piquet in the last Burmese war, numbers of men were struck down by the direct action of the sun during the month of April. They were laid out perfectly unconscious, in their red coats and stocks (they wore them

in those days, 1852), but were recovered by the cold douche freely applied by the mussuck over the head and body. In some cases, rousing by flagellation with the sweeper's broom was added; and all recovered with the exception of two cases, both of which had been bled on the spot where they fell. Mustard-plasters and purgative enemata may be useful. If recovery be imperfect and followed by any indication of injury to the nerve-centres, or by the supervention of meningitis, other treatment may be necessary according to the indications. Much exposure to the sun should be carefully guarded against; and, unless recovery be complete and rapid, the sufferer should be removed to a cooler climate, the most perfect rest and tranquillity of mind and body enjoined, and the greatest care be observed in regard to extreme moderation in the use of stimulants. In the cases of thermic fever, heat being the essential cause of the disease, the object is to reduce the temperature of the body as quickly as possible, and before tissue-changes have resulted from the action of heat. As the hyperpyrexia is due not only to the direct operation of heat on the nerve-centres and tissues, but to the fever set up by the disordered vaso-motor arrangements, remedies such as may influence this disturbed condition have been suggested. The results have appeared in some cases to justify the theory; and the hypodermic injection of morphia and of quinine have both been considered to produce good results by their influence on the vaso-motor nerves and their power in retarding tissue-change. Bleeding has now happily been almost abandoned. The congested livid surface, the coma and stertor, which formerly suggested it, are not now so treated. Bleeding has, no doubt, great power in reducing temperature, and there are cases in which it may still be practised with advantage; but they are, I think, the exception, and not the rule. In cases where venesection has appeared first to give relief and mitigate the symptoms, the improvement has been often transient, and followed by relapse into a more dangerous condition, which has terminated fatally. I could lay down no absolute rule in this or other diseases with reference to the abstraction of blood; and it is quite possible that greater immediate danger to life may exist in an over-distended right side of the heart than in the loss of an amount of blood that might have tided the patient over that state of peril; and therefore I would suggest that each case in this respect be treated according to its own peculiar merits. The treatment generally consists in the judicious applications of cold, either by affusions or by the application of ice to the surface, the reduction of temperature being watched with a thermometer in the axilla, mouth, or rectum. Care should be taken not to prolong the cold application too long, as danger arises from depressing the temperature below the normal standard. The bowels should be relieved, and blisters may be applied to the calvaria and neck, though I may say I have not much faith in their efficacy. In the epileptiform convulsions that so frequently occur, the inhalation of chloroform or ether may be of benefit, but their administration must be carefully watched. The earliest and most severe symptoms having subsided, the febrile condition that follows is treated on ordinary principles—salines and aperients being given, but not to the extent of depressing the patient. The diet must be carefully regulated, and of the blandest and most nourishing nature. As improvement progresses, other symptoms may supervene indicative of intracranial mischief. Where the indications are those of meningitis, the iodide of potassium and counter-irritants may be used with advantage. Removal to a cooler climate is essential: as a general rule, it is desirable that the sufferer should not, for a long period at least, return to a hot or tropical climate, and he should be guarded against all undue exposure to heat, work, or mental anxiety of any kind. The sequelæ of sunstroke are frequently from such causes most distressing, and render the patient a source of anxiety and suffering to himself and to his friends. The less severe symptoms—those, probably, indicative of the slighter forms of meningitis, or of abnormal brain- or nerve-change—occasionally pass away after protracted residence in a cold climate, but they are not unfrequently also the cause not only of much suffering but of shortening of life. It is not possible in a short notice

to describe all the conditions that may result. They point to 'permanently disturbed, if not structurally injured, cerebro-spinal centres, and the treatment required is as varied as the symptoms presented.'

MURDER OF AN ASYLUM SUPERINTENDENT.

DR. GEORGE COOK, the medical superintendent of Brigham Hall, Canandaigua, was fatally stabbed in the neck by an insane patient on the morning of June 12th, dying the same evening. The patient was a farmer named Benson, who had only been recently admitted, and was not considered dangerous. He seemed to have been impressed with the idea that people were trying to poison him, and that Dr. Cook was endeavouring to administer the poison. In making his usual rounds among his patients, Dr. Cook met Benson in his room or in one of the halls. Benson immediately struck the doctor in the face and neck with a knife. Help was soon at hand and physicians summoned, and strong hopes were entertained for a time that the wounds would not prove fatal. All that medical and surgical skill could devise was brought to bear in the case, but failed, and Dr. Cook died about five P.M. His age was about fifty years. Benson had evidently prepared the knife for the attack, as it was found to have been recently sharpened, and he had wound cloth or paper around the handle, so that he could retain a firm hold of it.

DEATH FROM BOXING THE EARS.

LANCASHIRE seems determined to obtain an unevitable notoriety in the peculiarity of the methods used for inflicting injuries. Some time since, the favourite weapon was the heavy boot shod with iron. The *Liverpool Post* now records an investigation made by the borough coroner as to the death of a scholar, aged 13, at Christ Church School, in Christian Street. The boy having been disobedient, and refusing to hold out his hand to be caned, was boxed on the ears by the school-master. This occurred three or four months ago. A few weeks since, the lad, who had previously suffered from deafness, complained of a pain in his ears; and the medical evidence showed that death resulted from a long standing auricular disease. The doctor added that, whilst a blow might have irritated an already sensitive part, it would not have accelerated the boy's decease. The history is by no means clear, nor is the doctor's statement, as here recorded. The jury, in giving their verdict of "Death from natural causes", added that, in their opinion, the punishment was administered injudiciously. With this opinion we quite agree. Injuries to the head are always alarming, but when the injury is localised so as to affect one of the special senses situated there, it is still more so. Injuries to the eye and ear are particularly to be avoided. These being organs of the utmost importance, consisting of the most fragile tissues, and partly exposed, we would impress upon all the danger of inflicting the slightest corporal chastisement in those regions. A comparatively slight blow on the auricular region, if it happens to compress the column of air in the meatus exactly, may cause a rupture of the membrana tympani. That this is not of unfrequent occurrence is well known to aurists. We are, however, of opinion, that, considering the pressure which the healthy tympanic membrane has been found to resist without rupturing, the membrane which gives way to such a blow has probably not been in a healthy condition at the time of the injury. The suddenness of the blow is also, we believe, an important element. The history given of most of the cases is, that the blow was unexpected, and this agrees with the histories of the ruptures arising from explosions. Artillerymen, for example, who are subjected to explosions of the loudest kind, avert any injury to the drum, if they expect the explosion and prepare for it. Prize-fighters suffer from ear-affections occasioned during fighting, but rupture of the drum is not so common as inflammation of the auricle and meatus, and tumours of the auricle. In such, the blows are without doubt, much harder, but either from their watching for, and accordingly preparing themselves for the receipt of the blow, or from the form of the hand which, at the time when it inflicts such blows, allowing the compressed air to escape better, injuries to the auricle more often occur than to the membrane. Besides the injuries to the auricle

meatus, and membrane, injuries to the vestibule and the fenestra ovalis may occur from blows on the ear, setting up pathological conditions which may be quite irremediable. Cases are recorded in which death has occurred, but they are rare. We would impress upon all those whose duties may compel them to inflict corporal chastisement, the necessity of limiting their application to the regions which have ever in England been considered the seats of punishment, and avoiding those in which the pain suffered at the time is not more severe, while the injury inflicted may be far beyond what was contemplated by the giver of the punishment.

THE TREATMENT OF BURNS.

It is always useful to have at one's fingers ends the best treatment for such common and painful emergencies as burns and scalds, and, indeed, such knowledge cannot be too widely diffused. The summary given by Mr. Holmes, in his recent *Manual of Surgery*, is very concise and complete, and embodies large experience. He says:

"At the time of the accident the main indications are to exclude the air from the burnt surface, to allay pain by opiates, and to give stimulants in such quantities as may be necessary. The applications which are in use for burns are too numerous to mention, and the choice of one or other of them will depend in a great measure on the depth of the burn. A mere superficial scorch is best treated by some warm lotion applied on a thick rag and kept constantly moist. Goulard-water with laudanum is perhaps as grateful as anything. Painting the surface with ink soon relieves the pain of a small superficial burn, or covering it with whitewash or some other similar substance which will crust over it and completely exclude the air from it. Common flour thickly dredged on the part is a very good and handy application. But such crusts should not be applied over burnt surfaces of the second degree, since their removal would soon become necessary, and this would drag off the epidermis. The bullæ should be pricked, the epidermis gently smoothed down, and some simple ointment put next the skin, or some oily substance which will not stick when it is necessary to change it. A very favourite application to these burns and to others of greater depth is the Carron oil, made by mixing lime-water and linseed-oil in equal parts, and deriving its name from its having come into extensive use at the great Carron Foundry in the numerous burns occurring there. Oil of turpentine is a very good application to those in which the surface of the skin is quite destroyed. But for the first few days I doubt whether anything is better than simply swathing the part in thick layers of cotton-wool, which is prevented from sticking to the burnt surface by some simple ointment (Cerat. Calaminæ is generally used) spread on thin soft linen or cambric, and covering the whole burnt surface. When, after a few days, the discharge becomes foul, this dressing should be changed for some deodorising or antiseptic oily application, or the latter may be used from the first; but all the antiseptics I have yet seen used have been stimulating, and for the first few days it is desirable, I think, to avoid any local stimulation. The carbolic oil answers every indication better than any other substance which I know of, but it should not be used too strong; for it may both prove too stimulating, and thus increase the discharge, and it may be absorbed, producing a black condition of the urine (see *St. George's Hospital Reports*, vol. vi, p. 98), and other symptoms of incipient poisoning. It is well, then, to begin with a very weak solution (about 1 to 12), and if this does not correct the factor its strength may be gradually increased, or a stronger solution of carbolic acid may be placed over the dressings. If carbolic acid is not tolerated, some preparation of benzoine, or Condy's solution, or the Lot. Sodæ Chlorinatæ may be applied either directly to the burnt surface or over the dressings."

A SUSPICIOUS EPIDEMIC.

DR. J. B. WELCH of Handsworth forwards to us the following interesting note. On July 5th, the Registrar reported that two deaths from scarlet fever, both occurring in one house, had been registered. On July 17th, I received information of other cases, and since that date several more have been reported to me. From inquiries which I made on July 18th, and since, I have ascertained that the disease is present in nine different streets; that at least twenty families, with two or three exceptions all of the higher class, have been affected, and that three deaths have occurred already. I made careful inquiry as to the date when the illness appeared in each of these houses, and have ascertained that in three it appeared simultaneously, or nearly so, on or

about June 18th; that in two others it appeared on June 28th; and in the rest at intervals from July 3rd to July 18th. I inquired as to any common source of infection; as to conditions of drainage, water-supply; as to washing, whether sent out or done at home; and as to the milk-supply. I found that, without a single exception, each of these houses were in the habit of being supplied from the same dairy. I further ascertained that the disease was present and had appeared in the family of this dairyman as early as June 18th, on or about which date a servant lad living in the house became ill; that this lad was kept in the house for nine days after the disease appeared, and was then removed. At the date of my visit (July 18th), there were then in the house two children recovering from the disease. I was informed by the owner's wife that they had been in the habit of taking the milk-cans into the house at night, and that a portion at least of the milk sold was taken into the house, and thus exposed to infection. (The owner himself has since denied that the milk was taken into the house.) I saw in the dairy four tin pans full, or partly full, of milk, evidently waiting for the cream to be removed. The dairy is in direct communication through a door-way with the kitchen. Looking at the history of this outbreak, and considering there is only one fact common to the whole series of cases—viz., the common supply of milk—I am driven to the conclusion that the infection has been spread from the dairy to, at all events, all those houses in which the disease occurred on or after June 28th. I believe there is a strong probability that if the milk had not been distributed from this dairy after the disease first appeared, the present epidemic would not have occurred; and I am further strengthened in my opinion by the fact, that, with one single exception, which I have discovered since making my report, the disease has not appeared, so far as I have been able to discover, in any family in the infected districts supplied by other milk-dealers. In the apparent exception, the disease did not break out until July 13th, twenty-five days after its appearance in other houses. How or whence the three earlier cases which occurred on or about June 18th received the infection, I have as yet been unable to discover. The almost simultaneous outbreak at three houses—the dairy and two others—each half a mile apart, may possibly have been accidental; yet, taken in conjunction with the later cases, it tends to point that the outbreak was due to some fact connected with the dairy or its management.

ENGLISH WATERING-PLACES AND HEALTH-RESORTS.

The Registrar-General, in his recent quarterly return, states that "the estimated population of forty-six of the principal English and Welsh seaside and inland watering-places in the middle of 1876 slightly exceeds a million of persons. During the three months ending June 30th, "the annual death-rate among this population averaged 18.1 per 1,000, against 18.0 and 18.4 in the two preceding corresponding quarters. This rate was 1.1 per 1,000 lower than the average rate during the quarter in the small towns and country parishes which constitute what are called the rural districts. The registration districts and subdistricts taken to represent these watering-places contain an estimated population ranging from 4,199 and 4,210 in Bognor and Lyme Regis, to 54,551 and 112,888 in Bath and in Brighton with Hove. The lowest death-rates in these forty-six watering-places during the three months ending June last were: Deal and Walmer 10.9, Malvern 11.5, Lowestoft 12.4, Margate 13.3, and Weston-super-Mare 13.5. The death-rates exceeding 23 per 1,000 were: Bangor 23.5, Ilfracombe 23.5, Harrogate 23.6, Blackpool and Fleetwood 24.1, Tenby 24.2, Rhyl 25.0, and Bognor 32.5. The death-rate from the seven principal zymotic diseases averaged 1.6 per 1,000 in these forty-six watering-places. No death from any of these seven diseases was registered during the quarter in Deal and Walmer, Littlehampton, or Lyme Regis; whereas these diseases caused an annual rate of 3.0 per 1,000 in Harrogate, 3.1 in Clifton, 3.2 in Tenby, 3.5 in Southport, 4.1 in Ramsgate, 5.8 in Dartmouth, and 9.6 in Bognor. The high zymotic death-rate in Ramsgate was principally due to measles, scarlet fever, and whooping-cough; in Bognor to whooping-cough; in Dartmouth

to measles; in Tenby to scarlet fever and fever; in Southport to small-pox; in Clifton to scarlet fever; and in Harrogate to measles. The vital importance of health reputation to watering-places, and the special risks to which they are exposed by the importation of cases of infectious diseases, invests the sanitary organisation of these resorts with special importance. The neglect to provide hospital accommodation for the isolation of non-pauper cases of infectious disease in so many of our most popular watering-places can only be regretted as evidence of a shortsighted sanitary policy, which is a constant source of danger to their own interests, as well as to the health of their clients. Watering-places, in the matter of sewage, water-supply, and other essentials of sanitary organisation, should endeavour to make themselves models for other urban sanitary districts. This, in many instances, can scarcely yet be said to be the case, although the average sanitary condition of English watering-places, judged by their mortality statistics during the three months ending June, may be pronounced to be satisfactory."

SCOTLAND.

REMARKABLE LONGEVITY.

WITHIN the last three weeks, four women have died at Crieff whose respective ages were 83, 87, 92, and 94 years. There are still living in the parish, the population of which is 4,500, upwards of thirty persons whose ages range from 80 to 98 years.—It may be mentioned that, in consequence of the great heat of the last few weeks, many of the streams in the neighbourhood are dried up, and much inconvenience is experienced from the want of water both for stock and for domestic purposes. "All the growing crops are suffering from drought."

THE UNIVERSITY OF EDINBURGH.

ON Tuesday, August 1st, the annual graduation ceremonial took place in connection with the University of Edinburgh. The degrees were conferred by the Lord Justice-General, Chancellor of the University. There were twenty candidates for the degree of M.D., of whom three obtained gold medals for their theses; namely, Dr. D. J. Cunningham, for a thesis on "The Spinal Nervous System of the Cetacea, with an Account of a hitherto undescribed Variety of Dolphin"; Dr. E. H. Dickinson, for a thesis on "The Phenomenon of so-called Direct Paralysis"; and Dr. C. W. McGillivray, for a thesis on "Acute Ulcerative Endocarditis, with Experimental and Microscopic Research on the Subject". There were eighty-six candidates for the degree of M.B., of whom seventy-eight took also the degree of M.C. Of these, Mr. David Grant, M.A., and Mr. W. J. Dodds, B.Sc., graduated with first-class honours. The Ettles Prize, which is given annually to the most distinguished graduate of the year, was awarded to Mr. David Grant. It is of the annual value of £40. At the same time, the degree of Doctor of Science was conferred upon one, and of Bachelor of Science upon two candidates. After the graduation, the usual address to the new graduates was delivered by Professor Lister. He urged upon his hearers the duty of setting before themselves a high standard, to which they should always endeavour to approximate; and warned them against resting satisfied with their intellectual and professional attainments, now that they had succeeded in obtaining degrees. The great advantage and necessity of supplementing their practical education with the holding of hospital appointments both in the medical and surgical wards, before proceeding to practise for themselves, was then pointed out. The latter part of the address was devoted to dilating on the danger of being in too great a hurry to publish indefinite and immature observations, and the evils of anonymous medical literature. Young men were too often tempted by the desire to turn what seems an honest penny to write reviews of books and leaders in our medical journals; and the result too often was, that such persons came to write with a tone of authority upon subjects of which they know but little. This not only misleads the reader, but has a most pernicious effect on the writer. Mr. Lister expressed a strong opinion that the evils of

anonymous medical literature greatly preponderated over its advantages, and he advised his audience to be very careful how they meddled with it.

IRELAND.

FOR offering for sale diseased meat, a butcher named Keane was last week, at the Police Court, Dublin, sentenced by the presiding magistrate to six weeks' imprisonment, without the option of a fine.

THE Caesarean operation was lately performed at the Rotunda Lying-in Hospital, Dublin, on a woman far advanced in pregnancy, who had been kicked in the abdomen by her husband. On arrival at the hospital, life was extinct, and the operation was unable to succeed in saving the child's life.

IRISH LOCAL GOVERNMENT BOARD: REPORT FOR 1875-76.

THE Fourth Annual Report of the Local Government Board for Ireland, for the year 1875-76, has just been issued, and from it we learn that in 1875 there were 51,153 persons in workhouses, the average weekly cost per head for maintenance being 2s. 11½d; whilst in February 1876 the number of indoor paupers had decreased, there being only 47,779, at the same weekly cost. On the other hand, the number of persons receiving outdoor relief was increased by 568. A decrease of 2,438 took place in the total number admitted in sickness, and a decrease of 454 in the number suffering from fever and other contagious diseases in the various workhouses during the year; whilst the total deaths in these institutions was 11,333, the deaths by fever amounting to 703, and from small-pox 41, being about one-third the number from this disease which took place the previous year. The 163 unions into which Ireland is divided contain 720 dispensary districts and 1,084 dispensary stations, attended by 804 medical officers, 41 apothecaries, and 212 midwives. During the year ending September 30th, these 804 medical officers attended 495,530 persons with dispensary tickets, and 198,662 with visiting tickets, making a total of 694,192; vaccinated 137,340 persons, and gave certificates in 904 cases of dangerous lunatics. As regards vaccination, the returns show that last year there was a decrease in the total number of cases vaccinated amounting to 2,247; and, in reference to this matter, the commissioners point out that the complete vaccination of the population should be secured by sustained and continuous attention on the part of the registrars of births, medical officers of dispensaries, and by boards of guardians, who are responsible for directing proceedings to enforce the provisions of the Vaccination Acts; and, lastly, by a firm administration of the law by the magistracy, who are apt to show excessive leniency in dealing with these particular cases. Inoculation having prevailed to a considerable extent in the Tobercurry Union, causing several deaths, it is gratifying to learn that in July 1875 a quack inoculator named Stenson was tried at the Sligo Assizes, found guilty of the manslaughter of one Roger Gethins by inoculating him with small-pox virus, and sentenced to five years' penal servitude. The total expenditure of poor-rates for all purposes—viz., relief, medical relief, burial-grounds, registration of births, deaths, and marriages, sanitary measures, and expenses under Superannuation Acts, was £975,044, or 1s. 5½d. in the pound, showing a decrease of £26,945 under that of the preceding year, notwithstanding that the sanitary expenditure was £25,016 more than in 1874. The progress of the sanitary arrangements under the Public Health Act has been favourable, the payment of the sanitary salaries nowhere being resisted; and the sanitary authorities have for the most part been discharging their duties in a satisfactory manner, and with great benefit to the population situated within their respective districts; the rural authorities alone having expended on sanitary purposes, apart from salaries, in the course of the year, £10,490 for supply of water, improvement of the sewerage, and for the removal of nuisances.

THE VIVISECTION BILL.

RESOLUTIONS OF THE BORDER COUNTIES BRANCH.

At the annual meeting of the Border Counties Branch of the British Medical Association, held at Carlisle, on July 21st, the following resolutions were passed.

1. That this meeting views with satisfaction, and entirely approves the action of, the medical faculty of the University of Edinburgh in regard to the "Cruelty to Animals Bill" (published in the *BRITISH MEDICAL JOURNAL*, July 15th), and indicates its entire adherence to the memorial set forth by that body to the Government.
2. That a copy of this resolution, accompanied by a printed copy of the Edinburgh memorial, be sent to the Members of Parliament representing the following counties, and their included boroughs:—Cumberland, Westmorland, Dumfries, Kirkcudbright, Wigtown, Roxburgh, Selkirk, and Peebles; these being the counties in which the members of the Border Counties Association are resident.

CORRESPONDENCE.

UNIVERSITY EDUCATION FOR MEDICAL MEN.

STR,—I fully agree with much that was said by Dr. Sieveking in the part of his excellent address at Sheffield which related to the Universities, and would be glad that it should be read by every member of the Senate of this University, in order that they should all learn the feeling of so eminent and thoughtful a member of our profession with reference to the duty of the Universities in promoting the prosecution and teaching of the scientific subjects collateral to medicine. At the same time there is no doubt, and this is evidenced by the tenour of your leading remarks in to-day's *JOURNAL*, that misconception on the subject exists, and that the information in the profession respecting the Universities does not keep pace with the changes which have taken place and are going on in them.

Dr. Sieveking expresses the wish, and every one will unite with him in it, that all members of the learned professions should enjoy an University training. But an University training implies, and therein consists its value, a more extended, careful education, and more time spent upon it. This, of necessity, involves additional expense. It is quite impossible to obtain the higher and better article without paying more for it. All that can be done is to curtail every needless expenditure attendant on University education, by limiting the time and payments within as narrow bounds as are compatible with the maintenance of the advantages to be sought.

First, with regard to the expenditure during the time to be spent in the University. The expenses of a student, living comfortably in College during the three terms and the long vacation, enjoying the society of his friends, and participating as much as he should do in the amusements and recreations of the place, are about £200 a year. This includes clothes, pocket-money, travelling expenses, and all fees to the University and to the College. Any sum beyond this is likely to be productive of evil; and any curtailment of this is likely to be attended with the loss of some advantage. There are collegiate students who spend less than this, being unusually good managers and thrifty, or denying themselves some of the pleasures which may be regarded as a legitimate and beneficial element in a student's life; and there are some of course who, for various reasons, spend more. My experience tells me; that the latter are a decreasing number, which, in the face of increasing luxury and expenditure in our various households, is due probably, in part, to the fact that the ranks of the University are recruited from a wider area of society than they used to be, and by no means from the rich only, tells well for the University. I am often struck with the economy and caution and good sense, in this respect, which the students show, which they actually to some extent acquire here and must carry away with them. The question is, whether this expenditure (£200 annually) can be reduced without detracting from the social and educational advantages which parents desire that their sons should have at the University. I believe it may be a little diminished in a direction which I need not here enter upon; but it is I think obvious that it cannot be very much. I do not take into account the numerous scholarships, exhibitions, and bursarships, which go towards defraying the cost of an University career, in the case of those who obtain them, because they are out of the reach of the majority of students.

The above estimate includes the collegiate as well as the university

advantages. The latter, however, may be obtained at a considerably less cost by those who do not enter the Colleges—*i.e.*, the non-collegiate students—and who are a growing body. They have simply the University fees, which are very small, to pay. They lodge and board as they like, and have no further demands made upon them. Their expenses, therefore, are entirely in their own hands. They may live as cheaply here as elsewhere, and many of them do live at very little cost. Any one who can command the means of living—which will vary with his habits and ideas—may become a non-collegiate student, and pass through the University and obtain its degrees, provided always he shows the requisite knowledge. Now, in drawing a comparison between Cambridge and the German Universities, this class of students only must be taken into account. In Germany, all the students are non-collegiate. There are no Colleges, no collegiate payments to be made, and no collegiate advantages to be gained. Is this a better state of things? Several persons who are more acquainted with the German Universities than I can pretend to be, some of them members of those Universities, some of them Germans who have graduated in them, tell me that it is not so, and that those who are so fond of holding up the German Universities as a pattern do not correctly appreciate the beneficial influence of our own collegiate system upon the lives and character of our University students. I may observe that this good influence radiates upon the non-collegiate students, who are to some extent under discipline similar to that of the Colleges, who associate with the College students, and who can look to their censor, or officer appointed by the University for the purpose, as their friend and adviser in lieu of the College tutor, and who are, therefore, in these respects, on a different, and many will think better, footing than the students in the German Universities.

It will not be thought, therefore, that I would speak disparagingly of the non-collegiate system. I have always advocated it, and I took a part in its institution, being anxious that for some students, at any rate, all unnecessary expenditure should be swept away, and that the University should be open to every one—that is to say, to every one of the very humblest means compatible with an educational life. This is now the case; and it is because neither you nor those members of the profession who write on the subject seem to be aware of this fact, that I thus trouble you; and I trust it will be understood that the expenses of University life need not any longer be a bar to the obtaining a degree in medicine, and that thus far the Universities have not been backward in meeting the requirements of the profession and the times. I will, with your permission, next week say a few words on the time which it takes to obtain a medical degree, and on the opportunities afforded for employing in the prosecution of professional study the period which is required to be spent in the University.—Yours obediently,

G. M. HUMPHRY.
Cambridge, August 5th, 1876.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Thursday, August 3rd.

Medical Officers of Health.—In reply to Dr. Cameron, Mr. SCLATER-BOTH stated that, under the Act of 1872, the first appointments of medical officers were for a period of five years, and the experimental period was adopted in order to see whether the arrangement was satisfactory, or whether any change would be desirable. He agreed that the efficiency of an officer was increased by the permanency of his appointment, and the practice was to sanction permanent appointments where the medical officer of health devoted his whole time to his duties. In cases where he did not devote his whole time, he (Mr. Sclater-Booth) thought that the rule of five years would be convenient.

Monday, August 7th.

Militia Surgeons.—Dr. PLAYFAIR asked whether it was proposed to give compensation to those surgeons of militia who, under the new warrant, will be deprived of a considerable portion of their present incomes, by transferring to the medical officers of the brigade depôts the duties for which the militia surgeons have hitherto received pay.—Mr. HARDY: The new warrant gives medical officers of militia an increase of rank and increase of pay, subject to certain conditions. On the other hand, it takes from them, in cases where brigade depôts are formed, the duty of inspecting the recruits, who are inspected by army surgeons without charge. This is advisable on public grounds, irrespective of money. It has been frequently a subject of complaint that these militia medical officers lost by having to neglect their private practice in order to inspect the recruits. This appears, speaking generally, to be the only part of the warrant by which they lose. The

attendance upon the permanent staff has generally been complained of as a source of loss. From this they will now be relieved when brigade depôts are formed, but they will continue to be employed on this duty when no army medical officer is available. Until the 31st of December next it will not be known how many militia medical officers accept the new terms, and until then I cannot undertake to enter upon a full consideration of the facts, nor can I give any pledge as to my action.

Leprosy in India.—In reply to Sir P. O'Brien, Lord GEORGE HAMILTON said it was not the intention of the Government to give effect to the suggestions of Dr. H. V. Carter embodied in his report relative to leprosy and leper asylums in Norway with reference to India. They have directed further inquiry to be made in India with a view to ascertain the correctness of the conclusions at which Dr. Carter had arrived.

Wednesday, August 9th.

The Cruelty to Animals Bill.—In moving the second reading of the Cruelty to Animals Bill, Mr. CROSS traced the history of the question from the rise of the strong feeling against the practice which led to the appointment of the Royal Commission to the Bill which had been based on the Report. The result of the Report had been to show a general tendency to humanity among those who practised vivisection, but there had certainly been cases of cruelty. The great principle of the Bill was that no person should be permitted to perform experiments, except under restrictions, and that no unnecessary pain should be inflicted on animals. Experiments must only be performed with a view to acquiring new knowledge, for the alleviation of human suffering, in a registered place, and by persons holding a licence. The animals during all the time of the experiments must be kept under the influence of anaesthetics, and the experiments shall not be performed in medical schools or hospitals, nor for the mere attainment of manual skill. Touching on the changes in the Bill, which, he said, did not infringe its principle, Mr. CROSS explained that special licences will be granted to the highest class of experimentalists, which will not require registration; that special licences will be granted for experiments without anaesthetics, and also for experiments on dogs and cats; and that prosecutions in these cases must be conducted by the Secretary of State, and not by a common informer. Invertebrate and cold-blooded animals will be exempted from the Bill.—Dr. WARD, who had given notice of his intention to move the rejection of the Bill, said that, after the changes made in it, he would not push his opposition so far, but characterised the agitation and the Bill based on it as groundless and absurd.—Sir J. LUBBOCK supported the Bill, and expatiated on the scientific value of the results of vivisection.—Mr. HOLT, on the other hand, would be content with nothing less than the abolition of vivisection; and read various passages from the evidence to show that the Report was biased.—Mr. LOWE pointed out that the Bill created a new law, for the present law only protected domestic animals from torture, and denounced with much indignation the proposal to put under the ban of exceptional legislation and to rank with body-snatchers men of the highest training, who had performed the greatest services to mankind. He recommended that Parliament should deal with the whole law of cruelty to animals, and that physiological experiments should be excepted so long as they were not wanton and not cruelly conducted.—Mr. WYNDHAM urged, as objections to the Bill, that it registered the place instead of the certificate and the licence of the individual, created a system of inspection by the Home Secretary, and insisted upon reasons being given for experiments.—Dr. PLAYFAIR observed that if this proposal to legislate on what was but an insignificant corner of this question was meant to preface the introduction of a larger and more general measure, applicable to all animals alike, he should not say a word against it; but if the public conscience was to be fully satisfied, he thought they would have to go further. He admitted that there was reason for legislation, in the fact that physiologists had laid upon themselves, for a long time, a moral obligation to make their experiments with the least possible suffering to animals by placing them under the influence of anaesthetics. With regard to the alterations made in the Bill by the Home Secretary since its introduction, he considered that, upon the whole, they would make it more acceptable to a large number of the medical profession; for it would now make statutory what physiologists had long made customary.—Mr. FORSTER, as a member of the Royal Commission on the subject, admitted that he had entered on the inquiry with a bias against vivisection; but he had left it with the conviction that, if it were justifiable to give pain for any purpose, it was so, under certain restrictions, for the purposes of science.—The Bill was then read a second time.

MILITARY AND NAVAL MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.—The following candidates were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, August 1876.

	Marks.		Marks.
1. Tonies, A. A.	5816	13. Henderson, W. G. H.	4426
2. Meredith, E. B.	5220	14. Doyle, B.	4412
3. Mawson, W. A.	4902	15. Cobb, R.	4266
4. Maitland, J.	4856	16. Stephens, A. E. R.	4259
5. MacGregor, J.	4837	17. Cadge, W. H.	4220
6. Peavor, G. H.	4818	18. Hunter, J.	4083
7. Dautra, S. H.	4746	19. Swaine, C. L.	4067
8. Macdonald, D. J.	4650	20. Smith, M. H.	3956
9. Stewart, A. K.	4625	21. Dalal, K. A.	3920
10. Walker, G. L.	4522	22. Boyd, H. W. B.	3886
11. Hamilton, H.	4462	23. Farrell, P. J.	3662
12. Halpin, J. N.	4440		

* Gained the Herbert Prize.

NAVAL MEDICAL SERVICE.—The following candidates were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, August 1876.

	Marks.		Marks.
1. Thomas, R. Th.	5170	7. Sibbald, T. M.	3120
2. Cree, W. E.	4105	8. Thompson, Wm.	3042
3. Crocker, H. L.	4005	9. Yeo, R. F.	2775
4. Popham, T. D.	3945	10. Armstrong, J. B.	2543
5. Colthurst, L. T.	3703	11. Smith, Geo.	2536
6. Kellard, J. T. W. S.	3150	12. Cuffe, G. M.	2353

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on August 2nd.

Clark, Frederick, Fenchurch Street
 Conolly, Paul B., Somerset Terrace, N.W.
 Duke, Thomas, Kennington Park Road
 Dutton, Edward G., L.S.A., Hammersmith
 Gibson, William, Middlesbro'-on-Tees
 Griffiths, Gilbert S., L.S.A., York Street, Portman Square
 Hare, Evan H., Putney
 Hindle, George, L.S.A., Over Darwen
 Mears, William P., Bromley, E.
 Moullin, Charles W. M., Porchester Terrace
 Parkinson, Sidney G., L.S.A., Northampton
 White, Charles H., Tufnell Park
 Williams, Alfred G., Carmarthen
 Wood, Edward J., Higham

The following were admitted members on the 3rd instant.

Bevan, Richard, L.S.A., Redruth
 Boodie, George Adolphus, L.S.A., St. John's Wood
 Bullen, Beresford R., L.S.A., Upper Kennington Lane
 Cuming, Charles H., Devonport
 Dowding, Alexander W. W., L.S.A., Amptill
 Eve, Frederic S., L.R.C.P. Lond., Ockendon
 Fabien, Lewis, Trinidad
 Gathergood, Benjamin W., L.S.A., Lynn
 Glyn, Herbert A., M.B. Aberd. & L.S.A., Gloster Street, W.
 Hatch, William K., M.B. Aberd., Shrewsbury
 Hume, Frederick N., Meonstoke
 Mahony, Lawrence F., L.S.A., Dalston
 Paul, Reginald, L.S.A., Langport
 Rowbotham, Arthur J., Woolwich
 Sandwith, Fleming M., Wimbledon
 Stevenson, Leader H., Bexley

At a meeting of the Council, on the 7th instant, Burroughs, John B., of Clifton, was admitted a Fellow of the College; his diploma of membership bearing date January 25th, 1828.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 3rd, 1876.

Davis, Frederick Howard, Dawley, Salop
 Denby, Timothy Curtis, Infirmary, Bradford, Yorkshire
 Lake, William Wellington, Ilford, Essex
 Lithgow, Thomas George, Kensington Park Road

The following gentlemen also on the same day passed their primary professional examination.

Burgess, William Milner, St. Bartholomew's Hospital
 Cary, Joseph, London Hospital
 Davies, David S., St. Thomas's Hospital
 Giffard, Henry Edward, St. Bartholomew's Hospital
 Harris, Frederick A., St. Thomas's Hospital
 Langton, Herbert, St. Bartholomew's Hospital

Leah, William, Queen's University, Birmingham
Newman, Arthur J., Middlesex Hospital
Revell, Richard Carter, Middlesex Hospital
Swann, Alfred, Queen's University, Birmingham

[In the pass-list of July 27th, the address of Robert Alexander Jackson, Norfolk Square, should have been "53, Notting Hill Square".]

UNIVERSITY OF CAMBRIDGE.—The following gentlemen passed the recent examination in State Medicine.

PART I.—*Sanitary Science*.—Certificates: C. H. Alfrey, M.D., F.R.C.S.; B. Davies, M.D.; K. M. Downie, M.D.; H. Finch, M.R.C.S.; A. S. Lethbridge, M.D.; T. Moore, F.R.C.S.; J. B. Siddall, M.D.

PART II.—C. H. Alfrey, M.D., F.R.C.S.; B. Davies, M.D.; K. M. Downie, M.D.; H. Finch, M.R.C.S.; A. S. Lethbridge, M.D.; T. Moore, F.R.C.S.; J. B. Siddall, M.D.; J. Simpson, M.D.; A. Sheen, M.B., M.C.; F. H. Spencer, M.B., M.C.; E. W. Symes, M.D.

MEDICAL VACANCIES.

The following vacancies are announced:—

BANBURY UNION—Medical Officer for the Middleton Cheney District.
BRIGHTON AND HOVE DISPENSARY—Resident Medical Officer and Dispenser. Salary, £130 per annum, with furnished apartments, etc. Applications on or before September 4th.
BRISTOL—Parochial Medical Officer for the Third District.
DOVER HOSPITAL—House-Surgeon. Salary, £100 per annum, with furnished apartments, etc.
HALIFAX INFIRMARY—House-Surgeon. Salary, £80 per annum, with board, lodging, etc.—Also, Assistant House-Surgeon. Salary, £50 per annum, with board, etc. Applications on or before August 15th.
HOSPITAL FOR WOMEN, Soho Square—House-Physician. Applications on or before August 31st.
NORTHAMPTON GENERAL INFIRMARY—Surgeon. Applications on or before August 28th.
NORTH STAFFORDSHIRE INFIRMARY, Stoke-upon-Trent—House-Surgeon. Salary, £120 per annum, with furnished apartments, etc.—Also, House-Physician. Salary, £80 per annum, with furnished apartments, etc. Applications on or before August 30th.
OSWESTRY—Parochial Medical Officer for the Ruyton District.
SUSSEX COUNTY HOSPITAL, Brighton—House-Surgeon. Salary, £80 per annum, with board and lodging. Applications on or before August 23rd.
SWANSEA HOSPITAL—Resident Medical Officer. Salary, £100 per annum, with board, furnished apartments, etc. Applications on or before August 16th.
WESTERN GENERAL DISPENSARY, Marylebone Road, N.W. Honorary Physician. Applications on or before August 14th.
WESTMINSTER HOSPITAL—House-Physician. No salary. Board and lodging. Applications on or before August 14th.
WHARFEDALE UNION—Medical Officer for the Second District.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Crichton, George, M.B., L.R.C.S.Ed., appointed House-Surgeon to the Lancaster Infirmary.
Deley, Ambrose, L.K.Q.C.P.I., appointed District Surgeon to the Salford and Pendleton Royal Hospital, *vice* A. M. Edge, M.D., resigned.
Fairbrother, Alex., M.D., F.R.C.P., appointed Consulting Physician to the Bristol Royal Infirmary.
Pirie, Gustavus Frederick, L.R.C.P.Ed., appointed Attending Medical Officer to the Belfast Charitable Institution, *vice* H. Purdon, L.R.C.S.Ed., resigned.
Shaw, J. E., M.B., appointed Assistant Physician to the Bristol Royal Infirmary, *vice* Dr. H. Waldo, promoted.
*Waldo, H., M.D., appointed Physician to the Bristol Royal Infirmary, *vice* Dr. A. Fairbrother.
Whittle, Edward George, M.B., appointed Surgeon to the Hospital for Sick Children, Brighton, *vice* R. Ingle, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATH.

*GRANTHAM, Thomas P. J., M.R.C.P., late of Burgh-le-Marsh, Lincolnshire, at Falsgrave, Yorkshire, aged 62, on August 4th.

MORE SUCCESSFUL PROSECUTIONS OF ILLEGAL PRACTITIONERS.
—The Medical Defence Association has recently been successful in obtaining convictions under the Medical Act of 1858 in two cases of illegal medical practice. In the first case, the prosecution was instituted by the Central Association; and the offender was a man named Balls, who has been practising as a surgeon for some years past in Bermondsey. He was formerly assistant to a surgeon, since deceased, named Richmond; and on his door-plate he had the following inscription: "Mr. T. C. Balls, (from) Richmond's, Surgeon." The case was heard at the Southwark Police Court on July 21st, and a penalty of £5 was inflicted. In the second case, the proceedings were instituted by the East London Defence Association; and the defendant was a chemist named S. H. Witherington, who resides at 410, Wandsworth Road. The case was heard at the Wandsworth Police Court on July 24th, when it was proved that the defendant had falsely pretended to be a "doctor" and a "surgeon", and the magistrate inflicted a penalty of £15 and costs.

OPERATION DAYS AT THE HOSPITALS.

MONDAY — Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY — Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY — St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY — St. George's, 2 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY — Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY — St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

COMMUNICATIONS TO THE "JOURNAL".

WE have again to impress upon our correspondents that, as the bulk of communications addressed to the JOURNAL is considerably in excess of its space, the task of selection will be greatly facilitated by the observance of studied conciseness.

ASSOCIATE wishes to know (1) where Dr. Horace Green's pamphlet on *Follicular Ulceration of the Pharynx* can be found; (2) *The Diagnosis of Cutaneous Erysipelas from Scarlet fever*.

A QUESTION OF ETIQUETTE.

SIR,—Would you favour me with your opinion on the following case? On my return from visiting country patients, I find a message left with my assistant, from a neighbouring gentleman, "that he desires me to visit him as soon as I could". On arriving at his residence, I find him suffering from an injury for which he has not been (yet) treated. He informs me that he presumes it will offend his former attendant, but he desires to place himself under my care. Do I commit a breach of etiquette by undertaking his case?—I am, etc., OCTOPUS.

August 8th, 1876.

* Provided that the attendance of Octopus is at the express desire and with the free will of the patient, we are of opinion that there is no breach of etiquette.

ALCOHOL IN MEDICINE.

SIR,—A certain section of the profession—I believe a small one—is setting its face against the use of alcohol in medicine. I shall be glad if you will allow me to ask one or two questions. Has the time come when it is considered that the use of stimulants may be discarded? Do "teetotal" practitioners (I use the word in no sense of scorn) substitute beef-tea and milk for wine and brandy? If not, what stimulants are they in the habit of using? Spirit of chloroform, on account of the alcohol, is inadmissible, and, it may be added, the tincture and concentrated infusions of the *Pharmacopæia*. Either, again, is itself of an intoxicating nature, and, therefore, logically speaking, no more deserving of use than brandy. Perhaps carbonate of ammonium is, from the teetotaler's point of view, the most appropriate stimulant, though in large doses probably this would have an effect somewhat similar to that of other stimulants in large doses. But can ammonia always be borne? I am attending a case of extreme prostration following the eruption of scarlet fever. The little patient has a poor appetite, and is very capricious. Small quantities of champagne, given frequently (when she can take nothing else), revive her, and, I trust, will carry her forward, until she can take more of her usual nourishment. She has tincture of iron, well mixed with syrup, every three hours; therefore, carbonate of ammonia would be unsuitable, and, even were it not so, it would be a difficult matter to get her to take ammonia in sufficient quantity. I need only mention this one case in which alcohol seems to be invaluable. Would it not be as unreasonable to erase the preparations containing opium from the *Pharmacopæia* as to forbid the use of brandy?

I should not have ventured to write what to many would appear an unnecessary letter, had I not read strong editorial remarks in the JOURNAL against the use of alcohol—notably one in which you state that a practitioner, in attending "teetotal" families, should invariably be guided by "teetotal" views.—Yours, etc., SHEFFIELD, August 1876.

T. LEEDS.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

AMERICAN ASYLUMS.

THE leading article on the Sheffield Meeting of last week contains an important misprint, by which the word "Senate" is substituted for "Secret" reports. The article was transmitted by telegraph from Sheffield, and the mistake occurred in transcription.

TREATMENT OF LABOUR WITH DEFORMED PELVIS.

SIR,—As regards "An Associate's" patient with deformed pelvis, I would suggest that, if the conjugate diameter of the pelvis be less than three inches, he should bring on premature labour by dilating the os uteri by means of elastic bags. (Vide *Obstetric Operations*, Barnes.) When this should be done, depends on the size of the pelvis. If the conjugate diameter be three inches, it should be done when pregnancy has advanced eight months; if it measure two inches and three-quarters, at seven and a half months; if two inches and a half, at seven. Less than that, he might try it at six and a half months, but with little hope of saving the child; and if the conjugate diameter be less than two inches, it is then impossible to save the child, so the sooner labour is brought on, the better. The *Medical Times* for June 8th, 1850, publishes three cases in which M. Delfrayse seems to have arrested the growth of the fetus by administering once a day for the last two months of pregnancy six or eight drops of a mixture containing a scruple of iodine and two of ioduret of potassium dissolved in an ounce of water. Two of the cases occurred in the same patient. Pregnancy went on to the full time, and the children were all born alive and well. One weighed twenty-two ounces and three-quarters, the other twenty-three ounces and a half, less than the former children of the same patient; and the third, three pounds and a half less than those the patient had previously borne. Should "An Associate" fail to get his patient's consent to have premature labour brought on, he might try this method. —Faithfully yours,
Sunderland, July 29th.

JAMES MURPHY.

IF An Associate, who asks in the number of July 29th for information respecting the treatment of labour with deformed pelvis, will send me his address, I will forward him a pamphlet relating to the same.
CLEMENT GODSON, M.D.
8, Upper Brook Street, Grosvenor Square, W., July 1876.

ANIMAL VACCINATION.

SIR,—Since you seem to ask for more information on the above subject, by appending the editorial note, "The information is rather vague", to my letter of the 11th July, I beg to forward you the enclosed statement with which I have been favoured by my friend Dr. J. Elischer, M.D. Pesth. This gentleman has only recently left England after a stay of several weeks, having been sent by the Hungarian Government to study gynecology, as taught abroad.

"An accidental" observation was made, that the cow's udder was as sensitive to the vaccine-lymph as the human skin, and that healthy lymph inoculated on the cow went through exactly the same process as the Jennerian vaccination in human beings. Lymph obtained in this manner from the inoculated cow can be employed with the same result on man. In this way we have a perfect protection against the accidental inoculation of any disease by means of unhealthy lymph; partly because certain diseases (as syphilis) do not exist in the cow, partly because other diseases are much more readily diagnosed in animals, on account of their lower organisation—viz., a diminution of appetite is a very trustworthy symptom of disease in the cow. The pure lymph of the cow, when examined both with the naked eye and microscopically, is not to be distinguished from that of man. Without any pain or bad consequences, a much larger quantity is obtained than from the child (viz., four to six times as many pustules). Wherever there is an agricultural school, or a great number of cows, there is no difficulty in establishing an institution for the production of healthy cow-lymph; and such institutions exist, as the Royal Cow-pox Institution in Dresden, Saxony; another in Wagen-drüssel, county Zips, Hungary; and others in Galicia and Styria, Austria. I have employed with success lymph obtained from these several institutions. In these establishments the lymph is taken from the cows, under the inspection of the officers of health; and, according to circumstances, the lymph is either distributed gratis to the parish medical officers, or sold to pay expenses. The average price of a quantity sufficient to vaccinate two children is two shillings. This lymph produces, according to my experience, an eruptive fever on the fourth or fifth day; less often, after a longer interval, in some less susceptible children. From this time on, the process proceeds as usual. The same course takes place in the inoculated cows, which are changed from month to month: this can be so arranged that the milk-production is not interfered with."

If any of your readers wish for more information on the subject, I shall be happy to supply it.—I remain, yours faithfully,

BERNARD ROTH, M.R.C.S. Eng., L.S.A.

48, Wimpole Street, W., August 1876.

REGISTRATION OF FOREIGN DEGREES.

SIR,—Will you allow me a small space in your JOURNAL to reply to the letter signed "M.B.," which appeared in a recent number? By the tone of "M.B.'s" letter, he appears to think that "M.D.Brussels" spoke slightly of British degrees, whereas such was not the case. "M.D.Brussels" merely maintained that many foreign degrees in medicine are obtained after tests quite as difficult and searching as many British ones. Comparisons are odious; nevertheless, after such an unwarranted attack as has been made upon foreign degrees, I think it only right and just to say that the degrees in medicine obtained from some continental universities—such as Paris, Vienna, Berlin, Brussels, Heidelberg, Bonn, Giessen, etc.—are held in far higher repute by many British graduates than those obtained from some of our own universities. "M.B." informs us that operations on the dead body form a portion of the examinations for qualifying to practice held by all the best medical examining boards in these countries, and seems inclined to ridicule the ignorance displayed by M.D.Brussels in not knowing this; but I think before "M.B." ridicules the ignorance of "M.D.Brussels," he had better be quite certain that he himself is right in his assertion. Which are the colleges in which operations on the dead body form part of the examinations for a license to practice?

With regard to foreign degrees being conferred on registered medical practitioners after passing the necessary examinations, without any length of residence

being required, I quite agree with "M.B.," that such degrees are obtained. But is not that precisely what we have been agitating for in England for some time back? and are we not about to have similar facilities for obtaining degrees in medicine from the University of Durham, and I hope also Cambridge? Again, "M.B." finds fault with foreign graduates because they are coached by professors prior to entering for examination. What an absurdity! was not "M.B." coached prior to entering for his degree at T.C.D. (or elsewhere, as the case may be)? "M.B." seems to think that no degrees in medicine are ever conferred in the British Isles without a degree in art having first been obtained. Such, however, is not the case. In a few of our universities no one but a graduate in arts can proceed to take his degree in medicine or surgery; but in the majority no degree is necessary, a preliminary examination merely being required, as for a license from a College of Physicians and Surgeons.

No one in the present day can obtain a license to practice without having first of all satisfied his examiner that he has had a sound classical education, therefore I presume that every registered practitioner is a fit and proper person to be admitted to examination for an university degree. It is not all who can afford to send their sons to a British University. A man may have two sons entering the medical profession—C. is sent to T.C.D. and takes his B.A., M.B., and C.M.—G. is sent to a medical school and taken his L.R.C.S.I.; it is not hard that the L.R.C.S.I. cannot at a future time, when he finds he has money and time to spare, present himself for examination for an university degree? Foreign universities are liberal, and accept such licentiates as candidates for their degrees, which are not inferior to, and in many cases are superior to the British degrees, and on that account incur the foolish and jealous displeasure of a few of the younger British graduates. Let not "M.B." imagine that the British graduate is held in higher esteem, or considered to be more learned in his profession than the foreign graduate, simply because the one may register his degree, and the other may not. A physician of a candid and liberal spirit ought never to take advantage of what a nominal distinction and certain privileges give him over other men, who are, in point of real merit, his equals, and will feel no superiority but what arises from superior learning, superior abilities, and more liberal manners.—I am, sir, yours faithfully,
FOREIGN GRADUATE.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest: The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Ipswich Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Reditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Sir Joseph Fayrer, London; Dr. Munro, Cupar Fife; Dr. Alfrey, St. Mary Cray; Mr. Edlowes, Shrewsbury; Mr. Isidor Lyons, London; Dr. A. O. Francis, Derby; Mr. T. Holmes, London; Dr. Hewwood Smith, London; Dr. Brussels Correspondent; Dr. J. B. Russell, Glasgow; Dr. Bantock, London; Dr. Partridge, Stroud; Dr. C. Payne, Sheffield; Dr. Lucas, Neenach; Mr. L. W. Evans, Bawtry; Mr. William Berry, Wigan; Mr. Richard Wood, Bromsgrove; Dr. Lombe Atthill, Dublin; Dr. J. C. Hall, Sheffield; Dr. J. Milner Fothergill, London; The Registrar-General of England; Dr. J. Mathews Duncan, Edinburgh; Dr. J. W. Moore, Dublin; The Registrar-General of Ireland; Dr. Edis, London; Dr. Joseph Bell, Edinburgh; The Secretary of Apothecaries' Hall; Dr. Finlayson, Glasgow; Mr. Hayworth, Wetherby; Mr. Benson, Sheffield; Associate; Dr. Ashe, Dundrum; Mr. T. M. Stone, London; Dr. Humphry, Cambridge; Sir Selwyn Ibbetson, Bart., London; Dublin Sanitary Association; Staff-Surgeon Nelson, Portsmouth; Our Edinburgh Correspondent; Dr. J. Hickinbotham, Birmingham; Mr. Milner, Keighley; Mr. M. A. Wood, Ledbury; Surgeon-Major Burkett, Portsmouth; Mr. Wm. Parker, London; Mr. Holder, Hull; Mr. P. Wells, London; Dr. MacDonald, Cupar Fife; Mr. Bellamy, London; Dr. Whitelaw, Kirkintilloch; Mr. Larkin, London; Koumiss Expertus; Dr. R. Bruce, Edinburgh; Mr. J. B. Unwin, Wigan; Mr. Balmforth, Ardwick; Mr. R. H. B. Carpenter, London; Mr. Evans, Northampton; Dr. R. H. Hilliard, London; Mr. Eastes, London; Dr. Joseph Rogers, London; Octopus; Dr. Clement Godson, London; Mr. C. H. Newby, London; Dr. Russell, London; Dr. J. Gill, London; Dr. Webb, Wirksworth; Mr. J. J. Eberle, Easingwold; etc.

BOOKS, ETC., RECEIVED.

Diseases of the Bladder: being the Fourth Edition of the "Irritable Bladder." By Frederick James Gant, F.R.C.S. London: J. and A. Churchill. 1876.
A History of Asiatic Cholera. By C. Macnamara, F.C.U. London: Macmillan and Co. 1876.
Pontresina and its Neighbourhood. By J. M. Ludwig, M.D. London: Longmans and Co. 1876.
Diseases of the Skin. By H. C. Piffard, A.M., M.D. London: Macmillan and Co. 1876.
Science Papers. By Daniel Hanbury, F.R.S. Edited, with a Memoir, by Joseph Ince, F.L.S., F.C.S. London: Macmillan and Co. 1876.
A Manual of General Pathology. By Ernst Wagner, M.D. Translated by John Van Deyn, A.M., M.D., and E. C. Seguin, M.D. London: Sampson Low and Co. 1876.
A Guide to the Examination of the Urine. By J. Wickham Legg, M.D. Fourth Edition. London: H. K. Lewis. 1876.
Surgery of the Rectum. By Henry Smith, F.R.C.S. Fourth Edition. London: J. and A. Churchill. 1876.

A REVIEW

OF

CURRENT TOPICS OF MEDICAL AND
SOCIAL INTEREST.*Being the President's Address delivered at the Annual Meeting of the
Metropolitan Counties Branch.*

By JONATHAN HUTCHINSON, F.R.C.S.,

Senior Surgeon to the London Hospital, and to the Blackfriars Hospital for Skin-
Diseases; Surgeon to Moorfields Ophthalmic Hospital;
President of the Branch.

It is just seven years since I was favoured with a request from the Council of our Association that I would undertake the editorship of our JOURNAL, and, for about twelve months following, I endured the pleasures of that appointment. A year later, finding its duties incompatible with my other work, I resigned them, and had the satisfaction of seeing them pass into far abler hands. In looking back upon my editorial year, although obliged in honesty to confess that what I enjoyed most in connection with the office was the getting rid of it, yet I remember also not a few things which were sources of gratification. And chief amongst these I used to rank the opportunity afforded, from time to time, of expressing my thoughts on various social questions, either affecting the interests of the profession, or upon which its opinions might seem to have especial value for the public at large. Thus it came to pass that, when I was honoured some months ago by the offer of your Presidential chair—an honour which, let me say *in limine*, I highly appreciate, and for which I most sincerely thank you,—when I came to look round for some suitable topic for the address by which I was to initiate my office, it occurred to me that I might find it in a brief review of some of the opinions I then expressed. The subjects themselves were, several of them, of great interest, and, when I wrote about them, I did my very best to avoid partiality and prejudice, and to allow conflicting facts and opinions their due weight. It is chiefly by pledging myself to act on the same principle now that I shall hope, in some measure, to avoid the charge of egotism which I might otherwise justly incur. It is in the subjects themselves, and not in my opinions about them, that I claim your interest.

The year 1870 very nearly witnessed the success of a carefully considered Government measure of Medical Reform, having for its chief object the consolidation of our various examining boards. This Bill was abandoned, however, at the last moment, just when its success seemed almost certain, on account of opposition offered by some of the Universities, and by certain sections of the profession. It was believed that it had too much of a centralising character, and that it would place too much power in the hands of the Government. The subject was one upon which personally I was scarcely entitled to have any opinion; but, having borrowed light from some whom I accounted most sagacious and best informed in the matter, my sympathies at the time were with the measure. In rejecting it, we preserved our liberties; but we kept, also, a condition of disorder from which escape seems still as remote as ever. When we reflect on the amount of time and energy which have been since expended by many of our best men in fruitless endeavours to bring about an arrangement, and think what they might have accomplished had their minds been at liberty to work in other directions, it is difficult, at any rate to a novice, to repress a feeling of regret that the thing was not done when the opportunity occurred.

At the time when it seemed not improbable that a single examination board would be instituted, and that the special functions of our time-honoured Colleges would in this matter be much restricted, it occurred to me to speculate, I hope not impertinently, upon what might be the probable future of the College of Surgeons in the event of there being no further need of its halls for this purpose. I took the liberty of suggesting that its Council, set at comparative freedom from the onerous tasks which now chiefly engage it, might still find plenty of scope for work in other directions. It was suggested that its schemes for lectures should be revised and extended, and that endeavours should be made to bring its noble museum yet further to a state of completion. Some of the suggestions contained in my leader of April 23rd, 1870, have since

been realised. Thus, a collection of the instruments and appliances used in surgery was begun during the year of presidential office of Sir William Fergusson, and as the result, I believe, of his personal exertions. It has not yet, however, I fear, attained dimensions which would allow it to compete in any degree with several continental ones.

The systematic collection of specimens in comparative pathology, of which a beginning was made by Hunter, still remains a desideratum; nor does the museum, even in human pathology, equal some of those in connection with our schools. The chief burden of my leader was, that the College ought to seek to develop itself as a means for completing the education of those who already possess its diploma, and make certain that nothing should be wanting either in its lecture-theatres or its museum-galleries to attract those who desired to develop their professional knowledge up to the highest possible point.

In connection with the College of Surgeons and the proposed amalgamation schemes, I may just mention that I devoted a few columns in October, 1869, to the advocacy of Annual Examinations. On the great desirability of this reform I still entertain a strong opinion. If every student had to present himself for examination repeatedly during his career, and to proceed step by step, I believe that greater general diligence would be secured during the earlier years of study, and that the labours of teachers would be made much easier. Annual examinations of a tolerably detailed character, would become in themselves most useful means of education. By their aid, students would know how they stood, and would be better able to take their work systematically; whilst parents and teachers would be better able to estimate both the diligence and the ability of those in whom they were interested. A great step in the right direction was taken when the College of Surgeons divided its single old pass examination into two; and I feel sure that great gain to medical education will accrue when we go still further, and make our examinations annual, or even still more frequent.

Amongst the topics in connection with the Prevention of Disease which received most attention, was the necessity of isolation wards in connection with all hospitals, and of isolation homes in all towns. A leader on the latter subject was the means, I had the pleasure of knowing, of materially increasing the interest in the subject, and of helping towards the formation of several such institutions. Its chief argument was, that no town should be without a liberally managed Home, outside its boundaries, into which cases of infectious disease, without regard to the wealth or poverty of the patients, might be admitted, and that every endeavour should be used to make such institutions attractive, and to gain for them the repute of special hospitals.

The relation of our profession to the prevalence of the vice of intemperance is a subject which has often engaged the careful attention of the different editors of our JOURNAL, and it was not neglected during my year of office. Having had myself the great advantage of an education in total abstinence, having never tasted any kind of alcoholic beverage until some years after I had my diplomas, and having been taught from my boyhood to regard the temperance movement as fundamental to all other reforms, I have naturally maintained a warm interest in this topic. In addition to support given to the late Mr. Dalrymple's Bill to permit the State control of habitual drunkards, more than one leader appeared, the object of which was to endeavour to make the professional conscience more alive to the importance of the help which it is possible for us to give in favouring habits of temperance.

I was not able then, nor am I now, to believe that the time would ever come when medical men, as guardians of the public health, would be able to say that they believed that in point of health we should be gainers in the long run by the entire disuse of dietetic stimulants. Undoubtedly, we stand in this matter in a peculiarly difficult position. During the six years which have passed since I wrote anything for the press respecting it, the idea of the feasibility of general total abstinence has gained ground very considerably, and especially has its advocacy been taken up by the clergy of the Church of England, a body of men who for a long time stood notably aloof from the movement. Only the other day a *file* in behalf of the funds of a hospital to be conducted on abstinent principles, was celebrated in the grounds of the Lambeth Palace; and the same week witnessed, at the request of the Archbishop of Canterbury, the formation of a royal commission to inquire as to the best means of reducing the evils of intemperance. I may note also that, during the same week, one of the most brilliant members of our own body occupied the chair at a large public dinner, which was sumptuous in all respects except that wine was excluded. The clergy, however, in reference to total abstinence as a remedy for intemperance, occupy a very different position from that in which medical men are placed. They are at liberty to balance moral against physical good, and to ignore, if they like, some small loss as regards individual health, if they can set against it a large gain in morality. The medical

man, on the contrary, has no such choice, but is bound, in advising his patients, to take into account, almost solely, questions which concern their health. The extreme fewness of the advocates of total abstinence found in our ranks during the half century which has witnessed the discussion of this subject, must be accepted as a very important fact. It implies, there cannot be a doubt, that those who have the best opportunities of judging on the subject, and who encounter it under circumstances of the greatest degree of responsibility, find themselves compelled to admit that, under the conditions of social life in England, habits of total abstinence from stimulants are not, under all circumstances, conducive to the attainment and preservation of the best state of health. I cannot admit for a moment that our present position as a profession in this matter results from luke-warmness. There are hundreds of medical men who would rejoice to advocate, without finching, the doctrine of total abstinence, if they felt they could honestly say to all their patients that they believed they would have better health by adopting it. We are fully and keenly alive to the importance of the matter, but our misgivings as to the practicability of general abstinence, from a health point of view, are such as for the most part to paralyse our wish to help. Short, however, of the advocacy of total abstinence, or of support of the Permissive Bill, it is probable that the medical profession has a most important function of assistance in this great social reform. To judge from the opinions expressed by those engaged in its discussion, it would appear that there is great need for more accurate knowledge of the real nature of the tendency to intemperance. Whilst we hail as gains for their own sake all measures which are calculated to refine the tastes of the poorer classes, and increase their means of enjoyment, it is our duty I think, as the students of physiological fact, to warn a certain sect of reformers that it is in vain to trust to these, and to teach in the clearest manner that the liability to intemperance is a matter of climate, race, and temperament. We know well that the pleasures to be obtained from alcohol are, to persons of a certain organisation, so real, so peculiar, and so seductive, that if once the knowledge of them have been obtained, it is in vain to substitute for them any other. Mental endowments and cultivated tastes stand for nothing when the period of depression comes, which the sufferer well knows can be removed at once by alcohol. It is, for the most part, hopeless to reason with such persons; the true method is to prescribe for them as for the victims of disease.

If all mankind were prone to acquire this irresistible fondness for stimulants which fortunately assails only a small minority, I cannot think that any statesman in his senses could doubt the propriety of the strictest repressive measures. We should deal with alcohol as we do with arsenic, and prohibit its sale excepting under certificates. The difficulty arises from the fact that what is as hurtful as arsenic to a few, is used with advantage and but little risk by a large majority. As medical men, and leaving aside for the time any political opinions which we may hold, I think we can have little hesitation in giving our support to all measures having for their object the reduction of the traffic within the narrowest possible limits, and the removal of temptations to drinking. We may also join heartily in assisting those who hold that it would be wise to permit on the part of habitual inebriates the temporary surrender of their liberty, or even, in some cases, to enforce their restraint, with a view to cure of the individual and the protection of society. Further, we have probably a far wider sphere of influence open to us in connection with those who consult us as patients. If we could all join, and I really do not see any reason why we should not, in making it a matter of habit to urge that all healthy children should be brought up without stimulants, and in encouraging ladies, as a rule, to like abstinence, we should, I think, be effecting an immense good. It is in youth but too frequently that the taste is acquired; whilst for young persons, as a rule, all may admit that stimulants are rarely needed.

In looking through the volumes of our JOURNAL for the year in question, I find that I wrote leaders on the following subjects: The Control of Prostitution, Early Marriages, Over-Population, and the Suitability of Women for the Study and Practice of Medicine. These were in addition to a number of others on more strictly professional topics; and some of these subjects have at first sight only an oblique connection with the objects of our Association, but it will be seen that they hang together, and that in order to hold clear opinions on any one, it is necessary to know a little about them all. On each question I wished to form opinions based broadly upon the real facts. The result of my endeavours in this direction was, as regards one of the most important and most strictly professional of all the questions referred to, that I could never make up my mind at all. I never could feel at all certain whether the extension of the Contagious Diseases Acts to the civil population would be more likely to do good or harm. As to their advantages in respect to the health of our soldiers and

sailors, it appeared to me that there could be no doubt; but the case seemed different when we had to discuss their extension, and thus it came to pass, that although a member, from the first, of the Association for their promotion, I never, during my editorial year, expressed any decided opinion on the matter. It seemed to me that we had better wait until other social questions had further advanced towards solution. During the years which have elapsed, I have continued to give much thought and attention to the subject, and I may now be permitted to record my conviction, that it would be for the benefit of the community to extend the Act to other large towns.

There was another subject somewhat cognate, upon which I did arrive at very decided opinions, and expressed them strongly. This was the Early Marriage question. It appeared to me that the medical profession, cognisant as it is, to so large an extent, with secrets of individual and family life, owes it as a duty to society, to take every means of making known its conclusions; and that we could come to no other, than that the preservation of sound physical, mental, and moral health in both sexes is connected in an essential and inevitable manner with the facilities offered for early marriage. The more I thought about it, the more it seemed clear that the great danger to which English civilisation is exposed comes from this quarter, and that, if there be a concealed rottenness in our midst, destined in the end to defeat our hopes of further national development and progress, it is the love of luxury and expense, which is year by year, amongst a large and most important class, making early marriages more and more difficult. The bearings of this subject are by no means limited to those which are most obvious, and with which medical men are so familiar that I need not mention them. It is to ties of family that we must chiefly look for the correctives of selfishness, the incentives to labour, the prevention of melancholy, and the maintenance of sound zest for life. Lasting attachment to offspring is the great feature which exalts man above the rest of the animal creation, which dignifies his life's labour, by giving it an object, and glorifies his age by surrounding it with love. In proportion as celibacy becomes common and marriage less so, will men become selfish, idle, and unhappy.

I am obliged to pass over with bare mention of titles sundry leaders which I wrote on British Therapeutics, on Scrofula, on Undiscovered Exanthems, etc., because I wish to devote the rest of my address to a subject upon which I shall have to speak in detail.

It was with thoughts such as these above hinted at that I come to the consideration of the most hotly debated subject of the day—I refer, of course, to the propriety of allowing Women to qualify themselves for the Practice of the Medical Art. Having a great respect for the opinions of many who had undertaken the advocacy of this cause, it was with great reluctance that I felt obliged to differ from them. Before putting my pen to a single word on the subject, I did my best to become well informed as to the reasons to which the movement owed its impulse. I had little difficulty in doing this, for some of its warmest supporters were amongst my most valued friends. I will briefly enumerate the chief reasons which they allege:

1st. That there is an acknowledged surplussage of women, especially amongst the more educated classes, and that a certain number have no prospect of ever settling in married life.

2nd. That it is a hardship, and unjust, to prevent a celibate or single woman from earning her livelihood in any honest method that she may select, and that society has no right to impose upon a woman any disabilities which concern her sex alone.

3rd. That if women had more chances of creditable self-maintenance, and more scope in life, independently of marriage, the number of hasty and unhappy marriages would be diminished.

4th. That the practice of medicine, especially in the diseases of women and children, is quite suitable for women, and that in fact, the employment of men is an indelicacy to which custom alone has made us blind.

Other minor arguments were also occasionally used; such, for instance, as that it would be an advantage to feminine education generally that a few of the sex should be instructed in the facts of anatomy and physiology; but the above are, I think, the main ones.

In April 1870, I published an article on "Lady Doctors", in which it was, as far as I can judge, conclusively shown that the admission of women to the pursuits by which hitherto men have earned livelihoods for their wives and children, could not possibly be a real advantage to the sex, but would inevitably tend, in proportion to its extent, to increase the number of compulsory celibates. This article had, I believe, the honour of being reprinted for general distribution in several places where the discussion was active. It never, so far as I know, received any public answer, nor have I ever met any one in conversational debate on the subject, who could shake its conclusions. The point is of the utmost importance; for if it be admitted, that on the

whole, the sex would not gain, by far the main argument is surrendered. To a large extent we lose our perception of injustice to individuals, when we become convinced that what they wish to do would be for their own advantage alone, and to the certain loss of every one else. So also is the argument as to the frequency of unhappy marriages, now turned completely round; for if such occur under the present system, when many men are in a position to offer themselves as husbands, they would doubtless be yet more common if that number were reduced. The whole movement is indeed short-sighted and suicidal on the part of the female sex. What is really wanted for its happiness, is that the number of young clergymen, lawyers, and doctors, competent to maintain a wife and family, should be increased; and most certainly the reverse of this would be the case, if these professions were encroached upon by celibate women. The thing is surely too obvious to need illustration, and, generally speaking, we may assert that all movements in favour of the independence of women are movements in favour of celibacy. The sexes have hitherto worked together in mutual dependence and by mutual help; each taking separate and fairly well defined shares in the duties of life. It is open to society, if it like, to alter this, and to place them as rivals in the same pursuits; but if this be done, it will surely be to the detriment of both, and to the special loss of the weaker, one. This argument obviously applies to many vocations besides that of medicine; to all, in fact, in which the emoluments are sufficient to render them attractive to men who desire marriage.

In reference to medicine specially, much more, as it seemed to me, might be said. In the spring of 1870, a petition in favour of the movement was circulated for signature amongst medical men; and on this occasion I put together the following condensed statement of the case, from my stand-point (BRITISH MEDICAL JOURNAL, 1870, vol. i, p. 474).

"A petition is now being handed about for signature, asking that, in future legislation, facilities may be afforded for the admission of women on equal terms with men to medical diplomas, and to the means of medical education. It is not without great reluctance that we say anything calculated to disappoint the hopes of the well-intentioned enthusiasts who are working for the so-called 'emancipation of women'. So convinced, however, are we that this movement is, in many of its phases, one of retrograde civilisation, that we cannot but beg of any who may feel inclined to sign the document referred to, that they will first devote to the matter a few minutes of conscientious thought. The following questions may be suggested for their consideration.

"1. Is it not the fact that the medical profession is already well supplied as to numbers, and that not a single inconvenience in reference to sex is encountered?

"2. Is it not certain that the introduction of women surgeons will displace an equal number (or nearly so) of men surgeons, and that, except on the hypothesis that an increase of celibacy is desirable, the change will offer no real advantages to the female sex?

"3. Does not all experience support the belief that the mental powers of the female brain differ somewhat from those of the male, and that the difference, whether little or great, in reference to those qualities which are necessary for the pursuit of medical science, is in favour of men?

"4. Is it not self-evident that special inconveniences would be encountered by ladies in the daily practice of the profession?

"5. Is it not probable that medical science would progress less rapidly if it were cultivated solely by women? and is it not fair to assume that if the change be but partial, the damage will be in ratio with the extent of substitution?

"6. Are not the real interests of the two sexes absolutely identical, and will not both suffer if the standard of feminine delicacy be lowered?

"7. Is it possible to give any definition of feminine delicacy which shall permit to young ladies, under any circumstances short of absolute necessity, the study of medical jurisprudence, and the perusal of Mr. Acton's books?"

About the same time I wrote another article, entering in some detail upon the question of the fitness of the female brain for such pursuits as that of medicine, and raising the issue as its possible perfectibility in the masculine direction under altered social habits. My conclusion was that the male brain possesses undoubted advantages in this matter, and that it is, fortunately for both sexes, as impossible as it is undesirable, under physiological laws, that any alterations in the pursuits of the two sexes should ever produce equality. The inference, of course, was that it would be wiser to leave the pursuit of biological knowledge, the advancement of medical science, and the practice of medicine and surgery, in the hands of those best fitted for it.

I may, I think, claim on behalf of my writings on this subject, that

although they may have been heavy, they were never flippant, and that my endeavour was to convince and not to ridicule. If, however, I had been hopeful of much evident result, I was doomed to disappointment. Whether it was to be attributed to any flaw in my arguments, to my want of dexterity in putting them, or to the lack of logical faculty on the part of my fair antagonists, I do not know, but the fact is that I never heard that any one of them had been convinced, and had determined to abandon her eccentric projects. From the history of the movement since, it might seem that I had been aiming to repress the irrepressible. We all know that a ladies' medical school has been established in London, that we have several lady doctors engaged in practice, that our Medical Council has replied to a question from Government, to the effect that it sees no reason why impediments should be placed in the way of granting diplomas to ladies, and that the House of Commons has expressed its intention to pass a Bill which will enable our boards to grant such diplomas. Admittance to the wards of any of our hospitals, for the purpose of receiving clinical instruction, has not as yet been obtained; but there seems every probability, and that before long, either that it will be granted, or what would be less open to objection, that a hospital will be provided for this special purpose. Notwithstanding, however, the advance which the movement has made, I am by no means yet inclined to abandon control very concerning it.

A considerable and important misunderstanding appears to exist in the matter between the public and the profession, and it seems quite possible that it may hurry us into action, the results of which will in the future cause much regret. The public is, I believe, under the erroneous impression that a considerable and yearly increasing section of the profession looks with favour on the movement, and makes the yet more serious mistake of supposing that the rest oppose it chiefly in consequence of the narrow prejudices which are incident to a class. On the other hand, the profession rates, I believe, at far beyond its real weight the strength which the movement has attained amongst the educated public, and credits those who advocate it with much better reasons for their actions than they are able to produce. I make these statements as the result of extensive inquiry, for I have listened patiently many an half hour to such arguments as the friends of the movement could offer, and I have lost no opportunity of cross-questioning those who, I thought, could give real information. The result has been a strong conviction that we are in danger of weakly yielding to the persevering energy of a very few a point of great social importance.

Let me speak first of the position taken up by the public, and, let me add most willingly, by a part of the public which is well informed and well intentioned. It seems to be mainly this, that there exists a number of women for whom it is difficult to find remunerative occupation; that it is unjust to exclude a woman from remunerative occupations on account solely of her sex, and that sex is no natural bar to the study of medicine. Nor need we wonder much that at first sight these propositions seem to many undeniable; for it requires careful thought and special knowledge to determine the true bearings of each. In the first place, let me protest that very few, excepting medical men, know what the study of medicine means. The prevalent opinion is, I believe, that medical knowledge is now so well advanced, that it needs but to master a certain number of rules and recipes, much like those of a cookery book, and then to apply them with kindness, sympathy, and tact. A leading newspaper, only the other day, taunted the profession with the absurdity of supposing that women were out of place in medical pursuits, when, as it asserted, many of the heroines of our earlier novelists were said to be skilled leeches; and Lord Sandon, in the House of Commons, protesting against the same prejudices, asked if it was supposed that the lady nurses in hospitals, those who went to the Crimea, for example, sustained degradation in doing it. Now it is precisely this distinction between a skilled nurse or a trained midwife, and a true surgeon, which we are so anxious to draw. I need not remind this meeting that it was on this ground, and not as expressing any opinion on the general question, the examiners in midwifery at the Royal College of Surgeons nobly sacrificed their own interests, and, by resigning their appointments, protested against allowing those who had been examined in but one department to receive diplomas which would be held to imply a general medical training. How miserably low the public estimation is of the details of medical knowledge, and of the possibilities of medical progress, we have unfortunately but too frequent proof. We have had to encounter this natural but much to be regretted result of ignorance in reference to the Vivisection Bill; and it is again, I am convinced, at the bottom of the public belief that women are fitted for medical pursuits. It is the duty of the profession, as it seems to me, to protest that it is not possible to admit of partial forms of medical education, and that a practitioner, trained only in the diseases of women and children, would

be a most unsafe one even as regards them. A nurse is one thing, a practitioner is another; and none but medical men know the extent, the detail, the character of the knowledge which must be gained and kept in head by the latter. We can easily understand that it strikes many a mother that it might be a very convenient thing if she could have a sort of medical lady friend to whom she could resort in all minor matters regarding the family health, and from whom she would not expect of her that she had studied more than the diseases of women and children, a speciality which to the popular apprehension seems to rank with botany amongst the sciences, as one which is innocent, free from indelicacy, and not likely to overtax the mind. That with equality of diplomas, the production of such a race of practitioners is possible, may easily be denied; and that, if practicable, it would be advantageous in the whole, may easily be doubted. Nothing is less wise than to exclude a man from familiarity with what is common, and then expect him to be skilful in what is rare. To entrust the ordinary forms of disease in women and children to women doctors, and the difficult ones to men, would be to develop two classes of practitioners, neither of whom would be wholly trustworthy, and whose duties would constantly bring them into most disagreeable collision. Yet something of this kind is, I feel sure, what is really contemplated by almost all the upholders of the movement amongst the public. They assert roundly that there is nothing indelicate or improper in the study and practice of medicine by ladies, but it is of its study and practice in this limited fashion that they are thinking. Did they really know what a full knowledge of pathology implies, what the dissecting-room is, the kind of information to be found in many of our medical works, and lastly, but chiefly, that it is impossible to know one part well without knowing all, they would exclaim at once, "By all means let such things be left to men." I do not assert that any knowledge necessarily degrades or taints the mind; but I do say that, unless there be a clear motive of duty in its acquisition, a real necessity, there is much in connection with the study of medicine which had far better remain unknown. My verdict in this matter is in consonance with common sense and with the general conclusions of mankind. Of the details of this special case medical men only can, I repeat, judge; and I much mistake if there be one in a thousand who would give his consent to any young female relation of his own engaging in the full study of medicine.

By a curious coincidence, I had written to exactly this point, when yesterday's *Punch* was put on my desk, and my attention was directed to a clever article, entitled "Chloe, M.D., on Mr. Cowper-Temple's Bill". At the end of the verses thus entitled, come a few sentences in prose, which express very well what is, I believe the popular notion on the subject, and so strongly support my interpretation of it, that I must quote them. They are as follows: "If the Medical Council and other leading medical bodies could see a way by which women might obtain a separate medical education, without overtaxing the staff of the medical schools, and afterwards, on passing the needful examinations, be admitted to practise, within the conditions of their sex and the limits of their powers, the question which has been fought with such needless bitterness might be solved to the public advantage, and with no violation of decency or propriety on the part of the ladies who aspire to the degree of *Medicina Doctrix*."

Thus it will be seen clearly that it is thought possible, and even advantageous, to constitute a new grade in the profession, which should practise "within the conditions of the female sex and the limits of its powers". It is precisely against this proposed limitation that our profession should, I think, make its voice heard. The expedient would answer no useful purpose; a grade less highly and less completely educated than men now are, would be a hindrance to the efficient administration of medical science, and its representatives would themselves occupy an anomalous and most uncomfortable position. If a diploma could be framed to the effect that "Miss — is licensed to practise in two-thirds of the diseases of women and children", the objection might in part be removed; but, unfortunately, the third for which she would not be fitted could not be defined, and her ignorance and inaptitude for it would constantly be attended by loss to her patients.

I have been trying to argue that the public feeling in the matter ought not to count for much with the profession, for the reason that the public does not and cannot understand what it is which it is asking. My next point is, that the public is under a great misapprehension as to what the opinions of our profession really are. There are amongst us, I believe, a few who really regard it as a thing to be desired, for the good of society, that women should be admitted to our medical schools, and become qualified to practise; but I suspect that the number of these is exceedingly small, and that it includes scarcely any who are actually engaged in practice. Another and somewhat larger section,

impressed with a strong and most laudable feeling of sympathy with those of the female sex who seem debarred from marriage, and who claim as a right that society should allow them to earn a livelihood as they think best, are unwilling to put any impediments in the way of their engaging in medical pursuits. This class entertains no very strong feelings either way, and with a certain sentiment of regret that a distasteful thing should, under the complicated conditions of modern civilisation, have become seemingly necessary, is willing that the experiment should be tried. A third, and by far the largest part of those in our profession, who are now willing to allow ladies liberty in this respect, regard the experiment as certain in the end to fail, and think that the agitation in its favour lives best under opposition. They are tired of being accused of injustice, and have come to believe that the best solution of the question will be attained by letting the movement work itself out unimpeded, and come to its own end. Of those who still deem it their duty to be actively and heartily opposed to it, and amongst them I count a very large majority of the profession, it is, I think, very unjust and unfair to say that class prejudice is an important or frequent basis of opinion. It is difficult, indeed, to see how such opposition should arise, unless there were some real foundation for it. If ladies were really fitted to become our colleagues in medical matters, to associate with them would be at least as pleasant as with men. It is rather, I am convinced, a deep-seated conviction that the thing is unsuitable, and that women could never on equal terms so associate with us, which leads to this so-called prejudice. Allusion has already been made to the utter distaste which medical men almost invariably avow to the thought of allowing their daughters to study medicine. This is a fact which ought, I think, to weigh for much in the public mind, as indicative of the real opinions of those best capable of judging. The vote given in the Medical Council last summer conveyed, I believe, a very erroneous impression as to the real views of our senators. It was not so much an expression of approval, as of reluctant unwillingness to offer further opposition. One of the members who voted with the majority said, after the discussion, in answer to a direct question, that "He would rather see his daughter in her coffin than allow her to follow the medical profession".

There is yet another aspect of the question, to which both the profession and the public ought to give serious thought. If a few ladies are to be admitted to the practice of medicine, they will be compelled to do what they can to uphold the notion that there is a degree of impropriety and indelicacy in the consultation of men by women. Amongst the less civilised communities this notion still prevails; it was once common in England, and it has only been gradually overcome. That the removal of this prejudice has been attended by greatly increased security as regards life to women in child-birth, and by a vast diminution of their suffering under various conditions of disease, no one can doubt in the least. To revivify it now will be simply to increase such suffering and risk, by rendering women of a certain temperament prone to conceal their ailments, and reluctant to accept the means which science offers for their relief. The agitation which has already taken place, has done harm in this direction, and more will be done in proportion to the extent of the movement. We have been told quite lately that women doctors are wanted, because the Hindoo women refuse to be attended by men. I believe that this statement is incorrect as regards general disease, and that it applies only to midwifery, and even to it not universally. I quite admit that this, the newest, is also the strongest argument in favour of the movement, but would still beg to suggest that it would be better for the Hindoo women to endeavour gradually to remove their prejudice, and meanwhile allow them to be attended as heretofore by their own practitioners, than to start, under the pretext of their benefit, a cumbrous machinery, the results of which will probably never be appreciably felt by them. Still, I freely admit, that if we are to have lady surgeons, India will be a far more fitting place for their location than England.

That it is hopeless in English practice ever to bring about a perfect arrangement of men for men and women for women and children is obvious, and the warmest advocates of the movement with whom I have conversed, defend it in large part by the allegation that the number of women who would wish to enter the profession would never be large. Thus, then, we should, for the sake of those few, attempt to raise in the feelings of all women a sentiment of distaste for the medical services of men, whilst we should offer them no alternative but to accept them. It seems to me that this would be a cruel procedure; and that it would result in much practical inconvenience and detriment to thousands of women, I have not the slightest doubt.

Then, as to the matter of asserted delicacy itself, the dilemma is a very curious one. Miss Smith, young and unmarried, will brave the dissecting-room, the medical library, and the clinical lecture, in order

that matronly Mrs. Robinson may avoid the indelicacy of having to call in Dr. Jones at her next confinement. After all, physical advantages and social expediency put aside, and delicacy alone considered, will the sex gain anything?

I come next, and lastly, to the question of the polity of continued opposition. As already hinted, I know that there are a great many who, hating from their very souls the charges of trade-unionism and illiberality, have withdrawn all active opposition, and avowed themselves in favour of having the experiment fairly tried. To those who feel uncertain on the matter this is the proper course; but I own that I cannot think that those who, after careful consideration, find themselves still entertaining strong opinions, have any right to conceal them. If the profession is, as I believe, very nearly unanimous in the matter, and would regard the success of the movement as a very serious evil, then it is best that we should, fearless as regards charges of class prejudice, make this judgment known, and try, at the same time, to explain to the public that there are many matters concerned of which we only can properly judge. Society cannot afford the wanton trial upon itself of dangerous experiments, and it is no part of the duty of an honest citizen to fold his arms and allow that to be done without remonstrance, which he believes will prove to the hurt and loss of those who are to follow us.

Here, gentlemen, I must conclude. If I have dwelt at too great a length upon my own opinions, I must crave your pardon, and beg you to attribute it in part to the pleasure which an author, however humble, always takes in recurring to his former writings, and in part to the feeling of elation and self-consequence which you have produced in my mind, by placing me in the position of your President.

ON CHANGES IN THE URINE: BEING A COMMENT ON A COMMUNICATION BY DR. BASTIAN.

By L. PASTEUR, Professor in the University, Paris.

[PROFESSOR PASTEUR has forwarded to us for publication, through Professor Tyndall, the following communication, being a copy of a note which he has addressed to the Academy of Sciences on the subject of Dr. Bastian's recent memoir read at the Royal Society, of which we lately published an abstract in the JOURNAL.]

The Academy has recently received a communication from Dr. Bastian, a declared partisan of spontaneous generation, whose writings have this very year had the honour of being refuted, before the Royal Society of London, by the celebrated English physicist Tyndall.

More fortunate than the discoverers of perpetual motion, the heterogenists will for a long time to come enjoy the favour of provoking the attention of learned bodies. In mathematical science, it can be demonstrated that a proposition is not and cannot be true; but the natural sciences are in less favourable circumstances. Mathematicians can disdain to look at any memoir which has for its object the quadrature of the circle or perpetual motion; but the question of so-called spontaneous generation, on the contrary, always has the privilege of agitating public opinion, because, in the present state of science, it is impossible to prove *à priori* that the manifestations of life cannot take place at once, without the intervention of an apparent pre-existing life.

Let any observer whatever announce that he has discovered an arrangement by which life may be made to arise spontaneously, and he may be assured of the prompt support of all the systematic adherents of the doctrine, and of awakening doubt among those who have acquired only a more or less superficial acquaintance with the subject. The works of which I speak will gain still more attention if, as is the case with Dr. Bastian, the author be a person of high position, possess dialectic talent, be an able writer, and a conscientious observer.

For twenty years I have sought, without finding it, life without apparent pre-existing life. The consequences of such a discovery would be incalculable. The natural sciences in general, and medicine and philosophy in particular, would receive from it an impulse which no one can foresee. As soon, therefore, as I learned that I had been outstripped, I hastened after the fortunate investigator, ready to test his assertions. It is true that I approached him full of distrust. I had so many times found that, in the difficult art of experimentation, the most skilful stumble at every step, and that the interpretation of the facts is no less dangerous.

Let us see if Dr. Bastian has been able to overcome these two dangers. It might be thought that he had, on reading the title of his

communication, "Influence of the Physico-chemical Forces on the Chemistry of Fermentation", and the following passages, which I extract *verbatim*.

"My observations," he says, "were made on urine which was raised to the boiling-point and removed from the influence of all atmospheric germs, and which, therefore, according to the germ-theory, should remain sterile. To determine the production of bacteria in this urine, I employed, as chemical agencies, potash and oxygen, and as a physical agency, a temperature of 122 Fahr."

The author terminates his article with this declaration: "It follows thus from the experiments which I have just analysed, that the fermentation of urine is absolutely independent of germs which may exist in the air."

I hasten to declare that Dr. Bastian's experiments are in fact very exact; in most cases, they give the results which he describes. I will even add that it is quite unnecessary to operate, as he has done and as he appears to think necessary, at a temperature of 50 cent. (122 Fahr.) In the present season, the temperature being 25 to 30 cent. (77 to 86 Fahr.), or even lower, boiled urine, rendered alkaline by liquor potassæ, and exposed to an atmosphere of pure air, becomes loaded with bacteria and other organisms. If Mr. Tyndall, as Dr. Bastian has alleged, believed that this was not so, it was simply an act of forgetfulness on his part. Dr. Bastian cannot be ignorant, indeed, that the experiments which he has communicated to the Academy, or at least experiments belonging absolutely to the same class, were made by me and published for the first time in 1862, in a memoir entitled "On the Organised Corpuscles which exist in the Atmosphere: an Examination of the Doctrine of Spontaneous Generation". In that memoir, I showed that acid fluids, which are rendered sterile in all cases by previous exposure for some minutes to a temperature of 100 cent. (212 Fahr.), are, on the other hand, fertile if rendered feebly alkaline.

The novelty which Dr. Bastian has introduced into his work, by having recourse to a temperature of 122 Fahr., is only apparent, since this condition is altogether superfluous. There is, then, between Dr. Bastian and me only a difference as to the interpretation of experiments which are now common to both of us.

Dr. Bastian says: "These facts prove spontaneous generation." I reply that they do nothing of the kind; they only show that certain germs of low organisms resist a temperature of 100 cent. (212 Fahr.) in neutral or slightly alkaline media; doubtless because their coverings are not, in these conditions, penetrated by the water, while they are so, on the contrary, if the medium in which they are heated be slightly acid. *Apropos* of this, I will call to mind the fact that the workmen of Rouen, as M. Pouchet has informed us, have observed that certain exotic seeds attached to wool brought from Brazil germinate after four hours of exposure to the temperature of boiling water; and M. Pouchet has proved that, every time germination took place after such prolonged ebullition, the seeds had preserved their size and their hard coverings, and, in a word, had not been penetrated by the water or the steam; in the contrary case, germination always became impossible. (Pouchet, *Comptes Rendus*, 1866.) As regards dissemination through the dust suspended in the ordinary atmospheric air, I have shown directly that they perish in an acid medium at a temperature of 100 cent., but remain fertile in an alkaline medium, in which a temperature from 100 to 110 cent. is required to destroy them. The following facts will bring conviction to all minds.

Will Dr. Bastian assure himself of the error in the interpretation which he gives to my results, confirmed by his own? He can do so easily. He obtains bacteria by saturating boiled urine with a solution of potash. I invite him simply to drop into the urine, not an aqueous solution of potash, but solid potash after it has been heated to redness, or only to 110 cent. (230 Fahr.) The experiment will never succeed; that is to say, no bacteria at all will be found in the urine exposed to a temperature of 30, 40, or 50 cent. (86, 104, or 122 Fahr.) The conclusion which he has drawn from our common experiments is, then, absolutely inadmissible; for it would be absurd to assert that the *primum movens* of life is in the fused caustic potash. This is the decisive experiment in the subject which engages us. In a word, I beg Dr. Bastian to simply eliminate the germs of bacteria which may be contained in the solution of potash which he employs. If, in consequence of the arrangement which he employs for experimentation, and which he does not describe, Dr. Bastian has any difficulty in first raising the potash to a red heat before letting it fall, cooled and solid, into the urine, let him still use the aqueous solution of potash, but, in place of heating it to 100 degrees cent., let him heat it to 110 degrees. In this way, again, he will have sterility in all cases, if he operate with rigid accuracy. Finally, if Dr. Bastian still have doubts, let him omit the preliminary boiling of the urine. It is assuredly a remarkable

fact, although it only comprises one of our assertions regarding the normal urine of a healthy man, that we still find sterility of the urine rendered alkaline by letting fall into it a piece of solid potash, of determined weight, in the case of urine absolutely normal when discharged from the bladder, and collected with the precautions which I have indicated in the second chapter of my recent work on beer, in order to avoid the contact of atmospheric germs.

Dr. Bastian is a conscientious seeker after truth. There is now no alternative conclusion. I have the firm hope that he will abandon his belief in spontaneous generation and in the proofs which he believes he has given of it.

NOTE ON THE FERMENTATION OF URINE, WITH REFERENCE TO A COMMUNICATION BY M. PASTEUR.*

By H. CHARLTON BASTIAN, M.D., F.R.S.,
Professor of Pathological Anatomy in University College, etc.

At the sitting of the 17th of July, M. Pasteur read to the Academy a Note relative to a communication which I had the honour of making to it at its sitting of the 10th of July, having reference to the question of so-called spontaneous generation. I ask the permission of the Academy to submit to it to-day the following facts.

In order to interpret the fact admitted by M. Pasteur, that urine rendered sterile by ebullition is able to enter into fermentation by the addition of a definite quantity of liquor potassæ previously raised to 100 deg. C., he contents himself by affirming that some bacteria-germs are capable of surviving in this caustic fluid, even when it is raised to the temperature of ebullition.

This hypothesis, sufficiently incredible in itself, has been absolutely refuted by a great number of experiments which I have made this year. These experiments have shown that the boiled liquor potassæ is able to fertilise the sterilised urine, only when one employs it in a proportion corresponding with the acidity and the exact quantity of the liquid submitted to experiment. If the solution of potash in reality only fertilised the barren urine by reason of its containing living germs, as M. Pasteur supposes, then a very minute quantity of this fluid ought always to be capable of acting upon an indefinite quantity of urine, and its degree of acidity would not be a matter of importance.

I would pray M. Pasteur to have the goodness to submit to the Academy some direct evidence in favour of his view that some germs of bacteria can survive in a liquid so caustic as the liquor potassæ of the *[British] Pharmacopœia*, when it is raised even for a few moments to the temperature of 100 deg. C. None of the experiments of his celebrated memoir of 1862 appear to me to throw any light upon this point.

I would also announce to the Academy this fact, that fresh acid urine ferments after ebullition without the addition of liquor potassæ, but solely under the strongly stimulating influence of a temperature of 50 deg. C. [122 deg. Fahr.], when its acidity is not very marked; that is to say, when the urine might be neutralised by a quantity of liquor potassæ not exceeding one-and-a-half per cent. Such boiled fluids cannot contain bacteria-germs. M. Pasteur himself says again, "I have directly proved that they perish in an acid medium at 100 deg. C. (212 deg. F.)."

I am also able to add that many other acid organic fluids, in which all bacteria-germs have been killed in the same manner, would remain sterile at a temperature of 25 deg. C. (77 deg. Fahr.), though these same fluids are capable of fermenting in a few days, and of swarming with bacteria, if they are exposed to the provocative influence of a temperature of 50 deg. C. (122 deg. Fahr.). The discovery of this fact seems to me to be of immense importance for the establishment of the truth of the doctrine of so-called spontaneous generation, and for the overthrow of the vital theory of fermentation, as an exclusive doctrine.

THE USES OF ANNUAL MEETINGS.

*Extract from an Address delivered at the Annual Meeting of the
South-Western Branch.*

By C. H. ROPER, M.R.C.S. Eng.,

Senior Surgeon to the Devon and Exeter Hospital; President of the Branch.

[AFTER thanking the members of the Branch for electing him to the Presidency, Mr. Roper said:] My second duty is most clearly to give all those gentlemen who come to our meeting a cordial and hearty wel-

come to our fine old city, Exeter, which has for long years past been known as the Queen of the West—a fair and beautiful city, situated in a lovely country, with beauties of nature surrounding us on all sides. In the name, then, gentlemen, of the profession in Exeter, I bid you a cordial welcome, and hope that we may be able to make this day, which is a professional man's holiday (and they do not get many), as enjoyable as may be. It is usual, on the occasion of these gatherings, for the President to address a few words to the meeting on such matters of professional interest as may present themselves to his mind. On looking round the walls of the room in which (owing to the kindness of the President and Committee of this Hospital) we are now assembled, we see portraits of many most distinguished men, who in past years have met in this same room in which we now are, and on the same errand. What a change has twenty-five years made in the professional circle in this city! Are not the memories of Blackall, Barnes, Miller, James, and Harris dear to us all? and, since our last meeting in this city, have we not lost a Delagarde, who presided over the last meeting here, and a Kempe? These have all been good steady workers in the cause of doing good to their fellow-creatures, and left behind them brilliant examples of highmindedness and industry which we shall all of us do well to follow.

The British Medical Association has for one of its principal objects the maintenance of the honour and respectability of the profession generally, by promoting friendly intercourse and free communication of its members; and it is on occasions like the present that members from all parts of the country meet each other, and have the opportunity of talking over any cases or troubles they may have with their professional brethren, which is sure to be followed by good; new acquaintances are made, old ones renewed, and thus a day as this may be made something more than a mere holiday.

The profession of medicine and surgery is truly a very noble one; the sole aim of its members being to work and toil for the good of their fellow-creatures, and, in so doing, gain an honest livelihood for themselves. I would remind you, gentlemen, that in many ways we may be said to labour against our own interests. In the great sanitary work which is now being carried out over the length and breadth of the land, are not the members of our profession striving to their utmost to help the good work? and in this they are, to a great extent, sacrificing their own interests; for if sanitary measures are carried out so as to stop those diseases which are preventable, surely the public will not require so large a number of medical advisers. This is a matter, however, which has always been lost sight of by those disinterested and distinguished men, whose sole aim seems to be to benefit mankind.

[Mr. Roper then gave a summary of the instruments of precision now in use by medical men, and of the recent progress of medicine and surgery.]

I trust you will bear with me a short while longer, for I wish to touch upon a point which I think a great deal about, viz., the utilisation of our provincial hospitals for the tuition of students. It is always to me a source of great regret that we see so few young men in our wards, as a preparatory step to their entering on their course of study in the metropolitan schools. I feel certain that any young man does better to commence his study and observation of disease in a provincial hospital than he does by at once going to London or other schools.

Our professional work is eminently practical, and a matter of observation. A youth just leaving school has the best possible opportunity of learning the rudiments of his profession, and so rendering his opportunities greater of profiting by the more severe aftercourse elsewhere. He may learn practical surgery, dressing in every form, osteology, and, at this hospital, practical anatomy, dissecting—two subjects have been dissected by the students this winter—the elements of physiology, medicine and dispensing; chemistry and botany, at the science classes at the Albert Museum; and these he may acquire by easy steps and methods, so as to be enabled to make a much better stand in London or elsewhere, when he has been two years, or even one, in the provinces; and, to my mind, it is much to be regretted that more students do not commence here, where they also may have the privilege of attending the excellent practice of our sister institution, the Eye Infirmary, where, in the course of last year, the large number of 981 cases were under observation and treatment, of which 266 were submitted to operation.

At the quarterly meeting of the Committee of the Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland, held last week in Belfast, the Chairman (Alderman Whitaker, M.D.) was enabled to state that the example shown by the medical students of Queen's College, Belfast, in generously contributing to the funds of the Society, had been followed by the students of Trinity College, and the other medical schools of Dublin.

REPORTS

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.

HOSPITAL NOTES.

MIDDLESEX; GUY'S; UNIVERSITY COLLEGE.

Ergot in Hemoptysis.—Dr. Greenhow had had excellent results from the internal administration of twenty to thirty drops of the fluid extract at suitable intervals; he had had no occasion to use the hypodermic injection. Turpentine, internally, he found the best alternative treatment.

Inhalations.—In chronic bronchitis, one teaspoonful of turpentine to the pint of boiling water, was an useful form; or ten drops of creasote in the same; in spasmodic dyspnoea, one teaspoonful of ether given in the same manner was very efficacious.

Chorea: Zinc.—A boy having had severe rheumatism, which had impaired the use of his arms, was attacked within a month with chorea, which seems to have commenced in the muscles which were most affected. He was taking arsenic as a remedy, but Dr. Greenhow had found, as a rule, much the best results from zinc, in gradually increasing doses. Rest and the shower-bath were important adjuncts.

At Guy's Hospital, Dr. Habershon, agreeing that most cases of chorea recover with hospital rest, etc., had found zinc the most efficacious of medicine; he usually began with one-grain doses, and increased one grain *per diem* to ten, fifteen, or twenty grain doses, and often without producing sickness.

Rheumatism, Treatment: Quinine, Iodide of Potassium, Salicin, Bath.—A pill of quinine two grains and extract of henbane three grains, every four or six hours, with three to five grains each of iodide of potassium and carbonate of ammonia in mixture. This medicine is, with slight variations, found, in Dr. Greenhow's experience, to be superior to any other. He had had but little satisfaction with salicin in doses of about twenty grains. Dr. Henry Thompson usually adopted a moderate alkaline treatment for rheumatism; and, out of about twenty cases in which he had used salicin, had only specially good results in one or two; but the majority had been of subacute character. In the case we saw, and in which salicin had seemed to relieve pain, the heart was affected at the time of admission.

At University College Hospital, we observed salicin given sometimes in drachm doses every six hours. The cases treated by this medicine were not sufficient to warrant a definite conclusion; a few were considered highly satisfactory, but others by no means so, and it was found that dryness of mouth and constipation attended its use. The larger doses produced phenomena very like those of cinchonism.

We saw with Dr. Greenhow, a young woman convalescent from severe acute rheumatism, during which cool baths had been used with advantage. The temperature having risen to 106 deg., and the patient being somewhat delirious, but with no cardiac complication, she was placed in a bath at 70 deg. for twelve minutes, with the result of lowering the temperature by two or three degrees, and of inducing calm; the attack, however, continued for many days longer, and she had at intervals, according to the rise in temperature, sixteen baths at from 65 deg. to 75 deg., and for not more than fifteen minutes at a time. Internally she took only quinine.

Abdominal Tumour.—A single woman, aged 29, had noticed a lump in the right flank for about six months; it is smooth, rounded, very movable, dull on percussion, and situate between the lower margin of the liver and the umbilicus, to the right of the middle line; it is larger than an orange, and is not thought to have increased in size lately; fluctuation in it is considered doubtful because of its extreme mobility; it is possibly, but not very definitely, continuous with the liver; there is no uterine or pelvic connection, and the pancreas and kidney are excluded because they would, in all probability, have resonant intestine in front. The tumour is painless, and there are no hepatic or gastric symptoms. Mr. Hulke had seen two cases in which a distended gall-bladder had produced a very similar appearance, but there were more "liver" symptoms. Dr. Greenhow had seen two similar cases, which had remained stationary for some years, and their exact nature was not yet clear.

Tracheotomy: New Tracheal Tube.—In an urgent case of syphilitic laryngitis, under Dr. Greenhow, Mr. Hulke had performed tracheotomy with relief, and had introduced a tube which has been devised, we

believe, by Mr. Karop, the senior house-surgeon. It is a single tube of coiled silver wire, with an ingenious collar, which admits of ready changing of the tube when necessary; it seems to facilitate the passage of mucus, and the patient was certainly breathing with great ease, and without requiring the use of feathers, sponge, etc.

Cancer: Treatment.—The application of stramonium ointment was found to give great relief to pain. Mr. Henry Morris had good result in a severe case of epithelioma involving nearly half the scalp, with "Fell's Paste" (chloride of zinc, flour, and liquor opii sedatives, sufficient to form a paste). The first application produced an eschar, which was cut through so that the remedy could be applied deeper, and applications having been made daily, or on alternate days for about a month, the whole mass came away leaving the bone exposed; finally, a thin sheet of this exfoliated, the wound healed, and the patient has remained well for several months since. Mr. Morris had also a severe case of prolapsus of the rectum cured by longitudinal stripes from the galvanocautery.

Intracranial Sarcoma.—Under Mr. Hulke's care, we observed a man, of 40, who applied a year ago with severe pain over the left temporal region, and ptosis of the left lid; there is now distinct prominence of bone over the left temple, and he has palsy of the fifth, and of the portio mollis of the seventh nerve: that is to say, there is no sensibility in the upper part of the left face, or upper part of the tragus of the ear; there is no taste along the left side or at the root of the tongue; there is deafness of the left ear. The probable explanation, is the growth of a sarcoma (spindle-celled) from the cranial bones or membranes.

Theine, in grain doses, repeated if necessary, was often found useful by Mr. Hulke in headache, though he was not satisfied as to the exact form for which it was best suited. A woman, with uterine cancer, stated that she got attacks of acute "jumping headache" which were much relieved by this medicine. She had been in the hospital for eleven months, and, as she had not been subject to headache before, it might seem connected with the confinement. (Theine occurs in acicular crystals of bitter taste, not unlike quinine; it is advantageously mixed with a little white sugar for administration. According to Daniell, whose results were corroborated by Dr. Stenhouse, it is identical with caffeine, guaranin, and the active principles of the kola nut, but not of coca.)

With regard to the ventilation of the wards at Middlesex Hospital, we understand that several of the Committee desired to introduce Tobin's tubes, but that the experience of St. George's and other hospitals was not considered sufficiently encouraging. In our own visits to other hospitals, we have always found them highly approved.

Lichen Planus.—We saw two well marked cases in the skin department at Middlesex Hospital; one in a sempstress, aged 28, who said that the groups of pale flattened papules with depressed centre came about six weeks ago near the knees, and about a month ago below the elbows and at the wrists; the former patches were already brown in parts. The other case was in a woman aged 68, who had had the malady more generally diffused for about twelve months; the neighbourhood of the joints was also affected, and there were deeply pigmented patches and much irritation. In both cases, there was history of trouble and privation. At University College Hospital, we saw another case very similar to the last, but more chronic and with relapses. We observed vaseline in frequent use for this and other cases in Dr. Tilbury Fox's department.

[*Vaseline* is the American name for the residue left after distillation of petroleum, purified with animal charcoal at a high temperature, according to a patent process. We believe that "cosmoline" is a very similar substance, and, indeed, that a lawsuit as to patent rights is now pending between the manufacturers in New York. Vaseline was brought into notice in London through Mr. Martindale (to whom it had been referred by Mr. Berkeley Hill), and he preferred to name it "gelatum petroleum." It is a neutral gelatinous yellowish-brown substance, non-irritant, not liable to rancidity, and free from smell. According to Dr. Miller's views, it is one of the lower series of paraffins, and is solid at ordinary temperatures, becoming liquid at about 95 degrees. It possesses the valuable property of not drying on the skin as oils do, and, being quite bland, is a very useful lubricant; it has no very active powers, but is a good basis for other ingredients—a little of it, for instance, mixed with the nitrate of mercury ointment, prevents its decomposition, and it may be well combined with any powders.]

Diabetes: Chyluria. Treatment.—With Dr. Habershon, we saw, at Guy's Hospital, a woman aged 59, the subject of both these maladies. She had passed most of her life in India, had had twelve children, the first at the age of sixteen, and had had ague many times. For about three years or more had been very thirsty, and latterly had emaciated

much. The urine now passed was quite like milk in appearance, and had a saccharine odour. Whether there was any actual change in, or communication with, the lymphatics of the kidney in this malady could scarcely be made out; but it was remarked that the urine passed before breakfast (*i. e.*, when fasting) was much clearer than that passed at other times of the day, indicating distinctly a dependence of the chylous urine on the process of digestion. The patient was taking gluten and eggs, with a moderate amount of brandy, and medicinally carbolie acid one grain, extract of opium half a grain, quinine two grains. The amount of sugar at present passed was less than before, and Dr. Habershon believed that he had seen benefit in other cases from these same remedies.

FORTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in SHEFFIELD, August 1st, 2nd, 3rd, and 4th, 1876.

THE DINNER.

THE annual dinner was held in the banquetting hall of the Cutlers' Company. The spacious hall was brilliantly lighted with massive centre crystal chandeliers and wax candles, side crystal brackets, and wax candles all round the walls completed the illumination. The tables were handsomely adorned with silver epergnes, relieved with ferns and flowers. The result was a brilliant *coup d'œil*. In the centre balcony was a glee party, who performed appropriate selections during and after dinner, under the direction of Mr. Charles Harvey. The silver-plate was furnished by Messrs. Walker and Hall, Electro Works, Sheffield; the stoneware by Mr. Councillor Booker; and the plants and flowers by Mr. H. Shaw of Richmond. The dinner was admirably served, and the arrangements gave general satisfaction. Mr. Harker (London) ably officiated as toastmaster.

The Chair was occupied by Dr. De Bartolomé, and the Vice-Chairs by Dr. Banham, Mr. Favell, Mr. Marriott Hall, and Mr. Arthur Jackson. The guests included Mr. J. A. Roebuck, Q.C., M.P.; Mr. Alderman Firth; Mr. Alderman Tozer, the Master Cutler; Mr. Baker (Government Inspector of Factories); Colonel Owen; Colonel Simpson; Major Cuthbert; Mr. John Newbold (Home Office); Colonel Creswick; Alderman Searle (Chairman of the Sheffield Board of Guardians); Alderman Bragge; Mr. Jackson (Cyclops Works); Canon Walehaw; the Rev. Dr. Gatty; the Rev. H. H. Wright (Chairman of the Public Hospital); Mr. T. Jessop (Chairman of the Women's Hospital); Mr. Abraham Brooksbank (Chairman of the Weekly Board, Sheffield General Infirmary); and upwards of two hundred other gentlemen, members of the Association. After dinner, Mrs. De Bartolomé and a number of other ladies appeared in the gallery, and were received with applause, the company rising to welcome them.

Grace having been sung,

THE CHAIRMAN, who was received with loud and repeated cheers, proposed the toast of "The Queen". It was unnecessary for him to say much to ensure for the toast the warmth which always bespoke an Englishman's loyalty. This was particularly the case in the present instance, her Majesty, he hesitated not to say, being one of the best Queens that ever reigned. [*Loud cheers.*]

THE CHAIRMAN then proposed "The health of His Royal Highness the Prince of Wales, the Princess of Wales, and the rest of the Royal Family". The Prince of Wales might be called, with greater propriety than some of his ancestors had been, the first gentleman in England; and as to the Princess of Wales, he believed her to be, from what he heard, amiability itself. Other members of the Royal Family had been brought up in each of the services, and he felt confident that from the Royal Family the country would derive new lustre.

DR. SIBSON proposed the toast of "The Army, Navy, and Auxiliary Forces". He said that the army and navy of England were the types of the highest qualities of Englishmen. They carried with them our valour, our chivalry, our generosity; and whether surrounded by beauty or pleasure, or whether they were facing the greatest difficulties possible for human nature to encounter, subject to every kind of vicissitude of climate, they still carried with them the brave British heart, and displayed those qualities that went to make them English gentlemen. They had gained for us possessions that in the eyes of the world were priceless, and not one had they lost; and wherever the English soldier and sailor had gone they had done their duty. Our auxiliary forces came scarcely, if at all, in the second place. He felt, as all did, that

they were the same, and that the English Volunteers, who had risen up in every part of the world to defend the English soil, would show the same courage as the English soldier and sailor going forth into the world; and, if ever the day came, the three would be one. Dr. Sibson then alluded to the medical branch of the army, and mentioned Dr. Trotter, physician-general to the fleet in the last century, who, when at the head of the medical department in the navy, and when three fleets were about to sail, felt that, if the soldiers and sailors were allowed to depart without a sufficient supply of vegetables, scurvy and fever would make sad havoc in their ranks. He accordingly sent protest after protest to the Admiralty, which were disregarded; but, with the assistance of Lord Howe, he purchased all the vegetables that could be procured in Portsmouth and the locality, and put them on board the ships. The French fleet had not been similarly provided, and, when we met them, their sailors were fevered, scurvyed, and easily defeated. Our sailors who were put on board to take charge of captured vessels of war, unfortunately, however, in many instances, took the contagion and died. It was to the exertions of Lord Howe, under these circumstances, that we owed the possession of the Cape of Good Hope and one other great victory besides. [*Cheers.*] He coupled with the toast the names of Colonel Owen and Colonel Creswick.

Colonel OWEN, Royal Artillery, expressed his pleasure at having to return thanks for the army, and his belief that they would fulfil all that was believed of them. He was sorry there was no officer of the navy present to return thanks for that service; but in regard to the disappointment which might have been felt at the mishaps which have happened to some of our ships, he would say that an allowance ought to be made for the complicated structures naval officers had now to deal with: when a ship had twenty auxiliary engines, besides her propeller, the wonder was she got out of port at all. Whatever might be thought of the sending of the fleet to Turkey, it must have been satisfactory to find that British fleets were respected by the nations of Europe. The army was in a state of transition, as it very frequently was; but there was no doubt that it was in an advanced state of efficiency. He proceeded to pay a graceful tribute of gratitude to the medical officers of the army, and spoke of them as a very important branch of the medical profession. He assured those gentlemen that their services were always acknowledged with gratitude, and always felt by the British soldier of all ranks and of every kind. [*Cheers.*] He alluded to the great improvement that had been made in the stations of the soldiers, and how, in consequence, disease among the men had been reduced; and, in conclusion, again thanked them for the manner in which the toast had been received. [*Cheers.*]

Colonel CRESWICK, Sheffield Artillery Volunteers, thanked Dr. Sibson for the manner in which he had spoken of the auxiliary forces. After seventeen years of experience, he could say that the Volunteers were now in larger numbers than before, and he believed they were still more efficient. [*Applause.*]

MR. JESSOP proposed the toast of "The Borough Members". He was exceedingly glad that Mr. Roebuck was present, and regretted that the other member for Sheffield was detained in London by his Parliamentary duties. They were perhaps divided in opinion regarding their representatives; but whilst on some occasions they agreed to differ, he thought that at times like the present they generally agreed to be friendly together. He, therefore, begged to propose "The Borough Members of Sheffield", coupling with it the name of John Arthur Roebuck. [*Loud cheers.*]

MR. ROEBUCK, M.P., who was received with loud applause, said: Dr. De Bartolomé, I have to thank Mr. Jessop for the kind manner in which he has proposed this toast. It does not surprise me, this kind manner of his, for I have known Mr. Jessop many years, and for many years have been conscious of his kindness. To you, sir, I think I owe something like an apology for the trouble which I unwittingly gave to you to induce me to come here. When first invited, I felt myself forced to decline to be here, because, suffering as I then was and am now, I felt it a difficulty I thought I was not fit or capable of undertaking; but I assure you, sir, that my refusal to come here resulted from no want of kindness or consideration of the great profession to which you belong. [*Hear, hear.*] I have too long been the subject of their kindness, their generosity, their knowledge, and their benevolence for a moment to consider anything I could do too great to repay any debts which I owe to them. You belong to a profession, sir, that has for its object the alleviation of the miseries of mankind; and you do your duty in that service in a way that ought to command the admiration of everybody. Where there is suffering to be relieved, there you are present; where there is aid to be rendered by the means of knowledge, there you are present; and if anybody requires your assistance, whether in the way of knowledge, or art, or science, or money, you are always ready and present to alleviate the miseries which you behold.

[*Hear, hear.*] I have, through a long life, I may say, of suffering, been the subject of your kindness and benevolence; and it would, therefore, have been far from me to refuse to come among you to do you any service, if I could do so, by being present this evening. And here I am present, and if I can do anything to aid that great profession, I shall be only too proud to lend my assistance to it. [*Hear, hear.*] These being my feelings and sentiments regarding the profession to which you belong, I must say I was startled, as a member of the Legislature to which I have been sent, at beholding that the great persons who govern the Legislature should so far have misunderstood the character of the profession as to propose to put you under the superintendence of the police-officer. [*Cheers and laughter.*] I should have thought, sir, that any man who had lived to the age of a man would have known that gentlemen of your profession can not only guide themselves, but can lend their aid and science to the benefit of mankind, without the guardianship of that emissary of the law; that you were able to conduct experiments without inflicting any more than necessary pain even to animals or to human beings; and that all your endeavours would be so to guide your experiments as to obtain knowledge for the benefit of mankind with the least possible misery to animals of any kind or description. [*Cheers.*] But, sir, that was not thought to be so, though it was believed, in order to obtain the knowledge which was requisite for the better maintenance of the health of the community, that pain should be given to living animals. It was found that this pain might create in passers-by and standers-by feelings of more than sympathy for them, and create a belief that the pain was unnecessarily given. But I think that that proposition was of such a character that Parliament or anybody else might have conceded to the medical profession the judgment whether they were inflicting pain unnecessarily or necessarily. [*Hear, hear, and applause.*] And I have so great a confidence in the profession to which you belong, that I feel certain they would not give one single pang or pain to any animal, however low, unless they thought it was requisite for the benefit of mankind in general. [*Applause.*] I think it requisite, sir, to say this much on a matter which now exercises much of the feelings of the profession to which you belong, and I believe much of the feelings of general society. Now, in that society there are many good people who let their sympathies run away with their judgment—[*hear, hear*—and who believe that all misery inflicted is unnecessarily inflicted, and that it cannot lead to good. Now, that may not be so. It may be requisite for knowledge, it may be requisite for the management of disease amongst human beings, that you are required to get knowledge through pain inflicted on what are called inferior animals; and that pain, I have no doubt, is inflicted, when it is inflicted, with great pain to the man inflicting it, and I believe that he would not inflict more pain than was absolutely requisite for obtaining the great object he has in view. [*Applause.*] But it is said you tamper, you trifle with the feelings of the poor animals in your power, and that you inflict pain for no purpose but that of inflicting pain. Now, I ask the world if that is true of your profession? Are they men so devoid of feeling as to inflict pain unnecessarily? I answer from my knowledge of them, from my long having had assistance from them, from their kindness, generosity, and benevolence, that there is no body of men more likely to conduct themselves with great prudence, with great care, with great benevolence, towards all animals, whether human beings or otherwise, than the medical profession. [*Applause.*] And therefore, I think there was an unnecessary stigma if I may so use the word inflicted upon that profession. [*Hear, hear.*] They might have left to you, sir, to your friends and to your colleagues, the making of these experiments which are necessary for the well-being of the human race. I must say that I think the human race is somewhat itself selfish and careless of all around and of every other race; but amongst the human race I do not consider that the medical profession is one which ought to be singled out and placed before the world as a mark, and to have set over the members of it a policeman at the door. [*Hear, hear.*] You are able to conduct every experiment that is necessary to knowledge; you will do it with all kindness and all consideration, and you will not inflict unnecessary pain; and I am sure the Parliament and the Government of this kingdom can do no better than to put faith in your kindness and benevolence. [*Hear, hear.*] Passing from that subject, I would say a very few words with regard to the great assembly I see before me. I freely acknowledge that I do not understand, and cannot understand—because I do not follow all that connects itself with your profession—all the many benefits that I am told arise from the meeting together of men from all parts of the country, and of many other countries, in a body like this; but I think I can understand that the exchange of feeling and of opinions, the meeting together amongst themselves of men from many quarters of the globe, may conduce to the great object you have in view, the benefit of mankind in general; for I do not consider that your object is simply to forward the objects

of your profession; I do not believe you come here simply as a means of increasing the fees which you may receive. [*Hear, hear.*] I believe you are met together here as a body of philosophers and philanthropic men, gathered to interchange the great knowledge you have culled from your wide experience, and that by so meeting together you will communicate ideas that will lead to the general benefit of society. [*Applause.*] I believe, weak as I am in the power of judging and deciding as to the benefit that accrues from assemblies on occasions like the present, that though the meeting of men from the great kingdom of France, from Germany, from Spain, and even from our friends from America, we may learn many great things. [*Applause.*] I believe you meet together as men and philosophers, seeking only the happiness of mankind, and that you don't confine your objects simply to the benefitting of yourselves. [*Applause.*] Therefore, it has given me great pleasure, though at the same time some physical pain, in finding myself here; and if I can by my presence give you any support, or lead you to the objects you have in view, I shall feel myself more than paid for any trouble or difficulty I have experienced. [*Applause.*] I beg, sir, to return you my thanks, and I also beg to thank you all for the kindness you have shown in listening to me on the present occasion. [*Applause.*] And I welcome you, as the representative of Sheffield—I welcome you heartily to the town. [The honourable gentleman was loudly cheered on resuming his seat.]

Mr. JONATHAN HUTCHINSON, who was received with repeated cheers, said the toast which he had the honour to propose was, "The Archbishop of this Diocese, the Clergy, and the Ministers of all Denominations". He felt pleasure in coupling with the toast the name of the Rev. Dr. Gatty. [*Hear, hear, and cheers.*] Most honestly he wished that the toast had fallen into the hands of some one better able to deal with it—[*Cries of No, no*—and one of the reasons which led him to wish that was, that he had not the pleasure of being present at the ceremony which inaugurated the present meeting of the Association, and of hearing from the lips of the gentleman who would respond to the toast a discourse which he was assured, by all of his friends, was replete with most excellent advice, and was likely to be of the utmost benefit to all who had heard it. [*Hear, hear.*] Though he missed that pleasure, he had in prospect the delight of procuring in print Dr. Gatty's discourse in common with his friends, and he had no doubt that it would increase the feelings of affection and love which in all their hearts was associated with Dr. Gatty. [*Cheers.*] In referring to the Church in connection with the medical profession, he believed that the clergy generally regarded the profession as in need of help; they thought that medical men were too presumptuous and trusted too much in their physical means of relieving suffering. But he believed the time was coming when, in the rapidly increasing liberality of feeling, and the increase of facility and ability to understand each other, they would feel that there was really not the slightest antagonism between the Church and medicine. One of their leading poets had transposed the old maxim, "To be good is to be happy", and had put it this way—

"Oh, make us happy, and you make us good."

and he believed that they were credited with a little tendency to rely too much on physical means for the mitigation of moral evil. It was the ambition of the profession to mitigate disease and suffering, which tended to degrade the physical organisation, and thus in some degree to prejudice the moral sense. [*Cheers.*] The medical profession would rejoice in the realisation of the vision of the poet, who wished

"To sweep destruction from the busy world, and
Make the choice of the big round year
O'erflow with gladness."

[*Cheers.*] He wished to assure Dr. Gatty and the members of his profession of every denomination that, whilst conscious of the physical substratum upon which they had to work, medical men at the same time entertained the utmost reverence for clergymen who devoted themselves to the alleviation of man's moral nature in its highest aspects. [*Cheers.*]

The Rev. Dr. GATTY was received with loud cheers on rising to respond. Alluding to the remarks of Mr. Hutchinson, he said if a man looked with a right feeling to the Great Father of all, he did not differ from him because he did not go to the same place of worship that he attended. [*Cheers.*] Having expressed these sentiments, perhaps he was not an unfit person to respond on behalf of the Archbishop, the clergy, and also the ministers, who were, like himself, endeavouring to reach the souls of men, and trying their part in connection with the medical profession to produce *mens sana in corpore sano*, which, he supposed, was the perfection of human nature. [*Cheers.*] In his address on Tuesday, he hoped the medical profession would always allow there was something they could not reach—[*hear, hear*—something which they might greatly assist in extending by preparing

men for the higher world hereafter. [*Hear, hear.*] He did not want to associate himself either with materialistic religion or with materialistic science. [*Hear, hear.*] He alluded to the great obligations the clergy were under to the medical profession, and then spoke of the personal obligations he was under to them, remarking that their kindness to him and his family had been unbounded, and it would not be forgotten. [*Hear, hear.*] He most sincerely thanked them for the manner in which the toast had been received, and "thanked his stars" that he had been amongst them. [*Laughter and cheers.*]

The PRESIDENT was received with much cheering on rising to propose the toast of the evening—"The British Medical Association". He said the world's history, perhaps, were it searched carefully through, would not furnish an instance in the least parallel to the present. It could not furnish them with the history of an association of educated literary men banded together for the good of themselves, perhaps, in the first instance; but as an ultimate and unending result, for the benefit of mankind at large. [*Hear, hear.*] As Mr. Roebuck had said, far be it from them to suppose for one instant that the majority, or even a respectable minority of their profession, would band themselves together for mere self-advantage. They had a higher aim before them; and he believed their Association was destined to produce great changes in the well-being of the community. There were gentlemen present from almost every part of the British dominions, from all parts of Europe, and even from the distant parts of America, prepared to contribute their quota to the common fund; and that fund of information was accumulated not for themselves, but for the benefit of their fellow creatures. [*Cheers.*] Their Association was but of yesterday, and he believed the time was coming when they would be able to work upon a settled plan and on a uniform basis, and where no part of their knowledge would be lost. He had pleasure, in proposing the toast, in coupling with it the name of Dr. Falconer, President of the Council. [*Cheers.*]

Dr. FALCONER (Bath), on rising to respond, was received with loud applause. He said the toast divided itself into two parts, one having reference to the Association, and the other of a personal nature. The first portion again subdivided itself into two portions; the first being the Association as a collection of medical men meeting for the purpose of imparting information to one another, and contributing by every means in their power to the welfare of the human kind. The other part was what might be called of a political nature, for they were joined together to take such steps as they could to influence the legislature of this country in securing the best possible position for their army and navy surgeons, for taking means for promoting medical reforms, and for securing for themselves, if possible, that representation which was their due on the Medical Council. And that they had not been ineffective, the records of the JOURNAL would give testimony, and the thanks that they had received from those arms of the service had been willingly and gratefully accorded to them. But, if there was one thing which must come home to them, it was the fact of that remarkable deputation which the other day attended on the Home Secretary to protest against the detestable Bill on Vivisection. [*Hear, hear.*] He would not dwell upon that, because it had been touched on by a more able hand than his; but it was impossible not to allude to it, if only in common justice to acknowledge the admirable statement which was laid before Mr. Cross by their able editor, Mr. Hart. [*Hear, hear.*] He acknowledged the flattering manner in which the Chairman had spoken of him, and proposed the toast of the "President", who had on that occasion discharged his duties with peculiar felicity and success. [*Cheers.*] They knew how active he had been in endeavouring to secure the success of that meeting—that he had been everywhere and done everything he could to contribute to the comfort and enjoyment of all the gentlemen present—[*Hear, hear.*]; and long after many of them had passed away, there would be some amongst the younger members of the Association who would remember with pride their intimacy with Dr. De Bartolomé, and carry down to other generations the happy success of that pleasant meeting. [*Loud cheers.*]

The CHAIRMAN, who was cordially applauded, said that he rose with feelings of a very peculiar nature, which were difficult for him to describe, for the purpose of returning his sincere thanks for the honour they had accorded him. He little thought, when he alluded to his kind old friend Dr. Falconer, that he should awaken his feelings to such an extent as he had done; but it had recoiled upon himself, inasmuch as he felt thoroughly unstrung, and unable to adequately acknowledge his sense of the reception which they had accorded to the toast. He could only say that he sincerely thanked them. [*Cheers.*] What he had done had been prompted by a sense of duty; and when duty had ever called upon him, he had not the slightest recollection that he had ever failed. His actions, in the present instance, had been prompted by that same principle. He again begged to return his

sincere thanks, and to state, in fairness to others, that he considered the success of the meeting was more due to them than to himself. [*Hear and cheers.*]

Dr. J. C. HALL proposed the toast of "The Treasurer" (Mr. Husband). They all knew how well Mr. Husband had discharged his duties as president of the Council during his period of office. The office of treasurer had hitherto been deemed to be something of an ornamental kind; but it had now assumed a different aspect, and many important duties devolved upon its possessor. He had no doubt that, under the fostering care of Mr. Husband, they would find the present prosperous state of the Association increase year by year, and become more flourishing than ever. [*Hear and cheers.*] The toast was drunk with great applause.

Mr. HUSBAND, in responding, said he believed that there was no Government Minister who, under certain circumstances, had a more difficult duty to discharge than the Chancellor of the Exchequer, because, if he had not a surplus, he was told that he ought to have one; whilst, on the other hand, if he had a surplus, he was pulled in pieces by every one who wanted to participate in it. [*Laughter.*] He was personally in that unfortunate position at the present moment. [*Hear and laughter.*] The Association had for some years prospered to such an extent that they who had known most of its working could have little anticipated. [*Cheers.*] They had been taunted with the fact that they were a mercenary society, and that they were doing very little for science or to further the progress of medical knowledge. But, he said, an Association which had provided, at the lowest possible cost, the BRITISH MEDICAL JOURNAL, which contained the latest news on all matters pertaining to medical science, which advocated high moral medical progress, and which found its way to homes and houses where no medical journal had ever found its way before, was doing a great and noble work in furtherance of the progress of medical science, and in improving the position and raising the status of the medical profession. [*Hear and cheers.*] He would rest their success a great deal upon the progress of the BRITISH MEDICAL JOURNAL; and, despite the efforts of those strong-minded women and those weaker minded men—[*laughter*—who were telling them that they had no right to pursue certain roads to science and knowledge, he would say that the money which the Association had spent in those scientific improvements which had enabled them to obtain an enlarged view of the action of medicine and of physiological relations, had not been idly, carelessly, or needlessly expended. [*Cheers.*] He said that the experiments in vivisection had led to great and grand results; and that they had nobly vindicated their position as a body of men bent upon the advancement of science, and the raising of the status of the medical profession. [*Renewed cheers.*] He believed that the Association had a noble work to do; and he was convinced that they had the courage to pursue their course, regardless of the sneers and taunts which had been cast at them by the anti-vivisectionists, and which could only ultimately recoil upon those who made them. [*Cheers.*]

Mr. BARBER gave the toast of "Our Guests", coupling with it the name of Mr. H. C. SORBY, who, in responding, said he regretted that so few of his fellow-townsmen had taken the opportunity of hearing the admirable discourses which had been delivered by members of the Association. He congratulated the Society upon the success of that meeting, and congratulated the town upon having a visit from such a distinguished body of gentlemen. [*Cheers.*]

Dr. KIDD (President of the Royal College of Surgeons of Ireland) proposed "The Town and Trade of Sheffield". After alluding to the hospitable reception the Association had received in Sheffield, he said they had seen that afternoon the rolling of a great plate, and however interesting the process might be, many of them felt a pang to think that it was for the arming of the ships of another country. That, after all, was only a momentary impulse. They might arm other countries in the time of peace, and in doing so he believed they were really making the best provision for the preservation of peace. It might be received as an axiom that the more effectual their means of warfare were—whether for offence or defence—the more certain it was that peace would be preserved. It must be a source of gratification to those who looked carefully into the matter to find that the industrious population of this town were providing the Governments of other countries with the means that would ultimately contribute most to our own prosperity. [*Cheers.*]

The MASTER CUTLER responded. He said that, unfortunately, the trade of the town was suffering from a state of depression that had not been equalled for many years past. He hoped the time was not far distant when they might look for a revival of trade, and when their workshops would be again in full operation, which was almost the opposite of what they were at the present time. [*Cheers.*]

Mr. HEY proposed "The Orators and Officers of the Sections". He

was sorry his friend Mr. Wheelhouse had not been able to attend at the dinner; but, having been the colleague of that gentleman for a great many years, he had no hesitation in proposing the toast. He found that the toast included the names of twenty-three gentlemen, and therefore he could not stop to individualise them; but they were gentlemen who had given them the principal papers on the subjects which had been dealt with. He coupled with the toast the names of Mr. Favell and Dr. Chadwick. [*Hear and cheers.*]

Mr. FAVELL, who was received with loud cheers, regretted the absence of Dr. Sieveking, who had delivered an able and eloquent address on Medicine. It had been to him a source of very great pride and pleasure to be selected out of a number of able surgeons in his own town, to deliver the address in Surgery before the members of this great Association. But if anything which he had said or done had in any way conduced to the success of the meeting, he should be amply repaid for any trouble which he had devoted to the subject. [*Hear and cheers.*]

Dr. CHADWICK said that he had much pleasure in returning thanks for the "sectional officers, the gentlemen who had presided, and who had carried on the business arrangements of the different sections". He returned thanks, not merely with a sense of pleasure, but also with a sense of honour. Personally, he had gone through his duties with much pleasure and satisfaction. Referring to the visits to the Sheffield works, he said that he found no fault with those who preferred witnessing the rolling of an iron-plate, or the founding of a destructive engine, to devoting attention to their proper duties. They must remember that they were away from home, and that these meetings combined science with pleasure. [*Cheers.*] He thought it extremely useful, seeing that they saw the effects of those weapons, to know how they were made. [*Laughter and cheers.*]

The PRESIDENT gave "The Foreign Guests", coupled with it being the name of Dr. Brown-Séguard—[*loud cheers*—] and, in the regretted absence of Dr. Marion Sims, he also included the name of Dr. Storer [*Cheers.*]

Dr. BROWN-SÉQUARD (Paris) in responding, heartily thanked the President and the Association and the people of Sheffield for the kindness he had met with; but assured them that, from his experience in all parts of England, it was no surprise to him, such had been the hospitality extended to him. [*Cheers.*]

Dr. STORER (Boston) also responded. He paid a very graceful tribute to England, as the centre to which American physicians turned for their best medical literature. [*Cheers.*]

Mr. ERNEST HART said that he knew of very few persons who were more to be pitied than the person who had to propose the thirteenth toast at a public dinner, except it was the person who had to propose the fourteenth toast. [*Laughter.*] He had, however, only to ask the members present to reflect for a moment, in order to induce them to thank the local committees for the services which they had rendered to the meeting. [*Cheers.*] They all knew; but they did not all think, that civilised nations had a great deal to learn from barbarians, and that the civilisation of the west had much to learn from the civilisation of the east. It was an ancient custom, in many eastern countries, that, when a host invited guests to his house, he first of all swept out the house and put everything in order for the edification and enjoyment of his guests, and then retired into the background. That was what had been done on the present occasion. But the Association desired that the chief actors should not remain unseen, or their work unacknowledged. They had done everything for the convenience and comfort of the members of the Association at this meeting. Everything had gone off with ease and smoothness. [*Hear and cheers.*]

There had been nothing whatever to mar the enjoyment which they had all derived from this meeting. [*Cheers.*] There were two persons to whom their gratitude was especially due, viz., the Honorary Secretaries of the Local Committee—Mr. Arthur Jackson and Dr. Keeling. [*Cheers.*] He thought, also, that with the toast should be included—on the principle of gratitude being a lively sense of favours to come—the Honorary Secretaries of the Excursion Committees. [*Hear and cheers.*]

Mr. ARTHUR JACKSON said that, for what the honorary secretaries had done, they had their reward in the success which had been achieved—they had their reward, not only in the personal congratulations which they received, but in the honour which, by this meeting, had been reflected upon the dear old town of Sheffield. [*Cheers.*] He said it had been a great pleasure to work under the present President, and he referred in terms of the highest praise to Dr. Keeling, without whose assistance the arrangements could not have been made and carried out.

Alderman BRAGGE, in a humorous speech, proposed the toast of "The Ladies", to which Mr. G. A. BROWN responded. The company then separated.

ENTERTAINMENTS.

PRESIDENT'S SOIRÉE.—By invitation of the President of the British Medical Association and Mrs. Martin De Bartolomé, the members of the Association assembled on Wednesday, August 2nd, at the Weston Park Museum, where it had been arranged to hold a *soirée*. In addition to all the members and their friends, invitations were sent to the Free Libraries and Museum, and General Purposes and Parks Committees, to other members of the Town Council, and to as many of the leading inhabitants as the space at the disposal of the President would admit. It is believed that nearly twelve hundred ladies and gentlemen accepted the invitation. In addition to the usual lighting arrangements on the drive, lamps were suspended from the trees, so that the park presented an unusually attractive and brilliant appearance. Sometime before the hour of assembling (nine o'clock), the guests began to arrive. They were received by the President and Mrs. De Bartolomé, and afterwards proceeded to examine the various objects of interest in the museum and picture gallery. On the north side of the museum a fine pavilion, capable of accommodating four hundred people, was erected by Messrs. Tyrer and Co., Manchester, for refreshment purposes. The pavilion was connected with the museum by a covered corridor, and was handsomely furnished and adorned. On the tables were several choice flowers and plants, which were from the museum conservatories. The refreshment department was entrusted to Mr. R. W. Brookes, and gave every satisfaction. In a tent on the lawn a band, under the leadership of Mr. Charles Harvey, played music from a choice programme. Among the pieces was a "Grand March", composed by C. W. Perrot, and "dedicated by special permission to M. Martin De Bartolomé, M.D., President of the British Medical Association". This was repeated, by request before the company separated. During the evening, John Arthur Roebuck, Esq., Q.C., M.P. for Sheffield, with Mrs. and Miss Roebuck, entered the hall. The *soirée* was a decided success from first to last. The rooms, of course, were considerably crowded, but those who felt the atmosphere oppressive could easily get outside and promenade in front of the building. Much interest was taken in the articles exhibited in the museum, and several of the leading guests spoke in high terms of the success which has in so short a time marked the museum movement in Sheffield. The *soirée* was kept up till eleven o'clock, when the national anthem brought a most enjoyable evening to a close.

PROMENADE CONCERT.—A very large number of members and visitors, both ladies and gentlemen, were present on Friday, August 4th, at a promenade concert in the Albert Hall, the invitations to which were issued by Dr. De Bartolomé and the Local Committees. The building was tastefully decorated under the direction of Messrs. Tyrer of Manchester; and refreshments were supplied by Mr. R. W. Brookes. Shortly before nine o'clock, the guests began to arrive, and at half-past nine the saloon was filled with promenaders, and in the balcony nearly every seat was occupied. Mr. Charles Harvey, in whose hands the musical arrangements of the concert were left, had secured the services of Mr. Fred. Archer of London, whose skilful playing on the grand organ was much admired. One of the chief features of his selections was Rossini's "Semiramide" overture, which was finely played. All the other organ solos, twelve in number, were given in Mr. Archer's best style. There was also some very good solo vocal music; and Mr. Harvey's choir gave some excellent examples of part music. The programme was concluded shortly after eleven o'clock, by the national anthem.

EXCURSIONS, ETC.

VISIT TO THE NORFOLK WORKS.—At three o'clock in the afternoon of Wednesday, August 2nd, about five hundred members and friends witnessed the process of casting a steel tube or core for a gun, at the well-known Norfolk Works of Messrs. Thomas Firth and Sons. Dr. De Bartolomé, the President, accompanied the members, and a number of ladies witnessed the operations. The members were received by Mr. Mark Firth and Mr. C. H. Firth, who conducted them over the works and gave such explanations as were needed. The casting was of a five-ton ingot for the tube of a ten-inch gun. The firm would have cast a larger gun if they had not expected so numerous a company of visitors; but it would scarcely have been prudent to have done so in the presence of five hundred people. From one hundred and fifty to two hundred workmen were employed in carrying the crucibles containing the molten metal from the furnaces to the pit; and the process required about twenty-five minutes. The visitors watched the proceedings with the greatest interest, from the moment when the long pinches were let down into the furnaces and pulled up the "pots", till

they were placed on iron barrows and taken to the pit mouth, into which their contents were poured in one continuous stream of molten metal. The operation of "teeming" being completed, and the crucibles carried away, the mouth of the pit was closed to let the metal settle down and cool. The members of the Association afterwards inspected the rolling mill, the cutting shop, where they were much interested in the making of saws, the turning shops, the wire-mills, the forges, and the hammers. They were greatly interested in all they witnessed, and expressed their thanks for the privilege of inspecting so extensive and distinctive an establishment.

VISIT TO THE CYCLOPS WORKS.—Shortly before 3 P.M. on August 3rd, a large number of the members of the Association assembled at the Cyclops Works of Charles Cammell and Company (Limited), in acceptance of a general invitation to witness the rolling of an armour-plate. Many of the visitors were accompanied by ladies. A number of rough plates were piled in the vicinity of the mill, and on these the ladies and gentlemen took their stand in order to view the operation. Within a few minutes of the appointed time, the furnace was opened and the incandescent plate drawn out. It was rapidly put through the massive rolls, and in the course of a few minutes was reduced to the required size. The plate was simply one of a number which are being made in the ordinary course of business. It may be interesting to state, however, that the plate was sixteen feet in length, five feet six inches in width, and twelve inches in thickness when rolled. After it had been taken from the rolls and laid aside to cool it weighed nineteen tons; but after being bored, pared, and otherwise finished, it would only weigh about fifteen tons. It was being made with others for the Danish Government, and was placed in the furnace at nine o'clock on Wednesday night, the heat being kept up continuously by means of over thirty tons of coal up to the time when it was removed as above described. The whole operation was very successfully conducted under the direction of Mr. Alexander and Mr. Wood, Mr. Charles Cammell also being present. After the plate had been rolled, the visitors—who had manifested the greatest interest in what they had seen—dispersed to various parts of the establishment, the majority, however, proceeding to witness the Bessmer process. Two "blowings" were there effected in their presence, and they then strolled through the armour-plate planing shops, the steel rail mills, and other departments. The visit was throughout a great success, the interest of the visitors being not merely ordinary curiosity, but a deeper feeling, which was manifested by the many scientific inquiries put to those in charge of the several metallurgical operations.

EXCURSION TO WENTWORTH WOODHOUSE.—On Friday, August 4th, more than a hundred members of the Association, with ladies, visited Wentworth by the kind invitation of Earl Fitzwilliam. After a very enjoyable drive by way of Chapelton, the party arrived at Wentworth about 2.30 P.M., and was met by Admiral Douglas and Dr. Clarke in the absence of the noble Earl, and entertained at a very sumptuous luncheon. After which, Admiral Douglas most kindly and courteously showed the visitors the magnificent collection of statuary and oil paintings in the house, with which they were very much pleased. They then visited the extensive and beautiful gardens; the stables, where the admiral personally showed to the visitors the large stud of about one hundred and sixty thoroughbred horses and hunters, which are kept in splendid condition by being in loose boxes and fed with cut grass, instead of the old plan of sending out to grass. Afterwards, by the election of the ladies, the kennels were visited, and the visitors had the opportunity of seeing a pack of one hundred and twenty foxhounds fed. The President of the Association proposed a vote of thanks to the noble Earl for his very hospitable entertainment, which was carried with acclamation, and thanked Admiral Douglas for his kindness. The members were then invited to tea at Dr. Clarke's, Wentworth; and, after partaking of his hospitality, returned to Sheffield by way of Rotherham, all expressing themselves as highly pleased with the excursion.

EXCURSION TO CHATSWORTH HOUSE AND HADDON HALL.—On Saturday, August 5th, two parties left the Cutlers' Hall, Sheffield, for Chatsworth House and Haddon Hall, in carriages provided by the Excursion Committee. The first party, consisting of about one hundred members of the Association, left at 9.30 A.M., and, after a most enjoyable ride over the Derbyshire moors, with its varied and beautiful scenery, the party drove to Chatsworth House, the seat of his Grace the Duke of Devonshire. They were met at the gates by Mr. Cottingham, his Grace's steward, and most courteously shown over the house. All were delighted with the splendid collection of oil paintings, containing many well-known specimens, such as the "Council of

Dogs", and "Bolton Abbey in the Olden Time", and many gems by the old masters. They were much pleased with the wonderful wood carving of "Gibbons", to be seen in the chapel and the state rooms; the beautiful collection of sketches by the old masters, as well as the paintings on the ceilings of the reception and other rooms. The fine collection of statuary was also much admired. The private apartments and library of the Duke, which are seldom shown to visitors, were also seen. The visitors were then entertained most sumptuously at luncheon presided over by Mr. Cottingham. Dr. Martin de Bartolomé, the President of the Association, proposed a vote of thanks to his Grace for his noble entertainment, and also to Mr. Cottingham for his kindness and courteous attention, which was carried with acclamation. Mr. Cottingham then conducted the party over the beautiful gardens, which were never seen to greater perfection, owing to the lovely day, and the fact that the waterfalls and all the fountains were in full play. The first party then left Chatsworth House for Haddon Hall, and were followed by a second party of nearly a hundred members, with their ladies, who had been entertained at luncheon at the Devonshire Arms, Barlow, by the Excursion Committee, and afterwards visited Chatsworth House, and found the first party at Haddon Hall. The members were much pleased with this ancient baronial hall, the property of his Grace the Duke of Rutland, who had kindly given permission to Mr. Wrench of Baslow to entertain the members and their friends at a garden party; but, owing to the very sudden death of the mother of Mr. Wrench, this party was given up, and instead the members were refreshed after their lovely and enjoyable excursion with a cup of tea provided by the Excursion Committee. At 5 P.M., some of the party began to disperse to catch their trains, but the majority returned to Sheffield by way of Bakewell, arriving about 10 P.M., after spending a most enjoyable day. The honorary secretaries regret to hear that, owing to some misunderstanding on the part of Mrs. Bath of Haddon Hall, some members were charged unknown to them for the refreshments.

EXCURSION TO BUXTON.—On Saturday, August 5th, a number of members attending the meeting of the Association paid a visit to Buxton, in response to an invitation issued by Dr. Robertson and other medical gentlemen in the town. Through the kindness of the Duke of Devonshire, both the Charity and the Public Baths were closed from one to two o'clock for the purpose of allowing the baths to be inspected by the gentlemen in question. At one o'clock, Drs. Robertson and Dickson, and Mr. F. Turner, conducted the medical visitors through the baths, as well as exhibited the machinery by which the baths are worked. The visitors were very much interested with the arrangements, and expressed themselves perfectly gratified with what they had seen, and of the complete manner in which everything was carried out. The strangers were also conducted through the gardens, to which they were admitted free. Afterwards they were entertained to a sumptuous dinner at the Palace Hotel. Dr. Robertson occupied the Chair, and Mr. F. Turner the Vice-chair. Several speeches were delivered, in the course of which the visitors expressed themselves delighted with what they had seen, extolling Buxton for the beauty of its situation, and for its admirable advantages and arrangements for the benefit of invalids.

EXCURSION TO MATLOCK BATH.—The excursionists who visited Matlock Bath left Sheffield soon after ten o'clock on Saturday morning, and arrived at Matlock at eleven, where they were met by Dr. Webb of Wirksworth, Dr. Holland of Matlock, and other medical men of the district. They were conducted to the Heights of Abraham, the Cumberland Cavern, the romantic rocks, and by the Upper Wood and through the grounds of Masson Lodge, the seat of Mrs. Clarke, to the New Bath Hotel, where they arrived soon after one o'clock. The company, to the number of forty-seven, sat down to a sumptuous luncheon, prepared by Messrs. Watts and Jordan. The Chair was occupied by Dr. Webb, and the Vice-Chair by Mr. Dolman of Derby. The toasts of "The Queen", and "Success to the British Medical Association" (proposed by Mr. Dolman) having been duly honoured, the Chairman proposed the non-professional visitors, coupling with the toast the name of Mr. Wass, a magistrate for Derbyshire, brother-in-law to the late Dr. Anstie, a man who, in the interests of his profession, was taken away too soon; who died as he had lived, like a brave soldier as he was, at the very front of the battle, in fighting against our common enemy, disease, and in trying to unravel some of its mysteries. Mr. Wass having replied under great emotion, "The Medical Profession of Derbyshire and the Chairman" was proposed by Dr. Bond of Gloucester; after which, the party set out for Willersley Castle grounds. The visitors having crossed the Derwent and made the steep ascent to the grounds, Mr. Tissington, the head gardener, showed the

conservatories, vineries, peach houses, etc. The arrangement of the flowers was much admired; but, above all, the charming little peeps of scenery from the Heights looking down upon the Derwent and Matlock Bath. At the Castle, Mr. Arkwright expressed a sincere wish that the Association had derived pleasure from looking over his grounds. Carriages being in readiness at the lodge, the excursionists were next driven through the town of Cromford (where cotton-spinning was originated by Sir Richard Arkwright) to the romantic drive of the Via Gellia; and, after feasting for between two or three hours upon scenery of the most charming character, they arrived at Matlock Bath in time for the London express at six o'clock, and carried away with them, we venture to say, to their homes, a pleasing recollection of a day spent at the close of a scientific week in recreating at Matlock Bath.

PROCEEDINGS OF SECTIONS.

SUBJOINED are abstracts of most of the papers presented to the several Sections of the Association at the Annual Meeting. The papers themselves will, as opportunities occur, be published in full in the JOURNAL.

SECTION A.—MEDICINE.

Wednesday, August 2nd.

The Chair was taken by the President, CHARLES CHADWICK, M.D., D.C.L., who delivered an address, which was published at page 187 of the JOURNAL for August 5th.

Report of Second Series of Experiments on the Excretion of Bile. By WILLIAM RUTHERFORD, M.D., F.R.S.E.—This paper will form part of the series of scientific reports in course of publication in the JOURNAL.—Dr. SIBSON asked Dr. Rutherford to enumerate the various agents used in his first series of experiments, with the inferences derived.—Dr. RUTHERFORD, in reply, stated that he had found a marked increase of biliary secretion to follow the use of podophyllin, rhubarb, colchicum, and aloes; a lesser degree from taraxacum and senna; and an almost negative result from croton-oil and castor-oil.—Dr. SIBSON remarked on the wonderful correspondence of Dr. Rutherford's results with those of clinical observation, stating that in his own practice he had long abandoned the use of nitro-hydrochloric acid, and had used, with great benefit, the class of remedies whose cholagogue action had been demonstrated by Dr. Rutherford. He would ask Dr. Rutherford to direct his attention to bromide of potassium and bromide of ammonium, which he had successfully used, with the view rather of freeing the biliary secretion than of directly increasing its quantity.—Dr. SILVER considered that the best thanks of the Association were due to Dr. Rutherford, and that the results he had obtained could not fail to be of great practical value. He had listened with special interest to the very original remarks contained in the paper on the so-called American eclectic remedies, and the demonstration of their undoubted cholagogue properties; and concluded by referring to the rapidly increasing consumption of mineral waters, and the probability of their effects being due rather to the sulphates of sodium and potassium than to the corresponding magnesium salts.

On Cases of Effusion into the Peritoneum analogous to Cases of Latent Pleurisy. By GEORGE JOHNSON, M.D., F.R.S.—The author briefly recorded four cases of effusion into the peritoneum with very little pain, tenderness, or fever. In most cases, a chill appeared to have been the exciting cause. In one case, there was the complication of simultaneous effusion into the peritoneum and into both pleura; and subsequently albumen appeared in the urine. This was the only one out of the four cases in which there was a febrile temperature. In all cases, the effusion was removed: in one, by a single tapping; in one, the tapping had to be repeated; in a third, diuretics removed the dropsy; and in the fourth case, various medicinal and dietetic means were employed. The author insisted on the importance of distinguishing these cases of subinflammatory effusion into the peritoneum, the result, apparently, of a chill, from the much more intractable cases of ascites consequent on cirrhosis of the liver.

A Case of Bulbar Paralysis. By E. LONG FOX, M.D.—The patient was a labourer, aged 54, who had been ailing for six months before admission, and died after being under observation for six months. The symptoms observed were: perfect dumbness; great difficulty in eating; no aphonia; great flow of saliva; slight weakness in swallowing; paralysis of the muscles of the palate; atrophy of the muscles of both upper extremities, especially of the interossei and lumbricales. Death took place from pneumonia. At the *post mortem* examination, there was found some atrophy of the coats of the hypoglossal nerves. The spinal dura mater was much distended with fluid. There was a small cavity, of the size of half a millet-seed, hollowed out in the

middle of the grey matter of the right anterior columns at the lower part of the cervical region. There was grey hepatization of the lower lobe of the right lung. Microscopically, the corpora quadrigemina, pons Varolii, the nucleus of the fifth nerve, of the vagus, hypoglossal, and spinal accessory, the olivary bodies, and the whole length of the spinal cord, especially the posterior columns, were found affected. The nature of the lesion, varying somewhat according to the parts affected, was: 1. Simple pigment-atrophy of ganglion-cells; 2. Grey degeneration, with many amyloid bodies; in a few places, this had proceeded to spots of sclerosis.—Dr. FOX, in reply to Dr. DRYSDALE, stated that he had been unable to elicit any specific or other history throwing light upon the case.

The State of the Arteries in Bright's Disease. By W. R. GOWERS, M.D.—The object of the paper was to describe certain observations on the visible size of the retinal arteries in Bright's disease. The conclusion indicated was, that when, in chronic Bright's disease, the pulse is incompressible, there may, as a rule, be seen reduction in size of the retinal arteries, independently of any retinal disease; and that this reduction in size is fairly proportionate to the increased arterial tension. The various causes of reduction in size were mentioned, and reasons given for believing that in these cases it depended on contraction of the vessels. Contraction may be so great that the double contour can be recognised with difficulty even on direct examination, and it may be irreducible, the arteries appearing as lines only. It was so in one case described, in which the pulse was extremely hard, the strongest pressure of a sphygmograph not altering its characters. In another case, in some respects very similar, in which the pulse was soft and compressible, the retinal arteries were of normal size. In another case of chronic disease after arterio-nephritis, with extensive retinal changes, the arteries ceased to be visible a little distance from the disc, partly from concealment, but partly owing to their contraction. The pulse was very incompressible. *Post mortem*, the heart was hypertrophied, and the arterial walls were thickened. In another case of acute, passing into chronic, Bright's disease, a reduction in size of the vessels was noticed to coincide in time with a diminution in the compressibility of the pulse. Most of the exceptions met with had been in cases of local retinal disease. In a series of five cases in which independent evidence of the state of the pulse had been obtained, it was found in four to correspond with the state of the retinal arteries, even in degree. In the fifth case, in which the pulse was tense while the retinal arteries were uncontracted, there were extensive retinal hæmorrhages. These facts, it was suggested, afford direct support to the theory that the increased tension of the arterial blood is in part dependent on contraction of the arterioles. In some cases, in which the pulse cannot well be felt, inspection of the retinal arteries might have immediate practical value; but its chief use would be to assist the accurate discrimination of the various elements which make up the morbid process in the different cases of chronic Bright's disease.—The PRESIDENT asked for information respecting the condition of the heart in these cases.—Dr. GOWERS stated that he had observed cardiac hypertrophy invariably to coincide with the contracted state of retinal arteries which he had described.—Dr. MILNER FOTHERGILL remarked on the diagnostic importance of accentuation of the aortic second sound in these cases.—Dr. BERKART believed, with some foreign observers, that contraction of the arterioles may be the primary cause of Bright's disease.—Dr. GOWERS, in reply, said that he regarded an accentuated second sound as merely due to the increased quantity of blood thrown out by the hypertrophied ventricle, and would only regard this symptom as of corroborative value. Alluding to Dr. Berkart's remark, he had found that, in a recent case of Bright's disease of not more than six weeks' standing, no obvious alteration in the retinal vessels could be made out.—Dr. J. C. HALL, alluding to the important diagnostic aid afforded by ophthalmoscopic examination, cited a case recently under his care of a man admitted to the Sheffield Public Hospital with obscure head-symptoms, in whom the retinal appearances enabled him to suspect the kidney-disease, which was eventually proved by examination of the urine and *post mortem* examination.

Case of Double Hemiplegia. By THOMAS BARLOW, M.D.—The patient was a boy aged 10, who, four months before admission to the Children's Hospital in Great Ormond Street, had an attack of right hemiplegia, from which he almost completely recovered. A week before admission, he had an attack of left hemiplegia. When admitted, there was slight right hemiplegia; left hemiplegia was more marked. He had also speechlessness and difficulty in deglutition. There was extreme aortic regurgitation. Gradual improvement took place in the limbs; but speechlessness remained, and some difficulty in deglutition. The speechlessness was very remarkable. The boy could understand what was said to him, and was gradually (not at first) able to write

replies on paper to questions. The only articulate sound he made was "Ah". He was able to cry and laugh. There was difficulty in co-ordinating the muscles of mastication and of the first part of deglutition. He died from the cardiac disease. At the necropsy, there was found aortic regurgitation, with some congenital (?) disease. There was embolism of both middle cerebral arteries, producing very limited and exactly symmetrical softening of the lower part of the ascending frontal and of the inferior and middle frontal convolutions. This agreed with Ferrier's researches on the brains of the monkey as to the localisation of centres for the movements of articulation, etc., and with Broadbent's doctrine as to the bilateral symmetry of the brain. As long as one part only was damaged, the other side was able to take on the functions of the damaged side; but, when the identical spots on the two sides were damaged, there was nothing to replace them. The case was valuable on account of the extreme limitation of the lesions and the very definite character of the symptoms.—Dr. GOWERS remarked on the peculiar bilateral symmetry of the disease, induced as it was by the co-existence of pathological processes.

A Case of Idiopathic Anæmia treated unsuccessfully by Phosphorus: Death: Necropsy. By J. B. BRADBURY, M.D.—The case was described by the author as an example of the condition described by Addison as "idiopathic anæmia", and by others as "progressive pernicious", or "essential" anæmia. The patient was a man, aged 40, who was admitted into Addenbrooke's Hospital on June 7th. He had had ague twenty-three years previously, but had afterwards enjoyed good health up to eighteen months before his admission, when he had jaundice, giddiness, and nausea, with some vomiting; also loss of appetite and weakness. From this he recovered; but a sudden attack occurred in January, and a more severe one in May, on account of which he was admitted. There was no history of hæmorrhagic discharge or of syphilis. After his admission, there was no evidence of jaundice beyond sallowness of the skin; but this was the sallowness of anæmia, not of jaundice. Giddiness, somnolence, and epileptiform attacks occurred towards the close of the illness. A few days before his death (which occurred on June 25th) he had hæmorrhage from the nose. At the necropsy, no ecchymoses of the skin or mucous membrane were found; but there were slight ones of the right pleura, and of the membranes of the brain over a circumscribed spot on the right hemisphere. Phosphorus was given, as recommended by Dr. Broadbent in the *Practitioner* for January 1875. The patient was a little better for a few days after its administration, but the improvement did not continue.—The PRESIDENT remarked on the obscurity of these cases, and asked for the experience of others.—Dr. LONG FOX narrated the case of a medical man in whom intense anæmia was associated with spinal sclerosis, mitral disease, and latent tubercular affection of the left lung. After death, extreme atrophy of the brain was found, with great increase of cerebro-spinal fluid, a dilated condition of the central canal of the spinal end, with marked granular degeneration, together with the presence of amyloid bodies, more especially in the posterior columns. Dr. Radcliffe, who saw the case, was disposed to regard these lesions as the primary cause of the symptoms observed.—Dr. BARLOW related the case of a child, seven years of age, in whom most intense anæmia seemed directly to follow a severe fright; and Dr. BRADBURY, in reply, mentioned a somewhat similar case reported to him by Dr. Bond of Cambridge.

On the Successful Treatment of Dilated Heart. By J. MILNER FOTHERGILL, M.D.—Dr. Fothergill commenced by pointing out the leading principles of treatment. First was the reduction of all demand upon the heart by the enforcement of rest, as far as could be attained. Then came the question of the improvement of the general nutrition in which the heart partakes. And, thirdly, the action of agents which possess a special power over the heart, of which digitalis was the best known instance. By the combined use of these measures, much may be effected towards the restoration of a dilated heart to its normal dimensions, complete or incomplete restoration being achieved according to the peculiarities of each case. The paper was illustrated by records of cases. The first was a favourable case of apparently complete restoration to the norm in a case of simple dilatation. The second was a case of recurring cardiac dropsy, where the man still worked hard, and yet had nearly lost all of his objective and subjective symptoms. The third was a case complicated with mitral regurgitation in a growing youth, where all evidence not only of dilatation, but of the mitral mischief had disappeared, while the boy continued his occupation. The fourth was a case of double aortic disease in a girl aged 20; this case being now in St. Mary's Hospital, under Dr. Broadbent, the dilatation being much reduced, and great general improvement inaugurated. The fifth was a case of yielding hypertrophy, probably due to fatty degeneration. Here great relief was obtained, and the patient was enabled to resume his work; though, of course, the prognosis was very bad.

Some of the Causes of Granular Kidney. By T. CLIFFORD ALBUTT, M.A., M.D.—The author said that for some years he had been led to believe that depressing passions are among the chief causes, if not the chief cause, of granular kidney. He had published this opinion already, and he now found that Dr. Dickinson and Dr. Brookhouse of Nottingham hold a like opinion. He believed that gout is more often the first sign than the cause of granular kidney, as persons with old gouty histories do not often end in this way; and persons of gouty family, and suffering from masked gout, often have high arterial tension for years, and die of or with thickened irregular hearts, yet with urine non-albuminous, and of normal specific gravity. He urged the importance of impressing upon people not to entangle themselves in selfish desires leading to disappointment, nor even in unselfish efforts to waste their lives in fretfulness and apprehension. He thought that a consciousness of earnest unselfish effort, and of patient abiding of results, even if aiding in defeat, was less likely to end in bodily or mental disease, than the bitterness of blighted pride, or of thwarted avarice, or self-indulgence. Those cases of granular kidney occurring early in life, like the diabetes of early life, the author had found to be more rapidly fatal, and he had found likewise that such persons always came of unhealthy families. Intemperance seemed distinctly to have caused granular kidney in three cases out of thirty-five, mental distress in twenty-four, three were cases in early life, and the rest presented no special or unfamiliar feature. He could offer no explanation of the connection between depressing passions and granulation of the kidney.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

ALBUMINURIA, INDUCED BY TINCTURE OF IODINE.—Dr. Simon attempted to treat the scald-head of children with a mixture of tincture of iodine and glycerine without previous depilation. He one day found a small girl, who had been treated in this way, manifesting all the symptoms of iodism. Analysis of the urine showed a considerable amount of iodine. Eleven others treated in the same manner had iodine in their urine, and that of four of these contained also albumen. To determine positively the origin and cause of the albuminuria, he analysed the urine of three girls, one suffering from porrigo, another from phthisis, and, the third from white swelling, and found neither albumen nor iodine. After the external application of the tincture of iodine, he demonstrated presence not only of iodine, but also of albumen in their urine. The treatment was discontinued, and in a few days their urine was entirely free from these articles, both of which again appeared on resuming the applications. From these observations, Simon concludes: (1) that iodine externally applied is absorbed, and afterwards excreted by the urine; (2) that when thus applied it may lead to iodism; (3) that in a large proportion—perhaps half—of cases, albuminuria may be produced.—*Allg. Wiener Med. Zeit.*, May 16th, 1876, and *France Médicale*.

SURGERY.

SUCCESSFUL SUPRAPUBIC LITHOTOMY.—Dr. G. Bell reports (*American Practitioner*, March, 1876) the case of a boy, aged 3½, who, six months previously, had had a vesical calculus the size of a pea removed from his bladder, and who had again symptoms of stone. Dr. Bell therefore performed suprapubic lithotomy, the patient being completely under the influence of chloroform. The stone, which was of the size of a large bean, and having abundant crystals on its surface, was removed with the index-finger; the incision in the bladder was closed by a single silk suture, silk sutures were used for the abdominal incision, and an ointment, containing carbolic acid and morphia, applied externally to the wound. In two hours some bloody urine was passed by the urethra, and the patient slept moderately well the first night succeeding the operation. On the 25th, followed considerable fever and nervousness; on the 26th, the superficial sutures were removed, and the wound emitted a decidedly gangrenous odour; and on the 29th, urine escaped freely through the now opened wound. On November 1st, the gaping edges of the wound were brought together with adhesive plaster, and soon after the urine resumed its natural channel. At the end of the month a small fistula existed, but it healed spontaneously.

A CENTENARIAN.—Mrs. Billing died at Newquay, Cornwall, on Tuesday, the 1st instant. She was born on August 3rd, 1775.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 19TH, 1876.

THE CRUELTY TO ANIMALS BILL.

THIS Bill received the royal assent on Tuesday, and has become the law of the land. We publish in another page the Bill as it came down from the Lords to the Commons, with the omissions and additions made by the latter in its final stages.

Taking the measure altogether, we think that the profession may be congratulated on its having passed, for the following reasons. In the first place, under the law as it has hitherto existed, the performance of all experiments of a painful nature on domestic animals was illegal. Hence arose the prosecution at Norwich of the local secretaries in the matter of M. Magnan's experiments, an affair which caused much annoyance to those gentlemen. Under the new Cruelty to Animals Act, a person holding a certificate or licence to perform experiments on animals is no longer liable to be prosecuted in this way. So far, the Act facilitates the prosecution of science by competent persons, while it protects animals from the cruelty which might be inflicted by ignorance and unskilful hands.

The Act is a great step in advance towards promoting kindness to animals generally. While Martin's Act was only applicable to domestic animals, by the new Act protection is extended to all animals except invertebrates, in cases where pain is inflicted for scientific purposes. It is impossible, however, that the principle of protection can remain thus limited to the animals on which experiments are made for the purpose of science; it must be extended to all cases in which pain is inflicted on animals for any object without reasonable cause.

The medical profession is to be congratulated on the result of its exertions, both individual and collective, in bringing the Bill into the form in which it has been passed. In the Bill as originally introduced in the House of Lords, science was threatened with a mischievously obstructive system of certificates and licences, with a rigid fixing of localities, with inspections and visitations even by police constables, and with an absolute prohibition of all experiments on cats and dogs. The power of instituting a prosecution lay in the hands of any one; and the provisions of the Bill were applied to all animals. In the Act as passed, it will be seen that, though licences and certificates are still necessary, greater facilities are given for obtaining them; and that a licensed person is no longer obliged to restrict the performance of his experiments to a registered place, unless the experiments be made for the purpose of instruction, or unless he be specially required by the Secretary of State to register the place in which he performs his experiments. Experiments, again, may be conducted for the purpose of finding means of relief for lower animals as well as for man. Experiments on cats and dogs are allowed, if performed under anaesthetics. An indication is given that the reports to the Home Secretary are not intended for publication; and—a fact of the greatest importance—no prosecution against a licensed person can be undertaken without the consent in writing of the Home Secretary. We congratulate the profession on having obtained these important modifications. Up to the time when the Bill left the House of Lords and was introduced into the House of Commons, the changes made in the Bill in accordance

with the representations of the Medical Council and of other bodies were comparatively slight; and it was only after the voice of the profession had spoken loudly and distinctly in the deputation to Mr. Cross, that the Government consented to make the changes that were called for. This shows clearly how great power our profession possesses, when united, and how much it has the sympathy and support of the public and of Parliament in a great and worthy cause.

There is one point only to which we have to refer with regret. It was from the first shown that the definition of the term animal in the Bill was obscure, and that this defect might lead to serious inconvenience. Mr. Cross yielded to the representations made on the subject, and consented to exclude cold-blooded animals from the operation of the Act. An amendment to that effect was put on the notice-paper of the House of Commons; it being understood that this limitation of the term animal was one of the conditions on which opposition would be withdrawn. With great regret we learn that when Mr. Forster—a member of the Royal Commission on Vivisection—proposed to substitute the word "invertebrate" for "cold-blooded", Mr. Cross voted for that amendment, which was carried in a thinly attended house by a considerable majority. Of course it was then too late—the session of Parliament being near its end, and business being pushed forward with speed—to do anything to amend the error; and Mr. Cross must be held responsible for the unfortunate mistake, which he would, we believe, scarcely have made if he had had time to consider the full bearing of his own and Mr. Forster's proposals. It is very doubtful whether the limitation of the Act to invertebrates really does benefit to animals; for in many cases, while experimenters might have been content with a frog or some other cold-blooded creature, some more sensitive warm-blooded animal may become the victim.

In writing on the subject last week, we mentioned bodies and individuals who had done good service in the cause. To these we must now, as an act of simple justice, add the name of Lord Cardwell; to whose great good sense and knowledge on the subject the profession is much indebted. Nor should we fail to acknowledge again the obligation which the profession owes to Mr. Lowe and Dr. Lyon Playfair, the representatives respectively of the Universities of London and of Edinburgh, to Sir John Lubbock and Dr. Ward, who not only advised and aided us throughout the progress of the Bill, but in Committee, at the last moment, sought to bring the difficulties and the anomalies with which they had to deal into a reasonable compass.

THE BALHAM CASE.

OUR readers are by this time cognisant of the result of the second inquest held at Balham on the body of the late Mr. Charles Bravo. The case began in mystery, and has ended in mystery; for, with the exception of fully confirming all that was previously known of the medical facts, this protracted second inquiry has failed to throw any light upon the mode in which the antimony entered the body of the deceased. The jury by their verdict affirm that death was caused by antimony administered in the form of tartar emetic; that this was not taken by the voluntary act of the deceased, nor by any accident; thus negating the presumption of suicide or of accidental poisoning. Further, they declare "that he was wilfully murdered by the administration of tartar emetic; but there is not sufficient evidence to fix the guilt upon any person or persons".

We need hardly observe that this is a most unsatisfactory termination to a protracted inquiry. Such a verdict as this admits that a man of good social position, in the midst of health and in the prime of life, may be suddenly destroyed by poison, and the law is powerless to trace this web of murder to any individual. An admission of this kind is a discredit to the criminal law, or to those who have to administer it; and it necessarily creates a feeling of the great uncertainty of life. It shows that a criminal has still in his power to set at defiance the

trained skill of detective officers and the legal acumen of experienced barristers accustomed to deal with evidence.

Medicine is not at fault on this occasion, nor can it fairly bear any part of the blame arising from the non-detection of the criminal. As a rule, medical science deals only with the discovery of the nature of the poison and the proof of the cause of death. The medical evidence in the Balham case was overwhelmingly sufficient to establish these two points to the satisfaction of the jury and the public; and it is the clearness of this branch of the evidence which stands out strongly in contrast with the complete failure of the law-officers of the Crown to trace the perpetrator of the criminal act.

In most cases of murder by poisoning, the proofs rest upon three conditions—"means", "opportunity", and "motive". The first is all-important. The purchase or actual possession of poison at or about the time of the alleged murder—the poison being of the same nature as that found in the body of deceased—furnishes a strong proof that the suspected person had at least the means of destroying life.

It is a remarkable feature in this case, and one which has undoubtedly led to the unsatisfactory verdict of the jury, that the poison which caused Mr. Bravo's death has not in any shape been traced to the possession of any of those about him at the time he was seized with his fatal illness, or of any one who might be supposed to have an interest in his death. A dismissed coachman, it appears, had had some of this compound in his stables for the treatment of his horses; but this was many months before the occurrence of the illness, and there was evidence that the residue had been destroyed. At any rate, no portion of this tartar emetic could be traced to the house or to any one about the deceased at the time of his death. Further, no liquid or solid, and no vessel which had contained tartar emetic, was found on the premises. The Burgundy wine drunk by deceased at dinner, the water in the water-bottle of his room, the chloroform and laudanum, the laurel-water secretly sent to the house shortly before the attack, are all proved by a variety of circumstances and the direct evidence of witnesses to have been free from any impregnation with tartar emetic.

In reference to the hypothesis of suicide, negated by the jury, a similar difficulty exists. The deceased could not have poisoned himself without having possession of the means. Yet, apart from the fact that tartar emetic is not a poison which would be selected by a man like Mr. Bravo intending suicide—its emetic properties being so well known—there is not the slightest evidence that he had ever had it in his possession, and none of the vessels found in his room contained it. While in a state of impending dissolution, he solemnly denied having knowingly taken any poison whatever. Thus, then, we must fall back upon the conclusion that there was no proof of the presence of or access to this poison to account for its being found in the body of deceased, on the theory of suicide or accident.

Hence the tracing of the "means" of poisoning, either to the deceased or those about him, utterly failed, and the case necessarily broke down. After this complete failure of the most important branch of evidence, it is hardly necessary to comment on the other branches of proof of administration, namely, opportunity and motive. All those who were about the deceased at the time of the attack would, of course, have an opportunity of mixing poison with food or medicine; but this amounts to nothing in the absence of proof of possession of poison. With regard to motive, a motive for crime may be easily suggested in cases in which persons are entirely innocent. It proves nothing of itself. When the proof of administration by a person is made clear by other evidence, the existence of a motive is of importance; but, in the absence of such proof, it is of no value.

The case must remain in this unsatisfactory state until the possession of tartar emetic can be distinctly traced to one of those who were about Mr. Bravo when he was first attacked. The evidence on the second inquisition appears to show that the deceased could not have taken the tartar emetic at dinner, a point which was left uncertain at the first inquiry. The deceased dined at 7.30; at 9.30 he was seen

going to his bed-room; and, a quarter of an hour afterwards, he was heard calling for water. He had then vomited. As two hours and a quarter had elapsed since his dinner, it is most probable that the poison was not taken until after he had gone to his bed-room. How and in what vehicle he took it there is no evidence to show. The person who first saw him after he had taken it was Mrs. Cox. The rest is known to our readers from the elaborate reports of the case which have been published.

We cannot conclude these remarks without joining in the censure, expressed by some contemporary journals, of the licence allowed to some of the counsel in the cross-examination of the witnesses. It is a disgrace to our system of procedure, to allow this moral vivisection, under the pretence of a cross-examination. It answered no purpose whatever in eliciting truth, or in throwing a light upon the only question before the Court, *i.e.*, the cause of death. It was, as one writer quietly observes, a disgrace to the Court which allowed it, and to the manliness of every one who was in the least degree responsible for it.

ALLEGED ILL-TREATMENT OF A LUNATIC.

THE recent prolonged inquest on Mr. F. W. Wimberley, who died last month in the Camberwell House Asylum of peritonitis, consequent on perforating ulcer of the stomach, and in whom no fewer than twenty-one fractures of the ribs were found, recalls to mind the cases, formerly alleged to be common, of ill-treatment of lunatics by the attendants in asylums, and suggests a doubt whether the true nature of such cases is so generally understood as it should be. In the reports of the inquest which have appeared in the public papers, there is evidence, given by two inmates of the asylum who, according to the superintendent, Dr. Schofield, had so far improved in mental condition as to be worthy of credence, that the deceased had been very violent, and on one occasion had been thrown down and kicked by an attendant named Smith. We extract two portions of the medical evidence.

"Mr. David Goodsall, Honorary Surgeon to St. Mark's Hospital and the Metropolitan Free Hospital, deposed that he made the second *post mortem* examination in conjunction with Dr. Ingoldby, Dr. Butler, Dr. Schofield, and Dr. Pugh. He found twenty-one ribs fractured, an ulcer in the stomach, and a hole in the peritoneum. He had no doubt that the hole in the stomach was due to force and not to disease. The rupture might have resulted from blows. It must have occurred shortly before death, for after such a rupture no man could live long. Peritonitis had existed about sixteen to twenty hours. He firmly believed that the lower ribs had been broken by great violence, such as blows or kicks, and the upper ribs by indirect violence. Violence repeated from time to time would rebreak the ribs, and he found some of them had been rebroken. The ribs were not exceptionally brittle; and one of the broken ribs, which had become reunited, required a considerable amount of force on witness's part to rebreak it. He never heard of a person breaking his ribs by striking himself with his fists. He should think the fracture of the breastbone was caused by some one kneeling upon the deceased. Fractures of the breastbone were very rare, and in nearly all cases occurred from direct violence."

On the other hand, Dr. Joseph Lees said that he had examined the body of the deceased.

"He came to the conclusion that the ribs were extremely brittle. There had been fracture and refracture of some of the ribs. In the stomach he found the ulcer, which was circular, and had eaten through the two inner coats of the stomach. In the outer coat of the stomach was a circular opening. The symptoms exhibited by the deceased on the last day of his life were consistent with ulcer in the stomach, perforation of the stomach, collapse, and death. He believed that deceased died from peritonitis following the perforation of the stomach. The vomiting described by one of the witnesses would produce the rupture of the ulcer, and consequent peritonitis. He had known peritonitis result from a blow in a few days from the receipt of such blow. One of the fractures of the fourth rib on the right hand side was a year old at least, and the second fracture had occurred three weeks before death. He believed that the peritonitis arose from the ulcer, and not from external violence, and based his opinion upon the symptoms of vomiting spoken of by one of the attendants."

The jury returned a verdict of "Death from peritonitis following perforation of the stomach, and that such death had been accelerated by violence at the hands of some one in the asylum, but whether that person was the attendant Smith or some one else, the evidence failed to show".

The tendency of this verdict is to revive in the public mind the old notion of ill-treatment of the patients in asylums at the hands of the attendants. That, as the verdict says, the cause of death was "peritonitis following perforation of the stomach", there can be no doubt; but why either the jury or certain of the witnesses should come to the conclusion that the perforation was the result of violence at the hands of some person belonging to the asylum, it is not easy to understand. In the first place, perforating ulcer of the stomach does not in ordinary cases require the application of violence to produce its fatal effect; and secondly, admitting that death was hastened by violence, the excited state of the unfortunate deceased, as proved by the evidence of his brother and of other witnesses, ought to afford a sufficient explanation without calling in the aid of hypothetical acts of violence on the part of persons who cannot be fixed on.

Another point of great interest in this case is the occurrence of numerous fractures of the ribs. Among a public unacquainted with the discoveries made in recent years regarding the condition of the bones of the insane, the statement that twenty-one fractures of the ribs were found will not unnaturally have caused a large amount of sensational excitement. But it is a well-ascertained fact—and it is a matter for some regret that it was not brought much more prominently forward at the inquest than appears to have been the case—that in many cases of insanity the bones, especially the ribs, undergo pathological changes which render them peculiarly liable to fracture, even when no extraordinary violence is used. Numerous observations on the subject have been made in recent years. We will refer to a few only. In 1870, Dr. Clouston called attention to the altered condition of the ribs in cases of general paralysis; and Drs. T. L. Rogers and J. C. Brown of Liverpool found that in this disease the bones underwent a chemical change approaching that observed in osteomalacia. Much to the purpose, also, is a paper read in the same year before the Medical Psychological Association by Dr. Sankey. We quote from an abstract in the New Sydenham Society's *Biennial Retrospect* for 1869-70.

"He finds, from a review of all the published cases, that the existence of most of these fractures has only been discovered after death; that the fractures have nearly all been very extensive, much more so in fact than is usually met with from violent accidents among the insane; that the patients have nearly all been recently admitted into the asylum, and that the subjects have all been males. He then states that parietic patients in a certain stage of their malady are known to be furiously excited. They throw themselves about with reckless violence. They frequently attack the bystanders, and they thus often become engaged in scuffles. They are consequently exposed to all kinds of blows and falls of a purely accidental character."

Dr. Sankey appears not to notice the existence of any morbid changes in the bones; but his observations are valuable as tending to prove that there is often sufficient in the state of the patient to account for the infliction of injury without having recourse to charges of violence against the attendants. As regards the pathological changes, we have the evidence, in addition to that of Clouston and Rogers, of Lauder Lindsay, Hearder, Yellowlees, etc.; and the subject has been recently treated in a very able and exhaustive essay published in the *Rivista Sperimentale di Freniatria e di Medicina Legale*, in an article on "Fractures of the Ribs and a peculiar Form of Osteomalacia in the Insane", by Dr. Morselli of Florence. In this paper, which proves an extensive acquaintance on the part of the author with the literature of the subject, five cases are described as having been observed by him in the Asylum of Reggio-Emilia during 1874 and 1875. In one, in which the patient died after fracture of the thyroid cartilage, fractures of *all the ribs* were found after death; the ribs were very brittle, and had undergone pathological changes which are described in the paper. In the second case, seven ribs were broken on the left side and six on

the right; in the third, five ribs on each side; in the fourth, four ribs; and in the fifth, four ribs; and in all the cases, the bones were found affected with a condition which Dr. Morselli designates as osteomalacia of the insane. In the present case, there does not appear to have been any minute examination of the state of the ribs. One medical witness—Mr. Goodsall—stated that they were not exceptionally brittle; while another—Dr. Lees—regarded them as being in that condition. It is, we repeat, a matter for some regret that there was not a more accurate examination; but that the ribs were not in a healthy state, one can scarcely doubt after the observations on this subject to which we have above referred; it is, moreover, in the highest degree improbable that, in a person having healthy bones, the infliction of injuries even at different times, sufficient to fracture all, or nearly all the ribs, would be compatible with life.

Here, even more than in the case of the ulcer of the stomach, the violent habits of the unfortunate patient are amply sufficient to account for the injuries found; and we cannot see the necessity or the justice of having recourse for an explanation to vague imputations against persons unknown.

The subject of the special liability of the insane to certain injuries is one not merely of scientific interest to the profession, but of importance in its relations with the public. Such verdicts as that to which we have had to refer, are calculated to produce grave misapprehensions as to the treatment of the inmates of our asylums—treatment which the judgment of those best qualified to give an opinion pronounces to be judicious and humane.

MILITIA SURGEONS.

THE Royal Warrant of July 12th is the death-knell of the militia surgeon. It is evident that the intention of the authorities is gradually to get rid of the present system, and to have the medical duties of militia regiments carried out by medical officers of the regular forces. The giving the title of surgeon-major and the extra half-a-crown a day (when in receipt of full-pay) is certainly a more graceful way of treatment than simply squeezing the surgeon out by reducing his income, but it is neither more straightforward, nor just, nor fair. The title will not add a jot to his position; the extra half-crown will add from three pounds seven shillings and sixpence to six pounds fourteen shillings to his annual income. The head-quarters of all militia regiments will sooner or later be at their respective depôts; and this simply means the dismissal of the militia surgeon, not, however, in the usual English fashion of saying there is no longer need of his services, and he must go, but it simply forces the surgeon to retire by depriving him of the bulk of his income.

With regard to Clause 10, we are not aware that militia surgeons ever thought of "claiming" any pension or retiring allowance granted to medical officers of the regular forces, although the great majority of them might be fully entitled to some pension; but this is not the great grievance. The militia surgeons are going to be mulcted of more than half, in many cases of more than two-thirds, of the income which they have enjoyed, and which they expected to enjoy in the future. In fact, in many cases, instead of the appointment being one of gain, it will become one of loss, and it is upon these grounds that militia surgeons appeal for pension or retiring allowance: in plain language, for compensation. In all common justice, they must be entitled to some compensation, and, before allowing their names to be placed on the departmental list, we should strongly advise them to wait for further information.

A DRUGGIST in Nottingham, named Taylor, was last week charged with supplying a drug as lime-water which contained no lime. The defendant admitted the charge, but pleaded that he had been led into a mistake through a change of bottles. A fine of £5 was imposed.

THE Keighley guardians, who refused to enforce the Vaccination Act, are now undergoing imprisonment in York Castle for contempt of the Court of Queen's Bench.

PROFESSOR SPÄTH of Vienna was summoned to Belgrade to assist at the accouchement of the Princess Nathalie of Servia. He was unable to accept the invitation; but his private assistant, Dr. von Riedel, went to Belgrade in his stead.

THE provision for the sick and wounded in the Turco-Servian War appears, from all accounts, to be very imperfect; and both medical and lay philanthropists of this country are exerting themselves to supply the defect. Two societies are in the field with this object. One, which is under the patronage of Earl Russell and His Eminence the Metropolitan of Servia, with Mr. Lewis Parley as Secretary, announces itself as "The League in aid of the Christians of Turkey", and states that its objects are "to assist in relieving the sick and wounded in Servia, and to aid the Christians of Turkey in obtaining their freedom from Mussulman oppression". We think that this combination of objects is a mistake. To relieve the sick and wounded is an act worthy of praise; to endeavour to liberate the Christians of Turkey may be very laudable; and, in both cases, the members are no doubt actuated by unimpeachable motives. But still the mixture of medicine with politics in such a case is an error. It is not in accordance with the catholic spirit of medicine, which knows no distinction of creed, race, or nationality; and it may seriously impede the benevolent action of those whose mission is to succour the sick and wounded without respect of person or nation.

ANOTHER institution is the "Eastern Sick and Wounded Relief Fund", instituted by the Order of St. John of Jerusalem, and announced as acting under the rules and regulations of the Geneva Convention, and consequently without political aim and objects. It is under the presidency of Sir E. A. H. Lechmere, Bart., M.P.; and under its auspices, Dr. Laséron, Mr. Mac Kellar of St. Thomas's Hospital, and six other persons, have proceeded to the seat of war. A meeting in support of this fund was held on Tuesday last, when a letter expressive of sympathy with the objects, and enclosing a donation, was received from Miss Nightingale; and a committee was formed, and other necessary business transacted. In the course of the meeting, Colonel Loyd Lindsay announced, in answer to a question, that the National Society for Aid to the Sick and Wounded in War had taken measures to ascertain from the belligerent governments whether they would accept aid from the Society, on the express understanding that the assistance on one side will be given in the same way on the other.

AT a meeting of the Executive Committee of the National Society for aid to the Sick and Wounded in War, held on Wednesday, it was resolved that a sum not exceeding £20,000 be devoted to the relief of the sick and wounded of the armies now engaged in the war in the East. Colonel Loyd Lindsay was appointed to act as commissioner of the Society at the seat of war; and Mr. William Mac Cormac, well known for his services in the Franco-German War, was requested to accompany Colonel Loyd Lindsay as surgeon-in-chief of the Society.

THE telegraphic reports in the newspapers of Tuesday, announce a very deplorable event in connection with the proceedings of the two societies. It is reported that Mr. Thomas, one of the members of the so-called "Christian League", has denounced Dr. Laséron, of the other Society, as a Turkish spy; and that the latter gentleman has consequently been obliged to quit his work of mercy. In whatever aspect we look at this, there is ground for much regret. At the meeting on Tuesday, to which we have referred, Colonel Loyd Lindsay advocated combined action—advice which, we trust, it may be found possible to follow.

THE SULTAN MURAD.

PROFESSOR LEIDESDORF of Vienna has been called to Constantinople in a consultation on the case of the Sultan.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the last meeting of the Council, Mr. C. G. Wheelhouse, the recently elected member, was introduced, and, having subscribed the by-laws and made a declaration in the terms of the oath prescribed by the Charter, took his seat as a member of the Council.—A letter was read from Dr. Little and Messrs. Spencer Wells and Wm. Mac Cormac, the members of the Executive Committee of the Testimonial to Dr. Stromeier of Hanover, offering, on behalf of the subscribers for the acceptance of the College, a bust in marble of this distinguished surgeon, which had been executed by W. Engelhard of Hanover. It was resolved unanimously that the Council heartily accept, with best thanks, the donation.—A letter from Mr. B. P. Lowne, F.R.C.S., was read, thanking the Council for having elected him to the office of Lecturer on Anatomy and Physiology in the vacancy occasioned by the resignation of that office by Professor William Turner. Mr. Lowne, who is a Fellow by examination, is deservedly well known by his numerous and valuable contributions to the advancement of science.—The Library and Museum were ordered to be closed during the month of September for the necessary repairs and rearrangements.—The Council will not meet again until October 19th.—The preliminary examination in arts, etc., for the diplomas of Fellow and Member of the College will take place on September 12th, 13th, and 14th, at Burlington House.

SOCIAL SCIENCE CONGRESS.

THE following are the special questions for discussion at the forthcoming Congress at Liverpool in the Health Department. 1. What is the best mode of making provision for the supply and storage of water (a) in large towns, such as Liverpool and Manchester? (b) in groups of urban communities of lesser size, such as exist in the manufacturing districts of Lancashire and Yorkshire? 2. What further legal enactments, if any, are required with a view to arrest the spread of infectious fevers? and how far national and municipal registration is desirable as a means thereto? and, if so, what should be the nature of such registration? 3. What amendments are required in the legislation necessary to prevent the evils arising from noxious vapours and smoke?

MEDICAL LADIES.

OUR Paris correspondent, in a note dated August 14th, informs us that on Saturday last the amphitheatre of the School of Medicine was crowded by doctors and medical students of both sexes to witness the examination of Madame Franceline Ribard, who presented her thesis for the doctorate of medicine. She was put through a most searching examination, not only on the subject of her thesis, but on collateral subjects, which lasted more than an hour, and the members of the examining board, MM. Gavaret, Gubler, Dieulafoy, and Lecorché, congratulated her on her success. The subject selected by the new doctress was, "Drainage of the eye in the various affections of that organ, especially in décollement of the retina"—rather a difficult subject, more so on account of its novelty. A few days previously, three English ladies passed the preliminary examinations; one the fourth examination for the doctorate.

ILLEGAL PRACTICE OF MEDICINE IN FRANCE.

THE Correctional Tribunal of Paris has given judgment in a charge against a man named Charles Gayot, styling himself an electrician, and residing in Paris, for having in 1875 and 1876, illegally exercised the practice of medicine 328 times, and for having within the same period sold medicines without a legal title. The question was whether the use of electricity in ailments constituted the practice of medicine. The tribunal found in the affirmative, and sentenced the defendant to 328 fines of three francs each, and another of five hundred francs (£20) for the illegal practice of pharmacy, and to pay in addition 3,200 francs (£128) damages to the complainant, a man named Mallet, who from time to time had paid that sum to the

defendant for electrical applications and medicines. The law against the practice of medicine by unqualified persons is thus seen to be much more severe and much more effectual in France than in Great Britain.

VIVISECTION.

THE following is a return of petitions presented to the House of Commons against vivisection during the present session up to August 1st: In favour of total suppression, 805; number of signatures, 146,889; in favour of restriction, 15; number of signatures, 1,520. By such means as were employed, it would have been easy to obtain many millions of signatures. The documents circulated, and by which these petitions were obtained, were full of the grossest, the most horrible, and exciting calumnies. On the very day on which the Bill, as amended, passed its second reading, a shower of documents was poured forth, repeating all the old calumnies and misstatements. Almost the only memorials presented against the Bill were those issued in the JOURNAL, which were signed by between 2,000 and 3,000 medical men, and were presented to the House of Lords and to the House of Commons, on the days of the second reading of the Bill. The exertions of the British Medical Association were made by direct intervention with members, and with Ministers. They were so effectual that, at the last minute, they commanded a working majority of upwards of one hundred members, and the Parliamentary Committee could, by a word, have thrown out the Bill. We believe, however, that by far the wisest and most patriotic course was adopted, by arranging with the Government the amendments which were acceptable to the physiologists and the profession at large.

STATISTICAL SOCIETY.

THE following is the title of the essay to which the Howard Medal will be awarded in November, 1877: "On the Condition and Management, past and present, of the Workhouses and similar Pauper Institutions in England and Wales, and their effect on the Health, Intelligence, and Morals of the Inmates." The essays are to be sent in on or before June 30th, 1877. Further particulars or explanations may be obtained from the Assistant Secretary, at the rooms of the Statistical Society, Somerset House Terrace, Strand, London.

ACTION FOR NEGLIGENCE AGAINST A SURGEON.

AT the Yorkshire Summer Assizes at Leeds on August 9th, before Mr. Justice Lush, an action was brought by John Platts, a miner residing at Castleford, against Mr. Walter Samuel Simpson, surgeon, of Pontefract, for neglect in not discovering his real condition after an accident which happened to him on December 23rd, 1874. On that day, according to the statement of Mr. Seymour, Q.C., counsel for the prosecution, a portion of the roof of a colliery cell, and the plaintiff was considerably crushed and injured, and his left leg was dislocated. The defendant examined him, but said there were no bones broken, and that there was no dislocation. Plaintiff noticed that the left leg was shorter than the right, and he drew the defendant's attention to the fact. Defendant intimated that the disparity must have existed before the accident. On January 14th, being still of opinion that there was a dislocation, plaintiff went to Mr. Holt, surgeon, Pontefract, and then to the Leeds Infirmary. As soon as he was admitted into the Infirmary, the surgeons at once pronounced that it was a case of dislocation. The man came out of the hospital after having been in three or four weeks, and was still a cripple, unable to use his leg, from the negligence and want of skill of the defendant. In support of this statement, two medical men were called—Mr. Wade of Wakefield, and Dr. Fairbank of Doncaster. Mr. Wade said that on July 27th he found the plaintiff suffering from an unreduced dislocation into the sciatic notch. He did not think such dislocation difficult to discover—in this respect holding a different opinion from that of Sir Astley Cooper and other surgeons. He was not aware that Mr.

Syme had overlooked for thirteen days a case of dislocation into the sciatic notch, and would regard the matter as so simple that a surgeon called in ought to find out the dislocation. Mr. Waddy, Q.C., counsel for the defence, said that the surgeons of the Leeds Infirmary, and other professional witnesses who were present, would say, first, that there was a dislocation into the sciatic notch; second, that the dislocation was correctly reduced by Mr. Wheelhouse, and that the man left the Infirmary on February 9th in a proper and satisfactory state; third, that at the present moment there was no dislocation whatever, and that the joint was working in a proper way; and fourth, that no particle of injury of any kind was resulting from the delay of three weeks in the reduction of the dislocation. Mr. Seymour said that, after this assurance in the presence of the medical gentlemen referred to, he felt that it would be unbecoming to keep the charge hanging over the head of a professional man who is rising in his profession. The judge approved of this decision, and the jury returned a verdict for the defendant. Mr. Simpson is to be congratulated on the termination of the action; and he no less deserves the sympathy of his medical brethren for the annoyance to which he has been subjected. In the course of the trial, it was suggested in the statement of the counsel for the defence, that the defendant was about to marry the daughter of the colliery proprietor, and that the prosecution had been undertaken at the expense of the Miners' Association to which Platts belonged. If this be the fact, the prosecution appears to resolve itself into an attempt to gratify a class prejudice at the expense of professional reputation. As for Mr. Wade, we must repeat the expression of regret which we have had to make on previous occasions, that any medical man can be found to support such cases; and we would recommend him to read and ponder carefully the words of Mr. Favell, in his Address in Surgery delivered at the Sheffield meeting of the Association: "I can imagine and excuse a man being angry when he finds himself permanently crippled by an accident, which at first, to all appearance, may not have seemed of a very formidable nature; but surely we, fellow-workers, all so fallible, ought to criticise the work of our brothers in a spirit of the widest charity."

QUARANTINE.

THE principal merchants both European and native, of Bagdad, by a memorial dated July 10th, have requested Colonel Nixon, Her Majesty's Political Resident at that city, to exert his influence in obtaining the removal of the local quarantine, and also that at foreign ports. The memorialists have also appealed to the Governor-General of Bagdad and the French Consul.

THE HEAT IN SPAIN.

THE Madrid correspondent of the *Times* telegraphs under date of August 10th, that the heat in Spain is fearful, and exceeds any recorded since 1800. In Madrid there are hundreds of persons sleeping on the roofs of houses and in balconies. In Seville, people sleep in open streets. The temperature marks 101 in shady rooms. Madrid is wholly deserted and its streets are silent. A further telegram adds that the heat in Andalusia is increasing, and forty sick labourers have died at Seville of sun-stroke or apoplexy. The vines are failing, owing to the scorching heat. The thermometer ranges from 101 deg.

ARTIFICIAL BUTTER.

A MARSEILLES correspondent informs the *Times* that arrangements are being made for supplying London with a substance known as "Marseilles butter". It is produced at a large stearine candle-manufactory at Marseilles, where five hundred hands are employed, and where several tons' weight of this substance are turned out weekly, it being known under the names of "Margarine, Graisse alimentaire, and Beurre factice". The correspondent says: "It is most artistically prepared, equalling in appearance the finest Epping or Dorset qualities, and it keeps well. But it will not go down at Marseilles, and a suitable market is now being sought for this spurious alimentary sub-

stance." If sold as a spurious article or under false pretences, this substance is open to obvious objections. For cooking purposes, however, animal fats, deprived of a portion of their stearine, are exceedingly eligible substitutes for butter, and we do not understand the repugnance which is often expressed to them. It seems to us an useful and unexceptionable addition to our food resources.

MISS MARTINEAU'S WILL.

THE will of Miss H. Martineau contains one peculiar provision. "It is my desire (she says) from an interest in the progress of scientific investigation, that my skull should be given to Henry George Atkinson, of Upper Gloucester Place, London, and also my brain, if my death should take place within such distance of his then present abode as to enable him to have it for purposes of scientific observation". By the second codicil, dated October 5th, 1872, this direction is revoked; "but (the codicil proceeds) I wish to leave it on record, that this alteration in my testamentary directions is not caused by any change of opinion as to the importance of scientific observation on such subjects, but is made in consequence merely of a change of circumstances in my individual case".

PATENT MEDICINES.

IN a document this week published, the stamp duty on patent medicines realised, is stated to be, for the year, £123,136. We believe the Parliamentary Bills Committee of the British Medical Association are likely to take steps during the ensuing session which may have the desirable effect of materially lessening the productiveness of this immoral item in the revenue account.

RECENT URBAN MORTALITY.

DURING last week, 5,673 births and 3,762 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 24 deaths annually in every 1,000 persons living: in Edinburgh it was 15; Plymouth, 17; Wolverhampton, 19; Dublin, 20; Brighton, 22; Bradford, Bristol, and Birmingham, 23; London, Glasgow, Sunderland, and Norwich, 24; Liverpool, 25; Oldham, Portsmouth, and Nottingham, 27; Newcastle-upon-Tyne, 28; Leeds and Hull, 29; Sheffield and Salford, 30; Manchester, 31; and Leicester, 38. The zymotic death-rate averaged 7.4 per 1,000 in the twenty English towns; and ranged from 2.9 and 4.7 in Plymouth and Oldham, to 12.4 and 17.0 in Salford and Leicester. Scarlet fever continues fatally prevalent in Portsmouth. Small-pox caused 10 deaths in Liverpool and 14 in Manchester and Salford, including 2 in the Monsall Hospital. The fatal cases of diarrhoea in the twenty towns, which had been 904 and 851 in the two previous weeks, further declined last week to 712. The annual death-rate from this disease was equal to 4.4 per 1,000 in London, and averaged 6.3 in the nineteen other towns, among which it ranged from 1.5 in Plymouth, to 15.2 in Leicester. In London, 2,276 births and 1,572 deaths were registered; the former being 28 and the latter 133 below the average of the week. The 1,572 deaths included 9 from small-pox, 22 from measles, 42 from scarlet fever, 4 from diphtheria, 25 from whooping-cough, 19 from different forms of fever, and 294 from diarrhoea; in all, 415 deaths (against 669 and 522 in the two preceding weeks), 92 below the average, and equal to a zymotic death-rate of 6.2 per 1,000. The deaths referred to each of these seven zymotic diseases were below the corrected average weekly numbers. The deaths from diarrhoea, which had been 522 and 401 in the two previous weeks, further declined last week to 294, which were 25 below the corrected average. In greater London, 2,753 births and 1,908 deaths were registered; in outer London, the general and zymotic death-rates were 22.0 and 7.5 per 1,000 respectively, against 23.5 and 6.2 in inner London. Diarrhoea was again more fatal in the outer ring than in inner London. The mean temperature at Greenwich was 66.7 degs., and 4.6 degs. above the average for the corresponding week in sixty years; it showed an excess on each day of the week, and on Wednesday was 71.6 degs.,

or 9.5 degs. above the average. The highest reading of the thermometer in the shade was 91.2 degs. on Wednesday; so high a reading was not recorded in any of the other large towns. No rain was measured, and the air was very dry on Friday and Saturday.

SCOTLAND.

LAST week, the mortality of Edinburgh was returned at a total of 61, being at the rate of 14 per thousand of estimated population.

A BRONZE statue of the late Dr. Livingstone, erected in East Prince's Street Gardens, Edinburgh, was unveiled on Monday last in the presence of the members of the Corporation and a large public assemblage.

IN the Dundee Police Court, last week, a town councillor was fined £2, with the alternative of ten days in gaol, for neglecting to provide water and other sanitary necessities for his property in Lochee. The councillor protested, and said he should appeal against the decision.

THERE is reported from Stornoway the death of a woman at the age of 115 years; and it is said that the age can be authenticated. It is noteworthy that she resided all her lifetime in a little thatched hovel. She was never married, and, until the last few years, enjoyed pretty good health, and was able to be out of bed occasionally.

THE trustees of the late Mr. James Beard of Cambusdoon have agreed to make payments, amounting to £14,150, from the sum left at their disposal for charitable and benevolent purposes. To the Glasgow Royal and Western Infirmarys sums of £2,500 and £2,150 respectively have been voted; and a number of amounts varying from £1,000 to £50 have been voted to other charitable institutions in Glasgow and Ayrshire.

UNIVERSITY OF ABERDEEN.

DURING the academic year just closed, the University of Aberdeen has conferred the degree of Doctor of Medicine on twenty-one candidates, and the degrees of Bachelor of Medicine and Master of Surgery on sixty-three candidates. Among the latter, Messrs. James Simpson, J. W. H. Traill, M.A., and A. Williams, passed with the highest honours. The John Murray Medal and Scholarship was awarded to Mr. James Simpson, as the most distinguished student of the year.

POPULATION STATISTICS OF GLASGOW.

THE City Chamberlain of Glasgow has recently issued his annual report on the vital, social, and economic statistics of the city, from which we extract the following information. The first noticeable feature is the rapid increase which has taken place in the population and growth of the city during the past twelve months. The "natural" increase, or simple preponderance of births over deaths, in 1875 was 5,471; the increase in the past fifteen years having been nearly 70,000. The rainfall for the year was high, being altogether about 45 inches, the average for the past twelve years being 43.4. The rainfall in Leith during 1875 was only 24.82 inches. Of the births, the males preponderated over females in the proportion of 21 to 20. It is pointed out that, from whatever cause, the first half of the year invariably preponderates over the other in the number of births. In treating of mortality, the conclusion is arrived at, "that we seem to be making actual progress in sanitary condition". Although 15,000 or 16,000 persons have been added to the population, the death-rate fell short of that of the preceding year. The highest monthly rate was in January; the lowest in October. From a table giving the deaths from febrile diseases, the author concludes that no fever has visited the city in an epidemic form during the past ten years. The death-rate for the year was 30.5 per 1,000, against a birth-rate of 38.9. There were only 131 interments this year in the burial-grounds under the control of the Corporation; "thus the baneful influences of intra-

mural interments are passing away". Among the causes of mortality, it appears that bronchitis occasions more deaths in Glasgow than any other disease. As showing the increase of population, it is noted that in 1801 the inhabitants numbered 77,385; while in 1875 the population within the municipal burgh is estimated at 534,560, to which there has to be added 136,500 for the suburban districts. Water was supplied from Loch Katrine at the rate of thirty-four and a half millions of gallons a day. A chemical analysis of this water, made in June by Dr. Mills of Glasgow, states that "the water was slightly ferruginous. It contained traces of light suspended matter, and a few particles of iron-scale. It was nearly colourless. The total absence of organic nitrogen is an exceptional feature even in this remarkable water, and at this season of the year."

DEATH OF DR. RAINY.

WE regret to record the death of Professor Harry Rainy, M.D., LL.D., of Glasgow, who died recently at the advanced age of 83. By the death of Dr. Rainy, who, till recently, occupied the Chair of Forensic Medicine in Glasgow University, the medical profession in Scotland has lost one of its oldest representatives, and one who had been a leading physician in the West. In his college days at Glasgow, Rainy was a fellow-student and intimate friend of the late J. G. Lockhart, son-in-law of Sir Walter Scott. After taking his degree in Glasgow, he spent some time at the hospitals of Paris in the year 1815, and was a spectator of the many stirring scenes which followed the "hundred days". In 1842, he was appointed to the Chair of Forensic Medicine in Glasgow, and from that time practised as a consultant with great success. He held the Chair, and proved a very successful teacher, until about three years ago he was compelled by failing health to resign it. Dr. Rainy was greatly respected both by the profession and by the public, as well for his upright independent character as a man, as for his extensive knowledge and great skill as a practitioner.

ADULTERATION OF BUTTER.

A CASE of considerable importance was recently tried in the Sheriff Court, Glasgow, in which a provision-dealer was charged with having sold, on the 27th of June last, a pound of adulterated butter. The scientific evidence given in the case was of a curious character. The assistant sanitary inspector deposed that the butter in question had been analysed by Dr. Clark, one of the city analysts, who found that it was adulterated with extraneous fat to the extent of two-thirds of its weight. Dr. Clark himself stated that he made his analysis by Bell's and Muter's modes of testing butter, which, he believed, were correct modes. Dr. Stevenson Macadam of Edinburgh deposed that he had made an analysis of the butter both by Muter's mode and by the old system of testing. By Muter's mode, the butter appeared to be adulterated, and according to the old system it was quite sound. He believed the old system was the correct one, and the butter quite good. Dr. Dittmar, Professor of Chemistry in the Andersonian University, gave similar evidence as to the results of the two methods of analysis. He did not think Muter's was the correct way, and was of opinion that the butter was quite sound. Eventually, some of the butter was remitted to Somerset House for further investigation. An answer has been received from the London analysts, who report that, from the examination of the facts, they were of opinion that the sample was made up almost exclusively of a fat which was not that of butter, and which had apparently been worked up with a little milk. The Sheriff imposed a small penalty, against which the respondent appealed.

IRELAND.

ANOTHER case of small-pox has arisen in Dublin, and has been admitted into the Meath Hospital.

APOTHECARIES' HALL OF IRELAND.

AT the annual meeting of the Council, held in pursuance of the Statute of Incorporation, on August 1st, the following members were

elected as office-bearers for the ensuing year:—*Governor*: Jerome O'Flaherty. *Deputy-Governor*: James Shaw. *Directors and Examiners*: Edward Howard Bolland, Thomas Collins, John Evans, Arthur Harvey, Charles Holmes, C. H. Leet, Charles F. Moore, Robert Montgomery, Henry P. Nolan, Edward J. O'Neil, George B. Owens, John Ryan, George Wyse. *Examiners in Arts*: Drs. Collins and Moore. *Representative on the General Medical Council*: Charles H. Leet.

LEDWICH SCHOOL OF MEDICINE.

A MEETING of the Board of Proprietors of this School of Medicine was held on last Monday, the 13th inst., to elect a successor to the late Dr. Ringland in the chair of Midwifery. There were two candidates, Dr. T. M. Madden and Dr. Samuel R. Mason, the latter gentleman being unanimously appointed to the vacant post. Dr. Samuel Mason is a graduate in medicine of the University of Dublin; assistant-physician to the Coombe Lying-In Hospital; and has delivered the lectures on Midwifery for some time past in the Ledwich School, owing to Dr. Ringland's tedious illness. The appointment is a satisfactory one, and we congratulate the school and the successful candidate.

ARTISANS' DWELLINGS ACT.

At a special meeting of the Corporation of Dublin, held on the 12th instant, to consider the reports of the Consulting Sanitary Officer (Dr. Mapother), and the city engineer, concerning the provisions of this Act as applied to Dublin, it was resolved that certain localities in the city, pointed out by Dr. Mapother, were unhealthy areas within the meaning of the Act, and that improvement schemes ought to be made in respect of same. A special committee was also appointed to take all the necessary steps to prepare a scheme in accordance with this resolution. It is not intended, we believe, that the corporation should build upon the ground to be cleared of these fever-nests, although the Act gives them this power. The company, however, to which we lately alluded in these columns, will complete that portion of the undertaking, viz., the building and improvement of artisans' dwellings, a matter of considerable importance to that section of the community.

STEWART INSTITUTION FOR IMBECILES.

THE half-yearly meeting of the Council was held last week at the office in Molesworth Street; and from the Report adopted, we learn with satisfaction that the institution progresses in a satisfactory manner. The subscriptions received during the past six months amounted to £370, whilst the donations to the Building Fund have also been of a liberal character. The new buildings at Palmerston are being rapidly proceeded with, and it is probable that the premises may be ready for occupation early in next spring. At least £4,000 in addition will still be required to provide suitable furniture, supply of water, etc. The institution, when completed, will be found to supply a great want long felt for this class of the community; and the Committee are sanguine that, when the public are made aware of the necessity of additional funds, they will be readily contributed. The Committee express their thanks to the ladies and friends who gave such material help at the bazaar held in April last, by which a sum of over £605 was realised for the Building Fund after payment of all expenses. The medical superintendent very truly remarks that no one who does not frequently visit the institution can form any idea of the beneficial results of adapted training, and the varied means employed to educate this low class of humanity. The picture they present on admission is usually repulsive enough; degradation, filth, passion, obstinacy, and fear, being all prominent characteristics; but precept and example have even here a wonderful effect, and self-control, cleanliness, and industry take their place. It must, however, be acknowledged that this beneficial change does not take place in all cases; many are so bereft of imitative power as to gain nothing by example, and it takes long and unwearied attention to wean them from even a trivial fault.

THE CRUELTY TO ANIMALS BILL.

SUBJOINED is a copy of the Cruelty to Animals Bill as it came from the House of Lords to the House of Commons, with the subsequent alterations. The words in *italics* denote the additions made, which have become part of the Act, and the words that have been omitted are included in brackets [].

Whereas it is expedient to amend the law relating to cruelty to animals by extending it to the cases of animals which for medical, physiological, or other scientific purposes, are subjected when alive to experiments calculated to inflict pain :

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :

1. This Act may be cited for all purposes as "The Cruelty to Animals Act, 1876".

2. A person shall not perform on a living animal any experiment calculated to give pain, except subject to the restrictions imposed by this Act. Any person performing or taking part in performing any experiment calculated to give pain, in contravention of this Act, shall be guilty of an offence against this Act, and shall, if it be the first offence, be liable to a penalty not exceeding fifty pounds, and, if it be the second or any subsequent offence, be liable, at the discretion of the Court by which he is tried, to a penalty not exceeding one hundred pounds, or to imprisonment for a period not exceeding three months.

3. The following restrictions are imposed by this Act with respect to the performance on any living animal of an experiment calculated to give pain ; that is to say :—1. The experiment must be performed with a view [only] to the advancement by new discovery of physiological knowledge or of knowledge which will be useful for saving or prolonging [human] life or alleviating [human] suffering ; and 2. [The experiment must be performed in a registered place ; and] 3. The experiment must be performed by a person holding such licence from one of Her Majesty's Principal Secretaries of State, in this Act referred to as the Secretary of State, as in this Act mentioned, and in the case of a person holding such conditional licence as is hereinafter mentioned, or of experiments performed for the purpose of instruction in a registered place ; and 4. The animal must, during the whole of the experiment, be under the influence of some anæsthetic of sufficient power to prevent the animal feeling pain ; and 5. The animal must, if the pain be likely to continue after the effect of the anæsthetic has ceased, or if any serious injury have been inflicted on the animal, be killed before it recovers from the influence of the anæsthetic which has been administered ; and 6. The experiment shall not be performed as an illustration of lectures in medical schools, hospitals, colleges, or elsewhere ; and 7. The experiment shall not be performed for the purpose of attaining manual skill. Provided as follows ; that is to say :—1. Experiments may be performed under the foregoing provisions as to the use of anæsthetics by a person giving illustrations of lectures in medical schools, hospitals, or colleges, or elsewhere, on such certificate being given as in this Act mentioned, that the proposed experiments are absolutely necessary for the *due* instruction of the persons to whom such lectures are given with a view to their acquiring physiological knowledge, or knowledge which will be useful to them for saving or prolonging [human] life or alleviating [human] suffering ; and 2. Experiments may be performed without anæsthetics on such certificate being given as in this Act mentioned that insensibility cannot be produced without necessarily frustrating the object of such experiments ; and 3. Experiments may be performed without the person who performed such experiments being under an obligation to cause the animal on which any such experiment is performed to be killed before it recovers from the influence of the anæsthetic on such certificate being given as in this Act mentioned, that the so killing the animal would necessarily frustrate the object of the experiment, and provided that the animal be killed as soon as such object has been attained ; and 4. Experiments may be performed not directly for the advancement by new discovery of physiological knowledge, or of knowledge which will be useful for saving or prolonging [human] life or alleviating [human] suffering, but for the purpose of testing a particular former discovery alleged to have been made for the advancement of such knowledge as last aforesaid, on such certificate being given as is in this Act mentioned that such testing is absolutely necessary for the effectual advancement of such knowledge.

4. The substance known as urari or curare shall not for the purposes of this Act be deemed to be an anæsthetic.

5. Notwithstanding anything in this Act contained, an experiment calculated to give pain shall not be performed *without anæsthetics* on a dog or cat, except on such certificate being given as in this Act mentioned, *stating, in addition to the statements heretofore required to be made in such certificates, that, for reasons specified in the certificate, the object of the experiment will be necessarily frustrated unless it be performed on an animal similar in constitution and habits to a cat or dog, and no other animal is available for such experiment ;* and an experiment calculated to give pain shall not be performed on any horse, ass, or mule, except on such certificate being given as in this Act mentioned that the object of the experiment will be necessarily frustrated unless it is performed on a horse, ass, or mule, and that no other animal is available for such experiment.

6. Any exhibition to the general public, whether admitted on payment of money or gratuitously, of experiments on living animals calculated to give pain shall be illegal. Any person performing or aiding in performing such experiments shall be deemed to be guilty of an offence against this Act, and shall, if it be the first offence, be liable to a penalty not exceeding fifty pounds, and, if it be the second or any subsequent offence, be liable, at the discretion of the Court by which he is tried, to a penalty not exceeding one hundred pounds, or to imprisonment for a period not exceeding three months. And any person publishing any notice of any such intended exhibition by advertisement in a newspaper, placard, or otherwise, shall be liable to a penalty not exceeding one pound. A person punished for an offence under this section shall not for the same offence be punishable under any other section of this Act.

7. Every place for the performance of experiments for the purpose of instruction under this Act shall be approved by the Secretary of State, and shall be registered in such manner as he may from time to time by any general or special order direct.

8. The Secretary of State may insert, as a condition of granting any licence, a provision in such licence that the place in which any experiment is to be performed by the licensee is to be registered in such manner as the Secretary of State may from time to time by any general or special order direct : Provided that the Secretary of State may license any person whom he may think qualified to hold a licence to perform experiments under this Act. A licence granted by him may be for such time as he may think fit, and may be revoked by him on his being satisfied that such licence ought to be revoked. There may be annexed to such licence any conditions which the Secretary of State may think expedient for the purpose of better carrying into effect the objects of this Act, but not inconsistent with the provisions thereof.

9. The Secretary of State may direct any person performing experiments under this Act [shall] from time to time to make such reports to [the Secretary of State] him [of the result of such experiments, in such form and with such details as he [the Secretary of State] may require [with a view to the making such experiments useful].

10. The Secretary of State shall cause all registered places to be from time to time visited by inspectors for the purpose of securing a compliance with the provisions of this Act, and the Secretary of State may, with the assent of the Treasury as to number and salaries, appoint any special inspectors at such salaries as he may think expedient, or may from time to time assign the duties of any such inspectors to such officers in the employment of the Government, who may be willing to accept the same, as he may think fit, either permanently or temporarily ; and may, with the assent of the Treasury, assign to them such remuneration for their services as he thinks just.

11. Any application for a Licence under this Act, and a certificate given as in this Act mentioned, must be signed by one or more of the following persons : that is to say, the President of the Royal Society ; the President of the Royal Society of Edinburgh ; the President of the Royal Irish Academy ; the Presidents of the Royal Colleges of Surgeons in London, Edinburgh, or Dublin ; the Presidents of the Royal Colleges of Physicians in London, Edinburgh, or Dublin ; the President of the General Medical Council ; the President of the Faculty of Physicians and Surgeons of Glasgow ; the President of the Royal Veterinary College, London, but in the case only of an experiment to be performed under anæsthetics, with a view to the advancement by new discovery of veterinary science ; and also (unless the applicant be a professor of physiology, medicine, anatomy, medical jurisprudence, materia medica, or surgery in a university in Great Britain or Ireland, or in a college in Great Britain or Ireland, incorporated by royal charter) by a professor of physiology, medicine, anatomy, medical jurisprudence, materia medica, or surgery in a university in Great Britain or Ireland, or in a college in Great Britain or Ireland, incorporated by royal charter. Provided that, where any person applying for a certificate under this Act, is himself one of the persons authorised to sign such certificate, the signature of some other of such persons shall be substituted for the

signature of the applicant. A certificate under this section may be given for such time, or for such series of experiments, as the person or persons signing the certificate may think expedient. A copy of any certificate under this section shall be forwarded by the applicant to the Secretary of State, but shall not be available until one week after a copy has been so forwarded. The Secretary of State may at any time disallow or suspend any certificate given under this section.

12. The powers conferred by this Act of granting a licence or giving a certificate, for the performance of experiments on living animals, may be exercised by an order in writing under the hand of any judge of the High Court of Justice in England, of the High Court of Session in Scotland, or of any of the superior courts in Ireland, including any court to which the jurisdiction of such last-mentioned courts may be transferred, in a case where such judge is satisfied that it is essential for the purposes of justice in a criminal case to make any such experiment.

13. A justice of the peace, on information on oath that there is reasonable ground to believe that experiments in contravention of this Act are being performed, by an unlicensed person, in any place not registered under this Act, may issue his warrant authorising any officer or constable of police to enter and search such place, and to take the names and addresses of the persons found therein. Any person who refuses admission on demand to a police officer or constable so authorised, or obstructs such officer or constable in the execution of his duty under this section, or who refuses on demand to disclose his name or address, or gives a false name or address, shall be liable to a penalty not exceeding five pounds.

14. In England, offences against this Act may be prosecuted, and penalties under this Act recovered, before a court of summary jurisdiction, in manner directed by the Summary Jurisdiction Act. In England "Summary Jurisdiction Act" means the Act of the Session of the eleventh and twelfth years of the reign of Her present Majesty, chapter forty-three, intitled, "An Act to facilitate the performance of the duties of justices of the peace out of sessions within England and Wales with respect to summary convictions and orders", and any Act amending the same. "Court of summary jurisdiction" means and includes any justice or justices of the peace, metropolitan police magistrate, stipendiary or other magistrate, or officers, by whatever name called, exercising jurisdiction in pursuance of the Summary Jurisdiction Act: provided that the court, when hearing and determining an information under this Act, shall be constituted either of two or more justices of the peace in petty sessions, sitting at a place appointed for holding petty sessions, or of some magistrate or officer sitting alone or with others at some court or other place appointed for the administration of justice, and for the time being empowered by law to do alone any act authorised to be done by more than one justice of the peace.

15. In England, where a person is accused before a court of summary jurisdiction of any offence against this Act, in respect of which a penalty of more than five pounds can be imposed, the accused may, on appearing before the court of summary jurisdiction, declare that he objects to being tried for such offence by a court of summary jurisdiction; and thereupon the court of summary jurisdiction may deal with the case in all respects as if the accused were charged with an indictable offence, and not an offence punishable on summary conviction, and the offence may be prosecuted on indictment accordingly.

16. In England, if any party thinks himself aggrieved by any conviction made by a court of summary jurisdiction on determining any information under this Act, the party so aggrieved may appeal therefrom, subject to the conditions and regulations following: (1.) The appeal shall be made to the next court of general or quarter sessions for the county or place in which the cause of appeal has arisen, holden not less than twenty-one days after the decision of the court from which the appeal is made; and (2.) The appellant shall, within ten days after the cause of appeal has arisen, give notice to the other party and to the court of summary jurisdiction of his intention to appeal, and of the ground thereof; and (3.) The appellant shall, within three days after such notice, enter into a recognisance before a justice of the peace, with two sufficient sureties, conditioned, personally, to try such appeal, and to abide the judgment of the court thereon, and to pay such costs as may be awarded by the court, or give such other security by deposit of money or otherwise as the justice may allow; and (4.) Where the appellant is in custody the justice may, if he think fit, on the appellant entering into such recognisance or giving such other security as aforesaid, release him from custody; and (5.) The court of appeal may adjourn the appeal, and upon the hearing thereof they may confirm, reverse, or modify the decision of the court of summary jurisdiction, or remit the matter to the court of summary jurisdiction with the opinion of the court of appeal thereon, or make such other order in the matter as the court thinks just; and if the matter be remitted to the court of summary jurisdiction,

the said last-mentioned court shall thereupon re-hear and decide the information in accordance with the order of the said court of appeal. The court of appeal may also make such order as to costs to be paid by either party as the court thinks just.

17. In Scotland, offences against this Act may be prosecuted and penalties under this Act recovered under the provisions of the Summary Procedure Act, 1864; or if a person accused of any offence against this Act in respect of which a penalty of more than five pounds can be imposed, on appearing before a court of summary jurisdiction, declare that he objects to being tried for such offence in the court of summary jurisdiction, proceedings may be taken against him on indictment in the Court of Justiciary in Edinburgh or on circuit. Every person found liable in any penalty or costs shall be liable, in default of immediate payment, to imprisonment for a term not exceeding three months, or until such penalty or costs are sooner paid.

18. In Ireland, offences against this Act may be prosecuted, and penalties under this Act recovered, in a summary manner [directed by] subject and according to the provisions with respect to the prevention of offences, the recovery of penalties, and to appeals, of the Petty Sessions (Ireland) Act, 1851, and any Act amending the same; and in Dublin, of the Acts regulating the powers of justices of the peace, or of the police of Dublin metropolis. All penalties recovered under this Act shall be applied in manner directed by the Fines (Ireland) Act, 1871, and any Act amending the same.

19. In Ireland, where a person is accused before a court of summary jurisdiction of any offence against this Act, in respect of which a penalty of more than five pounds can be imposed, the accused may, on appearing before the court of summary jurisdiction, declare that he objects to being tried for such offence by a court of summary jurisdiction; and thereupon the court of summary jurisdiction may deal with the case in all respects as if the accused were charged with an indictable offence, and not an offence punishable on summary conviction, and the offence may be prosecuted on indictment accordingly.

A. In the application of this Act to Ireland, the term "the Secretary of State" shall be construed to mean the Chief Secretary to the Lord-Lieutenant of Ireland for the time being.

B. A prosecution under this Act, against a licensed person, shall not be instituted, except with the assent in writing of the Secretary of State.

C. This Act shall not apply to invertebrate animals.

THE CRUELTY TO ANIMALS BILL.

PETITION OF THE MEDICAL FACULTY OF THE UNIVERSITY OF GLASGOW.

THE following petition has been presented by the Professors of the Faculty of Medicine in the University of Glasgow.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled.

The humble petition of the Professors of the Faculty of Medicine in the University of Glasgow, sheweth—

That a Bill has been introduced into your Honourable House, intitled, "An Act to prevent cruel Experiments on Animals".

That we regard the performance of experiments upon living animals as of the highest importance for the advancement of biological knowledge, and as forming the principal scientific basis of the healing art.

That we do not admit that there has existed in this country any tendency to cruelty, or to the infliction of unnecessary pain on the animals subjected to experiment, but that, on the contrary, it has always been the endeavour of physiologists to diminish suffering as far as possible; and we would, therefore, strongly deprecate any legislative interference in this matter.

That if, however, legislation be finally determined upon, we would submit that any measure intended to control the performance of experiments on living animals should be so framed as not to interfere with the free progress of scientific inquiry; and with this view we would submit the following suggestions, viz.:

1. That the operation of the measure should be limited to warm-blooded animals, and that there should be no special restrictions with regard to any of the domestic animals.

2. That, under certain regulations, private individuals or persons connected with educational institutions, should obtain licenses for the performance of experiments, but that it should not be necessary to restrict the experimentation to any fixed locality.

3. That the Inspector of experiments to be appointed by the Home Secretary should be a person whose scientific attainments qualify him for the office; and that his duties should consist in seeing that the ex-

periments are not performed in an unnecessarily painful manner, rather than in judging of their expediency or value.

4. That there should be no restriction upon experiments performed for the instruction of pupils, further than that such experiments shall not be performed in an unnecessarily painful manner.

5. That no Magistrate should be entitled to grant a warrant for the search of any place in which experiments are performed by registered persons, excepting upon such information by the Inspector as shall satisfy him that the experiments are performed in such a manner as to render investigation necessary.

6. That, as it is acknowledged to be impossible to draw any distinction as regards their value between different physiological experiments, whether these be considered as new and original, or merely as repetition and verification of former ones, any restriction which is laid on the experiments should have reference, not to the nature of the experiment, but to the manner in which it is conducted.

Your petitioners, therefore, humbly pray that the said Bill may not be passed into law.

And your petitioners will ever pray.

ALLEN THOMSON, *Chairman.*

THE BRUSSELS EXHIBITION.

II.

To complete my account of the British section, I must not omit to make mention of a disinfecting powder, exhibited by Messrs. Ledger and Co., of London, patented by Langton Jones, and which appears to possess exceptional merits. It, as some of your readers no doubt are aware, is a combination of chloride of calcium, chloride of sodium, and sulphate of zinc. I am given to understand that it at present is being submitted to a variety of tests by the members of the jury, with a view to verifying the many excellent reports which accompany it to the exhibition. Its chief merits appear to be that it is colourless, odourless, non-poisonous, while at the same time it is highly effective, and is sold at a very low price. It is not only a disinfectant of sewage, completely arresting putrefaction, but it is a disinfectant of air; and, as no other disinfectant has as yet been discovered which possesses all these qualities, even in a minor degree, the "Universal Disinfecting Powder" bids fair before long to distance all other competitors in the market.

I now proceed to what appear to me to be objects of more than ordinary interest, exhibited by foreign countries.

The apparatus exhibited by Drs. Esmarch, Port, and Volkmann of Halle, are worthy of close inspection. All these gentlemen have an European reputation for their ingenious battle-field splints and dressings. Amongst other things, Dr. Esmarch shows the apparatus used by him in his so-called bloodless operations—elastic tourniquets, and the triangular bandage employed in a variety of ways as a first dressing on the battle-field, as well as two very complete models illustrating the manner in which extension and counter extension can be made with India-rubber rings, and long splints in the event of cases of fractured femur requiring treatment on an ordinary stretcher. Dr. Port exhibits a good plan of making windows in his plaster of Paris splints; and Dr. Volkmann's light wooden anterior splints are shewn, as well as a publication of considerable size, setting forth his views and experiences of the antiseptic treatment. A large number of cases treated by him in this way appear to have met with complete success.

Lipowsky, of Heidelberg, occupies a large portion of the German section with a numerous assortment of invalid chairs and beds, and operation tables and chairs of every conceivable description.

The Prussian War Office sends its ambulance *matériel*, and an army-surgeon, Dr. Petzler, who is most obliging in giving information. It may interest your military readers to learn that the new-pattern ambulance wagon here exhibited, is adapted to carry only two persons severely wounded, in the recumbent position. It is not provided with a coupé or hind seat; but two lightly wounded can be accommodated on the box seat in front. From its appearance, the draught must be very light, and altogether it appears to me to show a decided advance in ambulance construction. The Austrian wagons, although new, and equally light as to their draught, are constructed to hold six recumbent patients. When it is remembered what the circumstances are under which this description of wagon will generally be employed in campaigning—in making frequent short journeys between the first and second lines of surgical assistance, and in loading and discharging its load as rapidly as possible, I think it will very readily be conceded by all who visit the exhibition, that in the Prussian wagon a nearer approach has been made to solve the *questio vexata* of the proper form

an ambulance wagon should be made to assume, than will be found in the case of any other in the exhibition.

The new Prussian medicine-wagon—a class of wagon not yet adopted in our army, and a want which is certain to be greatly felt in the event of an European campaign, is very complete in its construction and list of contents.

Not observing a new-pattern wheeled stretcher amongst the *matériel*, I inquired the reason, and learnt that, after a practical trial in two or three different campaigns, this class of conveyance had at length been condemned, and no more were to be constructed. I am not astonished at this decision; such equipment, though well suited for use about factories or fixed hospitals, is wholly unsuited for purposes of campaigning.

In the German section there is also an excellent collection of plans and models relating to hygiene, and illustrating the best mode of ventilating schools, gymnasia, and universities (particularly that of Kiel), which will well repay careful study. A Bavarian railway carriage, intended for the transport of wounded, is shown ventilated on a new plan. The outlet is placed in the centre of the roof of the carriage (a goods wagon); the inlets are four in number, and placed at the four upper corners of the carriage; a cowl protects each inlet, and is meant to face the same way as the carriage moves; a tube about four inches in diameter leads down from each inlet to the floor of the carriage, and can be closed or left open by moving a sliding door, at the discretion of the occupants. Of course, when the carriage is in motion, air will enter freely by the inlets, and be distributed throughout the compartment; but an obvious disadvantage of such a system of ventilation is that it ceases to be efficient the instant the train is brought to a stand still. A much preferable plan of ventilation is that adopted in the Austrian railway carriages; the centre of the roof in its entire length is raised above the remainder of the roof, and outlets are then inserted at the opposite sides of the raised part, while inlets, protected externally by cowls opening towards the front of the carriage, and protected internally by gratings, are inserted in the floor. The advantage of this system is that, even when the train is at rest, the air is changed sufficiently often to keep the carriage perfectly sweet.

Mr. Heusinger likewise exhibits a railway carriage ventilated on a new system. A large cowl is placed in the roof at the rear end of the carriage. This acts as an inlet when the train is in motion, but not at other times.

Dr. Pettenkofer exhibits some excellent meteorological and other instruments, and Mr. Siemens, of Dresden, a model of his cremation oven.

In the French section the most notable *exposants* are the two instrument-makers, MM. Collin and Mathieu of Paris. Their instruments are so very well known, that it is scarcely necessary for me to allude at any length to any of them. Each maker exhibits a *thermo-cautère*. I give a decided preference to that of Collin, although it is a little the dearer of the two; but at the same time it is not so clumsy or nearly so complicated and likely to get out of order as that of Mathieu. There are three tubes and four stopcocks to regulate in Mathieu's, and two tubes and no stopcocks in Collin's. The consequence is, that the manufacturer himself, even when demonstrating the mode of using his instrument to me, was obliged to send it away to be regulated, and request me to return again in the afternoon, owing to the instrument getting out of order. It is but fair to Mathieu to add that on my return in the afternoon the instrument worked to his entire satisfaction. Both makers also exhibit transfusion-instruments. Of these there are at least four sorts in the exhibition—Collin's, Mathieu's, Belina's, and Roussel's. On witnessing a practical demonstration with the latter, which in its improved condition I had not seen before, I am convinced that Collin's carries off the palm, for certainty and simplicity.

On July 24th, by the kindness of a member of the jury, I had an opportunity given me of seeing Dr. Roussel's instrument, as now arranged, at work. Dr. Roussel exhibited it for the information of the members of the jury. An *infirmier* was introduced into the room, and had the veins of the left arm made turgid for bleeding in the usual way. The instrument was then applied by the inventor, and an ounce or two of blood drawn off. In its most perfect form, as it now is, the instrument is constructed entirely of caoutchouc. The central portion of the instrument is the aspirator. From this bell-shaped part three tubes radiate; to the free end of one a ball is attached, by which the air can be exhausted when the operator is *in situ*; by the second tube, made to depend in a vessel of lukewarm water, the aspirator can be supplied with water, while by the third tube the contents of the aspirator find escape; the free end of the third tube terminating in a cannula for insertion into the arm of the invalid. The lancet, by means of which the vein is punctured is set in a short stem of caoutchouc,

which itself is accurately adapted to fit an orifice in the centre of the aspirator. With a proper system of stop-cocks, it will not be very difficult for those who may not have seen the instrument to imagine, firstly, how the current of water which is first admitted drives every particle of air out of the instrument, and in the next place, how on the vein being punctured a stream of blood can be forced into the vein of the invalid. Although Dr. Roussel states that he has subjected his instrument to several trials, and always with success, I cannot but think that there will always be the danger with it of wounding an artery underlying the vein, since the lancet is completely concealed from view at the very time when it is most important that the operator should see exactly how much, and in what direction he is cutting.

Some interesting experiments were also made the same day at the laboratory of the University, by Dr. Hottot of Paris, demonstrating the effects of pepsine (prepared by Dr. Hottot) on certain kinds of food. The experiments were not of a conclusive nature.

ZYMOTIC DISEASES IN ENGLAND AND WALES.

WE learn from the Quarterly Return of the Registrar-General that "the most fatal zymotic disease in England and Wales, during the three months ending 30th June last, was measles, which caused 3,245 deaths. The annual rate of mortality from this disease, which was but 0.19 per 1,000 in the September quarter of 1875, rose steadily in each succeeding quarter to 0.54 in the three months ending June last, a higher rate than in any quarter since the second of 1874. The disease was especially fatal last quarter in Lancashire and Devonshire, where it caused death-rates equal to 1.1 and 1.5 per 1,000, respectively. No death from measles occurred either in Bedfordshire or Westmorland. Measles, as well as the other infectious zymotic diseases, is most fatal in urban populations. In the twenty large English towns, the death-rate from measles averaged 0.8 per 1,000, and was equal to 2.0 in Liverpool and 4.4 in Plymouth; it was also equal to 4.4 in Shrewsbury, 4.6 in Rochdale, 5.4 in St. Helen's, 6.3 in Devonport, and 7.5 in Macclesfield. Still higher death-rates from measles occurred during the quarter in Harrow, Cheriton-Fitzpaine (Devon), Melton Mowbray, and in the townships of Cleckheaton and North Brierley, near to Bradford. In many places the disease appears to have assumed an unusually fatal type. The average age at death of all males and females who died from measles in England and Wales, in the twenty-five years 1848-72, was 2.7 years; and in the year 1874, of 12,255 deaths from measles, no less than 77 per cent. were of children under three years of age.

"The fatality of scarlet fever, which was unusually severe during 1874 and 1875, continues to decline. The 3,233 deaths referred to this disease in the second quarter of 1876 were fewer than in any previous quarter since the three months ending September 30th, 1873. The annual death-rate from scarlet fever in England and Wales averaged 1.04 and 0.84 per 1,000 during 1874 and 1875, and declined to 0.70 and 0.53, respectively, in the first two quarters of 1876. The lowest death-rate from this disease in any quarter since the beginning of 1870 was 0.36 in the second of 1873. During the three months ending June last, the annual death-rate from scarlet fever was but 0.21 and 0.29 in the principally agricultural population of the Eastern and South-midland Registration Divisions, whereas it was 0.66 in the Yorkshire, 0.67 in the North-western, and 0.75 in the North-midland Divisions. No fatal case of scarlet fever occurred during the quarter in the counties of Oxford, Huntingdon, or Westmorland, whereas the death-rate from the disease was equal to 0.92 in Cornwall, 0.95 in Nottinghamshire, 1.26 in Leicestershire, and 1.59 per 1,000 in Hampshire. In the twenty largest English towns, the average scarlet fever-rate was 0.66; in Portsmouth it was so high as 3.4, and it exceeded one per 1,000 in Sheffield, Leicester, and Bristol. Cardiff, Southampton, and Chester may be mentioned as other large towns in which scarlet fever was severely epidemic during the quarter now under notice. In Cardiff the disease continued fatally prevalent; 65 deaths in the sub-district resulted therefrom, raising the number of fatal cases since September last to 225. Among the other localities in which scarlet fever was especially fatal during the quarter may be mentioned Alverstoke, Brixham, Redruth, Bridgwater, Chard, Hereford, Whitwick, Basford, Pontefract, Lofthouse, and Houghton-le-Spring. With reference to the fatal prevalence of scarlet fever in Redruth, which caused 90 deaths within the Local Board District, during the fifteen months ending June last, it is stated that the disease has shown exceptional fatality in the rural part of the district known as Treleigh, where four out of every five cases proved fatal. At Treleigh the residents are dependent for their drinking water upon a stream which is little better than an open sewer, to which is attributed the exceptionally malignant type the disease has there assumed, in some cases carrying off all the children of a family.

"The 2,938 deaths referred to whooping-cough in the quarter were equal to an annual rate of 0.49 per 1,000, slightly below the average rate in the six preceding corresponding quarters. The rate exceeded one per 1,000 in London, Liverpool, Salford, Preston, and Chatham. Whooping-cough was exceptionally fatal in Bognor, High Wycombe, Newcastle-under-Lyme, and Blackwell.

"The decline in the deaths referred to fever, including typhus, enteric, and typhoid, and undistinguished forms of fever, is again one of the most noticeable features of the zymotic fatality in England and Wales. The annual death-rate from fever averaged 0.93 per 1,000 during the five years 1865-9, declined to 0.64 in the succeeding five years 1870-74, and was but 0.52 in 1875, which was lower than the fever-rate in England since 1837, when the commencement of civil registration of deaths and their causes first afforded the means of such information. In the first two quarters of 1876, the death-rate from fever further declined to 0.45 and 0.39 per 1,000. The rate of 0.39 last quarter was 25 per cent. lower than the average rate in the corresponding period of the six preceding years 1870-75. In the principal urban populations of England and Wales, consisting of about fourteen millions, the fever-rate of last quarter averaged 0.43, and in the remaining rural population of ten millions 0.33 per 1,000. In the principally agricultural counties of the South-eastern and South-midland Divisions the fever-rate was 0.23 and 0.24, and was only 0.10 in Berkshire, and 0.13 in Oxfordshire and the extra-Metropolitan portion of Middlesex; it was, however, 0.56 in Durham, 0.56 in North Wales, and 0.66 in Lancashire. In the twenty large English towns the fever-rate in the quarter averaged 0.40; no fatal case of fever was registered in Leicester, and the rate in Brighton and Birmingham was but 0.12 and 0.27, whereas the rates in the other towns ranged upwards to 0.65 in Manchester, 0.68 in Portsmouth, 0.70 in Liverpool, and 1.18 in Oldham. An excessive fever-rate was also shown in other large towns; it was 0.72 in Worcester, 0.75 in Stockport, 0.97 in St. Helen's, 1.01 in Huddersfield, and 1.02 in Bury. The fever-rate was equal to 0.66 in thirteen of the largest towns in Lancashire, containing a population estimated at about 1,641,776 persons; in the remainder of the county, including all the small towns and rural districts, with a population estimated at 1,430,913 persons, the fever-rate was also equal to 0.66, corresponding with the rate in the thirteen largest towns. The infinite multiplication of urban sanitary districts and authorities, by the creation of small local board districts, does not appear to be conducive to efficient sanitary organisation; the fatality from fever, which is declining rapidly in our large towns, is still conspicuous in the newly aggregated urban communities lying outside the large towns in the manufacturing or mining districts of Lancashire, Yorkshire, Durham, and Wales. The returns of the local registrars show a high death-rate from fever in many localities, among which may be mentioned: Leighton Buzzard, Kilmersdon (Somerset), Ross, Kidderminster, Rugby, Tideswell (Derby), Bentham, Todmorden, Lanchester and Tanfield (Durham), Bedlington, and Neath.

"The 1,898 deaths from diarrhoea showed a considerable decline from the average mortality in the six preceding corresponding quarters; this may be attributed to the low temperature which prevailed during the greater part of May and June.

"The fatality of diphtheria usually bears a proportional relation to that of scarlet fever. The 627 deaths referred to this disease showed a decline from the number in the corresponding quarter either of 1874 or 1875. The death-rate from this disease was excessive in the West-midland and Welsh Registration Divisions, and local outbreaks may be noted at Chertsey, Abingdon, Long Buckley, Ludlow, West Felton (Oswestry), Forton (Salop), Brailes (Warwickshire), and Gainsborough.

"The fatal cases of small-pox, which had been but 149 in the last three months of 1875, rose to 262 in the first quarter of 1876, and further increased to 501 in the three months ending June last. No death from small-pox occurred during the quarter in the Eastern counties, only one in the five counties of the North-midland Division, and but two in the South-western and two in the Northern Divisions. No less than 391 of the 501 in England and Wales occurred in Lancashire, which were equal to an annual rate of 0.51 per 1,000, whereas the rate from this disease in the rest of England and Wales was but 0.02 per 1,000. The excessive fatality of small-pox in Lancashire may be referred to neglect or inefficiency of vaccination, probably in some instances combined with unsatisfactory sanitary condition. Some members of the medical profession, unfortunately, do not state, in filling up certificates of the causes of deaths from small-pox, whether the deceased had or had not been vaccinated. Hence the death-register does not afford the means of satisfactorily estimating the proportion of deaths from small-pox which may be attributed to neglect or inefficiency of vaccination. Of 372 cases of small-pox registered last quarter, 18 per cent. were described as vaccinated, 24 per cent. as unvaccinated; whereas in

58 per cent. of the cases there was no reference to vaccination. The co-operation of the medical profession in this matter is as indispensable as it is desirable. Of the 110 deaths from small-pox registered last quarter out of Lancashire, 26 occurred in London, 4 at Northfleet, 13 in Bristol and Clifton, 9 at Bulkington, 6 at Macclesfield, 3 near Wakefield, and 5 at Llanberis. Many of the fatal cases of small-pox in different parts of England and Wales were directly traced to infection from Manchester and Salford, or Liverpool, which have recently been the two principal centres of infection in England."

ASSOCIATION INTELLIGENCE.

NORTH WALES BRANCH: ANNUAL MEETING.

THE twenty-seventh annual meeting of this Branch was held at the George Hotel, Bangor, on Tuesday, June 20th; JOHN RICHARDS, Esq., President, in the Chair. Twenty-one members, with Dr. Williams, of Rodney Street, Liverpool, were present.

In the absence of the President, the President-elect was introduced by the Honorary Secretary, Dr. Eytton Jones, and delivered an able address.

Report of Council.—The Honorary Secretary read the Report of the Council.

"Your Council, in laying before you their twenty-seventh annual report, may still congratulate the Branch on the continued efficiency of the JOURNAL of the Association. It has, during the past year, supplied the members with many excellent articles on subjects pertaining to the general welfare of the profession, with able reports on the various discussions that have taken place at the different medical societies; notably those on cancer, syphilis, and puerperal diseases, at the Pathological and Obstetrical Societies, and with full accounts of cases and operations that have occurred in public and private practice throughout the kingdom; and for this we again have to thank our able editor, Mr. Ernest Hart. Through the attention that he has drawn to the subject, many of the Branches have, by resolutions, condemned the practice of advertising medical works in non-medical papers.

"The Obstetrical Society still perseveres in its efforts to obtain an education for midwives; and the sad results witnessed in cases attended by ignorant midwives make us hope that a Bill for this purpose will soon be passed.

"The Army Medical Warrant has at last been issued; and though, as to rank and pay, it appears satisfactory, yet the fact that the contract ceases at the end of ten years, and a surgeon, however able, is liable to be discharged without any assignable reason, makes it questionable whether the admissions into the service, hitherto far inadequate, will be increased by it.

"It is to be hoped that the Medical Defence Association will continue its useful career, and that the amendment of the 40th section of the Medical Act, suggested by its members to the Medical Council, will soon be carried into law, and that the Society of Apothecaries will, in all successful cases, dispense with their right of claiming, as they have recently done, half the penalty.

"May we not hope that ere long no deaths will be allowed to be registered except by the practitioner's certificate? for, in default of this precaution, the number of uncertified deaths in some of our Welsh districts are as high as 50 per cent.

"We think that medical officers of health should at all times receive, from their brethren, the earliest possible intimation of cases of infectious disease occurring in their practice, and that the obligation should be made compulsory.

"The Habitual Drunkards Bill, apparently forgotten since the death of the late Mr. Dalrymple, is again coming to the surface; and your Committee think that, though some advise the drink should be locked up, and not the drunkard, yet, when drunkenness ceases to be a vice and becomes a disease, some care should be taken of the inebriate, who, labouring under this curse, destroys his property, wrecks his happiness, and is a burden to his relations; for how many lives may be saved by judicious treatment and careful isolation our private inebriate asylums can surely testify. Shall stimulants be abolished in our union workhouses is a question that is now being keenly discussed all over the kingdom; and, as the example has been set in the Wrexham Workhouse, your Committee think that this is a question upon which some decision should be arrived at, particularly as in various unions in the Principality it is being urged upon parochial surgeons by the guardians.

"When we regard the great value of the discoveries of Harvey, Bell, Brown-Séquard, Marshall Hall, and others, we agree with the Medical Council in regarding the Cruelty to Animals Bill as being a misnomer;

for, whilst physiologists and surgeons labour for the relief of human suffering and the enlightenment of the human race, crimping of salmon, cutting off foxes' and rats' tails, skinning birds for ladies' bonnets, and the manufacture of dock-tailed horses, are tacitly allowed, to gratify either personal vanity or human pleasure. In most instances of vivisection, anaesthetics are used. It is to be hoped that each member has signed the petition enclosed in the JOURNAL, and forwarded it to the General Secretary.

"Since our last annual meeting, we have lost many good and worthy representatives of the Association; notably, Dr. Hughes Bennett, Sir Cordy Burrows, President-elect, Mr. George Southam, President of Council, and Dr. Parkes, whose profound address so delighted all who heard it at the London meeting in 1873; but they have left us noble and brilliant examples in their labours, undertaken solely for the benefit of the human race.

"The Branch numbers seventy-one members."

Vote of Thanks to the Council.—Dr. LODGE moved, and Dr. DAVIES seconded, "That the Report of Council be received and adopted; and that a vote of thanks be presented to the Council for their services during the past year."

President-elect for 1877.—It was proposed by the PRESIDENT, and seconded by Dr. REES, "That Dr. Roberts of Portmadoc be appointed President-elect for 1877; that Barmouth be the place for holding the next annual meeting; that the intermediate meeting be held in Wrexham in February 1877."

Council of the Branch.—The following gentlemen were appointed the Council of the Branch for 1876-77: J. Davies, L.R.C.P.Ed., Cerrigy-druidion; S. Griffith, M.D., Portmadoc; R. Hughes, Esq., Bala; R. O. Jones, Esq., Bala; H. J. Lloyd, L.R.C.P.Ed., Barmouth; J. R. Walker, Esq., Corwen; H. Ll. Williams, Esq., Dolgelly.

Representatives in the General Council.—The following were appointed: L. Lodge, L.R.C.P.Ed., St. Asaph; J. Richards, L.K.Q.C.P., Bangor; W. Williams, M.D., Mold.

Representatives in the Parliamentary Committee.—Dr. Davies Hughes, of Menai Bridge, was elected.

The Honorary Secretary and Treasurer were re-elected.

New Members.—Dr. Williams, of Rodney Street, Liverpool, was elected a member of the Branch.

Papers and Cases.—The following were read:

1. Intra-peritoneal Hæmatocele and Chronic Inversion of the Uterus. By Dr. Roberts, Chester.

2. Bony Tumour springing from the Left Orbital Cavity, weighing 9 oz., 76 grains. By Dr. Greig Hughes, Bangor.

3. Perforation of Ileum, and Death; also a case of Vegetations on the Mitral Valve. By Dr. Williams, North Wales Lunatic Asylum.

4. Calculus of Kidney: Atrophy; Pyæmia and Death. By Dr. Hughes, Denbigh.

5. Uric Acid Calculus removed by Dr. Turnour of Denbigh.

Interesting discussions took place on the above cases, together with other matters reserved for the next meeting.

Dinner.—The members and their friends afterwards partook of an excellent dinner, when the usual loyal and other toasts were duly honoured.

CORRESPONDENCE.

ACTIONS FOR MALPRACTICE.

SIR,—Our orator in surgery, Mr. Favell, delighted his audience at Sheffield with words such as these:—"Surely, gentlemen, these considerations should teach us a lesson; they should teach us to look very charitably upon alleged failures in treatment, or upon so-called cases of malpractice. It is one thing to criticise the treatment of a deformed or distorted joint weeks, or perhaps months, after the receipt of the injury, when all immediate effects of such injury have disappeared, but it is a very different thing when contusion, inflammation, swelling, and pain obscure the injury and interfere with manipulation so to direct our treatment as always to insure a satisfactory result." These words would find an echo in the hearts of every hearer in his presence. Almost at the same time, an unfortunate brother practitioner was held in the bonds of suspense as to the result of an action for just such a case which was waiting to be tried at the Leeds assizes. I enclose my card, and am, sir, yours obediently,

ONE WHO HEARD THE TRIAL.

*** A commentary on the trial referred to by our correspondent will be found on another page.

EDUCATION AT CAMBRIDGE FOR MEDICAL MEN.

SIR,—Having in last week's JOURNAL endeavoured to show that, so far as relates to the expenses incurred by residence in the University, the statement that the poor student is excluded from our degrees cannot be sustained, forasmuch as the expenses, in the case of non-collegiate students at any rate, are little more than such as are requisite to provide the bare necessities of a student's life, I proceed to say a word or two respecting the time of professional study required to obtain a medical degree, and the opportunities which are afforded for the employment of that part of the time which must be spent in Cambridge. The nominal time in this University is five years from the commencement of medical study in the case of the ordinary students, and four years in the case of the students who take a degree in arts, with honours. The actual time is commonly somewhat in excess of this, being the period which each one requires to prepare for the examinations. This varies, of course, in different instances, and cannot be shortened without lowering the standard of the examinations, and proportionately lessening the excellence of the education and the value of the degree: a proceeding which you would probably be the last to advocate.

In the address already referred to, Dr. Sieveking, after expressing his conviction of the value of a knowledge of the literary and social work of the great nations of antiquity, observes, as one requisite in our universities, "that a standard of preliminary training be fixed which shall qualify for admission to the University, and that, at the age of eighteen or nineteen, when young men generally put on the cap and gown, they should be permitted to pass at once from the subjects they have been learning at school to those professional studies which the universities ought to be able to teach infinitely better than the small self-supporting academies of medicine now scattered over the country". Now, this is precisely what has been done. Dr. Sieveking's wish has been more than anticipated. The student—and no age is assigned; he may be only sixteen or seventeen, or even younger—may, indeed be encouraged to, present himself for examination in the school subjects in the very first term of his entrance at the University; nay more, he has the opportunity to do this before he sets foot in the University, by presenting himself for the examination, and obtaining the certificate under the "Oxford and Cambridge Schools Examination Board", the regulations of which may be obtained for a shilling from Messrs. Macmillan of Cambridge; and he may then, at once and during the whole period of his residence in the University, devote himself exclusively to his professional studies. Thus, if he be well trained in school work—in other words, if he be fit to commence the study of his profession—the entrance at the University need not delay his doing so one single hour.

Dr. Sieveking would seem to imply, though I can scarcely think that he really means to convey such an impression, that the University limits its teaching to one or two disciplines which, though valuable in themselves, are simply means, not always appropriate, to an end to be attained elsewhere. He says: "Botany and chemistry, natural philosophy, physiology, anatomy, comparative anatomy, pharmacy, and materia medica, the theory of medicine and surgery, might all be better and more profitably taught at an university than in provincial or metropolitan schools of medicine." To one acquainted with the teaching at the University, it would seem that the writer of the address was detailing what is actually attempted here rather than making suggestions as to what ought to be attempted. I send herewith a programme of the lectures open to and intended for medical students at Cambridge, from which you will perceive that the "embarras" is rather one of "richesses" in the theoretic and practical teaching of these various subjects; that the difficulty is to select between the several lectures, laboratories, dissecting and other practical working rooms; and that, whatever may be the quality of the teaching, on which it is not for me to speak, there is obviously no lack in quantity. I do not wish it to be supposed that I regard our system as perfect. It is very difficult to realise to ourselves, and still more difficult to carry out, the high standard and character of education in professional subjects, which ought to be maintained here, and, unless we do endeavour to keep such a standard before us, it is useless, or worse than useless, to profess to teach these subjects at all in our University. Nevertheless, there is a great deal done now in this direction in the University, much more than there used to be, and there is much more effort and anxiety that the student's time here should be turned to good account, and that he should have, and be induced to avail himself of, the opportunity to

obtain a thorough acquaintance with the subjects which Dr. Sieveking has mentioned, and which ought, as he says, to be taught here as well or better than anywhere. Each year fills up some gap, and makes our teaching fuller and better than it was. The increased number of medical students, the increasing anxiety to obtain our degrees in arts and medicine, the increasing comments, not always laudatory, upon us, are evidence that the efforts are not altogether a failure. It is far better to be criticised than to be ignored. It is a subject of sincere congratulation that the medical profession and the medical press are anxious about us, even though they may be dissatisfied with us. We invite them to keep their eyes, somewhat censorious though they may be, sharply upon us, more sharply, or rather more keenly, than they have hitherto done, for then they will judge us more correctly, and assist us to discover and remedy the real defects in our system.

The student must reside in the University three years (the major part of each of three years); that is, by statute, a *sine quâ non* if any degree in any subject is to be obtained. He may spend the three years in such course of study as he desires, or as his advisers deem best. He may pursue the study of classics and literature, or mathematics, or mental and moral philosophy, and so acquire that high culture and mental discipline which are the pride of our University, and the real and right foundation of the reputation and social status of its members. No higher educational privilege than this can be enjoyed. No greater boon can be conferred on our profession than that of increasing in its ranks the number of men who have enjoyed such an education. The men who have won their spurs in this way start undoubtedly from high vantage ground when the time comes for them to enter upon the arena of medical study, and thus acquire a thorough grasp of the subject more quickly and better than those who have been less favoured. But such an education requires more time, I need scarcely add, than an ordinary education. It must, therefore, cost more, and cannot be within the range of the greater number of those who enter our profession. The University accordingly does not demand such a course of all the candidates for medical degrees. It allows and provides that the period required to be spent within its walls may be devoted, in part or wholly, to professional study. It invites the student, as the next best course to that which I have just mentioned, to pursue the subjects of medical science—botany, chemistry, physiology, human and comparative anatomy—in such a manner as to obtain a place in the Natural Sciences Tripos, and so gain an arts degree with honours, and it provides him with the means of doing this, as I have just shown. Or, finally, the University enables the student to spend the whole or any part of his three years' residence in the simple and direct preparation for his medical examinations. There are thus the three courses open to every one who comes, and who has shown himself to have attained to that standard of school teaching which each person ought to have reached who proposes to obtain an University degree. He may spend the whole or any part of his three Cambridge years in the attaining a higher standard of general education before commencing his medical studies; and may, if he please, defer the latter till he has left Cambridge; or, secondly, he may devote the whole or any part of his Cambridge time to the pursuit of professional study in that higher manner which will gain him a place in the natural sciences tripos; or, thirdly, he may devote the whole or any part of his Cambridge time to the pursuit of professional study, with exclusive and direct reference to the preparation for the strictly medical examinations which admit to the degrees in medicine and surgery. I have not even thus quite exhausted the range, but I have said enough to show that it is very wide; that the utmost freedom is given, and that the time required to be spent in the University need not in the least extend the period which must necessarily be spent in medical study and the preparation for the medical examinations.

I trust I have shown that, with regard to the three points chiefly insisted on by Dr. Sieveking and others—viz., the diminution of expense, the lessening of the time required to obtain a medical degree, and the opportunities for good employment in professional study of that part of the time which must be spent in Cambridge—the University has not been backward in its endeavours to meet the requirements of the age and to provide facilities for the influx of a larger number of medical students. Indeed, at the present time, an intelligent and industrious student who has received a good preliminary education may obtain a medical degree at the University with very little more expenditure of time and money than is necessary to obtain the qualifications of the other licensing bodies, or than would be needed at any new university which may be founded for the purpose.

Is it necessary to add that religious disabilities are things of the past, and that the members of all religious denominations are admitted to the University on equal terms?—Yours obediently,

Cambridge, August 14th, 1876.

G. M. HUMPHREY.

THE PROCESS OF ESTIMATING UREA.

SIR,—In the course of some experiments we have been making this summer, we have found that the hypobromous solution decomposes in hot weather more quickly than we expected; and that it is very important that it be quite freshly prepared. We wish to draw especial attention to this, and to suggest that the solution be prepared in the following manner.

A solution of caustic soda is made in water, in the proportion of 100 grammes of solid caustic soda to 250 cubic centimetres of water. This solution may be made in large quantities, for it will keep good for a very long time. To part of this solution, bromine is added in the proportion of 25 cubic centimetres to every 250 cubic centimetres of caustic soda solution at the time it is required for use.—We are, etc.,

W. J. RUSSELL.
SAMUEL WEST.

August, 1876.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD AND THE ANTI-VACCINATORS.

THE President of the Local Government Board has addressed a letter to Mr. Serjeant Simon, M.P., with reference to the representations made by a deputation who waited on him a few weeks ago with the view of obtaining the appointment of a Royal Commission to inquire into the effects of compulsory vaccination. Mr. Sclater-Booth points out that, five years ago, a full inquiry into the subject was made by a select committee of the House of Commons, before which the leaders of the anti-vaccination movement appeared and had ample opportunity of establishing their case, which they failed to do. Before reopening the question, the Government would need to be satisfied that some new facts had come to light, and that material evidence calculated, if not to overthrow, at least to cast serious doubt on the conclusions previously arrived at, was likely to be forthcoming. But, so far from this being the case, all the facts and arguments on which the deputation appeared to rely were substantially before the committee. Referring then to the working of the Act of 1871, Mr. Sclater-Booth says that the annual returns show that 90 per cent. of each year's registered births are accounted for on the vaccination registers; and that such a result would have been unattainable if there had been any general feeling of opposition on the part of the people. In fact, that, in the great majority of districts, the compulsory powers of the law have not been required, and that, in those districts in which proceedings have been required, it has been generally on account of the indolence and indifference of parents, and only in a small proportion on account of objection, and still more rarely on account of refusal to comply with the law. Inferences to the same effect are derivable from the Parliamentary return of prosecutions undertaken under the Act.

As to repeated prosecutions for infringement of the Act, Mr. Sclater-Booth says:—"There can be no doubt of the tendency of repeated prosecutions in certain cases to create sympathy with the persons who were the subjects of them; but there are also many instances in which such repetition appears to have been called for by local circumstances, the persons proceeded against exercising, by the course taken by them, an injurious influence on the general administration of the law in their respective localities, being, moreover, not infrequently either well able themselves to pay the penalty, or being members of a society which paid the fines for them. But it has always been the policy of the Local Government Board, and will continue to be my policy, to advise the local authorities, after proceedings have been carried to a certain point, carefully to consider each case before further action is resolved on. And it must not be overlooked that, even where further proceedings have been determined on by the local authority, the decision to make or withhold the order for vaccination is entirely within the discretion of the magistrates.....In face of the evidence which is before me of the remarkable effect which this law has already had in the prevention of the small-pox mortality of young children (among whom alone can its results at present be manifested), my first duty is to see that its efficiency is maintained."

He then goes on to notice the allegation that due care is not exercised in the distribution or employment of lymph; which allegation, he says, "is entirely at variance with information before me, both as to the securities which are taken, by microscopical examination and other

means, for ensuring the perfect condition of the lymph sent out by the National Vaccine Establishment, and also as to the care exercised in the performance of vaccination by the public vaccinators, over whom alone does the Board exercise any control. At the same time, I have no reason to believe it is at all correct as regards private practitioners. I wish, however, to point out that it is only by bringing cases of supposed injury forward at the time of their occurrence that the accuracy of such allegations can be properly inquired into, and that vague statements of the kind which were recently made to me are comparatively valueless, inasmuch as they cannot be made the subject of investigation". In conclusion, he says that, while there appears to be no ground for instituting any such inquiry as the deputation suggested, the working of the Vaccination Acts will continue to be, as they have been for the last two years, the subject of his particular attention.

MEDICAL OFFICERS OF HEALTH AND THEIR TENURE OF OFFICE.

THE Local Government Board, having "decided that the Sanitary Authority of Harrogate was not justified in giving notice to Dr. Deville of their intention to dismiss him", it becomes important to know what is the consequence of this ambiguous decision. It is highly important, both to sanitary authorities and to medical officers of health, that their relations to each other and to the Local Government Board should be clearly understood. Section 191 of the Public Health Act of 1875 enacts that "the Local Government Board shall have the same power as it has in the case of a district medical officer of an union with regard to the qualification, appointment, duties, salary, and tenure of office of a medical officer of health, any portion of whose salary is paid out of moneys voted by Parliament". Now, this section appears clearly to infer that no medical officer of health, part of whose salary is paid by the central authority, can be dismissed without the sanction of the Local Government Board; and, if this be the case, why should the department hesitate to say so in plain language? The official statement of such a fact would give general satisfaction to all those who have a real interest in sanitary progress, and would effectually prevent the repetition of the Harrogate scandal, which, with the recent ill-advised appointment of the deputy officer of health in Liverpool, has helped to throw discredit upon local self-government in health matters.

THE POOR-LAW FROM ANOTHER POINT OF VIEW.

SIR,—I have just been reading the half-pitying, half-contemptuous "opinions of the press", appended to the report of the reception by the president of the Local Government Board of the deputation of Poor-Law Medical Officers. And I rebel against the tone. That the Poor-Law Medical Officers are combatants for better terms of service is true—every man has a right to better his position if he can. If he be independent himself, he should seek to leave his post to his successor better than he found it.

We have heard a great deal of the miserable pay and treatment of the parish doctor; but the pay is not so bad as it looks, and the treatment is just what the doctor will stand. I confess that when a Board of Guardians has engaged a medical man at a salary that averages a shilling or two a-head, and when the Local Government Board sanctions the job, it does appear that they have made a very grand bargain at the expense of the poor needy fool of a surgeon. But wait a bit. If the said surgeon is to be outwitted by an average Board of Guardians, I would respectfully ask "What on earth was his education good for?" We often hear of a Nemesis coming—is it not here? Has it not been here for many years. I protest I chuckle with glee when I look at the relief lists, and see the hundreds of pounds that are spent yearly—wasted, literally thrown away, in the attempt to cheat the medical officer out of a tenth part of the sum. Anybody with a grain of sense knows how foolish it is to be on bad terms with the man in whose hands he places his life; and cheap doctoring is at least as nasty and as dear in the end as other cheap things, and though Guardians are not supposed to have any interest in the prevention of suffering to the poor, they have a direct pecuniary interest in getting them well. And what does a guardian think? what does the Right Hon. President of the Local Government Board think, when they have concluded the farcical contract to doctor the poor at eighteen-pence a-head? If they think at all, they know that they will get just the value of their eighteen-pence in attendance—just the value, and nothing more, as in other bargains of the Newcastle apothecary stamp. And eighteen-pence is hardly enough to ensure a cure. At least, if I had broken my leg, I should hardly care to limit the surgeon to eighteen-pence in the treatment of the case, at least, unless I was very unhappily married. I know there are those who will say, "oh, but the surgeon is paid extra for a broken leg". I know that, and I strike a common average. If he were not, his salary would far oftener average 4d. or 6d. a case! Fancy that; the country is far too Christian to allow its poor to perish, so takes out fourpence sterling to pay the doctor for attendance on a case of inflammation of the lungs or otherwise. We commend this to the notice of Exeter Hall, as showing the advance made since the days of the Good Samaritan. But the ratepayers get their four pennyworth in fever-beds and sundry other luxuries which every now and then visit the wealthier quarters and claim their toll.

But don't the poor complain? Not a bit of it. They are delighted and adore their doctor, and the ratepayers pay the bill.

August 1876.

ONE OF THE DOWN-TRODDEN(?).

POOR-LAW MEDICAL APPOINTMENTS.

BERNARD, D. E., M.R.C.S.Eng., appointed Medical Officer to the Clifton Union Workhouse, *vice* Wm. Hodges, M.R.C.S.Eng., resigned.
 DALE, Frederick, M.D., appointed Medical Officer to the Hutton District of the Stokesley Union, *vice* Andrew A. Boyle, L.R.C.P.Ed., resigned.
 EASBY, William, M.D., appointed Medical Officer to No. 2 District of the North Wiltford Union, *vice* William Stanger, F.R.C.S.Eng., resigned.
 STEPHENS, R. F., M.R.C.S., appointed Medical Officer to the Roche District of the St. Austell Union, *vice* W. Goodfellow, M.R.C.S.Eng., resigned.
 THOMAS, David, M.R.C.S., appointed Medical Officer to the Festiniog District of the Festiniog Union, *vice* W. Williams, M.R.C.S.Eng., deceased.
 WATSON, A. Hardy, M.B., appointed Medical Officer to No. 2 District and the Workhouse of the Mere Union, *vice* F. A. A. Smith, M.D., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

THE PAY OF MILITIA SURGEONS.

A MILITIA SURGEON has favoured us with the following statement of his pay under the former and the new systems. He has taken the amount for the last two years, which is as follows.

April 1st, 1874, to March 31st, 1875.

	£	s.	d.
Attendance upon Staff-Sergeants and Drummers ...	11	11	2
Ditto, Women and Children ...	34	3	11
Examination of Militia Recruits ...	29	2	9
Pay for Preliminary Drill (35 days) and Training (27 days) ...	82	3	0
Examination of Line Recruits, Pensioners, Army Reserve, etc., attendance upon Staff, etc. ...	49	6	8
	206	7	6
Allowance for Medicine for Militia Training ...	9	8	0
Total for year ...	215	15	6

The allowance for the year from April 1st, 1875, to March 31st, 1876, from the same sources, amounted to £205 : 15 : 3, giving an average of £210 *per annum*.

According to the New Warrant, the pay will be as follows.

	£	s.	d.
Twenty-seven Days' Training, at £1 ...	27	0	0
Twenty-seven Days' Forage, at 2s. ...	14	0	0
Twenty-seven Days' Lodging Money, at 3s. ...	4	1	0
Twenty-seven Days' Allowance, at 4s. ...	5	8	0
	39	3	0
Under Old Regulation ...	210	0	0
Annual Loss ...	171	0	0

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, August 14th, 1876.

Cruelty to Animals Bill.—The Commons' amendments to this Bill were agreed to. The Bill received the Royal Assent on Tuesday.

HOUSE OF COMMONS, Thursday, August 10th.

The Cruelty to Animals Bill passed through Committee *pro forma*.

Militia Surgeons.—In reply to Captain Nolan, Mr. HARDY said that the income of militia surgeons derived from the army votes depended upon so many considerations that it was impossible to say whether, under a new warrant, it would be reduced in some cases by over £100 a year. It depended upon the establishment of the regiment, the number of recruits, whether the regiment went out for training, and whether it went out for a long or a short period.

Friday, August 11th.

Army Medical Department.—In reply to Mr. Dunbar, Mr. HARDY said that the number of vacancies in the Army Medical Department was fifty-seven, and that fifty appointments were announced as open for competition at the competitive examination to be held this month.

Cruelty to Animals Bill.—The House went into Committee on this Bill. Clauses 1 and 2 were agreed to. On Clause 3, Mr. LOWE said that under this clause physicians and surgeons would not be permitted to perform operations on animals without the certificate of the Secretary of State. The clause would not give as good a security as was already given by the

fact that those gentlemen had already gone through a complete course of medical and surgical study, and had received from a competent authority a certificate to practise their profession. He, therefore, moved the insertion of words confining the Secretary of State's certificate to persons who had not received a regular medical education.—Mr. NEWDEGATE would infinitely have preferred to see the medical profession undertaking to regulate itself in this respect; but it ought to be borne in mind that they had refused to adopt any regulations of their own.—Dr. WARD contended that it was most unreasonable to propose that members of the medical profession, who had set up a number of institutions, guaranteeing that they were fit to deal with even infant life, should be assumed to be unfit to have the handling of animal life entrusted to their skill and care.—Mr. W. E. FORSTER said there could be no doubt of the care of the medical profession in dealing with human life; and the main reason why the present Bill was deemed necessary at all was, that it was thought advisable that the experiments to which it related should be performed under some regulations.—Sir W. BARTLELOT looked upon it as a very strong measure indeed to call upon men who held so responsible a position in the country as the members of the medical profession, to apply to a central authority for permission to make those experiments which they deemed to be necessary in the interests of science. If such a Bill as the present had been brought before the House early in the Session, he ventured to say it would have met with a very different fate from that which seemed to be now before it.—Dr. LYON PLAYFAIR thought it would be hard to adopt a proposal that would have the effect of preventing some of the most experienced physiologists in the country from practising important experiments except under conditions that would operate harshly.—Mr. CROSS reminded the right honourable gentleman that the physiologists of the country had accepted the principle of the Bill.—Mr. WHALLEY contended that it was altogether too late in the present Session to pass a Bill of this importance; and he, therefore, moved that the Chairman do leave the chair.—Mr. LOWE hoped the motion would not be pressed, as it could only result in a waste of time. [*Hear, hear.*]—Sir J. LUBBOCK said that if we could not trust our medical men, our medical degree was a mere mockery.—After a few words from Mr. HERSCHELL, the motion, that the Chairman do leave the chair, was negatived. After some further conversation, the Committee divided. The numbers were: for the amendment, 27; against it, 82; majority against, 55. The clause as amended was added to the Bill. Clause 4 was also agreed to.—On Clause 5, Mr. LOWE said he had a very strong objection to this clause, which established an aristocracy of animals. Five animals were to be peculiarly favoured: the cat, the dog, the horse, the mule, and the ass. It was to him perfectly shocking that a selection should be made. Who were they that they should sit in judgment on these animals, and prefer one to another, inflicting pain on one and exempting others?—Mr. WHALLEY suggested that country gentlemen, who were in their sports ignorant, cruel, and prejudiced, should be placed under surveillance.—Mr. CROSS explained that those animals were favoured because they were the most intelligent, and consequently the most sensitive to pain. After some conversation, the clause was agreed to.—On the motion of Mr. CROSS, a new clause was inserted to the effect that no prosecution against a licensed person should be instituted, except with the assent in writing of the Secretary of State.—Mr. CROSS moved another new clause, providing that the Bill should not apply to cold-blooded animals. After some discussion, the clause was read a second time.—Mr. W. E. FORSTER moved to substitute the word "invertebrate" for "cold-blooded". After discussion, the Committee divided, with the following result: for the amendment, 57; against it, 20; majority for the amendment, 37. The clause was added to the Bill.—Mr. LOWE moved a new clause, imposing a penalty not exceeding £100, or imprisonment for three calendar months, for torturing animals where there is no experiment.—Mr. CROSS opposed the clause. It was foreign to the Bill. The Committee divided, when the numbers were: ayes, 22; noes, 51; majority against the clause, 29.—The Bill went through Committee.

Monday, August 14th.

Supervision of Dairy Farms.—In answer to Mr. Charley, Mr. SCLATER-BOTH said no steps would be taken without fresh legislation to carry out the views expressed in the report of Mr. Power, the Commissioner appointed by the Board to inquire into the origin of the Eagle Milk Epidemic, that "the case points to the urgent necessity for regulation and adequate supervision over the sanitary circumstances of dairy farms". When the Public Health Bill was under consideration last year, he gave some attention to the subject, and satisfied himself that it was too difficult a matter to be settled without further legislation. The matter should, however, have his attention during the recess.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—First M.B. Examination, 1876. Pass List. Entire Examination.

First Division.

Baddeley, Charles Edward, King's College
Boyd, James Stanley Newton, University College
Clark, Charles Alfred Dagnall, St. Bartholomew's Hospital
Collier, Mark Percell Mayo, St. Thomas's Hospital
Gabb, James Percy Alwyne, University College
George, George Aldridge, University College
Heath, William Lenton, St. Bartholomew's Hospital
Lory, William Manley, University College
Mathews, Valentine, King's College
Neale, John Edward, University College
Phillips, Sidney Philip, University College
Saunders, John Charles, Downing College, Cambridge, and St. Bartholomew's Hospital
Sheppard, Charles Edward, St. Thomas's Hospital
Smith, Kenneth Rawlings, University College
Stewart, Howard Douglas, King's College
Uhthoff, John Caldwell, Guy's Hospital
Wainwright, Robert Spencer, Guy's Hospital
Whitney, Neville Scott, University College
Williams, David James, University College

Second Division.

Andrews, William Stratford, University College
Berry, Frederic Haycraft, Guy's Hospital
Culbane, Frederick William Slater, University College
Dymott, Donald Frederick, University College
Faulkner, John Thomas, Owens College
Hadden, Walter Raugh, Liverpool School of Medicine
Jewell, Charles Coleman, University College
Jones, Roger Hughes, Liverpool School of Medicine
Juler, Henry Edward, St. Mary's Hospital
Lendon, Alfred Austin, University College
Mackern, George, Guy's Hospital
Manby, Herbert Lynsey, Guy's Hospital
Marsh, Joseph Henry, St. Thomas's Hospital
Notley, William John, B.A., University of Edinburgh
Russell, George Hannah, Guy's Hospital
Salter, John Reynolds, University College
Sheldon, Thomas Steele, Guy's Hospital
Tuke, William Samuel, University College

Excluding Physiology.

First Division.

Meek, John William, Guy's Hospital

Second Division.

Barker, Frederick Rowland, St. Thomas's Hospital
Clark, James Richardson Andrew, University College
Hughes, Richard, Owens College
Shaw, George, Westminster Hospital
Vinnace, John Hinks, Queen's College, Birmingham
Williams, Dawson, University College

Physiology only.

First Division.

Blake, William Henry, University College
Cuming, Charles Henry, University College
Plumbe, Samuel Thomson, St. Bartholomew's Hospital

Second Division.

Drysdale, Alfred Edgar, University College and Liverpool School of Medicine
Pickup, William James, University College
Ryley, James, University College
Smith, Herbert Urmson, St. Thomas's Hospital

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 10th, 1876.

Griffin, Charles Thomas, Ledbury
Howat, George Rutland, The Poplars, Bounds Green
Hudson, James, 50, Maitland Park Road
Le Page, William, Brandon, co. Durham
Morgan, John, Strata Florida, South Wales
Smith, William, Great Avenham Street, Preston
Thain, Leslie Lachlan, Devonport
Wilkinson, Arthur Thomas, King Street, Oldham

The following gentlemen also on the same day passed their primary professional examination.

Barker, Frederick Rowland, St. Thomas's Hospital
Cannock, Charles Wathyn, St. Thomas's Hospital
Ogle, Charles John, St. Bartholomew's Hospital
Wilson, Joseph Henry, University College Hospital

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the July and August sittings of the examiners.

Joseph Grealy, Galway; Robert Stewart Reid, New Zealand; Alfred Haynes Mason, Kent; Arthur Robert Roberts, Worcestershire; Frank Trevor Paine, Cardiff; Samuel Kennedy, county Down; Arthur Dobson, Leeds; Edward M'Callum, Edinburgh; Joseph William Christie, Stirling; John Service,

Kilwinning; Alexander Leiper, Stonehouse; Robert Parkyn Simpson, Boston; Rajasonah, Madagascar; Andrianaly, Madagascar; Edward Arthur Whiteley, Wakefield; Lombard John Newman Tanner, Cork; Andrew Eddowes Legat, South Shields; John Henry Parry, North Wales; John Garbutt Hutchinson, Cumberland; and James Frederick Witz, Tobago.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Ed. and L.R.C.S.Ed.

Horatio Ross Brown, Folkestone; James Payne Baker, Maidstone; John Patrick Balbirnie, Leamington; Edward Salisbury Brander, India; Robert Kirk, Bathgate; Samuel Biggar Giffen M'Kinney, Belfast; Joshua Edward Bull, Cork; James May Elliott, Dungeness; Thomas Sanctuary, Dorsetshire; Hugh Wallis, Sussex; John Alexander Erskine Stuart, Berwickshire; Frederick Alexander Campion Fletcher, Yorkshire; George Sainthill Badcock, Brighton; Frederick Lord, Kent; William Edward Scott, Northamptonshire; William Percy Blumer, Sunderland; James Shorten, county Cork; Francis Henry Wood, Wakefield; Alfred Dawson Williams, London; Alfred Kay, London; Joseph Henry Richard Wallace Lucas, Liverpool; William Calwell, Ballyvough; James M'Glade, Kent; Jean Aristide Clement Darutz, Mauritius; William Oliver Deacon, Armagh; James Eld Hiffernan, Mallow; Albert Green, Bradford; Thomas M'Guire Roberts, Dublin; Alexander Morrison, Linsithgowsire; Cecil Anthony Perrier Osburne, Cork; and John Alexander Dockeray, Rathvilly.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their first professional examination during the July sittings of the examiners.

Richard Gordon, jun., Sligo; Charles Henry Thatcher, Edinburgh; James Thompson Nichol, Newcastle-upon-Tyne; Kenneth Maclean, Ross-shire; Francis James Beresford, Leicester; and Mark Francis Ryan, Kilmory.

The following gentlemen passed their final examination, and were admitted Licentiate of the College.

Donald MacRitchie, Inverness; James Magill, Derry; Henry Hunter, county Derry; James Alexander Greer Hamilton, county Tyrone; William Maul, Auchterarder; James Thompson Nichol, Newcastle-upon-Tyne; Richard Hill Norris, Birmingham; Robert William Irvine, Blair Athole; Peter Fraser, Hamilton; Duncan Forbes, Dumfries; Robert Hardie, Leith; William Smith, Preston; Samuel Aird Jolly, Portarlington; and Rufus Willard, Illinois.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BRIGHTON AND HOVE DISPENSARY—Resident Medical Officer and Dispenser. Salary, £130 per annum, with furnished apartments, etc. Applications on or before September 4th.

GENERAL INFIRMARY, Leeds—House-Surgeon. Salary, £100 per annum, with board, residence, and washing. Applications on or before September 6th.

HOSPITAL FOR WOMEN, Soho Square—House-Physician. Applications on or before August 31st.

NORTHAMPTON GENERAL INFIRMARY—Surgeon. Applications on or before August 28th.

NORTH STAFFORDSHIRE INFIRMARY, Stoke-upon-Trent—House-Surgeon. Salary, £120 per annum, with furnished apartments, etc.—Also, House-Physician. Salary, £80 per annum, with furnished apartments, etc. Applications on or before August 30th.

SUSSEX COUNTY HOSPITAL, Brighton—House-Surgeon. Salary, £80 per annum, with board and lodging. Applications on or before August 23rd.

THINGOE UNION—Medical Officer for the Eighth District. Salary, £18 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road: Resident House-Surgeon. Salary, £100 per annum, with residence, coals, light, and attendance. Applications on or before the 25th instant.

WORKSOP UNION—Medical Officer for the Anston District. Salary, £25 per annum.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BINDLEY, Philip, M.B., appointed Resident Medical Officer to the Birmingham General Hospital; *vice* A. H. Carter, M.D.

CLUTTON, H. H., M.R.C.S.Eng., appointed Resident Assistant-Surgeon to St. Thomas's Hospital.

FRASER, Wm., M.D., appointed Resident Medical Officer to the Royal National Hospital for Consumption, Ventnor; *vice* J. M. Williamson, M.D.; resigned.

HAWKINS, F. M., M.B., appointed House-Physician to the Wolverhampton General Hospital; *vice* C. A. Nankivell, M.B.; resigned.

HOUGHTON, W. B., M.B., appointed Medical Registrar to the Charing Cross Hospital; *vice* A. Duncan, M.B.; resigned.

JONES, Richard, L.R.C.P.E., appointed Assistant Medical Officer to the Warwick County Asylum; *vice* W. H. Seed, M.B.; resigned.

LEIGH, Thomas, M.R.C.S.Eng., appointed Surgeon to the Hospital for Sick Children, Brighton; *vice* J. Beavan, F.R.C.S.; resigned.

BIRTHS; MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

PARAMORE.—On August 12th, at 18, Hunter Street, Brunswick Square, W.C., the wife of Richard Paramore, M.R.C.S.Eng., etc., of a son.

DEATH.

RYAN, John, M.D., LL.D., formerly Lecturer on Chemistry at the Charlotte Street School of Medicine, Professor of Chemistry at the Polytechnic Institution, and some time Editor of the *London Medical Gazette*, aged 65, at 16, Lonsdale Square, Islington, on August 7th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Ordinary Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

CURIOUS FACTS.

SIR,—Has any one yet recorded the antagonism of emplastrum belladonnæ and emplastrum lyttæ? Several times I have found that I could not get a blister to rise on a surface which had been previously subjected to the action of a belladonna plaster. I do not attempt to explain the reason.

Another curious fact I found out by accident, and proved it by two subsequent accidents. I split some liquefied carbolic acid on a part of my hand, and found that for two or three days afterwards there was complete local cutaneous anesthesia on the parts touched by the acid. The effect was most peculiar.

Lichfield. Yours, etc., HERBERT M. MORGAN.

CRUELTY TO ANIMALS.

THE following is from the *Irish Times* of August 5th:—"A correspondent informs us that yesterday he witnessed at a poulterer's shop in one of the principal markets of Dublin, an act of cruelty as barbarous as any ever practised by vivisectionists. The poulterer seized a fowl, and having pulled its legs in one direction, and its neck in the other, beat the head of the creature against a block of wood, and then struck it with a knife across the throat. His next proceeding was to place the fowl under his left arm, and with his right hand to strip off the feathers, the creature struggling and screaming in agony until it could cry out no more. Our informant was sickened at the sight; but he should have called in one of the police force, and prosecuted the unfeeling savage. We believe that the feathers can be more easily plucked from the body of a fowl while still warm than after it is cold in death; but this is no reason why a helpless creature should be flayed alive. Possibly such cruelty may be frequently perpetrated with impunity: the eye-witness preferring to be silent rather than to appear as prosecutor in a police court. We will only say, that we place the strongest reliance upon our informant."

DIPLOMAS IN MIDWIFERY.

SIR,—I find, by the report of Dr. Atthill's Address in Obstetric Medicine delivered at the opening of that Section at the late meeting in Sheffield, that he draws attention to the diploma in obstetric medicine about to be granted by the University of Dublin, which, he says, is the first British University which has recognised the position gained by obstetric medicine. This mistake has also lately been made by Professor Haughton. I would beg to draw the attention of those gentlemen to the diploma in midwifery granted by the Queen's University in Ireland in 1872 and each year since, which University was thus the first to recognise the position of obstetric medicine.—Yours obediently,

A LICENTIATE IN MIDWIFERY OF THE QUEEN'S UNIVERSITY, IRELAND,
AND ROTUNDA HOSPITAL, DUBLIN.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

It is particularly requested that, during the months of August and September, communications for "The Editor of the BRITISH MEDICAL JOURNAL" be so addressed, and not to any person by name.

CHRONIC DIARRHŒA.

SIR,—In cases of "chronic diarrhœa" of a most obstinate nature, I have found the old koumiss, or No. 3, of any consistency, answering admirably. In a gentleman's case, over eighty years old, it not only checked the diarrhœa completely, but restored the strength, which was gradually sinking to a dangerous point; the nervous tremor of feet and hands disappeared in twelve hours from its first dose, and digestion, sleep, and nutrition improved gradually.

Should a "Young Practitioner" prescribe a course of whey koumiss, he would do well to exclude all milk and fruits from his patient's diet; and should his patient be thin and nervous, a thorough abstinence from tea and coffee will accelerate the cure. An answer as to the result will oblige.—I am, sir, yours truly,

KOUMISS EXPERTUS.

August, 1876.

SIR,—A Young Practitioner will probably speedily cure his patient by the following plan of treatment: One fourth of a grain of nitrate of silver, with extract of lettuce, night and morning; after food, a little nitric acid, with decoction of oak-bark, and an enema of cold water daily. I have in several instances found speedy recovery by these means when neither rectum or stomach appear to be the *causa mali*.—I am, sir, yours faithfully,

WALTER HAXWORTH.

Wetherby, August 7th, 1876.

UNQUALIFIED ASSISTANTS.

SIR,—"M. H." is anxiously seeking redress for the body of students to whom he belongs; but I think the case of the unqualified man, who takes away the livelihood of the duly qualified practitioner, claims the attention of the profession in the first instance. What does M. H. think of a case like the following? In my neighbourhood, a man practises who never was nearer the teaching of the healing art than his father's surgery, and is, to my certain knowledge, scarcely capable of more than distinguishing glycerine from castor-oil. His father was a qualified practitioner for many years in the village in the county where this son was born. At the father's death, he and his sister (one of the olden time) "set up" as successors to him, before any legally qualified man came, and their success has been all they could wish for. In the brother's absence, she will dispense, extract teeth, or visit, as occasion requires. They keep a splendid establishment, with carriage and two horses. One qualified assistant, and sometimes two, attend most of the county families in the neighbourhood; and if Sir James Paget were to come from London to try to secure for himself a practice, he would find himself only disappointed. The qualified practitioners around this man only get the crumbs, so to speak. So much for the credulity of the public. And what makes matters much worse, many of the consulting physicians of the chief towns of the county meet this man in consultation when he desires it, though they object to meet such men in the town. Why? because in a largely populated town they probably fear it might damage their consulting practice, from becoming known to the several members of the profession; but I daresay they think it makes little difference about leaving us out in the cold, as in any isolated case in the country there is less chance of its reaching the ears of the qualified practitioner; and the cases in which we must necessarily be able to put a fee in their pocket are in comparison few and far between. The principle is bad. I, who have spent all my capital in my education, may well ask if nothing can be done to protect me and my brethren around me. I am fond of my profession, but so disgusted am I with the laws (if you choose to call them so) that regulate it, that if I could but recover part of the money expended on the attaining of the necessary education for it, I'd "throw physic to the dogs; I'd none of it".—I am, sir, yours truly,

ANTI-HUMBBUG.

August 1876.

SIR,—Having seen the letter of M. H. in your publication of July 29th, I think perhaps a little further evidence with regard to the fact that some practitioners do employ assistants who have not had any teaching at a medical school may be useful. Not far from where I am now residing, a practitioner had a man taking charge of a branch practice, who told me personally that he had obtained his medical knowledge by "practice", and that he had never had any teaching at a medical school; he also told me that he saw his principal, who lived some miles away, about once in six weeks.

In my opinion, the reason why practitioners prefer "shop-boys" to *bond fide* medical students as assistants, is simply as follows: they can get "shop-boys" to do certain menial work that medical students would not stoop to do.—Yours faithfully,

J. G. B.

August 1st, 1876.

CORONERS' INQUESTS.

SIR,—Would you kindly inform me in your JOURNAL whether an inquest was necessary in the two following cases, or the attendance of a medical man?

The first case is that of a carrier, who, when leaning over the side of his cart to light his pipe, fell to the ground, and sustained severe internal injuries (which it is not necessary here to specify), from the effects of which he died two days afterwards. My father and I were in constant attendance upon him. I was in the house when he breathed his last. An inquest was held the following day by the coroner.

The second case is that of a man who received fracture of the base of the skull, from the effects of which he died shortly afterwards. My father saw him before he expired. An inquest was held also in this case; and in neither of these two cases was it deemed necessary by the coroner to produce medical testimony as to the cause of death. The coroner is not a medical man, but the late one was, who always employed a doctor.—Yours truly,

ROBERT M'BRIDE, M.B., etc.

Gilford, co. Down, July 18th, 1876.

P.S.—In the second case, the person fell from a runaway horse. R. M'B.

* * It was right to hold an inquest; and a medical witness should have been called in in each case.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MEDICAL TITLES.

SIR.—One point in this controversy has escaped the general notice of your correspondents. It is the fact that most English practitioners (*i.e.*, men educated at English Medical Schools) hold diplomas, not degrees, since the large London hospitals do not form integral parts of Universities, as do most of the Scotch and Irish schools. They are only connected with the Colleges of Physicians and Surgeons; therefore to assume that the majority of men who hold the L.R.C.P. Lond., M.R.C.S., and L.S.A. are not so well educated as the majority of Scotch and Irish graduates are, is incorrect; the probability lies just the other way. At Trinity College, Dublin, and in the Queen's University, Ireland, even at the present time, the student has only to undergo a course of four years' study; he attends fewer courses of lectures than English students; no special instruction in pathology, diseases of women and children (as distinct from the practice of physic or midwifery), nor certificates of dressership or clinical clerking are required. On the other hand, at T.C.D., a course of zoology is required, and at the Q.U.I. a course of lectures on one modern language, and on physics. True, at T.C.D. a graduate in medicine must be an A.B., but this is not necessarily nearly so stringent a test of a man's general knowledge as is the London University matriculation; since, if a man fail, say, in two out of five subjects, he is nevertheless passed for these, and at the next examination only has to take up the three subjects in which he was previously rejected. I have heard that the M.B. may be likewise taken in easy instalments.

In Scotch Universities the prescribed period of study is also four years, though, since the winter sessions only begin on November 1st, four months' study is lost. The curricula are similar to the Irish ones, but they include courses on diseases of women and children, and morbid anatomy. Here too, however, no certificates of dressership or clinical clerking are required.

I fully agree with your correspondent, Dr. Garstang, that the public would be less liable to be misled if graduates wrote the letters M.D., M.B., after their name; but then I would also advise the addition of the university, since I, for one, think that the value of a degree depends solely on the university granting it. I would, therefore, suggest that writing "W. Garstang, M.D. St. And., M.R.C.P.," would be less likely to mislead the public than the doubtless trivial error of considering that "W. Garstang, M.D., L.R.C.P. Lond.," was a graduate of the University of London. Dr. Garstang writes, that "the doctorate in an university is the mark appropriated to those of its alumni who are officially declared to have attained the highest point therein taught in things of medicine."

I ask the profession whether Dr. Garstang's first qualification is a tithe part the guarantee of his having attained to the "highest point taught in things of medicine," that the M.R.C.P. Lond. is. They will know that it is not, and yet the R.C.P. expressly forbids a member to call himself "Dr." on the strength of their diploma. I take it, Sir, that Dr. Garstang rests his case on an entirely false issue. The whole question really lies in a nutshell: English students go through a course of professional education almost identical with that undergone by their Scotch and Irish fellow-students, excepting that a London student spends nearly double the money over his education that the provincial one does, and they naturally think it just a little hard that men of, at best, only like parts with themselves, presuming on popular ignorance, should push themselves forward on the mere accident of the place of professional education, as though they really possessed a superior degree of professional knowledge. Especially as most of them can recall to mind numerous cases of men who "knocked about town" for years, doing no work; and then either went north of the Tweed, or paid a visit to the Sister Isle, and soon afterwards returned and strutted among their studious but disgusted old fellow-students, as full-fledged graduates. Certainly every practitioner of forty years of age has not the *sang froid* to go up to St. Andrew's, pay fifty guineas, undergo a "satisfactory examination," and so return home one of a batch of ten real M.D.'s.

In truth, instead of the possession of the title M.D. or M.B. being necessarily an earnest to the public that a surgeon is possessed of a superior degree of knowledge, it merely indicates that he is probably either a Scotch or Irish student, since English university graduates are few and far between. It is to be regretted that the title "Dr." is not dropped by all English practitioners (even by those who are graduates), and restricted to men practising as pure physicians.—Yours, etc.,

July 24th, 1876.

A QUESTION OF ETIQUETTE.

SIR.—When out, the other day, a patient called for my advice, but not finding me at home, went to a neighbouring practitioner. Will you kindly favour me with your opinion as to whether the practitioner to whom the patient went has a right to silently keep the patient, or should inform me of the fact that the patient had (finding me from home) been to him?—I am, sir, yours truly,

A MEMBER.

. The practitioner to whom the patient went ought, if he knew that "A Member" was the ordinary medical attendant, to inform him that he had seen the case.

MR. FAVELL'S ADDRESS.

SIR.—As I am the individual referred to under the initials A. B., by W. F. Favell, Esq., in his Address in Surgery, published in your last issue (August 5th), perhaps you will allow me to correct, as briefly as possible, one or two little errors as to facts into which he has fallen. I never had a splint of any kind applied. Within three days certainly, if not before, I complained to the surgeon attending me of shortening and inversion, and continued to complain every time he came; and it was because of my complaints that the third surgeon was called in, five weeks after the accident. Instead of agreeing with the treatment, he changed it completely. He found me kept at rest on my back, painting the hip with iodine. He ordered me to discontinue the iodine; to use liniment of turpentine and acetic acid, with strong friction, three times a day; to get up immediately and begin to walk, and not to be afraid of using or hurting my leg. These orders I faithfully obeyed, under the superintendence of the other surgeon, who continued to attend me for seven weeks longer. I must add that Mr. B. (the surgeon in constant attendance), in filling up my application to the Accidental Insurance Company, wrote "partial dislocation." I believe that paper is still in existence at the Company's office in Cornhill.—Yours, etc.,

A. BAEWORTH.

5, Pershouse Terrace, Ardwick, Manchester, August 1876.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

MR. SNELL (Sheffield) is thanked for his communication; which, however, we are unable to insert in this week's JOURNAL.

REGISTRATION OF FOREIGN DEGREES.

SIR.—M.D. Brussels can hardly say that I "rushed" into print, for my reply did not appear for a fortnight after his letter of July 1st. As to his statements that I did not read over his letter carefully, and that I lacked the amount of information requisite to reply to it, your readers can judge for themselves. I will be as concise as possible.

1. In my letter I maintained, against M.D. Brussels, that Justitia was right when he said that a foreign degree could be got for two or three days on the Continent. This he passes over in silence: facts are against him.

2. M.D. Brussels asserted (*vide* his letter of July 1st) that there was no difference in position between an M.D. and an M.R.C.S.; he now says that all he meant was, that they are on a par in that they can both "practise their profession". In connection with this, he asks me to inform him "how many of the Scotch M.B.s proceed to the M.D., and how many are content with it". It would be difficult to ascertain, and besides, it is quite irrelevant.

3. M.D. Brussels says: "I never said I had not heard that hygiene is a subject required in the medical schools." I never affirmed that he did; but he did say that some of the foreign universities required "extra" subjects, and instanced hygiene. He now admits that hygiene is taught at Guy's and University College, and required for the College of Physicians; but he might have given other instances.

4. M.D. Brussels, in his letter of July 1st, said: "I have not yet heard of one of the ten annual men at St. Andrew's being rejected"; plainly insinuating that there had been no rejections. W. D. H. has shown that there have been; and M.D. Brussels, in his last letter, admits it.

5. With all due respect for the opinions of M.D. Brussels, I do not consider that I am in honour bound to bring before the public the name of a personal friend who had made a confidential statement to me, without his permission. To you, Mr. Editor, I enclose the name of an M.R.C.S., a mutual friend, who can testify to the truth of my statement.

6. M.D. Brussels still maintains that operations on the dead body does not form a portion of the examination for diplomas in these countries; and, I suppose, to prove triumphantly that he at any rate has not "rushed into print without the requisite amount of information", mentions the names of four Colleges of Surgeons where it is not required; but in three out of the four he is wrong, apparently hopelessly so.—I am, sir, yours, etc.,

August 3rd, 1876.

IGNORAMUS.—The habit of chewing lead would be, in our opinion, decidedly objectionable.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; etc.

. We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Jonathan Hutchinson, London; Dr. G. M. Humphry, Cambridge; Mr. T. Holmes, London; Dr. J. C. Hall, Sheffield; Dr. J. C. Souther, London; Our Dublin Correspondent; Mr. G. Eastes, London; Dr. Diver, Kenley; Dr. J. Milner Fothergill, London; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; Mr. A. O. Francis, Derby; The Registrar-General of Ireland; Dr. Joseph Bell, Edinburgh; Dr. J. Wickham Legg, London; Dr. Protheroe Smith, London; Dr. Bradbury, Cambridge; Dr. J. Finlayson, Glasgow; The Registrar-General of England; Dr. J. W. Moore, Dublin; Dr. W. H. Allchin, London; Dr. Webb, Wirksworth; Dr. J. T. Evans, jun., Hertford; Mr. H. M. Morgan, Lichfield; Dr. Kelburne King, Hull; Mr. Chiene, Edinburgh; Dr. R. Spence, Burntisland; Dr. Banham, Sheffield; Mr. R. B. Carpenter, London; Mr. Lennox Browne, London; Mr. Rhodes, Birmingham; Mr. J. B. Unwin, Wigan; Dr. de Gorreque Griffith, London; Dr. J. Bell, Edinburgh; Mr. J. H. Scott, Newent; Dr. Chadwick, Tunbridge Wells; Dr. Sandberg, Northrepps, Norwich; Dr. Allan, Glasgow; Dr. F. J. Bevan, Rochester; Mr. W. S. Wanes; A Member; Dr. Mackay, Inverness; Dr. Rabagliati, Bradford; D. B.; Dr. Rutherford, Edinburgh; Mr. C. H. Newby, London; Our Paris Correspondent; Our Edinburgh Correspondent; A Victim of Indian Service; A Licentiate in Midwifery of the Queen's University; Dr. Grattan, Carbury; Mr. R. Torrance, Maffin; Dr. Liveing, London; Ignoramus; Mr. W. W. Hughes, Grays; Mr. P. Martin, Abingdon; Mr. Ryall, London; Mr. Snell, Sheffield; Dr. H. Charlton Bastian, London; Dr. Elder, Nottingham; Dr. Seaton, Nottingham; Dr. Caton, Switzerland; The Secretary of the Quekett Microscopical Club; etc.

BOOKS, ETC., RECEIVED.

Inhalation: its Therapeutics and Practice. By J. Solis Cohen, M.D. Second Edition. London: Trubner and Co. 1876.
The Medical and Surgical History of the War of the Rebellion. By George A. Otis. Part 2, vol. II. London: Trubner and Co. 1876.

REMARKS ON THE FUNCTIONS OF THE LIVER IN JAUNDICE.

By J. WICKHAM LEGG, M.D.,

Fellow of the Royal College of Physicians, and Demonstrator of Morbid Anatomy
in St. Bartholomew's Hospital.

IT is well known that, in the old system of physiology preserved to us by Galen, the liver, besides being the source of the movement of the blood, was likewise the centre of animal heat and of sanguification. Shortly after the discovery of the circulation by Harvey, the liver was robbed of all its functions save that of bile-making. Strange to say, in our time, the liver has been restored to all the functions, nay, more than all, that it possessed in the belief of Galen, and physiologists are now well assured that the liver is the centre of sanguification, of animal heat, of bile-making, as well as of certain other functions not dreamt of by the ancients.

To those who watch the flux and reflux, the Euripus of medical opinion, this return to ancient beliefs (if I may so use the word) is most interesting. Astrology, the influence of the planets upon human destiny, would, if discussed by the encyclopædists, have been set down among the grossest superstitions of ancient and mediæval writers; yet now modern science acknowledges the great influence which the planets have upon the sun-spots, and these again influence many terrestrial phenomena, and consequently mankind. Again: the chemists tell us of the belief now gaining ground that the elements are not separated by the hard and fast line formerly supposed, but that it is highly probable that all the elements have some common source; thus the theory of the philosopher's stone and the search after the transmutation of metals no longer appears to be the impossibility which fifty years ago it was believed to be.

To return to physiology. The most important function of the liver known to physiologists is its power of making glycogen, a discovery made not many years ago by Claude Bernard. Upon this function of the liver depend apparently sanguification, nutrition, and, indeed, animal heat; for Claude Bernard has found that the blood issuing from the hepatic vein is the warmest of all in the body, and is invariably of a higher temperature than that in the portal vein or arterial system. Another function greatly dependent upon the glycogenic function is the making of bile. A fourth function, according to Meissner, is the secretion of the greater part of the urea excreted by the kidneys. The object of this paper is to inquire what becomes of these functions in jaundice, whether they continue unchanged or are greatly or slightly impaired. It has, I think, been hitherto too readily assumed by pathologists, in their reasonings on the phenomena of jaundice, that the liver continues its functions just as in health.

First, as to the glycogenic function of the liver. Whether this were injured or not appeared to me so important a point to establish on a firm basis, that I made a large number of observations upon animals in order to decide it. After ligaturing the bile-duct, I found that, whether the animal died within a few hours or a few days, in all cases alike glycogen was absent from the liver. The absence of the glycogen was constant. It is not, therefore, merely the outcome of the temporary disturbance of the operation, but a permanent change in the function of the liver. The glycogen, however long the animal lived, in no case returned.

These observations have been confirmed by von Wittich; so that it may now be taken as an established fact that, in complete obstruction to the bile-duct, the glycogenic function of the liver is abolished. In like manner, puncture of the fourth ventricle after ligature of the duct causes no sugar to be present in the urine.

To one acquainted with the rudiments of physiology, it will be unnecessary to point out the importance of these results. They suggest a reason for the wasting often seen in jaundice, and which often occurs rapidly, and for the sense of weakness and inability to exert themselves of which some patients complain.

Another function of the liver is the preparation of bile. The three important constituents of the bile are the bile-acids, the bile-pigments, and cholesterine. Of these, the bile-acids are the greatest both in amount and in physiological value. Taking seventeen *grammes* as the very lowest estimated amount of dry bile which a man daily excretes, twelve *grammes* of this will be formed by bile-acid salts, about three

by the bile-pigment and mucus, and the remainder by the cholesterine and inorganic residue. If the functions of the liver continue uninjured in jaundice, the whole of this should be excreted by the kidneys, as it is well known none other of the secretions but the urine contain either bile-pigment or bile-acids. It is true that the sweat may sometimes contain bile-pigment, but the amount lost in this fashion must be exceedingly small. What, however, is the real amount passed out of the body by the kidneys? If Schwanda's estimations may be trusted, the amount of bile-pigment passed by the urine in jaundice is very small. The highest figure which he gives is .015 *grm.* in the twenty-four hours. It has been seen that the amount secreted in health and passed into the duodenum is at the lowest reckoning two *grammes*. The same of the bile-acids. The smallness of their amount in the urine for a long time caused their presence altogether to be overlooked; but all observers are now agreed that the bile-acids, though in small quantity, are really present in the urine. The amount is very small. No one has found more than .3 *gramme* of bile-acids excreted in the twenty-four hours; yet, if the functions of the liver continue uninjured, at least twelve *grammes* should pass out of the system. This difficulty has been felt by physiological chemists, and Ernst Bischoff has proposed a theory to escape from it. He supposes that the bile-acids are oxidised in the blood; not all of them, but that they are only oxidised when their amount reaches a certain figure; just as a certain amount of sugar may be injected into the blood, part of it passing out by the kidneys, the remainder being oxidised in the blood. This theory is one to which assent can hardly be given, as the bile-acids have already attained a high degree of oxidation, and it is well known how well they resist oxidising changes, as putrefaction, and chemical agents; as sulphuric acid. It seems more reasonable to suppose that very little indeed of the bile-acids are secreted. It is a widespread belief among physiologists that the albuminous principles of the food are split up in the liver into glycogen and bile-acids; the glycogen taking the carbon, hydrogen, and oxygen; the bile-acids the same elements combined with sulphur and nitrogen. Now, if the glycogenic function of the liver cease, what becomes more probable than that the bile-making function of the liver should cease or be greatly impaired? There is a well known example of the dependence of these two functions one upon another in the *limax flava*, first pointed out by Bernard. In this mollusc, the bile and glycogen are secreted alternately, one during digestion, the other after, and so on. So, on *à priori* grounds, it is very likely that, when once the glycogenic function of the liver is lost, the bile would cease to be secreted as well. Lately, several observers have noticed that as jaundice progresses the bile-acids become less in quantity, and, as Golowin has found, even disappear from the urine altogether at the end of a long-continued jaundice.

The same reasoning may be applied to the bile-pigments; their source, however, is altogether different from that of the bile-acids, for it is probable that they are derived from the red corpuscles of the blood. There can be little doubt that the formation in the liver of bile-pigments must be decreased both from the small amount excreted by the kidneys and the slight staining of the tissues even in severe jaundice compared with what would take place were the whole of the bile-pigments formed in health again passed into the blood. The colour of the patient would then be an Ethiopian blackness. Clinical observation also shows that the colour of jaundiced patients decreases as death draws near.

A third important function is, that the liver produces a large amount of heat. Bernard, some years ago, pointed out that the temperature of the upper part of the vena cava was higher than that of any other part of the body. This high temperature is, no doubt, due to the active chemical changes continually going on in the liver; and, if these changes cease, it must follow that the temperature itself would fall likewise. I have found, in some cases that I have examined, the temperature in the upper part of the vena cava, forty-eight hours after ligature of the common duct, lowered to the temperature of the rectum. This lowering of the temperature is not, however, constant, and the investigation requires to be pushed farther than at present I have had the leisure to pursue it.

It has been long known that in jaundice the temperature of the body is below natural, provided the jaundice be not accompanied or caused by any disease which of necessity begets fever. The lowering of the temperature in the hepatic veins, if confirmed, would serve to explain the low temperature of the whole body so commonly seen in jaundice; for, if the liver be the great heat-giving centre of the body and it cease to give out heat, what sequence more natural than that the temperature of the whole body should be lowered?

Another revived Galenic function of the liver is its power of forming blood-corpuscles. It is well known that the blood of the hepatic

vein contains a far greater number of both red and colourless corpuscles than that of the portal vein. The corpuscles of the portal vein show likewise under the microscope a more distorted shape than the blood-corpuscles of the general system; they are also richer in fat.

Now, in jaundice, if a number of old analyses may be trusted, the amount of blood-corpuscles is very greatly decreased. This has been explained by supposing that the bile-acids circulating in the blood destroy a large number of the red corpuscles. If, however, less than one *gramme* a day of bile-acids pass through the system, as I have endeavoured to show above may be the case, the bile-acids must be in so dilute a solution, that very little action upon the corpuscles can take place, in no way enough to account for the great diminution of the red corpuscles. If the liver be largely concerned, therefore, in the making of red blood-corpuscles, and its functions in jaundice be greatly impaired, it seems more probable that the anæmic state of the blood in jaundice may be due to the injury done to the liver. The general state of nutrition in jaundice should, however, be kept in mind, as there can be no doubt that the removal of the bile from the intestines causes a great disturbance in the phenomena of absorption.

The last function of the liver, the secretion of urea, rests upon a base by no means so well founded as the others. It is not a theory which, in the present state of knowledge, greatly commends itself to my mind, nor do the observations which I have made upon the urea in jaundice seem at all to confirm the theory. For, if most of the other functions of the liver known to us be greatly impaired or even entirely abolished, it would be strange if this alone should remain in unchanged vigour. And yet this is really the case; for, in a series of estimations which I have made, and published in a paper read in March last before the Royal Medical and Chirurgical Society, I did not find the urea so much diminished as on Meissner's theory might be looked for. The decreased amount could be readily accounted for either by the disease which caused the jaundice, the general health and food of the patient, rest in bed, and the like; while, in two cases in which the obstruction to the ducts was most complete, and in which no other disease save the obstruction was present, the amount of urea reached its highest point. These results do not dispose me to look with great favour on Meissner's theory.

THE BALHAM MYSTERY.

By W. F. WADE, F.R.C.P.,

Physician to the General Hospital, Birmingham; etc.

THE verdict of the last jury has been eminently satisfactory to a large number of the public, consisting chiefly, if not entirely, of those persons who, without waiting to hear the evidence, had come to the same conclusion at which the jury arrived. For my own part, having read the evidence daily in the *Times'* reports, I had come to think that, on the whole, an open verdict would be the proper one. Having since read the same reports, in my judgment there is not sufficient evidence to say:

1. That Mr. Bravo died from taking tartar emetic;
2. That he did not take it accidentally;
3. That he did not take it suicidally;
4. That he was murdered;
5. That antimony was not given to him for the purpose of nauseating, without any intention either then or subsequently to take his life.

Whilst against any hypothesis which may be set up to account for his death, arguments more or less strong, but in no case trivial, may be adduced, there seems to me a very considerable preponderance of evidence in favour of suicide.

1. Did Mr. Bravo take antimony in the form of tartar emetic?

Dr. Redwood, who made the analyses, is Professor of Chemistry to the Pharmaceutical Society; and, as his name does not appear in Churchill's *Medical Directory* as a medical man, it is fair to assume that he has no medical qualification. He distinctly states that he did not detect tartar emetic, and that he only infers, as a matter of probability, that it was this drug, and not some other form of antimony, which had been taken. This inference was drawn partly from the symptoms; but when other preparations, such as James's powder or black sulphuret, produce symptoms at all, these are indistinguishable from those produced by tartar emetic. It is needless to say that any one might obtain any quantity of James's powder with little if any difficulty. With regard to black

sulphuret, Pereira says (*Materia Medica*, vol. i, p. 397) it was known in the most ancient times, being used by the Asiatic and Greek ladies as a pigment for the eyebrows. Dr. A. T. Thomson says (vol. ii, p. 221, note), "It was with the sulphuret of antimony that the Greek and Turkish ladies, to use a Scriptural phrase, 'put their eyes in mourning'." The sulphuret was applied within the eyelids, and produced a peculiar softness of expression". Further, "prepared sulphuret of antimony is the sulphuret of commerce levigated with water on a porphyry stone. It is inodorous, insipid, of a dark leaden grey hue, and stains the fingers when handled. It is insoluble in water and in alcohol, partially soluble in the vegetable acids, and consequently in wine. As an emetic, it is uncertain in its effects. If the stomach be acescent, it operates with violence". It is superfluous to point out the acescent state of the stomach an hour after dinner, and the presence of Burgundy in the stomach, in this case. It contains, on an average, about 70 per cent. of metallic antimony. It is curious to note that the vomit in this case had been so drenched with heavy rain that only the solid portions remained, and to note at the same time that tartar emetic is easily soluble, and had, in all probability, if taken at all, been taken in solution, and would, therefore, be easily washed away; whereas the black sulphuret is insoluble in water, and would, therefore, if mixed with solid matter, be unaffected by the rains. It is also a fact, that Mrs. Bravo had some means of darkening her hair. I may add, that if it were proved that Mr. Bravo took this drug and not tartar emetic, the suspicion of suicide would amount almost to a certainty. James's powder is also, in great part, if not entirely, insoluble in water.

From these considerations my opinion is drawn, not only that it is not certain that the antimony was taken in the form of tartar emetic, but that it is more probable that an insoluble preparation of antimony had been taken.

2. That he did not take it accidentally.

No antimony has been traced to the possession of any one in the house, excepting some homeopathic preparations which Dr. Redwood asserted to be so weak as to be innocuous. The former possession of tartar emetic by the coachman Griffiths, and some other circumstances, may be sufficient to excite a suspicion against certain parties, but are quite insufficient to preclude the possibility of accidental death.

3. That he did not take it suicidally.

This part of the subject divides itself primarily into two heads: *a.* Reasons for thinking that he did not commit suicide; and *b.* Reasons for thinking that he did.

His stepfather states that he was a very courageous man, and that he had gathered from him in general conversation that he considered suicide cowardly. Whether suicide is a cowardly or a courageous act, is a question upon which much might be said. But the opinions expressed by poor Mr. Bravo in cosy chat with his stepfather before his marriage, have little to do with his actions or views under very different circumstances. Besides, crimes are constantly committed by the very last person who would, in the opinion of his intimates, be likely to perpetrate them. Look at the frequent embezzlements by highly well-conducted persons. Several eminent alienists have publicly expressed the opinion, in which I entirely concur, that he was a man very likely, under suitable conditions, to commit an impulsive suicide. The evidence of educated and highly respectable friends, whose opinions on this subject are those of unskilled witnesses, was allowed to go unchallenged to the jury.

A second reason is that, had he desired to commit suicide, his medical knowledge would have prevented him from using tartar emetic. His stepfather stated that he took great interest in surgical matters, and attended operations at one of the hospitals occasionally; and, again, "I say my son had a liking for surgery, but, as distinguished from surgery, his medical knowledge was only general". Some of his legal friends gave somewhat similar evidence.

His uncle by marriage, a London hospital surgeon, said that Mr. Bravo knew something of surgery; and, as medicine and surgery are now-a-days intimately connected, he supposed he knew something of medicine. He also said: "He never went to any other part of the hospital but the operating-room; and admitted that he could not tell a man who was likely to commit suicide from one who was not."

In the country of the blind, the one-eyed man is king. It is quite possible that, by seeing and talking of a few operations, he might get the credit with his companions, who knew nothing, of having medical knowledge. There is no evidence worthy of the name that his skill in medicine would lead him to avoid antimony or select any other drug for suicidal purposes; besides, the presumption is that, if he committed suicide, he did it impulsively, and in such cases people are not particular as to the means. But, suppose he had acquired therapeutical or toxicological knowledge of antimony as a poison, what would he have learnt? Firstly, that tartar emetic has scarcely, if ever, been

used for what we may term acute murder, but for chronic murder only. Secondly, that it has been used for suicide. Out of six cases of antimonial poisoning quoted by Orfila, two were suicidal and four accidental. One of them is such a remarkable instance of what a determined or courageous man will do that it is worth quoting. M. N., aged 43, resolved on suicide, asked for arsenic at several places, but could not get it; resolved then on tartar emetic, collected about twenty-seven grains from different shops, went to a coffee-house, asked for sugared water, and took the poison in some of it. He was shortly afterwards taken to the Hôtel Dieu; when he came to himself, he sent away the assistants, and then confessed to the sister of the ward and Récamier that he had poisoned himself with tartar emetic. "If it be recollected that in general the antimonial tartrate of potash does not produce any grievous symptoms except when it is not expelled by vomiting, it will be readily conceived why this salt is so seldom the object of investigation in medical jurisprudence" (Orfila, vol. i, p. 181). With regard to fatal dosage, the same author records a case where six drachms were taken, and the girl completely recovered. Taylor says that two grains proved fatal to an adult, and that one ounce has been taken ineffectually. An army surgeon took suicidally two to three ounces by measure of chloride of antimony, a far more painful poison than tartar emetic. So much for a person's medical knowledge precluding the possibility of his using antimony suicidally.

We come now to the most painful act in this most painful tragedy.

There can be no doubt that the most powerful argument against the suicide theory is Mr. Bravo's repeated denials that he had done so. It is so shocking to think that these should have been made in the most solemn manner by a man who well knew he was dying, that we cannot wonder that many persons believe it to be incredible that they were untrue. But, on the other hand, if we believe that these denials truly expressed the facts, it is impossible to blink the fact that we have to entertain a belief with regard to the probable conduct of other persons which is no less shocking and even more horrible. We cannot escape from that dilemma.

There is one explanation which is not highly improbable, certainly not incredible, which will exonerate any person who receives it from this perplexing difficulty. It is well known to all of us that shocks to the brain affect the recollection of circumstances which happened shortly before the shock was received. This is particularly familiar as a result of blows on the head. There was in this case to impair the brain-power the terrible crisis of semi-death through which he had passed before recovering consciousness, and afterwards the exhaustion of hæmorrhage and of recurrent agonies, and the depression produced by antimony. To what extent this might impair the abiding and continuous recollection of what he had done, if he had done anything, it is impossible to say. The fact, which we assume for the present to be true, that he had chided Mrs. Cox for revealing his secret, compels my own mind to the conclusion that, if he stated what was not true, he did so wittingly and wilfully.

He was looked upon by his friends as a particularly truthful man. We have also their opinion that he was not a particularly religious man. He told Mr. Royes Bell so himself, and he had no strict views on certain domains of morality. To what extent we are entitled to protect our secrets from too curious inquirers, is an open question. He, at all events, if we are to believe some portions of the evidence, had a secret of his own to keep, which anyone would go to the extremest length permitted by his moral views to protect. But he had also to protect the secret of another, and one confided to him under circumstances little, if any, less sacred and solemn than those of his dying moments. He was in that dilemma. He was compelled to commit what was equivalent to perjury; in either case, to his own great discredit, as his friends have succeeded in exposing to the world; but in the one which he did not choose, also involving in obloquy a woman to whom he was unquestionably attached, and whose painful secret had been entrusted to him on the strength of that attachment. He knew well enough that an admission of suicide could not fail to lead to an inquiry for motives, and to the certain discovery of a secret which was not creditable to himself, and highly discreditable to others. The argument that others might be suspected could have no weight; it was clear to him that Mrs. Cox's statement would, if needful, protect any one against such an accusation, and it is quite obvious, from his whole conduct, that he had not the faintest suspicion of any one of those surrounding his bedside. A death-bed statement accusing another of crime is an entirely different affair from one such as this; and had he, under the circumstances, charged anyone with poisoning him, I for one should have admitted that he was stating what he believed to be the truth.

As a minor excuse, it may be considered that, in his extreme state of prostration, there would be a natural desire to avoid the worry of answering a lot of questions, such as an avowal of suicide must have

invited. There is one other reason which must have prevented him from admitting suicide. If it were found by the inquisition that he had done so in a state of temporary insanity, it would have been next to impossible for him to carry out his wishes by making a will in favour of his wife. A will made under such circumstances would be in the greatest danger of being invalidated. A verdict of *felo de se* would have been most painful to his relatives.

We have, to some extent, glided into the second subdivision of this head, viz., the positive evidence in favour of suicide. Here, of course, first and foremost, stands Mrs. Cox. This witness gave evidence at the first inquest, made a statement at the Treasury, and at the second inquest was under examination for many hours. Of her cross-examination, it is only necessary to say that it was conducted with the most unmitigated and unsparing severity. She admitted that, in the hope of sparing the characters and conserving the secrets of her two friends, Mr. and Mrs. Bravo, she had perjured herself. With the same motive, she prevaricated, or something like it. The amount of reprehension which such conduct deserves is a matter which each one must determine for himself or herself. Beyond this, so far as I can judge, nothing was elicited to impugn her veracity. Nor was it impugned by the examination of other witnesses. Under these circumstances and with these views, she is, by ordinary rules of evidence, entitled to be considered the witness of truth. With similar limitations, I place Mrs. Bravo in the same category. With regard to this witness, and the eminently important question, whether it is true that she had told Mr. Bravo before marriage of her *faux pas*, I can see no reason for doubting her assertion that she had acquainted him with what we may call the Kissingen version of that affair. The statements that he was pressed to acquaint his mother with this, and those respecting his remarks on receiving the anonymous letter, are quite in accordance with the references in his own extant letter to his wife, referring to their having had "bitter trouble" and the "memory of our sorrow". The only other circumstance to which these expressions could apply would be the first miscarriage, and his jocose references to the second precludes this explanation. With these expressions before us, there is no difficulty in believing Mrs. Bravo, when she says he was always harping on "not having had my first love"; and that he told her, on his death bed, "you must marry again, but not a word of the past". It seems to me that, with the limitations above stated, there were between these witnesses, by some believed to have been in league to connive at and conceal a revolting crime, only contradictions of that class which is held to show that witnesses are testifying to the truth and not to a concerted lie. For example, neither Mrs. Bravo nor Mrs. Cox supported Rowe's statement, that Mr. Bravo muttered at dinner "I shall not be there", referring to Worthing. Yet, that was a remark certainly in favour of suicide. Again, Mrs. Bravo did not corroborate Mrs. Cox as to his angry remarks about the wine—an incident most likely to excite his wrath, and so contribute to a suicidal impulse.

There are some isolated points which it is convenient to refer to here. One is the destruction of the bottle of laurel water. The fact that it was kept so long is a much more positive proof of innocent possession, than the fact of its ultimate destruction can be of guilty knowledge. The fact of his previous attack of vomiting is a strong, but not unequivocal, proof, that antimony was not administered on the fatal occasion by way of commencing a system of chronic or slow poisoning; as, if antimony had been administered before, the undue effects on that occasion would have made the administrators more cautious. As regards the emptying of the basin containing vomit, nothing is more natural or usual in a sick room, as we often find to our great annoyance; and, on the other hand, the vomit outside the window was allowed to remain undisturbed. The active treatment immediately resorted to by Mrs. Cox is not consistent with the view that she had the purpose of murdering him by antimony. The same may be said of the actions and expressions of Mrs. Bravo, after the commencement of his illness. There seems to me to be nothing inconsistent in his first calling for his wife, and then trying to conceal the cause of his illness from her. The fact of his calling for hot water is, to my mind, inconsistent with the supposition that he felt intense nausea, but was at the same time unaware of having taken anything which would cause it. Unless taught by some previous experience, the first impulse of a person, under such circumstances, is not to produce vomiting, but to prevent it; and what the untutored public always demand or suggest, under such circumstances, is not hot water or an emetic, but brandy. Had Mr. Bravo asked for this, it would have been in accordance with the almost universal practice; and he had, after his previous attack, taken Curaçoa. Again, had he never spoken to Mrs. Cox on the subject, is it conceivable that, when he was first told that she had said he had confessed to having taken poison, he should have replied, "I do not remember having spoken of taking poison". Would he not have said, "What nonsense",

or "What a lie", or "How could I have said so"? or demanded at once that she should be sent for. Yet, he never on one single occasion, before others, spoke to Mrs. Cox on the subject. The only reasonable answer to this criticism is that he did not understand that Mrs. Cox had accused him of taking poison wilfully; and I do not see that any of the medical men put it categorically before him that she had done so.

After carefully reading all the evidence on the subject of Mrs. Cox informing the medical men that he had taken poison, I see no reason to doubt that whilst, for fairly sufficient reasons, she did not tell Dr. Moore, yet she believed that she did tell Mr. Harrison; though, in doing so, she mixed up her statement that he had taken poison with her opinion that the poison he had taken was chloroform. Afterwards, finding the doctors thought he had not taken chloroform, and seemed to doubt his having taken any poison, she repeated her statement to Mr. Royes Bell and Dr. Johnson. Her reasons for not telling Dr. Moore are, that she thought it would be such a scandal that he should have taken poison on account of jealousy for his wife; and that, when he recovered (as having, in her opinion, only taken chloroform, he would), Mr. Bravo would be so angry at the circumstance having been made known.

Mr. Bravo seems to have expressed no desire to recover, and no surprise at the suddenness of his illness, or at the fact that—putting poison on one side—the nature of it was obscure; or curiosity to know how, if he had taken poison accidentally, he could have got hold of it, or who could have given it to him intentionally. On the contrary, he determinately, and once rudely, put a stop to any such disquisitions. All this required the courage which he was said by his stepfather to possess.

With regard to motive, he was quick in temper; had (*quantum valet*) a sunstroke some years ago; was so dominated by an irritating and depressing idea as to have been little less than a monomaniac; had that day had the subject of his monomania prominently before him; had threatened to commit suicide; had a Turkish bath in the morning, and a warm bath in the afternoon. He had been suffering more or less from facial neuralgia for several days; and at dinner had nervous twitchings of the face, and looked ill and seemed irritable. In the morning, he had received an annoying letter from his mother; and in the afternoon, one of a similar character from his father; had that afternoon had his nervous system rudely shaken; and, on going up to bed, had been agitated by an exhibition of his wife's weakness in a matter which was known to annoy him intensely. Under such circumstances, an insane impulse is very far from surprising.

It is true, there are arguments on the other side; but these have been so fully and repeatedly set forward, that it is needless to repeat them. It is not to be denied that these are of some weight. Therefore, though I lean to the probability of suicide, as against murder, probably the sound conclusion to adopt is that, though Mr. Bravo was poisoned by antimony, there is not sufficient evidence to say positively how or in what shape it was introduced into the system.

4. That he was murdered.

The discussion of this question is virtually included in that of the preceding proposition, for it cannot be denied that the issue in this case is practically murder or suicide. I have only to add that, on a careful perusal of the evidence, sufficient proof of the existence in the mind or minds of any person or persons of hopes, fears, desires, wishes, or regrets, which might be supposed capable of supplying an adequate motive for crime, has not been established.

The fifth proposition I do not care to discuss, though arguments in its favour might be adduced.

It is more satisfactory to the sensational cravings of the multitude to believe in a great crime than in a great folly or in an act of insanity: a human weakness which may have contributed to produce the *la st* verdict. It may be an inducement to some to believe in the crime, to admit that it is scarcely possible they can ever be proved to be in the wrong; whereas those who believe in the folly may, if they are wrong, be convicted of their error.

THE OVUM-FORCEPS.

IN some few cases of premature expulsion of the ovum, I have found great difficulty in removing the mass (placental or other) from the uterus by the ordinary ovum-forceps; in some cases because the os uteri has not been sufficiently open, and in other cases because the forceps would not reach in consequence of massive buttocks; I, therefore, had a pair constructed (which I exhibited at Sheffield), two inches longer than the usual pattern in the handle, and measuring only half an inch wide at the fenestra. These will, as I have proved, pass and reach in cases where the old pattern is useless. In some cases, where it has been necessary to empty the uterus, I have owed my success to this modification.

HERBERT M. MORGAN, Lichfield.

CHAOS:

AS EXEMPLIFIED IN CENTRAL AND LOCAL SANITARY ADMINISTRATION.*

By JOSEPH ROGERS, M.D.,

Formerly President of the Poor-Law Medical Officers' Association.

ON November 29th, 1870, a meeting was held in London, which was numerously attended by metropolitan medical officers of health, Poor-law medical officers, and by gentlemen interested in sanitary reform. One object of the meeting was to lay down some basis for concerted action between district Poor-law medical officers and health-officers. This was attempted by formulating certain propositions which had been drawn up by Dr. Rumsey, the late Dr. Anstie, and by myself. Those propositions were laid before the then President of the Poor-law Board, Mr. Goschen, and were also forwarded to the Royal Sanitary Commission, with the request that they might be printed in the appendix to their Report. I have a copy of the report of the meeting, which contains the text of those propositions; but I will not now read them unless desired, but will content myself with this observation, that, if they had been adopted by the Government who brought in the Public Health Bill, 1872, most of the anomalies which exist in our Poor-law medical and public health arrangements would have been removed. At the conclusion of my address, which was largely devoted to the elucidation of these propositions, Mr. James Lewis, Poor-law Inspector, then of the Registrar-General's Department, Somerset House, read a paper on Registration of Disease. This done, Mr. Benson Baker proposed the following resolution: "That, in the opinion of this meeting, it is desirable that a general registration of all new cases of disease coming under treatment at the public cost, in workhouses and Poor-law districts, should be established; and that the medical officers of such workhouses and districts, as enjoying the largest opportunities of observing facts prejudicial to the public health, should be entrusted with the duty of making weekly, or, in times of epidemic, more frequent returns of cases actually coming under treatment, and of other facts concerning the spread of disease, to the health-officers of their respective districts." This resolution was seconded by the late Dr. Maunsell of Dublin, who came over specially to attend the meeting; and, after being supported by the late Dr. Letheby and others, was unanimously adopted, as well as the subsequent resolution recommending that Poor-law medical officers should be deputy health-officers in their respective districts. Looking back at what has since occurred, I regret that the term deputy was ever used: the respective classes of officers should have been health-officers and superintending health-officers. The report of that meeting was forwarded to the President of the Poor-law Board, Mr. Goschen, a gentleman whose perfect independence of action, foresight, and great intelligence, commanded the utmost confidence. Here let me observe that we had trusted that the outcome of the labours of the Royal Sanitary Commission would have been to suggest the formation of a Council of Public Health, to whose control would have been committed not only all matters relating to public hygiene, but the curative treatment of the necessitous sick. It was, therefore, with a feeling of dismay that we learnt that the powers of the Poor-law Board were to be enlarged, and that all the health-duties performed by the Medical Department of the Privy Council were to be absorbed in it. Still we had confidence that, as the services rendered by that department, and notably by that able man Mr. John Simon, were known and recognised wherever the English language was spoken, in any new arrangements that Medical Department would form a distinctive and prominent feature. Such might have been the case if Mr. Goschen had remained President; but, unfortunately, Mr. Childers became ill, Mr. Goschen was transferred to the Admiralty, and was succeeded by Mr. Stansfeld, who, like most *doctrinaires*, was as weak in practice as he was vigorous in theory, and who speedily exhibited himself as the instrument of those permanent lay officials of the Poor-law Board who, under the long reign of the late Mr. Henry Fleming, had contrived not only to bring the very name of that Board into general disrepute, but at one time had seriously imperilled its continued existence.

Here let me remark that the Local Government Board, like its predecessor the Poor-law Board, is a myth. Nominally, it consists of a President and certain members of the Cabinet; but, in reality, they

* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

never meet in council. Consequently it occurs, if the President be a weak man, that all initiative and governmental control is usurped by the permanent officials. Even if he be vigorous, it requires immense self-possession to enable him to hold his own.

If this could be justly asserted when the President was solely entrusted with the Poor-law destinies of the country, with what infinitely greater force should the existing arrangement be condemned, when, in addition to his Poor-law duties, he is entrusted with the control (nominal, I admit) of public health as well; and that, too, without any efficient guide to aid him by his counsel!

Some months prior to the introduction of the Public Health Bill, I had been engaged, conjointly with Mr. Corrance, late M.P. for East Suffolk, Dr. Rumsey, and others, in preparing a Bill which we had intended to bring before the House; but, learning that the Government had announced an intention to bring in a public health measure, we sought an interview with the President on February 13th, 1872. The promises held out to us covered so much of the ground on which we were, that, on retiring, we decided, unwisely as it turned out, to forego any action as regards our Bill until we saw more of the Government measure. At that interview, I noticed that, although our deputation had been arranged some days before, and although we were accompanied by several members of Parliament and leading sanitarians, the only officials in the room were Mr. H. Fleming and Mr. John Lambert. I was so struck by it, that immediately after the interview I called public attention to this fact. Some few weeks afterwards, I accompanied another deputation, formed by the Social Science, British Medical, and Poor-law Medical Officers' Associations, to the same Minister. On that occasion, Mr. Simon was present; but it was easy to see, by the way he sat in his chair, that it was, in all probability, the first time he had ever been in the room. Possibly he would not have been asked even then, if the press had not commented on his previous absence. You will, therefore, not be surprised to hear that he was never consulted respecting the clauses of the Public Health Bill; and that, from the time of the incorporation of his department in the Local Government Board, he was studiously ignored, until at last he resigned office; and, as practically no successor has been appointed, the lay and legal element is in complete ascendancy, and the Public Health Act, so far as the central department is concerned, is administered by gentlemen wholly ignorant of even the rudiments of public hygiene: the first illustration of that chaos which I believe hereafter I shall make more apparent. After this, can it be wondered at that the returns and reports made by the various health-officers, which are duly forwarded to the Local Government Board, excite no interest, find no readers, and are, as I am given to understand, not even acknowledged?

As you are aware, the Act divides England and Wales into urban and rural districts; the authority in urban districts being vested in the borough council, improvement commissioners, or the local board; in the rural, the boards of guardians. The incongruity of this arrangement was early pointed out, but without effect. Again, Mr. Stansfeld took powers to constitute the Poor-law medical officers the health-officers in their respective districts. On the part of many of my Poor-law medical brethren, who wrote to me from all parts of the country, I at once objected to these clauses, alleging as my reason that Poor-law medical officers were not, as a body, sufficiently independent to carry out the onerous duties proposed to be imposed on them; but we were again overruled, this time, I regret to state, by the aid of certain of those who, as members of the Poor-law Medical Officers' Association, had worked loyally with us to secure the concession of becoming an integral part of a public health administration such as we had sketched at our meeting in 1870, and had drafted in our Bill, but who fell off from us so soon as they found that the President had been so ill-advised as to propose to place them in a position so different from that we had previously striven to obtain.

The Bill, however, became an Act, although many leading sanitary authorities pointed out to Mr. Stansfeld that the sole appointment of parochial medical officers as health-officers would not work. How soon this view was shown to be correct is well known. At first, the inspectors (the Poor-law ones, of course), Mr. Simon's staff being set aside, were instructed to urge on rural and urban sanitary authorities that they were to appoint the parish doctors as health-officers, with some slight augmentation of their stipends; but so many refused to undertake the duty, that the same officials changed front, and advised the same authorities to combine so as to appoint one health-officer over a considerable area. This has taken place to this extent, that there are, or were, forty such combinations, which include two hundred and seventy-seven Poor-law unions; there being, exclusive of the metropolis, five hundred and ninety-nine separate unions in England and Wales.

In these combinations, no arrangement was made for obtaining that information as regards the outbreak of epidemic disease, which the Poor-law medical officers could most effectually supply. Indeed, the only source from which most of the health-officers could obtain a knowledge of what was going on in their districts, varying in area from 18,000 to 682,107 acres, was derived from the reports of the district registrars; and, owing to the delay in getting these reports, an epidemic had by that time either got firm hold of a locality or had worn itself out. It is true that an effort was made after a time by the central department to meet this lack of information, as was exhibited when Mr. John Lambert issued his circular letter to boards of guardians urging on them the advisability of requiring their district medical officers to return weekly reports of epidemic disease; but, as no suggestion was made for any additional payment for the extra work entailed thereby, and as it was *not in the bond*, I need not state that it has been almost universally disregarded. I farther learn that five hundred and twenty-four urban appointments have been made, varying in population from many thousands, and salaries quite respectable in amount, down to townships of 296 inhabitants, such as Baldersby, Yorkshire, where the stipend is £3:3. Here, again, let me note that, although half the stipend is paid from the Consolidated Fund, which ought to necessitate some principle in fixing the amount: as an instance in point, showing the absence of all such control, the health-officer for Acton, Middlesex, with a population of 4,000, acreage 2,260, receives £70; whilst the health-officer for Bedlington, Northumberland, with a population of 13,496 spread over 9,011 acres, receives only £40. Multitudes of similar anomalies as regards payment, population, and acreage, might be readily quoted.

In these urban appointments, it frequently happens that the health-officer selected is a parochial medical officer, his colleagues in the same union being set aside. You can easily understand from this the amount of information which his *confères* afford him. Similarly, there are two hundred and sixty-eight rural districts in which the same spirit of unnatural selection has been adopted; whilst there are one hundred and forty-six unions in which Mr. Stansfeld's plan for the appointment of the district Poor-law medical officers as sole health-officers in their respective districts has been carried out. As regards these latter appointments, they are absolutely ludicrous in their terms. Thus, in some a fair addition has been made to the parochial pay; in others, the sum of £2:2, £3:0, or £3:15, is the annual honorarium. At Barnstaple, Devon—population 36,215, acreage 126,749—the district Poor-law medical officers, eleven in number, receive a guinea for each report, and one shilling a mile one way. It would be interesting if we could learn how many reports have been made. In the New Forest, an increase of 20 per cent. is made on the yearly stipend. Of the large combinations, I find that the three most ill-formed are those of Oxfordshire, Berkshire, and Northamptonshire; the irregularities of the first two being due to adopting county boundaries, which, my informant states, are often of a most inconvenient kind, and correspond neither with watersheds, railway arrangements, nor anything else. He further states that, adopt what rule you please as regards combinations, you must have anomalies. This proves that the arrangements on which these combinations were made should not have been left to the voluntary association of certain authorities, but should have been settled with due regard to the possibility of their being easily and efficiently worked.

A good illustration of want of such arrangement is shown in the Gloucestershire combination, where in the middle of it are located the unions of Stroud and Whitminster: Stroud with a single health-officer, the six Poor-law medical officers being ignored; Whitminster, where the two Poor-law medical officers are appointed. Again, in Hertfordshire, the town of St. Albans has its health-officer, the St. Albans Rural Authority has another, and the rest of the county has combined; the districts of the medical officers forming concentric zones, like a target.

Turning to Yeovil, Somerset, I find that the officer of the rural district is one of the district medical officers; his district covers 48,760 acres, contains thirty-six villages, and has a population of over 20,000. This district is far too large for one person, however zealous he may be, effectively to work, notably if the officer be engaged in Poor-law and private practice. The stipend, originally fixed at £150, was cut down the second year to £100, and is now only £75. I cannot state why these successive reductions have been made; probably it is in consequence of his having exhibited too much zeal, or possibly of a growing feeling on the part of the rural authority that a health-officer is a needless expense; whichever it may be, I have grounds for asserting that the less he does the better the guardians like it. I also learn that, if one of his Poor-law colleagues give him any information, that name generally comes out, and the odium is transferred from the paid and

responsible officer to the unpaid one. It must be evident such a system cannot work; in fact it is, what I feel its authors (if they had any wits) must have foreseen, a muddle.

In the Yeovil urban district, population 8,000, the stipend is £30. Here, the medical officer of health gets no direct information from his Poor-law colleagues; all he has to rely on is the return of deaths from the registrar; and, from letters I have received from health-officers in different parts of the country, such is generally the rule throughout England and Wales. In the appendix to this paper, I have quoted extracts from such letters: they will be found to be very complete and suggestive.

Forty years before this Act came into operation, the division of the country into Poor-law unions was made. This was carried out by assistant commissioners. It is remarkable that, although the original Commission laid down certain general orders and regulations, the various boards of guardians were permitted to disregard them. Thus, one rule was that no district should have a population of more than 15,000, or an area of more than 15,000 acres, and that no officer should hold more than one district. My investigations into the administration of the Poor-law have taught me that there are 665 districts which exceed 15,000 acres, and 205 which exceed 15,000 persons; whilst there are 627 districts which are held by 291 medical officers, the salaries ranging, with medicines to find, from 8d. to 7s. a case of sickness. This muddle in our Poor-law medical relief system, equally with the discreditable chaos which holds in our sanitary arrangements, has arisen mainly from the same cause: the employment of ignorant lay officials to deal with purely medical matters.

Bad as the system is thus shown to be, with all its imperfections, more good would doubtless have accrued, notably in the larger combinations, if the officer could be assured that he would retain his post; but this is by no means the case; having voluntarily associated, each unit may withdraw if it please. Further than this, the officer may be dismissed; and this is pretty sure to be the case if he be sufficiently honest to do his duty, as in the instance of Dr. Deville of Harrogate; or to have his salary cut down, as in Yeovil, or as happened in the York rural district, at the suggestion of Lord Wenlock. Here, again, it is not a little remarkable that, in the early days of the new Poor-law, officers were similarly dismissed, or had their pay arbitrarily altered if they dared to take a humane view of their duties. It required years of public agitation ere such appointments were rendered permanent; indeed, we did not succeed in securing it in all districts until the period when Mr. Goschen became President.

The question now arises, What should be our aim? After careful consideration, I have come to the conclusion that every district Poor-law medical officer should be constituted the health-officer of first instance; that his duty in that capacity should be to report the occurrence of cases of epidemic disease, with their probable cause, to a superintending health-officer appointed to and over a considerable area. This latter should be paid a stipend sufficient to enable him to live independent of private practice; that, in order to compensate the district medical officer for the extra labour involved in such reports, etc., the Irish dispensary system (*minus* its faults) should be generally introduced; that, in sufficiently populous places, dispensers should be appointed, part of whose duty should consist in making returns daily of all new cases of sickness to the health-officer of the district, thereby sparing the labour of the district medical officer; and, in the few places where drugs are found by the guardians, as in Sheffield, some addition to the annual stipend should be accorded to the district medical officer as compensation for any such extra labour.

The absurd distinction between rural and urban districts should be abolished; and districts should in future be arranged with reference only to their being efficiently and economically worked.

Whilst cities of 70,000 inhabitants and upwards should be permitted to appoint their own health-officers, towns of lesser magnitude should be merged in the rural districts surrounding them.

County boards should be established, consisting of justices of the peace and the elected chairman or vice-chairman of the board of guardians within the county, or district of the county, whose duty it should be to appoint the superintending health-officer, and generally to order and control the sanitary requirements which might become necessary. Every superintending health-officer, whose election has been confirmed by the Local Government Board, shall hold office until he die, or resign, or be dismissed after *proved* incompetence or neglect of duty; in fact, he should be placed in this particular on the same footing as the Poor-law medical officers.

The ordinary Poor-law inspectors should be relegated to their proper functions, that of controlling and, if possible, curtailing pauperism; whilst the medical inspectors should be required to investigate all matters relating to public vaccination, the hygienic condition of work-

houses and workhouse hospitals, the administration of medical relief, and generally all matters of an obscure character relating to large epidemic outbreaks, etc., which might from time to time occur in the superintending health-officer's districts.

Finally, and before all things, the Local Government Board should be reconstituted; the President should (in virtue of his office) be a Cabinet Minister, and not excluded from it as at present. Instead of presiding over colleagues that never attend, he should have as coadjutors an engineer of eminence, a barrister who has had some years practice at the bar, and a physician who has won his spurs in public medicine.

Can these suggestions be realised? Unquestionably, if the members of this powerful Association, sinking their individual differences of opinion as to the exact machinery of a public health administration, will only combine to use their huge political power in properly informing the legislature and the public as to the true course which should be followed if "*sanitas sanitatum omnia sanitas*" is to be other than empty words.

APPENDIX.

Extracts from Letters from Medical Officers of Health, Poor-Law Medical Officers, and others.

Midland.—1. Borough; population, 11,000: lies in the centre of my district (which is twenty miles square); it has a medical officer of health to itself. This is very unpleasant, as we often come into collision. Infectious cases are constantly removed from the borough to my district. Having regard to area and population, my salary is the smallest in the kingdom.

2. I have no means of obtaining information regarding infectious diseases except through the inspectors of nuisances, and certificates of death which I get once a week.

3. The Poor-law Medical Officers have never been communicated with in my district on the subject of Mr. Lambert's circular of February 1874; consequently no good result has followed it.

4. I know some medical officers of health and inspectors of nuisances who have been turned out of their appointments in consequence of giving evidence against members of local boards for existing nuisances. I am convinced that, unless medical officers of health are placed in a more independent position than they are at present, the object for which they were appointed will not be effectually carried out.

South.—1. Another writes: The extreme length is forty-eight miles; the combined area comprises 311,556 acres; a population, in 1871, of 140,215, since then much increased. Is composed of seven rural and four urban districts. Lying within this area, but not included in the combination, are the urban districts of — and —, on the south-west, and of — and —, in the north-east, containing 17,581 acres, and 52,275 inhabitants.

2. In half of the districts, compensation to a moderate amount is given, but not alike in all; the returns of sickness are given in irregularly, and in no one instance has a complete summary or return been found capable of being made out from them at the end of the quarter.

3. With few exceptions, no regular official intimation of outbreaks of epidemic disease has been received, doubtless owing to the improper absence of a suitable fee. The courtesy and kindness of various practitioners have, however, been conspicuous in privately keeping me *au courant* as to their appearance or prevalence.

4. The most serious muddle is that, with an apparently important and responsible position as health officers, we have no real power of executive action; however gross the mischief, we can only point out the evil and the remedy—this the authority can notice or not, according to their humour.

Another serious muddle is the tedious and absurd steps required for the re-election of a medical officer of health; this ought not to be necessitated at all. The last shred of importance or dignity the holder of such office has is thus destroyed, and bitter regret is felt by the present officers of combined districts that they ever abandoned previous careers for such dependent though apparently tempting positions. Of course, much difference exists among authorities, but the point is, that where any are disposed to do nothing, they are privileged so to do.

Extreme South-West.—District consists of three urban and one rural; area, 73,804; population, 16,732. During the three years I have held office, I have received no advantage from information from Poor-law Medical Officers in respect of the existence of epidemic disease. This arises from the fact that such officers have no compensation for the required services. It seems to me that this statement removes the necessity of taking your points *seriatim*.

Midland.—Another writes : In answer to your second query, I think it will be sufficient to say that I experience this difficulty constantly. I give you the following instance. During the last six months of 1874, and early part of 1875, sixty-two cases of scarlatina occurred in fifteen cottages in a village of one of my rural districts, amongst a population of 258 persons, living in forty-eight houses. The disease was of a mild type, and only one death occurred, and that towards the end of the outbreak. This, of course, I got in my return of deaths; but I did not receive information of the disease before, and probably should not have heard of it if a death had not taken place.

3. I do not receive any information from the Poor-law Medical Officer or the clerks with respect to the new cases of sickness or of deaths among pauper patients; consequently I am not able to make the quarterly returns required by the order of November 11th, 1874. Mr. Lambert's circular of March 23rd, 1874, has done no good in my district. I am convinced the Poor-law Medical Officers will not give the information, because they are paid nothing for doing so, and I think it is very sensible of them.

Another writes : I cannot get direct information as to the existence of epidemic disease; what I have to rely on is the return of deaths from the registrar.

Another writes : "Some of the district medical officers in my union forward notice of cases of infectious disease to me, and others will not, or, at least, do not do so; none are paid extra for doing so; nor do I see that they could well ask for anything specially for doing so, as it ought to be one of their regular duties, as it is that of the clerks, to send copies of entries of new cases of pauper sickness. As a matter of fact, the number of notices which most of the district medical officers in my district send *per annum* is so small, that remuneration for them, based on any reasonable consideration, would only amount to a few shillings a year."

[I quote the writer, but I do not agree with him that the cases of the clerk and the district medical officer are at all the same. The first is generally paid a good salary, the latter are notoriously ill paid; it is no answer that they voluntarily take their appointments; many are compelled to take and retain these pecuniary worthless offices because they have to keep some one else out. If extra work is demanded, extra pay should be accorded.—J. R.]

1. In the midst of my district are two local board districts which did not join the combination; one pays £50 a year (a fair salary), and the appointment is sanctioned by the Local Government Board; the other pays £10 (a ridiculous salary), and is not sanctioned by the Local Government Board.

2 and 3. I have no difficulty whatever in obtaining reliable information of epidemic diseases from the medical men and also from Poor-law medical officers. I am on remarkably good terms with the profession in my district, and, of course, on that entirely depends the successful working.

4. The muddle is that the Local Government Board have given no intimation of any policy as regards the appointments. As the Act is only on its trial, I don't think that we can expect much. They certainly ought to initiate a policy, and carry it out to the best of their ability; and, until they do that, the combined appointments are practically valueless. I should not have retained mine had I not been exceedingly comfortable in it.

The last quarterly returns issued by the Local Government Board are so very difficult to make out, and so utterly valueless when made out, that it plainly shows the ignorance of the working of such appointments by the gentleman who drew them up. He cannot have been a medical man, and certainly can know nothing of Hospital practice.

In November of 1872, the Guardians of the Neath Union in Glamorganshire advertised for a medical officer of health. No salary was named, but the successful man was to devote all his time to the work, and he was to go through another election the following March. In March I was re-elected, without opposition, for twelve months only, at a salary of £300, and debarred from private practice. Matters went on comfortably for a year, and I was again re-appointed for twelve months. However, at this time a re-arrangement of the Union was being contemplated, resulting in the separation of five parishes, in March of 1875, to form another union. I should state that, previously to this, my district comprised an area of over 153,000 acres, with a population of 49,000 (estimated by myself). I could now gather, from certain rumours, but received no official intimation, that my tenure of office was not to be of long duration. In March of 1875, they were gracious enough to allow me to "hang on" for six months longer at the old salary. Then in the following September I was asked if I should like to continue for another six months, with a salary at the rate of £200 *per annum*, and in those six months to make sufficient head-way

in private practice to enable me to keep myself for the future. Not expecting such shabby treatment as this, I kept on for awhile until I could suit myself. In November I resigned. No substitute was appointed until March, when the Poor-law medical officers were elected officers of health for their relative districts, with salaries amounting altogether to less than £100.

In October, I consulted with Dr. Buchanan and Mr. Simon. The latter gave me a letter of introduction to Mr. Selater-Booth, with whom I had a long interview. He of course could promise nothing; and when I alluded to being dealt unfairly with by the Board, quietly stated that I had taken the appointment with my eyes open, and that, as a young man, I ought to consider myself very fortunate in having had such experience. From my experience with Sanitary Boards, it will require some very heavy pressure to make me take it up again, with the law in the state it now is.

1. My district is irregular, as it includes an entire union, *minus* one town, which chose to keep out. This causes much extra difficulty in apportioning statistics.

2. I have no information of infectious sickness.

3. My clerk complies with the letter of the Act by sending me the Poor-law medical officers' sheets at the end of each quarter, for the purpose of filling up the quarterly schedules required by the Local Government Board. Of course, for purposes of preventive medicine it is a mere farce. He would, doubtless, do otherwise if paid.

4. The muddle arises from the want of backing up the medical officer by the central authority. By doing honest work I jeopardise my appointment, and have done so. In such case, the Local Government Board should certainly stand by officers who, holding their appointment subject to the approval of the Crown, are really the Crown's officers.

A Poor-law Medical Officer writes as follows. About two years ago, this was formed into a combined sanitary district, the rural and borough uniting, the rural consisting of the union district as accepted by the Poor-law. A medical gentleman was appointed at £— *per annum*; this broke down within the year, owing to some disagreement between the borough officials, who were afraid they were getting nothing for their money. A borough officer was then appointed at £— which is still in being. The rural sanitary authority appointed two officers at £— each, for districts north and south. This has broken down, and we have only one for the whole rural district, who lives in the borough, whereas they each lived at the extreme limits of their districts when separated. The present officer gets £— *per annum*.

I was an applicant for the appointment when first formed, but was objected to because I was a Poor-law Officer in the district, but they nevertheless appointed a Poor-law Officer out of the district. The chairman said I should have obtained the appointment, but for this objection.

Yet my information, which is always asked for and obtained, so far as regards my district, is considered of the greatest importance. I virtually do all the inquiries, get the information, and communicate to the inspector and surgeon appointed, every case of fever; recommend various sanitary alterations and drainage improvements, report nuisances, and get the thanks of the Rural Sanitary Board every year, publicly and privately, for my exertions in behalf of sanitary matters, which the inspector and surgeon appointed see carried out and get paid for: I only get thanks.

To show the inefficiency of the present appointed officers, and their futility, I reported a case to the chairman of the Rural Sanitary Board, who resides in a populous village in the district. I said: "You have in your village two virulent cases of scarlet fever which will spread havoc amongst you; I leave you to find it out and give the information to your officers". Of course, he wrote to the officers, and they paddled the village for two days before they discovered them. He frankly admitted that I had the advantage over the officers appointed, as I had taken the necessary precautions, not only for isolation, but antiseptically, immediately on discovery.

I feel certain no case of fever could remain long in my district undiscovered, whereas the officers, being miles away, would never hear of it, unless through some agent such as myself. The Poor-law surgeon, practising among the class of fever-carriers, is the one, *par excellence*, to meet with fever in its haunts, and there and then to put a check upon it without circumlocution; and thence I argue that he who discovers the plague-spot, and inaugurates the remedy, should be paid for it. I constantly visit cases of what are called trifling ailments, and have detected cases of contagious fever, and kept the children from school, this recognition being sufficient to prevent the spread through the village. This is a constant source of infection in villages, the real focus whence a whole village may be stricken down.

OBSTETRIC MEMORANDA.

CASE OF OBSTRUCTIVE AMENORRHOEA.

ON May 7th of this year, I was called in to see L. A. B., aged 18, a girl, five feet nine inches or five feet ten inches in height, very pale and thin—in fact, a mere skeleton. I found her suffering from severe pain in the lower part of the belly, thighs, hips, and lower portion of the back. The pain was intense, which could be observed from the pinched state of the countenance. Pulse 140. Tongue dry, and covered with a brownish fur. Respiration hurried. On percussing the chest, I found it resonant. On examining the abdomen, I found, just below the umbilicus, a circumscribed tumour, which, I decided, was the fundus uteri. I then made a vaginal examination, and found the entrance completely blocked up with a tense muscular membrane, which was the hymen intact. The girl had never menstruated, though, since she was sixteen, she had had great pain in the loins, thighs, hips, and belly every three weeks; and, in consequence, had consulted several medical men, without obtaining any relief. She passed very little urine, and even what she did pass caused her very great pain; the bowels were quite confined. The patient continued in the same state until June 9th, when Dr. Whitwell and his son assisted me in cutting away a small portion of the hymen, and afterwards washing the vagina well out with a weak solution of carbolic acid. Before operating, we applied a belt and pad over the region of the uterus. The fluid that was drawn off was not of the consistence that would have been expected; the quantity was from a quart to three pints, and it had a brownish bloody appearance. After we had finished washing the vagina out, a small plug was put into the gap that had been made to prevent the parts from uniting. On June 10th, after I had withdrawn the plug, quite a pint of fluid came away, the same in character as that removed the previous day. The next time I removed the plug, there came away about an ounce of the same kind of fluid; from this time the discharge nearly ceased. On the day of the operation, I washed the vagina well out with a weak solution of carbolic three times; I did the same on the 10th and 11th; on the 12th, twice. On this day, an acute attack of bronchitis set in, and, in spite of all the remedies used, including expectorants and stimulating nourishment, she died on the evening of the 14th. From the time of the operation up to the morning of the 12th, the girl went on splendidly, improving hourly, and taking more nourishment in a day than she had done in a week previously. I have penned these few notes, so that, if any of my professional brethren have any suggestions to offer as to future operations, I shall be glad to bear them in mind; for I have, at the present time, a similar case, which I intend to operate upon shortly, and I hope with a better ultimate result than in my first.

JAMES OUSTON SMITH, M.R.C.S.Eng., Dogpole, Shrewsbury.

THE APPARENT EFFECT OF MATERNAL IMPRESSION.

TWO cases have recently come under my notice which seem to induce one to give more credence to the power and reality of maternal impression.

1. The other day I was called to see a delicate child 15 months old, and was forcibly struck by the fact that exactly the upper half of the right iris was of a rich brown colour, and the lower half an ordinary blue matching the blue of the left iris. The eyes were otherwise perfect. The mother told me that when she was pregnant ("more than half gone" is as near a time as she can fix), she discovered for the first time that a certain child whom she knew, and had often before seen, "had one eye brown, and the other blue". This astonished her, and made a great impression at the time. She says that her own child's eyes have not altered since birth, and have never been in any way affected.

2. On June 5th, I attended a person, at nearly the full time, of a healthy though not a large child. This child's right thumb, as is commonly the case, was webbed down to the second interdigital joint to a second and supernumerary thumb, which consisted of two phalanges, and sprang from the first interdigital joint. The mother tells me that during the last week in April, that is, *six weeks* before delivery, a neighbour showed her a child with a double thumb, and she thought it a most marvellous thing, was quite interested in the fact, and told several people about it.

Supposing the secondary thumb to have been due to, and to have commenced its formation at the time of, the impression received six weeks before delivery, it is very remarkable that it should have become in that short time perfect, completely formed, with the nail free, and only differing from the other thumb in size, projecting about one-eighth of an inch less, and being considerably less in circumference. It is possible that this complete development might be advanced by some as

an argument against the supposition that the maternal impression had anything to do with the abnormality, six weeks appearing too short a time for the production of such a thumb. But it seems reasonable to suppose that an impression being sufficiently powerful to start such a supernumerary growth should also have power to increase the rapidity of development, and perhaps always does, both results pointing equally to an increased local action. In connection with the above, it may be interesting to observe that I know of a case, on good authority, in which a man with a double thumb had several children, all of whom were born with a similar supernumerary member. The man then had the thumb amputated, but this made no difference to his offspring, who continued to be affected with the same abnormality.—W. J. HARAM WOOD.

CLINICAL MEMORANDA.

INFANTILE MORTALITY.

AMONGST the class of infectious and contagious diseases to which children are liable, and which in this country may assume an epidemic form, whooping-cough certainly occupies by no means an inferior position. We are well aware that many of the conditions which tend to spread these diseases are under our control; but that, in order to be effectual, must be conducted at the cost of some restraint of personal freedom. If reference be made to the death-returns of the Registrar-General for the past few years, it is evident that a considerable number of children have fallen victims to this distressing malady. Why, it may be asked, do we use our utmost endeavours to retard the spread of scarlet fever, small-pox, and typhus, by isolation and treatment of the sufferers in hospitals designed for that purpose, when the victims of whooping-cough are submitted to no such equivalent restraint? If it is of importance to retard the diffusion of self-propagating maladies by the above means, and there are few who doubt the necessity for so doing, it is equally important in the disease under consideration, the infecting distance of which is believed to be considerable, and the death-rate by no means insignificant.—SAMUEL LEE, M.R.C.S.,

Late Resident Medical Officer of the Leicester Infirmary and West London Hospital.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF SUNSTROKE.

IN the BRITISH MEDICAL JOURNAL, dated August 12th, 1876, there is a quotation from a recently published paper on Sunstroke by Sir Joseph Fayrer, K.C.S.I. The treatment recommended is that usually employed in such cases, but I am desirous of correcting an error which the author seems to have made in his reference to the cases which occurred during the assault on the White House Stockade in the last Burmese War. Having been in medical charge of a regiment employed on that service, I witnessed some of the cases of sunstroke that occurred, and among these one fatal case. If it were one of the two mentioned by Sir Joseph Fayrer, as I presume it was, it is a mistake to say that the patient was bled. An attempt was made to bleed him, but the loss of blood was prevented by the timely interference of a medical officer who had had considerable experience in such cases among European troops. The late Dr. Beatson, who served in the last Burmese War with Her Majesty's 51st Regiment, in a paper published some years ago, mentioned these same two cases as instances of the fatal results of blood-letting in sunstroke; but I have never seen any notice in print of another case, which occurred at the same time, in the person of an Artillery officer, who was struck down beside his guns, was bled on the spot, not only recovered, but was shortly able to resume his duties. In these cases it is often a difficult matter for the inexperienced medical officer to discriminate between those in which the lancet should be used, and those in which it should be avoided. The cloth coats and stocks, formerly worn by European troops at all seasons in India, greatly favoured the occurrence of cases in which men were suddenly struck down, under immediate exposure to the sun, and in these blood-letting was sometimes advisable, being followed by immediate and permanent relief. The adoption of a uniform more suited to the climate has rendered such cases less frequent. When the symptoms come on more insidiously, I have never seen a case benefited by blood-letting, while I have seen even the application of a few leeches to the temple followed by a sudden and dangerous fall of the pulse.

GEORGE MACKAY, M.D., L.R.C.P.,

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FORTY-FOURTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in SHEFFIELD, August 1st, 2nd, 3rd, and 4th, 1876.

PROCEEDINGS OF SECTIONS.

SUBJOINED are abstracts of most of the papers presented to the several Sections of the Association at the Annual Meeting. The papers themselves will, as opportunities occur, be published in full in the JOURNAL.

SECTION A.—MEDICINE.

Thursday, August 3rd.

The Chair was taken by Dr. CHADWICK. The day was devoted to the reading and discussion of papers on the Diseases of Trades.

Effects of Trades of Sheffield on the Workmen employed in them, with Special Reference to Inhaled Irritants. By JOHN CHARLES HALL, M.D.—Dr. Hall glanced at the results on the life of a workman who pursued his occupation in an atmosphere abounding in small particles of flint, iron, stone, coal, cotton, flax, flour (millers'), straw, etc., as seen in wet and dry grinders, cotton-carders, chaff-cutters, and stonemasons. The subject was one of the deepest possible interest, and they had to consider the effects produced by the constant inhalation of such irritating dust. Irritation appeared first of all to be set up in the larger bronchi, causing also thickening in the lung-tissue; the consequences being induration and consolidation. The time at his disposal of necessity compelled him to deal with grinders only. These might be divided into three classes: (a) dry grinders; (b) wet grinders; (c) mixed grinders. Forks, needles, brace-bits, and spindles, are ground entirely on the dry stone. In addition, table-knife bolsters, shanks, shaping razors, humping scissors, all require a dry stone. Some trades never use a dry stone. Saws, files, sickles, table-knife-blades, edge-tools, scythes, spring-knives, thirty years ago were ground dry. Then there must be added a numerous class of grinders who for the most part employ the wet stone; these men grind engineers' tools, engravers' steel-plates, hammers, fenders, fire-irons, stove-grates, busks for stays, candlestick-bottoms, nippers, garden-shears, hoops, etc. In dry grinding, and even in wet grinding, during what is called the racing of the stone—i. e., fitting it for use after being received from the quarry—the room or hall is filled with dust; and, unless a proper fan be kept at work to carry it off, the effects of this inhaled irritant are soon most marked. In addition, however, to the gritty and metallic particles inhaled, the constrained position in which the grinders labour, and the effects of working in a badly ventilated room for many hours day after day, must not be forgotten. Next, the symptoms of grinders' disease during life were described, all dry grinders suffering most—those, for example, employed in grinding forks, razors, scissors, needles (ground, for the most part, a few miles from Sheffield). Most, if not all, of these evils could be avoided by working in properly ventilated rooms, and using a fan, which, properly constructed, carries off the particles of metal and of stone from the hull. By the aid of very large diagrams, the sputa of wet and dry grinders were shown. These appearances depend on the length of time the man has been from his work. In the circles on the slide of the wet grinder were cells containing pigment, curled elastic fibre, pus-cells, and mucus-cells. Some were very transparent, showing a distinct nucleus; others contained pigment. On the slide with the expectoration of a dry grinder could be seen epithelium from the mouth and fauces, blood-corpuscles, pus- and mucus-cells, silicious particles, and metallic particles. Diagrams also illustrated the *post mortem* appearances of the lungs and bronchial glands, which exhibited the well-known and well-marked characteristics of chronic inflammation. The external surface of the lungs was covered with dark spots, varying in size from that of a shot-corn to that of a split kidney-bean. When cut into, similar bodies were seen in the lung, some small, some massed together to a considerable size. Dr. Hall had seen them as large as the egg of a hen. Under the microscope, he had often detected gritty particles; never steel. Sometimes, when cut, the lung is seen to be infiltrated with a tough solid exudation, the colour of gutta serena. This induration-matter is as tough as India-rubber, and as difficult to cut. But, although dry grinders suffer the most, table-blade and other wet grinders suffer also from the folly of rushing, which they often do, when heated with work, into the open air, with no covering but a shirt, and so exposing themselves to the cold. Dr. Hall had not time to enter into those recent experiments, however interesting, which show how tubercle may be arti-

cially created in animals, and which have thrown no little light on the nature and origin of tubercular disease. That phthisis may be produced in men constantly working in such an atmosphere as that of the Sheffield grinders' hulls, admits not of doubt. Microscopically and chemically, both grey and yellow tubercles have been detected in those who have been exposed to the inhalation of these fine mechanical particles, which produce irritation in the larger bronchi; then thickening in the tissue of the lungs—induration and consolidation. These consolidations have always a tendency to soften, break up, and form cavities, leaving no reasonable doubt as to the true nature of the disease. Dr. Hall had a case under his care of a table-blade grinder a few miles from Sheffield, who only died last week, but who was seen for the first time a few days before his death. Some years ago, this man exposed himself to cold; the result being, as is very frequently the case, a severe attack of acute pleuro-pneumonia of the right lung. A portion of it remained consolidated; and this, with probably an extensively adherent pleura, seriously interfered with the functions of the lung, rendering it unequal to the work of respiration, and so lowering the nutrition of the body. He recovered to some extent, and for a time almost lost his cough and spitting; but the breath still remained short; and, although he worked for more than two years after the first acute attack, he "was never his own man, soon tired, and lost flesh". Last winter, he had hæmoptysis; then "a bad cold, pain in his chest, difficulty of breathing". In a month, he recovered, and, as he said, resumed his work; but he worked in pain; his breath got shorter; he could hardly mount a hill; and, six weeks ago, he had to give up work, and came home from the wheel to his parents. When Dr. Hall saw him, he was rapidly sinking; there was a cavity in the upper lobe of the right, and softening had commenced in the left lung. The expectoration was muco-purulent. He had wasted to a shadow, and died exhausted. When the lung does not soften and break up, then contraction may diminish to a great degree the respiratory portion; and in such cases the dyspnoea is painful to see. It is to prevention, rather than treatment, we must look in these cases. As yet, there has not been time for the beneficial influences of recent legislation to be witnessed. At any rate, the day is not far distant when we no longer shall be called upon to attend, as a victim of the grinding-wheel, the boy who ought to have been working with his brain in the schoolroom, instead of with his hands in the hull. He hoped they would accept the kind invitation of the celebrated firm of Joseph Rogers and Sons, and see their grinding-wheel and the means by which, in dry grinding, hanging and racing stones, the dust is carried off and the workmen spared. Contrast this with some of the wheels which gave rise to those graphic sketches (*Illustrated London News*, 1865) illustrative of his (Dr. Hall's) paper read before the National Association for the Promotion of Social Science. He could remember the treatment of diseases of the lungs when he entered the profession more than thirty-five years ago, and thought that one of the greatest victories the profession had gained since then was the much extended duration of life in thoracic consumption; but he looked for a greater triumph still in the removal of the causes which produce those diseases they were now considering.

French Millstone-makers' Phthisis. By T. B. PEACOCK, M.D.—The author first had his attention directed to this subject in 1860; and, in a paper in the *British and Foreign Medico-Chirurgical Review* for that year, he drew attention to the very early age at which men brought up to the trade died from pulmonary disease, and showed that the injurious effects of the occupation were chiefly to be attributed to the inhalation of gritty particles. Since that time, several cases had come under his notice. In one, that of a man aged 45, under the care of Dr. Andrew at the Victoria Park Hospital, silicious matter was found in the lungs. Of this case, which was reported in full, the chief features were, induration of the lung and dilated bronchial tubes; a small cavity at the apex of the left lung; enlarged and indurated bronchial glands; adhesion of the pericardium; and silicious matter in the lungs. At the lower part of the upper lobe of the right lung was a dense spheroidal mass about two inches in diameter; in it were one or two calcareous masses, and lines of black pigment ran in all directions towards the pleura. Both lungs were also generally indurated, and the bronchial tubes were dilated; there was also foreign deposit in the pleura and pericardium; and the bronchial glands were enlarged, very hard, black; and adherent to the surrounding tissues. The indurated lung-tissue, after incineration, was found to yield 1.41 per cent. of ash, which contained 0.387 per cent. of silicic acid. Dr. Peacock was informed that the men apprenticed to the trade as boys rarely lived beyond the age of 30 or 40, and died with pulmonary symptoms, doubtless caused by the inhalation of the sharp silicious dust which they inhaled when leaning over the stones during their work. The author also made some remarks on the diseases of the lungs of Cornish miners, which he believed to depend principally on impurity of atmo-

sphere, the heat of the deep workings, and the strain on the heart and arteries in climbing the ladders. In the lead-mines of the northern counties, the dust inhaled was probably a more important agent in causing lung-disease than in Cornwall.

On the Injurious Effects produced on the Lungs by Flax-Dust. By C. D. PURDON, M.D. (Belfast).—Dr. Purdon communicated a paper on the injurious effects produced in the lungs from the inhalation of the flax-dust. He also exhibited photographs of the changes that take place in persons employed in the unhealthy branches, and described the physical symptoms of the chest-affection, with cases. He also showed a drawing of a section of a hackler's lung, showing the effect produced by the dust; also a photograph of the papular eruption from which the "doffers" suffer. He described the symptoms and progress of mill-fever, and the eczema that affects the hands of those that are employed in bleaching yarn. Specimens of the dust from different kinds of flax were exhibited, and its peculiar irritating qualities explained. The "Baker Respirator", as sometimes used, was shown, and its construction was explained.

On the Occurrence of Phthisis in Granite-Masons. By R. BEVERIDGE, M.D. (Aberdeen).—The granite-masons of Aberdeen were formerly a healthy class of men; but of late years phthisis had become much more prevalent among them. During the ten years 1839-1848 inclusive, the proportion of cases of phthisis to other diseases among the masons admitted into hospital was 1 in 77¼; while during the ten years 1859-1868, the ratio was as 1 to 26; and in the succeeding seven years the ratio has been maintained. After some further remarks on statistics, Dr. Beveridge considered the question why granite-working was a healthy occupation, as compared with other trades. The answer to this he found in the fact that, while the occupation was attended with the production of much gritty dust, the men escaped injury by working in long narrow sheds open on one side; so that the work was practically carried on in the open air, the cloud of dust being above and behind the workmen. The increased frequency of phthisis was attributed to the great migration of masons from Aberdeen in late years, their place being taken by young lads inferior in physical strength to their predecessors, and, therefore, unable to resist the exposure necessary to keep the work from being positively injurious.

The Presence and Tolerance of Foreign Matters in the Lung. By CHARLES ELAM, M.D. (London).—The author's object was to illustrate by cases the possibility of the reception by the lungs of foreign matter, of sensible and even considerable bulk, and its retention for undefined periods without the necessary and immediate production of urgent symptoms. Three cases were described. The first was that of a fork-grinder, aged 27, who came under Dr. Elam's observation in 1864, previously to which time he had had attacks of "grinder's asthma", or, as Dr. Elam preferred to call it, "obstructive bronchitis". The expectationation was of the character usually met with in peripneumonia notha. After death, iron was found in rather large quantities in the walls and contents of numerous small vomicae formed at the posterior part of both lungs. The subject of the second observation was a stone-cutter, aged 31; and that of the third was a coal-miner. They died, as did the first patient, with symptoms of phthisis; and in the lungs were found considerable quantities of sandy matter and coal-dust respectively.

Diseases Incident to the Manufacture of Pottery. By J. T. ARLIDGE, M.D. (Newcastle-under-Lyme).—In this communication, the author gave an outline of the processes of manufacture of pottery; pointing out that the persons employed were exposed to (1) the inhalation of dust consisting of mineral matters, silica and alumina; and (2) to the inhalation and absorption of lead. Lung-disease from the inhalation of mineral dust was very prevalent and very destructive of life at an early age. The pathological condition was a fibrosis of the lung-tissue. Lead-poisoning in every variety was also to be witnessed among the operatives.

Dr. Richardson's Respirator Masks.—Dr. FARQUHARSON made some remarks on the recent labours of Dr. Richardson in the region of industrial pathology, and referred to the very able and elaborate course of lectures recently delivered by him at the Society of Arts. In these, Dr. Richardson had developed many new and important points; and he would draw the attention of the Section more especially to his remarks on the various forms of "industrial phthisis": to a peculiar inflammatory disease of the bones produced in the inhalation of fine particles of pearl; to the inhalation of the fluff of red silk, simulating hæmoptysis; to disease of paper-makers, hair-dressers, and the emphysema resulting from flour. After a demonstration of the effect of several agencies in producing diseases, such as that of bichromate of potassa in producing a peculiar form of lupoid ulceration, of bisulphate of carbon, and more especially of paraffin in causing a peculiar follicular disease of the skin, the satisfactory point was brought out, that, thanks to improved sanitary

measures, many of the most fatal industrial diseases, more especially those resulting from soot and phosphorus, had now all but disappeared. Further preventive measures, however, were urgently needed. Dr. Farquharson then gave a demonstration of Dr. Richardson's recently invented feather mask or respirator, which, for lightness, cheapness, and efficiency, surpassed all others. He described, by means of a diagram kindly lent by Dr. Richardson, the ingenious experiment by which he had demonstrated the superiority of feathers over all other filtering agents. Specimens of these masks, lent by Messrs. Krohne and Sesemann, were passed round.

Dr. JOHN MOORE (Belfast) remarked on the wide field for investigation opened out by Dr. Purdon's remarks. He was of opinion that we must make careful comparative observations on age, weight, height, etc., before deciding whether progressive degeneration among these classes of operatives was really going on. He was convinced that the nights of flax-workers in cramped and ill-ventilated bedrooms were more injurious to them than their days, and that digestive disorders prevailed in them largely over those of the chest. He understood that cooking-depôts were now being successfully established in some industrial centres.—Dr. MILNER FOTHERGILL referred to his experience in the matter whilst attached to the Public Dispensary at Leeds, as well as at the Victoria Park Hospital. He had noted the production of cirrhosis of the lungs from the tearing of rags, from feather-dust, as well as much pulmonary irritation from flour and gritty particles; but, at the same time, he had observed much toleration of these agents, and would suggest that superfluous bronchial mucus was often of real service in intercepting foreign bodies which were otherwise apt to produce a low form of inflammation, with cell-proliferation and all its disastrous results, more especially in cachectic subjects.—Dr. W. T. GAIRDNER (Glasgow) made some remarks on collier's black-spit. The President had invited him some time ago to contribute his experience to the Section in the form of a paper; but he had been unable to obtain sufficient information on the subject, and this he ascribed to the fact that this special form of pathological lesion had so much diminished of later years, in consequence of improved sanitary precautions, as to be almost quite extinct. In former years, when he had greater opportunities of observation, he observed the progress of the disease through various stages: 1. When the carbon seemed to be superficially deposited in the air-passages, and where a few days' intermission from labour would suffice to remove the black tinge from the sputa; 2. Where the black-spit remained permanently; 3. The stage of active destruction of tissue or fibrous cirrhosis. Regarding the question of tolerance, he believed this comparative immunity from irritation to be due in many cases to what he had many years ago described as the "scavenger function" of the muscular tissue of the bronchial tubes.—Dr. WATERS (Chester) would point out the difference between cases of black-spit and those more profound pathological lesions which were well illustrated by the specimens sent by Dr. Peacock. In the former class, the lungs might be washed over and over again before the inky stain imparted to the water entirely subsided; and he referred to a very well marked case occurring in the person of a cook, who had never done any colliery work, but who had pursued her own special vocation for many years in a close kitchen.—Dr. CHADWICK referred to numerous cases of black-spit seen by him in Edinburgh, and confirmed the remarks of Dr. Waters as to the long-continued staining of fluids by the carbonaceous infiltration.—After some corroborative remarks by Dr. CLARK and some interesting pathological speculations by Dr. BERKART, Dr. ROBERTS drew the attention of the Section to the frequently overlooked causation of serious lung-disease from local irritation, varying widely according to size, density, shape, etc., but also according as they affect the young and feeble, who seem specially susceptible to these influences. He also referred to the pathological conditions produced—at first only bronchial irritation, bronchitis, asthmatic attacks, followed by bronchial dilatation, catarrhal pneumonia, fibroid changes, formation of tubercles, and destruction of lung-tissue, often after a considerable interval. The same thing might happen in cases of bronchial catarrh from other causes, and a purely local disease may terminate in what was called phthisis. Lastly, treatment, to be of any use, must be preventive, thorough, and satisfactory.

Friday, August 4th.

Syphilitic Epilepsy. By C. R. DRYSDALE, M.D. (London).—Epilepsy is not an uncommon symptom of the period of gummy products in syphilis. Indeed, in males after the age of perhaps thirty, syphilis is by far the most common cause of the appearance of epileptic seizures in persons who are apparently in good health. Such persons, some years after the contracting a hard sore, with roseola, may first of all have some other symptoms of cerebral syphilis, such as ptosis, paralysis of the third nerve, or optic neuritis; but, not unfrequently, the epileptic

fit is the very first symptom of the disease of the brain. Dr. Drysdale had seen a good number of cases of syphilitic epilepsy, and had at that time three cases under observation. In one, the patient, a sailor, fell from the mast in an epileptic fit; he was found to have large marks of syphilitic lepra on the back. In the second, the gentleman, aged 65, had had two attacks of epilepsy, the first with aphasia, the second with hemipasm, continuing for hours without complete loss of consciousness. In the third, occurring in a young married woman, with history of syphilitic children, there was also hemipasm, and sometimes attacks of *petit mal*. As to diagnosis, epilepsy which commenced in adult life was usually symptomatic, and might arise from syphilis, drunkenness, or, perhaps, from masturbation (Watson); but syphilis was, he thought, by far the most common *vera causa*. The epilepsy of syphilis had nothing peculiar about it; but, if not treated, some local paralysis might soon come on, or some enfeeblement of memory and intelligence. Such patients, if untreated, often became demented. Some said there was no cry in cases of syphilitic epilepsy; and one remark must be made, that such cases were liable to many attacks of *petit mal* and to hemipasm, much more frequently than were cases of essential epilepsy. There is often but slight loss of consciousness. When an adult has epilepsy for the first time, even when no clear history of syphilis can be made out, one special treatment should be tried; because it is often curative, and the superficial lesion in the encephalon may be made to disappear. If delay be admitted, cure may be quite hopeless.

On Sympathetic Headache. By W. H. DAY, M.D. (London).

The Presence of Bacteria not necessary to Infection. By JAMES ROSS, M.D. (Manchester).

The Varieties of Phthisis. By F. T. ROBERTS, M.D.

Hemiatrophia Facialis Progressiva (Unilateral Progressive Atrophy of the Face). By T. WHITESIDE HIME, B.A., M.B. (Sheffield).—The author observed that this name is preferable to most others adopted for the disease, because it does not, as many others do, imply a theory as to the nature of a disease, the pathology of which is still involved in obscurity. The disease is extremely rare, and does not seem to have been described before 1825. It is characterised by chronic wasting of one-half of the face. It usually commences in the soft tissue, but ultimately often attacks cartilage and bone. But it is by no means certain which part of the soft tissue is primarily attacked; though it is incorrect to assume, as is often done, that it is the muscles which alone suffer. The main points of dispute as to the exact nature of the disease are, firstly, whether it is of neurotic origin, as most commonly assumed, or not, and, if so, what portions of the nervous system are involved. The assumption that the atrophy is due to a diminished supply of blood to the affected parts, consecutive on some neurosis, seems highly improbable, and without analogy in pathology. It seems most probable, as suggested by recent experiments, such as those of Pflüger, Vulpian, Erb, etc., and other neurologists, that the failure of energy is in the cells of the part affected, that it is due to an abnormality in the ultimate nerve-fibrillæ which regulate the nutrition of these cells, that the muscular structures are not the only ones attacked, and may even escape entirely, and that all grosser manifestations of nerve-lesion, such as are known to be characteristic of lesion of the cervical sympathetic, trigeminus, and facial nerves, may be entirely absent. Brunner describes a case in which the phenomena observed after experimental irritation of the cervical sympathetic in animals were present, viz., suppression of tears and sweat, dilatation and diminished sensibility of the pupil, diminution of the temperature of the left side of the face, etc. But Dr. Hime described a case in which, with marked and progressive atrophy of the left side of the face, not one of these symptoms existed. Dr. Hime was inclined to regard this case as one which Lande would describe as primarily atrophy of fatty tissue; but, whereas Lande denied that the lesion was a neurosis, Dr. Hime considered that hitherto the evidence points strongly to a neurotic origin, assuming the existence of trophic nerves. Dr. Hime mentioned, among other cases under his care, one of unilateral sweating, in which the patient blushed only on one side of her face and neck, as showing that merely vaso-motor influences are insufficient to account for the unilateral atrophy, as in the last mentioned case. There was not the least difference in the nutrition of the two sides of the face, although there was a striking vaso-motor difference between them.

Enteritis as a Cause of Obstruction of the Bowels, with Cases. By MICHAEL T. SADLER, M.D. (Barnsley).—Dr. Sadler thought that many of the ordinary text-books did not give sufficient prominence to enteritis as a cause of obstruction of the bowels, and believed that many of the cases described as intussusception were really due to enteric inflammation, causing contraction of the muscular fibres, and thus diminishing the calibre of a portion of the intestine, which then became invaginated in a neighbouring segment. Even in cases where the obstruction seemed to be mechanical, from adhesions or strangulation,

might it not be that the bands of lymph and adhesions that were found were rather consequences of the inflammation which had caused the obstruction than themselves causes of the obstruction? Three illustrative cases were selected, in two of which the existence of inflammation was ascertained by *post mortem* examination.

A New Emetic Purge. By J. ASHBURTON THOMPSON, M.D. (London).

The Results of Modern Research in the Treatment of Phthisis. By I. BURNEY YEO, M.D. (London).—After some preliminary remarks, Dr. Yeo commented on the prevention of pulmonary consumption under the following heads: 1. The prevention of the transmission of the phthisical constitution from parents to offspring; 2. The prevention of the development of the disease when the predisposition exists; 3. The prevention of the unhealthy social conditions which are known to favour the production of phthisis. Having discussed these, he spoke of certain remedial measures which modern research has suggested, relating especially: 1. The use of the alkaline hypophosphites; 2. The uses of antiseptic inhalations of the sulpho-carbolates; 3. The treatment of phthisis by rest (local rest); 4. The removal to mountainous climates.

The Medical Administration of Alcohol. By NORMAN KERR, M.D. (London).—Dr. Kerr said that, though medical men were often unjustly blamed for the drunkenness that sometimes followed the prescription of alcoholic liquors as a medicine, there was lavishness enough to justify the issue of the last medical declaration, which set forth that "alcohol should be prescribed with as much care as any powerful drug", and to warrant him in asking for a reconsideration of the whole system of alcoholic medication. He then entered in detail into the safety of the non-alcoholic treatment of hæmorrhage, dwelling especially on *post partum* hæmorrhage, of which he had had over fifty cases, none of them fatal, and only one treated with even the minute dose of one teaspoonful of brandy in an emergency, when no other stimulant was at hand. He looked upon the giving of alcohol in all kinds of hæmorrhage, active as well as passive, as most dangerous treatment. He narrated his experience of rheumatic fever, of which he had had two hundred and eighty-three cases, with one death; of delirium tremens, of which he had had one hundred and sixty-four cases, with three deaths; and of pneumonia, with a mortality amongst the poorest classes of less than four per cent. In speaking of bronchitis, he was especially severe on the common prescription of brandy and milk. Ammonia and milk would be found quite as effectual, and less dangerous. Erysipelas, diphtheria, carbuncle, pyæmia, cholera, and fever were more safely overcome without alcohol than with it. Fever was a disease which was much less fatal when treated without alcohol, Dr. Gairdner and others finding the mortality lessened as the amount of alcohol was diminished. Shock and collapse were most safely combated with warm applications and aromatic stimulants, and he found the withholding of alcohol in the after-treatment of operations to be of great service. In chronic disease, the main requirements were rest and easily digestible food, against both of which alcohol, the disturber, seriously operated. Dr. Kerr narrated the case of a young lady, who became a drunkard through the medical prescription of gin and water for a painful, though temporary, ailment; and strongly appealed to the profession to avoid prescribing alcohol, unless in emergencies, to children, young females, and reformed drunkards. He did not ask for the exclusion of alcoholic liquids from the *Pharmacopœia*, or from medical practice; but he insisted that, unless in emergencies, these liquids should be prescribed only on strictly therapeutic grounds, and from a correct knowledge of their action on the special disease to be treated, as proved by careful series of experiments. He concluded by suggesting the three following rules of practice:—first, never to order alcohol, unless it was absolutely necessary; second, to order alcohol in a spirit of wine mixture, if that would answer; and, third, when fermented or spirituous liquor was required, to order it in precise doses, such as "teaspoonfuls", on the understanding that the medicine was not to be repeated unless the prescription was renewed.—Dr. C. R. DRYSDALE said that he was thoroughly aware of the extreme complexity of the question introduced to the meeting by Dr. Kerr. In this, as in other like therapeutical questions, fashion seemed to prevail. In his student days a believer in the value of alcohol in fevers, he was now becoming rather sceptical in regard to the therapeutic value of alcohol in that class of disease. Milk was a more important article of diet for a fever patient, and the medicinal use of alcohol was becoming day by day more restricted in European practice. He could scarcely regard alcohol as a food, although he had carefully weighed the arguments of Antic and his followers, because alcohol in the system reduced the temperature instead of raising it, and, moreover, it seemed to lessen force. Empirically he had found alcohol useful in dysmenorrhœa, colic, and spasms; and, of course, like all poisons, it had, because of its powerful effect on the economy, its uses in therapeutics. In his own practice, he was almost an anti-

alcoholist; and, in regard to diet, he himself was a total abstainer from alcohol. Moreover, he would even venture to advise all healthy medical men to be total abstainers on account of the example they would show to the world at large by their conduct.—Dr. LAW (Sheffield) said that the experience in regard to alcohol seemed contradictory. The late Dr. Mackintosh of Edinburgh treated his fever cases without alcohol, and bled freely; while at the Royal Infirmary alcohol was freely used, and bleeding discountenanced in exactly similar cases—one class having alcohol in the form of port-wine mixed equally with water, and in doses of one ounce of this mixture every two, three, or four hours; the other being bled, blistered, and generally treated antiphlogistically—equally good recoveries were made. In his own practice, he had noticed that patients suffering from similar diseases, and with like constitution, some using alcohol freely and some not, seemed to present no material difference in the progress of the disease.—Dr. ROSS (Manchester) said that the question as to whether alcohol was a food was one of definition. According to the definition of the late Dr. Anstie, anything was a food which was transformed in the body and gave out force. He proved that alcohol was so transformed; and hence, to his definition must be considered food. The question was, however, not one of much importance; as by another definition alcohol might be excluded from foods. Dr. Ross was not disposed to give up the use of alcohol in the treatment of children, because he had found that young and too rapidly growing children, especially of a tubercular diathesis, were much benefited by the carefully regulated administration of alcohol with their food.—Dr. BUCKNILL (Rugby) said that the fundamental question was, whether alcohol was a powerful agent on the constitution, for we could not deny the validity of the old medical proverb, “*Ubi virus, ibi virtus*”. In questions like these, we ought to lead, rather than be led by, public opinion. We should be cautious how we vacate our proper position in order to assist in the social attacks made on drunkenness.—Dr. CRICHTON BROWNE said that there were two distinct questions in connection with alcohol which ought to be kept altogether separate—1. As to its use as a food; 2. As to its use as a medicine. Both in health and disease, he believed alcohol might be shown to be useful. It was the final experience of Parkes that alcohol to the amount of an ounce—the equivalent to two or three glasses of wine—was a food.—Dr. G. B. CLARK (London) stated that, in adopting Anstie's definition of food, he thought that alcohol could not be regarded as such. Anstie's experiments had shown that the amount of alcohol excreted was less than that ingested, and hence had concluded that the missing alcohol must necessarily have been oxidised, and so have evolved force. Anstie's evidence is, however, hereby negative, as by the ingestion of alcohol the temperature of the body is lowered, and muscular force diminished.—Dr. FARQUHARSON remarked that, in the absence of more precise information than we yet had at our command, we could not afford to dispense with the use of alcohol in disease, but he hoped that the establishment of the Temperance Hospital in London would soon allow us to form an independent opinion. In considering this subject, it was of the utmost importance to distinguish between the use of alcohol in acute and in chronic disease, as it was only in the latter that any suspicion could attach to medical men of encouraging intemperate habits. He believed, however, that this accusation had been pressed too far. In conclusion, he would express his cordial concurrence with the views of Dr. Ross regarding the benefits from alcohol in some children's diseases.

The PRESIDENT concluded the debate by observing that the very contrary statements now made by the speakers on both sides, as the result of their experience, reminded him of some of the points he had intended to remark upon at the opening of the Section, but which he had put aside in deference to the abundant material furnished for the Section. With these remarkable differences of opinion, we should not be surprised at the prevalence of fashion in our practical procedures. Surely there must exist some obliquity of mental vision—some striking inability to look at two sides of evidence—some unwarrantable distrust of the observations of our brother-practitioners—to account for it. Are these the causes which had led us to discard remedies which for generations had been sheet-anchors of treatment, and of which our predecessors could not have entirely failed in estimating their value? Would it not be well for us sometimes to doubt our own conclusions, in the possibility that our neighbours had at least some ground for entertaining opinions different from our own? As regards this discussion, there are cases in which all alcoholic stimulants are improper; as there are others in which they are essential to the continuance of life, and thus to the restoration of health, I firmly and fully believe. As in most other questions, whether professional or not, the truth will occupy, if we are capable of giving a candid consideration to the facts, a medium position. I trust the present age is too logical to commit the same error in reference to stimulants as has been unfor-

tunately adopted in regard to mercury and bloodletting. Is not an attempt being now made to damage one of the greatest boons ever given to man—viz., vaccination—by the same species of false reasoning? He then said: And now, gentlemen, the time has arrived when I think I may congratulate you on the result of our three days' work, and upon the sustained interest in the discussions. I would appeal to the officers of the Section, to whose invaluable assistance I have been greatly indebted, and to those gentlemen who have attended the Section throughout, for their approval of this view. I would remind them of the remarkable report of Dr. Rutherford with which we opened, followed by the interesting papers on different diseases of the nervous system, etc., of the first day; then of the complete success of our design in giving the whole of Thursday to the discussion of the diseases due to irritant inhalations in this and other localities; and, lastly, I would refer to the papers and discussions of to-day, and particularly to this last, to which I have already adverted, by which the interest in our proceedings has been maintained even beyond the allotted limit. I cannot doubt that this plan of giving one day to the consideration of a special question, whether suggested by the locality of our annual visitation, or, failing this, one selected on more general grounds, is pregnant of good. Nor can I doubt that, if a little care be exercised by the officers of Sections in the arrangement of the subjects for discussion, a higher interest would be given to their proceedings, and the advancement of medical science thereby promoted.

[The following papers were taken as read.]

A Few Therapeutic Extracts from my own Practice. By J. BROWN, M.D.

Note on Hephæstic Hemiplegia. By W. FRANK-SMITH, M.D.—The name hephæstic hemiplegia was given to a form of hemiplegia which might occur in any one of the numerous trades in which the rapid and continuous one-handed use of a light or heavy hammer prevailed; e.g., among table-blade forgers, scissor-makers, file-strikers, etc. Cases illustrative of the disease were published in the BRITISH MEDICAL JOURNAL for October 21st, 1874. From a consideration of ten cases, Dr. Frank-Smith arrived at the following conclusions. 1. Hephæstic hemiplegia is not to be confounded with the limited muscular atrophy observed sometimes among weavers, smiths, etc., nor with writers' cramp, which occurs not only among writers, but among pianists, violinists, and tailors. It differed from these in the implication of the higher centres, as shown by the occurrence of aphasia, agraphia, ptosis, facial palsy, deafness, etc. 2. It is not to be attributed to the coincidence of ordinary hemiplegia with excess of muscular action in certain trades; in most of the cases neither the age nor the habits were such as to render simple hemiplegia likely; nor did syphilis or hereditary predisposition conduce to it. 3. It is a complete hemiplegia, occurring where a certain group of motor and other centres are brought into excessive action. The treatment in all ten cases consisted in rest, iron, and strychnia. The continuous and the interrupted currents did no good.

The Diagnosis of Auditory Vertigo. By W. R. GOWERS, M.D.—The form of vertigo which depends on an affection of the organ of hearing has very little apparent connection with its cause, and frequently has so obtrusive an association with the gastric functions that the real nature of these cases is constantly misconceived by the sufferers, and frequently by our own profession. There are several ways in which the stomach symptoms obscure the real nature of the affection. The paroxysms of vertigo commonly lead to vomiting. Sometimes they cause only an attack of dyspepsia, to which the giddiness is thought to be due. But, further, so intimate are the mutual action and reaction of the pneumogastric and equilibrium nerves and centres, that in the subjects of “auditory vertigo” a paroxysm, quite special in form, may be excited by a primary gastric disturbance, to which the whole trouble is naturally ascribed. The subjects of auditory vertigo, besides their acute paroxysms, are usually liable to slighter but more continuous sense of disturbed equilibrium, taking the form not of a definite movement, but merely of vague instability, and this is in constant relation to the gastric function. The slightest stomach disturbance at once excites the feeling and careful dietetic management is necessary to keep the patient free from it. Among the points to be specially attended to in diagnosing auditory from pure gastric vertigo are the following. The occurrence of intense paroxysms of vertigo, especially if repeated, is in favour of their labyrinthine origin. In many forms of vertigo, paroxysms occur, but in none so intense as in this form. The character of the sensation is of great significance. When purely gastric, it is usually indefinite; and labyrinthine vertigo is usually definite. There is a sense of movement in a certain direction usually uniform. Often there is actual movement. Lastly, evidence is usually to be obtained of affection of the auditory nerve or apparatus—unilateral, or greater on one side than on the other—tinnitus and deafness. The deafness may be to atmo-

spheric vibrations, or to those conducted through the skull. The latter, a well known symptom of labyrinthine disease, is of great service in the diagnosis of auditory vertigo. Two illustrative cases were narrated. In the first, characteristic auditory vertigo coexisted with some other affection of cranial nerves, interference with smell and taste, etc. The patient suffered also from chronic ulcer of the stomach, and the gastric disturbance excited paroxysms of vertigo. The patient always fell to the right and backwards, and the right ear alone presented perverted function. Although the special gastric association in this case was accidental, the confusion in diagnosis to which it gave rise was typical, and was only cleared by careful investigation of the form of the vertigo. In the second case, a gentleman, aged 35, suffered from slight dizziness, with dyspeptic symptoms, to which he ascribed it. On examination, however, there was clear evidence of labyrinthine mischief, and a history of paroxysms of vertigo most characteristic in form. In these, he fell to the right, the auditory affection being on the left side. He fell with such violence as to knock down a friend who was on his right side. In other attacks, objects seemed to move from the right, although he did not fall. One severe paroxysm was excited by a hearty meal after long fasting. The paper concluded with some remarks on the diagnosis of the severer paroxysms from slight apoplectic seizures and from attacks of *petit mal*.

SECTION B.—SURGERY.

Wednesday, August 2nd.

The Chair was taken by the President, JONATHAN HUTCHINSON, Esq., F.R.C.S., who delivered an address.

Cases Illustrating the Successful Treatment of Suffocative Goitre without Excision of the Gland. By LENNOX BROWNE, F.R.C.S. Ed.—The author stated that he was compelled to bring forward these cases, because, at the last annual meeting of the Association in Edinburgh, he had taken occasion, on the reading of Dr. Heron Watson's paper on Excision of the Thyroid Gland, to state that such a serious operation was unnecessary, because there were other remedial measures to the full as efficacious and in no way dangerous. There was constant danger from hæmorrhage in excision of the gland; and, of seven cases, Dr. Watson had lost one from this cause, even though he had observed the precaution of tying the thyroid arteries beforehand. The variety of bronchocele causing suffocative symptoms was almost always fibrous; and the particular measures to which Mr. Browne referred for cure of these cases were the injection of iodine into the substance of the gland, and the introduction of a seton so as to produce absorption. In the cases to be related, it would be seen that the seton was generally preferable. The relief of symptoms was most rapid and complete. The tumour, as a rule, entirely disappeared; there was never recurrence; there was not the slightest danger, the patient was not even confined to bed; and the after-marking was exceedingly slight. Six cases were related, all of which had been seen by or had been under the observation of other medical practitioners. In all, the result had been successful. The following were points of clinical interest in the cases. In all except the first, in which the cause of dyspnoea was direct pressure on the trachea, as well as on the left recurrent nerve, the tumour lying between the sternum and windpipe, suffocative symptoms and dysphagia were due to the embracing of the windpipe and gullet by extension of one or both lateral lobes. In none was the tumour of large size; the author stated that it was not the dimensions, but the unyielding nature and position of the swelling that caused trouble. In three cases, there were symptoms of considerable sympathetic derangement. In all, there was globus hystericus; and the author mentioned that he had hardly ever seen a patient with this symptom in whom an enlargement of the thyroid, limited it might be, could not be discovered. Treatment of some of the later cases had been completed by a course at the bromo-iodine spa of Woodhall, the great therapeutic merits of which seemed to be but partially recognised by the profession.—Mr. BELL (Bradford) asked the exact method of procedure, as he had a case which he thought suitable for the treatment advised by the author.—Mr. JONATHAN HUTCHINSON (London) considered the paper one of great value, and especially as to the experience of the author on the question of electrolysis, he having found benefit in only one, and that a very simple form of goitre, out of eight cases. He observed that, of the six cases related, three had been treated by iodine injections, and three by seton; of the three in which iodine was used, suppuration had taken place in two, unexpectedly, it would appear, to the author. He would like to know by which method Mr. Lennox Browne would now give preference.—Mr. FAVELL (Sheffield) asked if the author would consider the size of the tumour as of any importance as influencing the advisability of operating.

He had recently seen a very enormous goitre occurring in a young gentleman, causing such severe dyspnoea as to cause death.—Mr. BARBER (Sheffield) inquired if the author would operate in patients of advanced age. He observed that, in those cases which had been related, no patient had been above middle age.—Mr. LENNOX BROWNE, in reply, said that, in employing the syringe or seton, local anaesthesia might be used. It was quite true, as the President of the Section had suggested, that he attributed the benefit of the iodine to the suppuration which had been induced, and for that reason he gave preference to the seton in cases of fibrous goitre. It was important to insert and to bring out the needle as far back as possible. He would not regard the size of the tumour as a bar to operation, and had seen very considerable goitres reduced by the seton. He had advised the seton in the case quoted by Mr. Favell, and, viewing the result, one could not but regret that it had not been tried. He had operated on patients much older than those whose cases had been related. He never advised operation of any kind except for dyspnoea, but he had frequently performed it when asked to do so, on account of disfigurement.

Observations on the Treatment of Postnasal Catarrh in relation to Deafness. By LENNOX BROWNE, F.R.C.S. Edin.—Amongst the commonest forms of deafness is chronic non-suppurative inflammation of the middle ear, which may be subdivided into catarrhal, and hypertrophic or proliferous. The former is the most curable, and invariably originates with chronic postnasal catarrh, which extends along the Eustachian tube to the middle ear. The author of a recent work, the first specially devoted to diseases of the nose, does not refer to impairment of hearing as an almost invariable accompaniment of nasal catarrh, and yet few people have a simple head cold without some dulness of hearing, though it is often not recognised, because not looked for. Many remedies are in vogue, some useless, and others directed only to one of the conditions; thus, if it be sought to relieve the dryness, common in these cases, the other extreme is often arrived at, while, if it be attempted to check the amount of secretion by astringents, the dryness is but increased. "The practitioner's object must be to render the secretion more healthy in both quality and quantity. Steam-inhalations by mouth and nose are of the greatest service to this end. If there be painful inflammation, benzoin, with or without chloroform, is most efficient. If a stimulant be indicated, benzole, kreasote, and pine-oil, with aldehyde, are the best suited. The author drew attention to the absurdly unnecessary number of formulæ for stimulant inhalations, given in a special *Pharmacopœia* for throat-diseases, and asserted strongly that such needless enumeration could have no end but to embarrass the practitioner. The patient during inhaling should be instructed to practise the Valsalva method of inflation, and Politzer's inflation might also be concurrently employed. Frequent catheterisation of the Eustachian tube was unnecessary, and in the author's opinion positively harmful. The anterior nasal douche of Weber was most useful in some cases, but it was generally commenced too early in the case. It frequently caused pain, and sometimes increased or induced deafness, and in other cases failed to reach the seat of disease. The first of these objections might be obviated by regulating the quantity, specific gravity, temperature, and frequency of employment of the douche; but in some instances this method was decidedly harmful, and they were only cured by the postnasal douche, as largely employed by American physicians. The author considered carefully the evidence of Drs. Roosa and Elsberg for and against the use of the anterior nasal douche, and quoted cases in his own practice which had led him to concur with the former. The posterior instrument was described and exhibited.—Mr. BARBER (Sheffield) asked the experience of the author in the use of the bismuth snuff.—Mr. LENNOX BROWNE replied that he thought it most valuable in acute nasal catarrh, but not suited to the chronic cases. He was in the habit of modifying the snuff of Dr. Ferriar, by prescribing three parts each of starch and powdered acacia to two of bismuth, instead of six of powdered acacia alone, which he found too tenacious.

Antiseptic Surgery, as Practised in the Hull Infirmary. By KEL-BURNE KING, M.D., F.R.C.S. (Hull).—After alluding to the importance of a full belief in what may now be called the established facts of antiseptic surgery, he detailed several interesting cases, amongst which may be mentioned the following, as examples: *Case of Crushed Arm*, necessitating amputation of the surgical neck of the humerus. Discharged, with perfect cicatrix, twenty-two days after operation, only a serous discharge occurring from first to last.—*Case of Severe Compound Fracture of Left Humerus just below the Tuberosities*. No putrefactive suppuration during the entire treatment, simply serous discharge; the patient was discharged with an useful arm.—*Case of Amputation through lower third of Thigh for Malignant Disease of Fibula*. The patient was discharged after a residence in the hospital of twenty-five days, with a perfect cicatrix; only serous discharges occurred from first to last,

and the portions were only dressed eleven times.—*Case of Severe Compound Fracture of Right Ankle, with Fractured and Dislocated Astragalus, and great injury to soft parts, where, instead of performing Syme's operation, by means of antiseptic surgery the foot was saved.*—*Gelatinous Degeneration of Left Knee-joint.* After resisting ordinary treatment, it was cured by laying open the joint antiseptically. This latter case was exhibited, and now, six months after the operation, perfect flexion and extension existed, and the joint was, to all appearances, perfectly healthy.—*A Case of Chronic Synovitis of Right Knee-joint, after resisting ordinary measures, was rapidly cured by antiseptically evacuating the contained fluid (upwards of a pint) and in whose case the organisation of a blood clot was detailed.* This case was also exhibited. Having alluded to other cases, illustrating the value of antiseptic surgery, he concluded by mentioning that antiseptic surgery was carried out most enthusiastically at the Hull Infirmary, and that failures were now very rare occurrences.

Thursday, August 3rd.

Cases illustrating the Treatment of Chronic Abscess by Hyperdistension with Carbolic Water. By G. W. CALLENDER, F.R.S. (London).—The operation described consists of cutting into the abscess (if no sinus exist), the opening being made of sufficient size to admit a finger. The abscess having been emptied of pus as completely as possible, the cavity is distended by means of a syringe with a warmed solution of carbolic acid (1 in 30). The fluid is then allowed to escape; and an elastic drainage-tube is applied, and over it a piece of lint soaked in carbolic oil. The three cases related were: 1. Angular curvature of the spine with abscess; 2. Abscess in the lumbar region in a child; 3. Perinephritic abscess. So far as the cases went, they showed that abscesses connected with caries of bone can be emptied and reduced to non-suppurating sinuses without causing any constitutional disturbance.

Registration of Surgical Cases. By E. ATKINSON, M.R.C.S. (Leeds).—In this paper, Mr. Atkinson advocated the use of the form (in use at the Leeds Infirmary) arranged in columns under the following heads: Number; Ward: Diagnosis of Disease or Injury; Name, Age, Occupation, and Social Station; Postal Address; Brief Notes of Case—Short History, Chief Symptoms, Progress; Treatment, Operation, etc.; Drawing, Diagrams, Photography, Pulse-tracing, Temperature; Date of Admission; Date of Discharge; Termination; References; Subsequent History.

Note of a Case of Large Irreducible Femoral Hernia Cured by Operation. By JOHN CHIENE, F.R.S.E. (Edinburgh).—The hernial tumour measured six inches by four, and occupied the whole of Scarpa's triangle on the right side. It had been in existence for four years; laterally, it had increased very rapidly, and the woman was quite unable for her employment. All palliative treatment had failed to arrest its progress. On June 4th, 1876, Mr. Chiene cut down on the tumour, laid the sac open, and cut off the masses of omentum, thickened and condensed by inflammation. The sac was then cut away and stitched over the pedicle of the omentum. The wound healed in three weeks, without suppuration. The woman is now quite well. There is no impulse whatever on coughing. Catgut, prepared in chromic acid, was used to ligature the omentum. Fifteen ligatures were required. The sac was stitched with the same material. The operation was performed under antiseptic spray, and dressed antiseptically in strict accordance with Lister's method.

A New Operation for Closed Pupil. By E. ANDREW, M.D.

The Inflammations of the Middle Ear: a. Catarrhal; b. Purulent; c. Hypertrophic. By J. J. K. DUNCANSON, M.D.

On Treatment after the Operation of Strangulated Hernia. By D. DE BERDT HOVELL, F.R.C.S. Eng.—As all ingesta must properly pass on to the portion of bowel damaged by the stricture, and these be more or less injured in transit, it is evident that the rest essential to recovery is thereby more or less interfered with. Obviously the proper plan is to give nourishment by the rectum, which is quite equal to the occasion. Food thus given does not interfere with the recovery of the strictured portion, but it does help the action of the bowel below the strictured portion, which is an advantage. Opium should be given according to the requirements of the case, and is not always necessary. The importance of nutrient enemata in the treatment of disease, and conditions of weakness after illness, is perhaps not fully recognised.

The Antiseptic Treatment of Wounds without the so-called Antiseptic Dressings. By A. F. MCGILL, F.R.C.S. (Leeds).—The object of the paper was to show that it was possible to keep a wound perfectly antiseptic—that is to say, free from putrefaction—without any complicated dressings. By so managing wounds that the effused fluids are quickly removed, time is not given for putrefaction to occur; this process not being an instantaneous one, but taking a considerable time to super-

vene. If, then, good drainage be obtained, it is unnecessary to follow out Professor Lister's method in its numerous and complicated details.

On Hodgkin's Disease of the Glands. By GEORGE ELDER, M.B.

Treatment of Fractured Clavicle by Means of an Axillary Air-Pad. By ALFRED EDDOWES, M.B. (Shrewsbury).—The author described a case in which he had followed this plan of treatment with success, and exhibited the apparatus.

The Treatment of Prostatic Retention when complicated with Stricture. By ROBERT SPENCE, M.B. (Burntisland).—The author related a case in which, after passing through the stricture, he was unable to reach the bladder with any of the ordinary catheters, until he bent the stilette of a No. 4 catheter to the curve of a prostatic catheter.

The Prostatic Catheter of the Future. By JONATHAN HUTCHINSON, F.R.C.S.

Friday, August 4th.

On the Use of Lead-Lotion in the Treatment of Wounds. By JONATHAN HUTCHINSON, F.R.C.S.

The Use of Carbolic Catgut for Tying Arteries in their Continuity. By T. R. JESSOP, F.R.C.S. (Leeds).—The paper was illustrated by cases in which the subclavian, brachial, external iliac, and femoral arteries had been tied.

On the Principles which should Guide us in Selecting an Operation in Cases of Senile Cataract. By C. B. TAYLOR, M.D. (Nottingham).—In selecting an operation in a given case of senile cataract, we must consider, first, which operation will secure the least number of lost eyes; and, second, how shall we at the same time insure the highest acuity of vision and the most perfect cosmetic result. The first consideration is undoubtedly paramount, but it is nevertheless impossible to ignore the second. The greatest average of success in complicated or difficult cases may be obtained by providing against disaster by the excision of a portion of iris, either as a preliminary or at the time of the operation; and in certain cases the cosmetic defect of a mutilated pupil may be avoided by making the incision upwards and limiting the iridectomy to the periphery of that membrane, leaving the pupil untouched and free in the anterior chamber, an operation which the author first introduced four years ago, when the Ophthalmological Congress was held in London; but by far the most beautiful and perfect results in favourable and average cases are secured by a form of incision which the author first practised in 1865, and illustrated by an engraving published in the *Edinburgh Medical Journal* in 1868. This operation is really a small flap, the base of which, instead of corresponding, as in Daviel's time-honoured operation, to the horizontal diameter of the cornea, occupies a position about midway between that line and the corneo-sclerotic junction, while its free edge lies in the vascular limbus corneæ; at first, this small flap was made upwards, but latterly, on account of the greater facility of the execution, the lower section has been adopted; any tendency to prolapse of the iris may be combated by the instillation of a solution of esserine immediately before commencing the operation. Iridectomy is undoubtedly a valuable resource, but it has its disadvantages, and is not necessary in a favourable or average case of extraction; if, however, the patient be suffering from marked senile marasmus, or, what is worse, from premature decay, if the cornea be thin, of small diameter, with thin glistening silky skin, or if the iris be much bruised during the operation, it is well to excise a portion of iris. Some patients who had undergone extraction and recovered with central and movable pupils were introduced; and the author mentioned that the sight was much more perfect in these cases than in those persons in whom it had been necessary to excise a portion of the iris; as a rule, but little after-treatment was necessary, and in one case the patient had only been confined for forty-eight hours, and went to church with eye uncovered in a bright sun the day week of the operation.

The Superiority of Ether as an Anæsthetic over Chloroform. By BERNARD WALKER, M.R.C.S. Eng. (Masbro').—After alluding to the introduction of ether as an anæsthetic, and expressing his surprise at the way in which it had been disregarded in practice, Mr. Walker acknowledged that chloroform had proved itself almost perfectly safe in the hands of skilled administrators, but it was forgotten that some anæsthetic has to be used daily by those who are not skilled in their administration. He then went to state it was the surgeon's bounden duty to use the anæsthetic which proved itself least harmful to the patient. By referring to communications made to the various papers, he found it almost universally allowed that ether was safer than chloroform, and that it promised to receive more attention through the country. How was it it had not received this greater attention? He believed it was in great measure due to the uncertainty shrouding its administration and a general belief that some complicated apparatus was necessary for its proper administration. Such, he said, were his feelings when he first saw it used in the early part of the year at the

Rotherham Hospital for a tedious case of excision of the head of the humerus. But, instead of the cumbersome machinery, he saw a simple cone of *spongia pilulosa* impregnated with ether, and a complete anæsthesia was reached at the end of six minutes, and maintained until the end of the operation. Since then, it has been used for all operations, including some very severe and prolonged ones, with complete success. He then went on to state that the only danger he could conceive from ether was paralysis of the muscles of respiration; all that was then needed was to remove the ether, or at most to make a few movements of artificial respiration, and the danger at once disappeared. True, that vomiting did sometimes occur, but how easy it was to rouse the patient to eject the vomit from his mouth and prevent all chance of choking. Hardly a week passed by but what we heard of "another death from chloroform". He had been able to meet with the account of only one death from ether, and that not, indeed, from pure ethylic ether, of specific gravity .720, but from mixed petroleum-ether, of specific gravity .640, which was never meant for inhalation. He maintained that in the danger from ether there was always ample warning to avert that danger, whilst with chloroform sometimes the first sign of danger was the death of the patient. These remarks he had simply made, he said, to again bring before the profession the fact that the administration of ether was as easy, almost as quick, and quite as effective as chloroform, with the additional advantage of being almost perfectly safe.

SECTION C.—OBSTETRIC MEDICINE.

Wednesday, August 2nd.

The President, Dr. LOMBE ATTHILL, took the Chair, and delivered an address, which was published at page 204 of the JOURNAL for August 12th.

Epithelioma of the Cervix Uteri. By J. MARION SIMS, M.D.—Referring to the discussion on cancer at the Pathological Society of London, Dr. Sims confessed that, as regarded epithelioma, he ranged himself among the localists. Of late years, he had been led by his observations to operate freely on cases of epithelioma of the uterus. Amputation of the cervix by the *éraseur* did not remove all the diseased parts. Therefore, he now operated by removing all the tissues up to the internal os, cutting out all diseased parts. Cases were mentioned in illustration of the method of operating and its results.—Dr. HENRY BENNET had formerly operated frequently in such cases, but subsequently had desisted. Some years ago, while house-surgeon to Jobert de Lamballe, he had ample opportunity for observing the action of the actual cautery, and he had used it in these cases himself. Afterwards, he applied the acid nitrate of mercury. This practice had given him the same kind of success as had attended the practice of Dr. Marion Sims. The actual cautery might be boldly thrust into the tissues.—Dr. KIDD (Dublin) had formerly used the *éraseur*, but lately had pared out the tissues with scissors and Simon's scoop. Dr. Sims's plan was, he thought, preferable. He also used the actual cautery after paring the tissues, and thus applied perchloride of iron.—Dr. AVELING advocated following up the tissues to the sound parts.—Mr. ROSS JORDAN (Birmingham) advocated the use of chromic acid.—Dr. STOKER (Boston, U.S.), referring to the disease implicating the cavity of the uterus, thought that the diseased parts should be removed, dilatation by means of sponge-tents having previously been accomplished. He gave illustrations of the treatment.—Dr. HIME (Sheffield) had not had such good results as the previous speakers. Probably the treatment would be more efficacious if resorted to in the earlier stages.—Dr. WILTSHIRE thought the principle so ably advocated and illustrated by Dr. Marion Sims was admirable. The frequency and gravity of such cases rendered the subject important. He stated that many of these patients died ultimately of uræmia, owing to implication of the ureters in the extension of the disease. He related cases he had lately seen in consultation in illustration of this mode of death. The plan was valuable in nearly all cases, but was probably most likely to show long continued benefit when the lumbar glands remained free from implications in the disease. Dr. Sims had furnished us with another weapon for treating epithelioma.—Dr. MARION SIMS preferred chloride of zinc to other caustics. As regarded Dr. Wiltshire's question about the mode of death, one patient died from what was commonly called apoplexy, but now that meant nothing. The patient had hemiplegia. The patient who died from morphia died from it indirectly, and not from morphia poisoning.

On the Influence of Posture in the Treatment of Uterine Disorders. By ARTHUR W. EDIS, M.D.—The author desired to call attention to the advantages to be derived from the genu-pectoral, knee-shoulder, or knee-breast position (not knee-elbow, as sometimes spoken of) in the treatment of uterine displacements and other complications. After describing the method, he further indicated how pneumatic or air-pressure could thus

be brought into play, and proved of essential service in cases of retroversion or retroflexion of the uterus, more especially during the early months of utero-gestation, in averting miscarriages, facilitating the rising of the uterus from the pelvis, and anticipating the liability to impaction. In cases of retroversion and retroflexion, complicated with metritis, frequent resort to the knee-position enables a patient to tolerate a Hodge's pessary, where otherwise it could not be borne. In sterility due to retroversion or retroflexion, conception had followed a single coitus in the knee-posture. In retroversion of the gravid uterus about the fourth month, with retention of urine, replacement could most readily, and with the least risk, be effected by adopting the knee-posture and calling to our aid traumatic or air-pressure; so also in fibroid tumours of the uterus impacted in the pelvis. In prolapse of the ovary, the knee-position also proved of much service.—Dr. SAVAGE (Birmingham) had used this method of treatment with advantage. The difficulty he had found was that the patient could not bear the posture for long on account of the distress felt in the head.—Dr. THORBURN (Manchester) thought Dr. Marion Sims's writings had led to this practice, and should be acknowledged.—Mr. ROSS JORDAN (Birmingham) related a case of retroversion of the gravid uterus which he had reduced in the genu-pectoral position.—Dr. MARION SIMS said that he had discovered the principle in 1845, and many important points had grown out of it, as the speculum known by his name, the semi-lateral position, and other points.—Dr. AVELING acknowledged his indebtedness to Dr. Marion Sims; and, in reference to this subject, mentioned the names of Dr. Banning of New York, and Dr. Protheroe Smith.—Dr. HIME (Sheffield) thought the matter depended entirely on mechanical principles, and that had hardly sufficiently been recognised. Dr. Tilt had alluded to the subject, and so had Hegar and Kaltenbach, whose recently published work contained a full account of the matter.

Hysteria. By T. W. HIME, M.D. (Sheffield).—The author said that there are not a few persons, both members of the medical profession and others, who regard all who suffer from the phenomena termed hysteria as being more or less impostors who could, if they would, prevent entirely or restrain the multifarious manifestations of morbid action, psychic as well as somatic. Such a mode of regarding the question betrays ignorance of the nature of the hysterical condition, the defective power of the will as compared with the exuberant activity of the emotions, sensory and reflex systems being one, if not the capital, fact in the disease. The very want of exercise of will, which is attributed to them as a fault, is really a major phenomenon of the disease. It is not that they *will* not, but that they cannot will; and this is their misfortune, not their fault. The hysterical patient exhibits the strongest proofs of a deficiency in activity in those nervous centres, a free inter-communication between which is essential to a *willful* action. Another point on which Dr. Hime laid stress was the groundlessness of the widely spread opinion that erotism lies at the bottom of most cases of hysteria, and that marriage is the only remedial means wished for or required by the patients. In proof of this, Dr. Hime referred to hysteria in married women, with large families, and to the fact that hysteria may not only exist in the young girl before a trace of sexual feeling has been aroused and in elderly women between sixty and eighty, but may be found in men. Further, the majority of cases of hysteria offer not the least disturbance in the sphere of the genital organs; and, in support of his own experience in the Sheffield Hospital for Women, he quoted, among others, Anman, who found, among 1,040 patients of the poorer and richer classes, only 30 per cent. suffering from abnormalities of the genital organs. Further, of female patients in general suffering from diseases of the genital organs, a large proportion do not suffer from hysteria; and, in the more serious cases of disease, e.g., carcinoma, etc., hysteria is an exception. He explained hysteria as a neurosis, but not of any limited area; being rather the result of a peculiar form of nervous constitution, which, under favourable conditions, would explode in hysterical manifestations. Anæmia, chlorosis, uterine and ovarian disease, and other commonly assumed causes, are really but the shock producing the explosion in the already prepared hysterical body. Such diseases may exist to any extent without a trace of hysteria, and most commonly do. As in the case of all neuroses, heredity plays a most important part in forming a constitution suitable for developing the disease, and not actually in transferring the disease; and the hysterical mother, through the fatal influence of her own example, is doubly liable to have hysterical children. For imitation is a fruitful source of hysteria, and not only the actual outbreaks in a mother are thus liable to affect the child, but her personal influence over the general management of her children is likely to produce the same unfortunate effect. The ordinary mode of education of girls was regarded by Dr. Hime as conducive to the same end, being unhealthy and artificial, and especially when combined with the utterly objectless line of the vast majority of women of the upper classes. Superficial and use-

less as the education usually is, it is but too generally, if any object at all be kept in view, guided by a matrimonial instinct; not, indeed, so as to make healthy and useful wives and mothers, but to make the pupils "attractive" (to use the conventional term) to the male sex. Undoubtedly hysteria can be acquired, as well as inherited, by suitable means, and unfortunately its development is much easier than its suppression, which requires moral as well as physical remedies. Mr. DE BERDT HOVELL thought the subject was one which might be discussed either in the Psychological or the Medical Section, but it had nothing to do with the uterus. Hysteria, so-called, often occurred in people who had been disappointed in life in various ways. The condition was one of depressed condition of the system. Emotional susceptibility was a better name than hysteria. Patients in that condition were very susceptible to irritation, whether physical or mental. The symptoms should be looked upon as they were, and not as preconceived.—Mr. ROSS JORDAN (Birmingham) thought the malady called hysteria was connected with the sexual system, though not necessarily with the uterus. When hysteria was met with in men, it was always connected with the sexual functions.—Dr. HIME briefly replied.

On the Mechanism of Extraction by the Long Curved Forceps. By A. L. GALABIN, M.D.

On the Treatment of Ruptured Perineum. By G. G. BANTOCK, M.D.

Thursday, August 3rd.

Demonstration of a Fresh Specimen of Epithelioma.—Dr. MARION SIMS exhibited a recent specimen of epithelioma of the uterus, and narrated details of the case and operation performed for the removal of the diseased tissues.—Dr. WILTSHIRE thought the demonstration of much value, as showing to what extent the tissues should be removed. In skilled hands, no doubt there was no danger of wounding the peritoneum; but still it was clear that the operator might tread on dangerous ground in bad cases.—Dr. HENRY BENNET suggested that the specimens should be microscopically examined.—Dr. KIDD saw the operation, and thought that with care the peritoneum should be avoided.—Dr. MARION SIMS had never injured the peritoneum; but he thought that the operation should never be undertaken by anyone not quite competent to perform it.

The Treatment of Women after Labour. By A. E. AUST-LAWRENCE, M.D. (Bristol).—The author discussed the following subjects: the diet of puerperal women; the necessity or otherwise for aperients; the management of the uterus, lochia, breasts, and the secretion of milk. The author entirely disallowed any routine treatment, and insisted on each case being treated on its own merits. In reference to diet, he considered we should feed our patients according to their physiological necessities, and not according to their inclinations, as hearty and robust women did not do well, as a rule, unless fed carefully on what one might call a milk-diet for the first three or four days. Cases were mentioned, where great trouble and anxiety had been caused, where this precaution had been neglected. On the other hand, women of the opposite type required frequently good nourishing diet from the first. In reference to aperients, the author condemned the third-day purge, because it led men to forget that an aperient is often necessary before, especially in the case of robust women who have eaten well up to the day of confinement; these cases require an aperient often as early as forty-eight or sometimes twenty-four hours after confinement. The favourite formula of the author is: R Calomel., pulv. rhei, aa gr. ij; extract. belladonnae, extract. opii, aa gr. $\frac{1}{4}$. This for one pill, to be repeated every six or eight hours until the bowels act, which they generally do after two or three pills have been taken, without any pain. Women of the more delicate type rarely require an aperient before the fourth or fifth day, and then a small dose of rhubarb powder with an enema in the morning, is generally the best way of managing these cases. The author stated that he had frequently found a great objection to castor-oil expressed by his patients; and that, when it was ordered, they did not take the dose prescribed, but enough to irritate the bowels, and not to cause a proper action. This led him to prescribe the pills instead. In the management of the uterus, the author advocated the use of ergot for the first week or two, if the uterus seemed larger than it ought to be, as it very much assisted involution and the expulsion of clots, etc. The lateral position in bed, and passing the urine at short intervals, were insisted on as a preventive to uterine displacement. When this condition occurred, the early use of a pessary was advocated. Cases were mentioned showing the value of this treatment. In reference to the lochia, the author did not advise that nurses should be allowed to use vaginal injections unless supervised by the medical man, but that the external parts should be well cleansed night and morning with Condy's fluid and water. The medical man should avoid as much as possible bringing his hands into

contact with the lochia. The paper concluded with a few remarks on the management of the breasts, and when the patient should be allowed to get up.

Puerperal Convulsions treated successfully with Hypodermic Injection of Ergotine. By T. STAINTHORPE, M.D. (Hexham).—Bleeding, purgative injections, counter-irritants, and chloroform-inhalations had been previously administered, without any apparent effect in producing uterine pains. Delivery was ultimately effected by means of the forceps. The patient (a primipara) did well. The child was born alive. Both mother and child were ultimately well and healthy.—Dr. ATTHILL (Dublin) asked whether Dr. Stainthorpe thought that the ergotine had any effect upon the convulsions, or only upon the labour.—Dr. THORBURN (Manchester) made some remarks to the same effect. He had given it, but in much larger doses; in five-grain doses, with good effect.—Dr. STAINTHORPE replied that he used the ergotine to assist the uterine contractions. It had no effect upon the convulsions.—Dr. BAKER asked whether the President would consider venesection in puerperal convulsions justifiable.—Dr. ATTHILL replied that there were cases where it would be so; as in a strong plethoric woman where there was an apoplectic condition. At the same time, he had not for years found it necessary to do so.

Incisions of the Cervix Uteri in Uterine Haemorrhage. By T. SAVAGE, M.D. (Birmingham).—Dr. Savage advocated the operation in haemorrhage from the uterus, arising, as a rule, from the presence of fibrous tumour; and related several cases in illustration.—Mr. ROSS JORDAN had found great benefit from the operation recommended by Dr. Savage; but unfortunately the good did not last long. The operation assisted the removal of the tumour.—Dr. ATTHILL had brought about relief of pain and haemorrhage by applying the actual cautery to fibroids. He thought that some of the benefit following cutting the cervix was due to its relieving uterine distension.

Faundice during Pregnancy, and its Effects upon Mother and Child. By E. H. MONKS, L.R.C.P. (Wigan).—Case I. Mrs. W., of a strong constitution, had had four previous confinements. This time, when eight months advanced in pregnancy, she suffered from jaundice. She was delivered of a dead child prematurely; and, in a few hours after delivery, the patient died.—Case II. Mrs. F. suffered in a similar manner to Case I. The treatment consisted of the usual remedies prescribed in jaundice. Premature delivery took place; the child was dead. After delivery, the patient lost consciousness, and died in six hours.—Case III. Mrs. A. was admitted into the Infirmary at Wigan, suffering from jaundice, with the usual symptoms, on April 13th. On examination, the liver was found to be greatly enlarged. She had severe pain in the right side, extending to the back. She was advanced six or seven months in pregnancy. For fourteen days, she grew worse. The patient was certain on the 27th that the child was dead. On the 29th, she appeared much better. On the 30th, Mr. Monks was summoned by the house-surgeon, who thought she was dying. On his arrival, she had rallied, but the pulse was rapid, and could not be counted. On May 1st, she appeared as well as she was on April 27th. On May 3rd, Mr. Monks tried to induce premature labour. On the 6th, she was delivered of a dead male child, at about seven months. Decomposition was just commencing. The patient was very faint; in about half an hour, she revived; and was delivered about eleven o'clock. She died at half-past two.—Dr. STAINTHORPE had seen a similar case, which was fatal.

Friday, August 4th.

Hysterical (?) Paralysis in a Girl, aged 8, caused by a Thunder-storm. By MARTIN G. B. OXLEY, L.K.Q.C.P. (Liverpool).—A. O., aged 8, was admitted into the Liverpool Children's Infirmary, February 4th. The mother stated that, in October 1875, while returning from school, to which she had gone in the morning quite well, she was caught in a violent thunderstorm; she ran home, seemed very much frightened, and fell down in a state of insensibility, in which she remained two hours. From this time till her admission into the Infirmary, she lay almost motionless, and was incapable of feeding or assisting herself. She spoke occasionally, but never willingly. Previously to this attack, she had been an intelligent, healthy child, and, with the exception of a slight attack of scarlet fever sixteen months ago, had never had any illness. On admission, she was emaciated; the muscles were much wasted; the expression of the countenance was vacant; the thighs were flexed on the abdomen, and the legs upon the thighs, giving somewhat the appearance of double hip-joint disease. With a slight amount of force, unattended by pain, the legs could be straightened, but soon re-assumed the flexed position; pinching or pricking, unless excessive, produced no signs of suffering; on tickling the soles of the feet, there was not the slightest reflex movement. The interrupted current of a two-celled Stöhrer's battery was applied to the legs without producing

contraction of the muscles, or any appearance of pain. There was also considerable loss of power in the arms. She was very deaf, and seemed to have lost all mental power, remaining for days without noticing anything, and only taking food when forced. If propped up in bed, she would cry till put down again, and never moved her position. The temperature and pulse were normal; the heart and lungs healthy. She was ordered cod-liver oil, and afterwards nitric acid and bark, with the application of the interrupted current to the muscles of the arms and legs. There was no improvement for about a month, when movement was noticed in one leg on tickling the sole. About this time, a new nurse took charge of the wards, who used more firmness, and soon made the child attempt to feed herself; and by the middle of April she could sit up in bed and use her arms. She now began to object to the use of the battery; and the nurse, taking her out of bed, made her feel the ground with her feet, and walk with assistance. From this time, she improved rapidly, both mentally and bodily. By threatening the use of the battery, she made attempts to stand alone; and, finding she could do so, seemed pleased, and persevered. By the end of April, she could walk about the wards, and, if a stranger entered, at once showed off her walking powers. She also began to talk and make friends with the other children, and perform all her functions naturally. She was sent home on May 12th, comparatively well. The beginning of July she came to show herself at the hospital; she had completely recovered the use of her limbs and her hearing, looked in perfect health, and seemed an intelligent, well-conducted child.—Dr. WILTSHIRE remarked that the true pathology of such cases was, he believed, spasmodic contraction of the vessels of the nervous centres; and he illustrated this by a case of facial paralysis which suddenly occurred in a child five years of age from fright. He gave further illustrations of such conditions.—Mr. DE BERDT HOVELL believed there was contraction of the vessels in these cases. The case was another example of the impropriety of the term hysterical as applied to such cases.—Dr. AUST LAWRENCE corroborated Dr. Wiltshire's remarks.—Dr. OXLEY thought the term hysterical useful as conveying to others an idea of the case.

Epithelioma.—Dr. ROSS (Manchester) read a report on the specimen of epithelioma exhibited on the previous day by Dr. Marion Sims.

Child-bearing, and its Effects on certain Forms of Ear-Disease. By F. M. PIERCE, M.D. (Manchester).—Dr. Pierce drew attention to the occurrence amongst a certain class of patients of marked increase in deafness and in the gravity of the symptoms of ear-disease, due to pregnancy, parturition, etc. The form of aural mischief most aggravated by these processes was chronic non-suppurative inflammation of the tympanic cavities. After each confinement, the patients were much worse, the hearing diminished, and the tinnitus aurium was more marked. The deterioration was very persistent, and extremely obstinate; and ultimately, after repeated confinements, the hearing was almost entirely abolished. Young, strong, and apparently healthy females were the chief sufferers; often they had never had any ailment in their lives. The aural deterioration began with pregnancy, and increased onwards to parturition, after which the effect remained: a result by no means comparable with the temporary aggravation seen during other constitutional affections, fevers, etc. Other forms of ear-disease were not affected in the same permanent manner as chronic non-suppurative inflammation of the tympanic cavities. No history of any syphilitic taint could be detected in these cases. Whether the effect on the aural condition produced by child-bearing was only part of a general diminution of nerve-power, and in no way due to the special condition of pregnancy, etc., apart from its constitutional deterioration, was matter for further observation, though the facts were in favour of its being caused by the state peculiar to pregnancy. Early attention to treatment was most important to these patients.—Dr. EVANS asked the nature of such disease, and its treatment.—Mr. LENNOX BROWNE said these cases were common. The condition was not catarrhal, but due to thickening of the mucous membrane. Occasionally, he thought, it was neural in character. He recommended Pollitzer's bag in these cases.

On Atresia Uteri and Painful Cicatrices of the Cervix from Caustics. By J. WALLACE, M.D. (Liverpool).—In this communication, attention was drawn to the greater frequency with which the speculum vaginae was now used, not only by specialists, but by general practitioners, than even twenty or thirty years ago; and it was pointed out that there was much reason to fear that, in the hands of many, its use was now degenerating into routine which had injurious consequences, such as the production of painful cicatrices embracing part or even the whole of the vaginal part of the cervix uteri, and, in extreme cases, complete atresia uteri, the os tincæ being closed. Dr. Wallace then related several cases which had recently occurred in his practice, where the patients' former medical attendants had, in one case for over two years, and in another for eighteen months, passed the speculum

twice a week, and "burnt them", as they expressed it; in both, atresia was the consequence. In other cases, partial atresia with painful cicatrices resulted; and painful cicatrices of an inveterate character were referred to in some other cases. Dr. Wallace accepted these as a warning to the abuse of caustics ignorantly or wrongly applied, and proceeded to point out the treatment necessary to overcome the lesions; namely, by division or even excision of the cicatrices, and the reopening of the canal of the cervix by the usual methods. In Dr. Wallace's hands, this treatment was successful.

THE ANNUAL MUSEUM.

THE Museum was held in the large hall of the Church Institute, the room being very well filled. The display of instruments and drugs was particularly good, many of the best known firms, both London and provincial, being represented. The various objects exhibited were arranged in five classes.

New Instruments and Appliances were grouped in the first class, the number reaching in the catalogue as high as 556. Among them, Mr. Maunders showed the carver's chisel used by him for subcutaneous osteotomy; Mr. John Tweedy his optometer for estimating the degree of astigmatism; and Surgeon-Major Porter sent splints, which were much admired, extemporised, for field surgery, from telegraph-wire; and also pads from articles of clothing. Other objects of interest were contributed by medical men. Messrs. Harvey and Reynolds of Leeds, among other things, exhibited their clinical thermometers and temperature charts, and also the American ether-inhaler, which is a gilt wire cage, across the bars of which bandage-cloth is threaded, making septa for the rapid evaporation of ether. This apparatus is in high favour at the Leeds Infirmary. Messrs. Maw, Son, and Thompson made a large display of surgeons' instruments, including aspirators, sphygmographs, spirometers, and obstetrical and gynaecological apparatus; Mr. Napier's bladder instruments; the rectum-bougies of Mr. P. Gowland, as well as the *coudée* and *bicoudée* catheters, etc. The cabinet of instruments was an object of much attraction; the front opened with folding doors, exposing eleven handsomely fitted drawers, containing a very large selection of instruments suitable for almost every branch of surgery. A number of galvanic batteries, both constant and interrupted, as well as the bichromate cautery battery and electrodes, were also exhibited by Messrs. Maw, Son, and Thompson. Next were arranged trusses of various kinds, spinal apparatus, and artificial limbs, etc.; all of exquisite workmanship, sent by Messrs. Ellis, Son, and Paramore, of Sheffield. A large assortment of new inventions for use, both by physicians and surgeons, were displayed by Messrs. Salt and Son of Birmingham. Amongst them were specimens of most of the approved forms of electric batteries both for the constant and induced currents, as well as a convenient arrangement for use with the galvanic cautery. Portable spirometers, sphygmographs, aërometers, dynamometers, and aësthesiometers, were also shown. In the surgical department of their exhibition, this firm showed a most complete Cooper's case, folding into a small space like a lady's reticule; a number of aspirators, including Dieulafoy's large model, with rack and pinion on stand; an useful combination in one instrument of the uterine sound and syringe, and a large miscellaneous collection of novelties. Messrs. Robinson and Sons of Chesterfield exhibited specimen of their lint, cotton-wool, and bandages; and Mr. Haywood of Nottingham trusses, elastic stockings, and belts. Messrs. H. Aitken and Co. of York displayed a good collection of instruments and a pocket-case, in morocco, fitted with brass rims, and resembling a purse, which was much appreciated. Many objects of special interest were shown by Messrs. Krohne and Sesemann; among them Dr. Richardson's apparatus for artificial respiration, used for the resuscitation of the apparently drowned, for chloroform-accidents, etc.; also the feather-valve mask-respirator (Richardson's) for protecting the lungs of workers in dust, etc., which was particularly interesting in a town where much lung-disease is caused by the inhalation of mechanical particles. Mr. K. Thornton's ice-water cap and Mr. Thomas's splints for treatment of hip-disease were also among the novelties displayed. Messrs. Ferris and Co. of Bristol exhibited a very large and excellent collection of surgical instruments, including most of the latest inventions; and Cutts and Salter of Sheffield showed different kinds of clinical and bath thermometers, ophthalmoscopes, and laryngoscopes of various sorts.

In Class II was a great variety of *New Drugs and Preparations*. Among them, Mr. W. Murrell exhibited various preparations of jaborandi, including its alkaloid jaborandine, and the nitrate of this alkaloid, which, being soluble in water, may be used hypodermically for the production of the physiological action of the drug. The root of *gelsemium sempervirens* and its alkaloid were shown; and also,

which was a great attraction, an alkaline solution of gelsemic acid of the strength of one part in 100,000 of water. This solution showed a very powerful fluorescence, whilst a solution of quinine of similar strength gave no fluorescence. In Messrs. Harvey and Reynolds's display of drugs, etc., one noticed a particularly nice preparation of san-tonine, in the form of comfits, very suitable for children. Their extract of English beef was also shown; it seemed admirably prepared, and, as one knows from experience, is borne pleasantly by invalids when extract of foreign beef is not. Messrs. J. Richardson and Co. of Leicester exhibited, in addition to other drugs, some capital samples of coated pills in very many forms. Messrs. Symes and Co. of Liverpool made a good display of therapeutic novelties, including the carnanba root, which possesses properties similar to those of sarsaparilla, and caroba, a name which the leaves of *Jacoranda Procera* have for many years received in Brazil, where it is regarded as an efficient remedy in gleet and secondary syphilis, and also as a diuretic. The exhibition of Messrs. Corbyn, Stacey, and Co. was particularly good, and one noticed almost every novelty in it. The elegance of the preparations of this firm was remarked by the visitors. Amongst other things, the collection comprised albuminate of mercury for hypodermic injection in syphilis, amyl nitrite free from acid, and *cachets de pain*, an ingenious and successful device for facilitating the administration of medicated powders. The powder is enclosed between two hollowed discs of wafer-paper made to adhere at the edges. In taking it, the wafer is placed with a little water in a tablespoon and is swallowed almost immediately. In this way, the most nauseous drug can be taken without the patient being conscious of it. The *Eriodictyon Californicum*, a reputed specific for consumption, and of undoubted value in chronic bronchitis and pneumonia, and vaseline were shown. The latter is a pale yellow semi-solid, of an agreeable consistency, absolutely odourless; it melts at about the temperature of the body, and never, under any circumstances, becomes dry or rancid. It is an admirable lubricant for catheters and instruments generally, and as a basis for ointments is highly recommended. Messrs. Ferris and Co.'s collection of drugs was extremely good. Amongst them, we noticed a large number of fluid extracts made according to the United States Pharmacopæia. They are elegant preparations, and are made with alcohol and glycerine; they keep extremely well, and are more convenient than the solid extracts. There were other articles exhibited by them which were excellent; but space will not allow one to further allude to them, except to the various samples of coated pills, which were well prepared. Amongst the other exhibitors were Messrs. Mackey and Co., who showed, as well as other things, the syrups of the phosphites, hypophosphites, and lactophosphites of iron, lime, soda, etc.; Mr. W. Ward of Sheffield, and Mr. T. W. King of London.

In Class III were *Pathological Specimens with Photographs, Casts, etc., illustrating Disease*. This class was much enriched by the admirable ophthalmoscopic drawings of Dr. Gowers, and the excellent drawings, photographs, etc., illustrating different diseases, of Mr. Jonathan Hutchinson. Dr. Barton contributed three interesting specimens of tubercle of the choroid from cases of tubercular meningitis. Several medical men of Sheffield and other parts sent objects of much interest. From the Museum of the Leeds Medical School were sent specimens of pathological value; among others, split fractures of the femur and humerus, to illustrate the "wedge action" of the patella and olecranon, from patients of Mr. Teale; and a preparation from a patient of Mr. Wheelhouse, showing fractured acetabulum and dislocation of the femur on to the dorsum ilii. A number of very capital preparations were sent by the Sheffield General Infirmary, and also others of interest by the Public Hospital and Dispensary.

A large table in the centre of the room was reserved for *Microscopes and Microscopic Specimens* (Class IV). A large number of microscopes were displayed, many of them being of exquisite finish. Mr. Pillischer of New Bond Street exhibited several first class microscopes and accessories, and a number of his cheaper class instruments—amongst the latter, his newly constructed microscope, "The International," a simple and good instrument, made especially to meet the requirements of the physiologist. Amongst other objects of interest, the same firm showed Hoggan's machine for making microscopic sections. It is applicable both for soft and hard substances, and through its simplicity can be used by any one not previously acquainted with the art of making microscopic sections. Ferris and Co. sent Rudolph Wasserlein's and Hartnack's microscopes, with some microscopic specimens. Messrs. Cutts, Sutton, and Son of Sheffield exhibited microscopes of various kinds, and others were contributed by Messrs. Mackey and Co., Harvey and Reynolds, and Salt and Son. Mr. Coppinger sent his little apparatus for freezing animal tissues for microscopic section by means of ether-spray. Some admirable sections

of the uterus, showing the changes which take place on the inner surface of the organ during a menstrual period (four weeks), were sent by Dr. John Williams, as were also others illustrating well the pathological anatomy of the spinal cord by Dr. Gowers. Dr. Banham showed some others of interest, and Messrs. A. Cole and Son exhibited their three series of microscopic preparations.

In Class V were *New Inventions relating to Public Health, and Miscellaneous*. Among the former, Dr. Rogers exhibited his portable hot-air disinfecting chest, which is intended to disinfect, by dry heat, wearing apparel, bed-clothes, etc. Dr. Bond also contributed several new and interesting articles of sanitary value. Messrs. Cabley and Preston of Sheffield displayed a large miscellaneous collection, among which the articles of toughened glass attracted attention. Tumblers, etc., of this peculiar glass were allowed to fall on the floor without being in any way damaged.

MEMBERS PRESENT AT THE ANNUAL MEETING.

The following list includes most of the names of the members and visitors attending the meeting, which were entered in the book provided for the purpose in the reception room.

Aldridge, Charles, M.B., Plympton; Alford, Stephen S., Esq., London; Allbutt, T. Clifford, M.D., Leeds; Allott, W. L., Hoyland Nether, near Barnsley; Andrew, Edwyn, M.D., Shrewsbury; Arbuckle, Hugh W., M.D., Thorne, Doncaster; Arden, S., Esq., Sheffield; Arlidge, J. T., M.D., Newcastle, Staffordshire; Armistead, William, M.B., Cambridge; Armstrong, Leonard, Esq., Newton Abbot; Ashford, E. C., L.R.C.P.Ed., Bridgwater; Asquith, Robert, M.D., Cheltenham; Atkinson, Edward T., Esq., Richmond, Yorkshire; Atkinson, G. P., Esq., Pontefract; Atkinson/Robert, Esq., Ripponden, Halifax; Athill, Lombe, M.D., Dublin; Aveling, J. H., M.D., London.

Bacon, G. M., M.D., Fulbourn; Baker, J. Wright, Esq., Derby; Ball, Charles B., M.D., Blaenavon; Ballantyne, Alexander, M.D., Dalkeith; Banham, H. F., M.B., Sheffield; Barber, Edward, Esq., Sheffield; Barber, J., Esq., Sheffield; Barber, Oliver, Esq., Sheffield; Barker, Elijah, Esq., Sheffield; Barlow, Thomas, M.D., London; Barnes, Henry, M.D., Carlisle; Bartolomé, M. Martin De, M.D., Sheffield; Barton, M. S., Esq., Market Rasen; Bartrum, John S., Esq., Bath; Begley, W. C. M.D., Hammersmith; Bell, Rev. D., M.D., Goole; Bell, John Henry, M.D., Bradford; Bennet, J. Henry, M.D., London; Bennett, Lucas M., Esq., Winterton; Benson, John, Esq., Sheffield; Berkart, I. B., M.D., London; Beveridge, Robert, M.B., Aberdeen; Bingham, John J., Esq., Alfreton; Bird, P. Hinkes, Esq., London; Bluet, John, Esq., Chesterfield; Blythman, C. S., M.B., Swinton; Bolton, Richard E. N., Esq., Dronfield; Bond, Francis T., M.D., Gloucester; Booth, William H., Esq., Sheffield; Bowes, Richard, Esq., Richmond, Yorkshire; Bowstead, R., M.D., Caistor; Bradbury, J. B., M.D., Cambridge; Bradley, Charles, Esq., Nottingham; Brady, Charles, Esq., Tunstall; Braidwood, P., M.D., Birkenhead; Braithwaite, James, M.D., Leeds; Branson, Ferguson, M.D., Baslow, Chesterfield; Branson, Henry John, M.D., Sheffield; Branson, John, Esq., Rotherham; Britton, Thomas, M.D., Halifax; Broadbent, S. W., Esq., South Hetton, Durham; Broadbent, W. H., M.D., London; Brook, Chas., Esq., Lincoln; Brookhouse, Joseph O., M.D., Nottingham; Brown, George, Esq., Tregear; Brown, Henry, Esq., Northallerton; Browne, J. Crichton, M.D., London; Browne, Lennox, Esq., London; Browning, George, Esq., Oughtibridge; Brown, Séquard, C. E., M.D., F.R.S., Paris; Bryan, E., Esq., Idle; Buck, Henry J., Esq., Newport, Essex; Bucknill, John Charles, M.D., F.R.S., Hillmorton, Rugby.

Callender, George, Esq., F.R.S., London; Cameron, J. Spottiswoode, M.D., Huddersfield; Carmichael, Andrew H., Esq., Liverpool; Carnegie, John, M.D., Chesterfield; Carpenter, A., M.D., Croydon; Casson, J. H., Esq., Ashbourne; Chadwick, Charles, M.D., Tunbridge Wells; Chapman, E., Esq., Oxford; Chambers, Thomas, F.R.C.P.Ed., London; Charlesworth, James, Esq., Hanley; Chiene, John, Esq., Edinburgh; Clapham, John, Esq., Thorney; Clark, Alfred, Esq., Twickenham; Clark, Andrew, Esq., London; Clark, G. B., Esq., London; Clark, James, M.D., Walsall; Clarke, Joseph Hirst, Esq., Sheffield; Clarke, William, M.D., Wentworth; Cleaver, William J., M.B., Sheffield; Cogan, L. F., Esq., Northampton; Coleman, Henry W., Esq., Armlay; Collie, Alexander, M.D., London; Cooke, Edward J., M.D., Sheffield; Corbin, M. A. B., Esq., Guernsey; Corner, F. M., Esq., Poplar, London; Cornwall, James, Esq., Fairford; Courtenay, E. M., M.B., Limerick; Crossby, H. E., M.D., Nice; Crossley, William H., Esq., Maltby; Cullingworth, Charles J., Esq., Manchester.

Davidson, James, M.D., Stockbridge Hall; Davies, Andrew, M.D. Swansea; Day, W. H. M.D., London; Denham, J. S., M.D., South Shields; Denton, Arthur H., Esq., Sheffield; Deville, Titus, M.D., Harrogate; Dewes, Edward, M.D., Coventry; Diver, Ebenezer, M.D., Kenley; Doidege, J. G., Esq., Lifton, Devon; Dolman, A. H., Esq., Derby; Douglas, J. R. A., Esq., Hounslow; Drew, Samuel, M.D., Chapelton, Sheffield; Drummond, Edward, M.D., London; Drysdale, Charles R., M.D., London; Dyson, W., M.D., Sheffield.

Eastwood, J. W. M.D., Dinsdale Park, Darlington; Eaton, F., Esq., Ancaster; Eddie, William H., Esq., Byrton-on-Humber; Eddowes, Alfred, Esq., Shrewsbury; Eddowes, William, Esq., Pontesbury; Edwards, W. T., M.D., Cardiff; Elliott, William, M.D., Sowerby Bridge; Elliston, William Alfred, M.D., Ipswich; Elsom, Frederic, Esq., Whitwell; Evans, Charles, Esq., Bakewell; Evans, S. W., Esq., Derby.

Falconer, R. Wilbraham, M.D., Bath; Farquharson, Robert, M.D., London; Favell, William F., Esq., Sheffield; Fielding, James R., Esq., Alfreton; Fleming, C. L.K.Q.C.P., Harthill; Folker, W. H., Esq., Hanley; Foote, H. D'Oyley, M.D., Rotherham; Foss, R. W., M.D., Stockton-on-Tees; Foster, B., M.D., Birmingham; Foster, John, Esq., Bradford; Fothergill, J. Milner, M.D., London; Fothergill, J. Rimmington, M.D., Darlington; Foulds, Samuel, Esq., Chesterfield; Foulerton, J., M.D., London; Fox, Cornelius, M.D., Chelmsford; Fox, Edward L., M.D., Clifton; French, John George, Esq., London.

Gairdner, W. T., M.D., Glasgow; Galt, John, Esq., Ashton-under-Lyne; Garrard, William Arthur, Esq., Rotherham; Garner, John, Esq., Birmingham; Garstang, Walter, M.D., Blackburn; Gaylor, Edward, Esq., Belper; Gibson, Charles, M.D., Newcastle-on-Tyne; Gibson, Charles, Esq., Liverpool; Gill, H. Clifford, Esq., York; Gill, William, Esq., Sheffield; Ginders, Alfred, M.D., Normanton;

Goodchild, John, Esq., Ealing; Goodridge, Henry F. A., M.D., Bath; Gowers, W. R., M.D., London; Goyer, David, M.D., Bradford; Graham, A. F., M.D., Liverpool; Greenwood, John W., Esq., Osselt; Griffith, John T., M.D., London; Griffith, Samuel, M.D., Portmadoc; Griffiths, F. T., M.D., Sharrow.

Hadden, J., M.D., Bournemouth; Hales, Thomas, Esq., Burslem; Hall, F., Esq., Leeds; Hall, John, Esq., Sheffield; Hall, John Charles, M.D., Sheffield; Hall, J. G., Esq., Swansea; Hall, Marriott, Esq., Sheffield; Hallam, Arthur, Esq., Sheffield; Hallam, Walter, Esq., Sheffield; Hamill, J. Wilson, M.D., Workop; Hardwicke, H. J., M.D., Sheffield; Hardwicke, Junius, L.K.Q.C.P., Rotherham; Hardwicke, William W., Esq., Rotherham; Hargreaves, Edmund, M.B., Sheffield; Harrison, Charles, M.D., Lincoln; Harrison, James W., Esq., Sheffield; Hart, Ernest, Esq., London; Haviland, A., Esq., Northampton; Hayes, John, Esq., Tittensor, Stoke-upon-Trent; Heaton, J. D., M.D., Leeds; Hemming, J. H., Esq., Kimbolton; Hendry, Daniel, L.R.C.P.Ed., Liverpool; Henry, Alexander, M.D., London; Hewer, Robert, Esq., Sheffield; Hey, Samuel, Esq., Leeds; Holder, W., Esq., Hull; Holland, P. H., Esq., London; Holland, R. B., M.D., Matlock; Hovell, D. De Berdt, Esq., Clapton; Howe, John, Esq., Marple; Howitt, F., M.D., Nottingham; Humphreys, J. R., Esq., Shrewsbury; Hunt, Lewis G., M.D., Sheffield; Hunter, R. H., Esq., Isleworth; Hunter, W. M., M.D., Epping; Husband, W. D., Esq., York; Hutchinson, Charles F., M.D., Scarborough; Hutchinson, Jonathan, Esq., London.

Inkster, S. M., M.D., Hoyland Nether; Jackson, Arthur, Esq., Sheffield; Jackson, Edward, M.B., Sheffield; Jacob, A. H., M.D., Dublin; Jacob, Ernest H., M.B., Leeds; Jeffreys, Richard, Esq., Chesterfield; Jennett, M. J. J., Esq., Birkenhead; Job, Samuel, Esq., Newark; Jones, Edmund, M.D., Ross; Jones, J. T., Esq., Ekeington; Jones, William, Esq., Rotherham; Jordan, William Ross, Esq., Birmingham; Joy, J. Holmes, M.D., Tamworth.

Keeling, J. H. M.D., Sheffield; Kestley, Thomas B., Esq., Grimsby; Keltly, P. M., Esq., Walsall; Kemp, George, Esq., Sheffield; Kerr, Norman, M.D., London; Kershaw, Joseph, Esq., Urmoston, Manchester; Kerswill, Robert, Esq., St. Germain; Kidd, George H., M.D., Dublin; King, Kelburne, M.D., Hull; Kitching, Walter, Esq., York; Knight, Henry John, Esq., Rotherham; Knox, John, M.D., Bakewell.

Lamb, George, Esq., Hull; Lane, L. C., M.D., San Francisco; Lankester, H., Esq., Leicester; Laver, Arthur H., Esq., Sheffield; Law, J., M.D., Sheffield; Lawrence, A. E., Aust, M.D., Clifton; Leach, Harry, Esq., London; Leach, M., Esq., Sheffield; Leak, T. M., Esq., Hemsworth; Leech, D. J., M.B., Manchester; Leeds, Thomas, Esq., Sheffield; Leonard, John, Esq., London; Le Tall, F. T., Esq., Woodhouse; Lett, R. A., M.B., Waddingham; Lewis, C. F., L.R.C.P.Ed., Henfield; Lindsay, J. Murray, M.D., Mickleover, Derby; Lister, John, Esq., Doncaster; Little, David, M.D., Manchester; Lorimer, G., M.D., Sheffield; Lough, John J., M.D., Ballyjamesduff; Lowe, W. G., M.B., Burton; Lowndes, Frederick W., Esq., Liverpool; Lund, Edward, Esq., Manchester; Lunn, W. J., M.D., Hull; Lyth, John Burdall, Esq., Rotherham.

MacArthur, Alexander J., M.D., Anstruther; McCheane, W., Esq., Liverpool; McDowall, J. G., M.B., Wadley; MacDowall, T. W., M.D., Morpeth; McGill, A. E., Esq., Leeds; McGowan, S. A., M.D., Oldham; MacGregor, Donald, L.R.C.P.Ed., Penrith; McIntyre, J., M.D., Oldham; Mackintosh, Angus, M.D., Chesterfield; Major, Herbert C., M.D., Wakefield; Manson, David, M.D., Chesterfield; March, Frederick K., Esq., Bradford; Mason, Frederick, Esq., Bath; Matterson, W., M.D., York; Mayo, A. C., Esq., Mildenhall; Mellor, Thomas, Esq., Manchester; Merryweather, H. M.D., Sheffield; Merson, John, M.D., Wakefield; Miller, Hugh, M.D., Glasgow; Mitchell, Joseph Thomas, Esq., London; Mitchell, Samuel, M.D., Wadley; Monks, Elisha H., L.R.C.P.Ed., Wigan; Moore, John, M.D., Belfast; Morgan, Herbert M., Esq., Lichfield; Morley, John, Esq., Barton-on-Humber; Morris, Edward, M.D., Spalding; Morris, W. Cameron, Esq., Consett; Morton, Samuel, Sheffield; Morton, Thomas Henry, M.D., Sheffield.

Napper, Albert, Esq., Cranleigh; Nesfield, Stephen, M.D., Manchester; Nicholson, Robert H. B., Esq., Hull; Norton, A. T., Esq., London.

Ogle, William, M.D., Derby; O'Keeffe, D. J., Esq., Sheffield; Oliver, George, M.D., Harrogate; Orton, Charles, Esq., Newcastle-under-Lyne; Owens, Charles A., Esq., Long Stratton, Norfolk; Oxley, Martin G. B., L.K.Q.C.P., Liverpool.

Packman, Augustus T. V., Esq., Sheffield; Parsons, Frederick William, Esq., Wimbledon; Parsons, Charles, M.D., Dover; Parsons, H. Franklin, M.D., Goolle; Parsons, Joshua, Esq., Frome; Paul, James, M.D., Barnes; Payne, Henry, Esq., Loxley, near Sheffield; Phillips, George H., M.D., Newcastle-on-Tyne; Pooley, Richard C. M., L.K.Q.C.P., Rochdale; Prankerd, John, Esq., Langport; Procter, William, M.D., York; Purdon, Charles D., M.B., Belfast; Pye-Smith, R. J., Esq., London.

Ransome, A., M.D., Manchester; Rhodes, George W., Esq., Huddersfield; Rhodes, James, Esq., Glossop; Riley, J. St. P., Esq., Salford; Ritchie, James, Esq., Muirkirk; Ritchie, J. J., Esq., Leek; Roberts, F. T., M.D., London; Roberts, John, M.D., Criccieth; Roberts, R., Esq., Portmadoc; Robinson, Edw., Esq., Rotherham; Robinson, George, Esq., Sheffield; Robinson, Henry, Esq., Chesterfield; Robinson, John, Esq., Frodsham; Robson, James, Esq., South Shields; Robson, R. N., Esq., Durham; Rogers, Charles E., Esq., Retford; Rogers, Joseph, M.D., London; Rooth, Samuel, M.D., Dronfield; Roper, C. H., Esq., Exeter; Rose, John, M.D., Chesterfield; Ross, James, M.D., Manchester; Rugg, George P., M.D., London; Russell, A. J., L.K.Q.C.P., Workop; Russell, Charles James, M.D., Messingham; Russell, D. M.D., Neston; Russell, James B., M.D., Glasgow; Rutherford, W., M.D., Edinburgh.

Sadler, Michael T., M.D., Barnsley; Sandberg, Arthur G., Esq., Northrepps, Northwich; Sankey, William, M.D., Sutton Valence; Saunders, George J. S., M.B., Exminster; Savage, Thomas, M.D., Birmingham; Scott, John William, Esq., Sheffield; Seaton, James, Esq., Leeds; Seaton, Joshua, M.D., Sunbury; Shaw, George H., Esq., Attercliffe; Shaw, Henry S., M.D., Louth; Shera, Henry A., Esq., Sheffield; Sherburn, John, M.B., Hull; Sibson, Francis, M.D., F.R.S., London; Sieveking, Edward H., M.D., London; Silver, Alexander, M.D., London; Sims, J. Marion, M.D., New York; Skinner, Edward, Esq., Sheffield; Skinner, William, Esq., Sheffield; Smith, Francis, M.D., Boston; Smith, William John, Esq., Rotherham; Smith, W. Wilberforce, M.D., London; Snell, John, Esq., Bacup; Snell, Simeon, Esq., Sheffield; Spowart, Thomas, Esq., Sheffield; Squire, Balmano, M.B., London; Squire, W., M.D., London; Stainthorpe, Thos., M.D., Hexham; Stear, Henry, Esq., Saffron Walden; Steele, Charles, Esq., Clifton; Stewart, William, Esq., Barnsley; Stone, T. M., Esq., London; Storer, Horatio R., M.D., Boston, U.S.; Sykes, John, M.D., Doncaster; Sykes, William, Esq., Doncaster; Sympton, Thomas, Esq., Lincoln.

Taylor, Herbert, M.B., London; Taylor, George S., Esq., Sheffield; Taylor, Joseph, Esq., Hathersage; Taylor, J. O., Esq., London; Taylor, M. W., M.D., Penrith; Taylor, William, M.D., Edinburgh; Terry, Henry, Esq., Northampton; Thomas, Edward, L.K.Q.C.P., Sheffield; Thomas, Henry, Esq., Sheffield; Thomas, Jabez, Esq., Swansea; Thomas, Robert, Esq., Rawdon; Thomas, W. R., M.D.,

Sheffield; Thompson, James, M.B., Leamington; Thomson, Edward Wm., Esq., Sheffield; Thomson, William, M.D., Algiers; Thorburn, John, M.D., Manchester; Thorp, Brook, Esq., Holmfirth; Thorpe, George Knight, Esq., Idle; Tibbitts, John, M.D., Warwick; Tiffen, Robert, M.D., Wigton; Turnbull, James, M.D., Liverpool; Turner, George, M.D., Stockport; Tunstall, A. C. M.B., Edinburgh.

Veale, Richard S., M.D., Hampsthwaite.

Wade, W. F., M.B., Birmingham; Walker, Bernard, Esq., Masbro'; Walker, J. B., M.D., Golcar; Walker, J. West, M.B., Spilsby; Walker, Wm. Henry, M.D., Oldbro', Darlington; Wallis, William, Esq., Hartfield; Walsh, John, L.K.Q.C.P., Stonyhurst; Walters, Charles Astley, Esq., Cheltenham; Warrington, F. W., M.D., Congleton; Waters, Edward, M.D., Chester; Watson, Alfred M., M.D., Penistone; Webb, William, M.D., Wirksworth; Weller, George, Esq., Wanstead; West, E. L., M.D., Launceston; Wheeler, Daniel, Esq., Chelmsford; Wheelhouse, C. G., Esq., Leeds; White, Charles Esq., Warrington; White, Thomas Charters, Esq., London; Whitmarsh, John Lloyd, Esq., London; Wilkinson, Eason, M.D., Manchester; Wilkinon, William, Esq., Sharrow, Sheffield; Williams, John, M.D., Pontypool; Williams, T. Watkin, Esq., Birmingham; Willmore, F. W., Esq., Walsall; Wilson, J. Mitchell, M.B., Rochdale; Wilson, Samuel, Esq., South Shields; Wilson, Thomas, Esq., Wallsend-on-Tyne; Wiltshire, Alfred, M.D., London; Wiltshire, Thomas, Esq., Sheffield; Wise, R. Stanton, M.D., Banbury; Wood, Samuel, Esq., Shrewsbury; Wood, W., M.D., London; Woodcock, Alexander, Esq., Anstruther; Woods, Oscar, T. M.D., Killarney; Woolhouse, Fred., Esq., Sheffield; Wright, Charles J., Esq., Leeds; Wright, F. W., Esq., Derby.

Young, J., M.D., Sheffield.

EXCURSIONS.

EXCURSION TO WORTLEY.—On Friday, August 4th, a large number of the members accepted an invitation to luncheon kindly given by the Earl of Wharnccliffe, and visited Wharnccliffe Craggs. They met with a most kind and affable reception from the Earl and Countess, who were present at the luncheon. Many of the members visited the collieries, and witnessed the interesting operations going on in a coal mine. Every facility for gaining knowledge was afforded; and, on all sides, the greatest kindness and hospitality were shown. [A notice of this interesting excursion was accidentally omitted in last week's JOURNAL.]

REPORTS OF MEDICAL OFFICERS OF HEALTH.

TAUNTON.—The acreage is 68,282; the population, 20,565. The births in 1875 were 499, or at the rate of 24.9 per 1,000; and the deaths 382, or 19.1 per 1,000. Dr. Alford says that the original sanitary arrangements of a farmstead are very bad, the drainage being usually carried into the nearest ditch, and the ordure into cesspools, instead of into a pail or other vessel containing earth. He complains of the piggeries as also draining into roadside ditches, and so giving rise to abominable smells. He analysed sixty-seven samples of well-water, and found thirty-nine to be polluted with sewage and absolutely unfit to drink. There were 62 deaths under one year, which was at the rate of 12.4 per cent. of the total births. The deaths from the seven chief zymotic diseases were 32; from phthisis, 32; from heart-disease, 33; and from bronchitis and pneumonia, 76, or more than 15 per cent. of the whole. In all cases of infectious diseases, disinfectants were freely supplied, and the houses of the poor also disinfected. The ground for the hospital for infectious diseases has been purchased, and plans drawn up for accommodating twenty-four patients in four wards containing six patients each, and giving 2,000 cubic feet of air with 144 square feet of floor-space for each. A mortuary, disinfecting room, and other necessary accessories, will be provided.

ASTON MANOR.—Mr. Henry May states that the population is estimated at 41,432; the births registered were 1,764, being, therefore, at the rate of 42.5 per 1,000 population, whilst the deaths were 818, so that there were more than 200 births to each 100 deaths. The death-rate for the year was 19.7, but there were no fewer than 272 deaths of infants, and 422 deaths of children under five years old, or 33 per cent. under one year of total deaths; but, as the proportion of deaths under one year to children born during the year was only 15.5 per cent., we cannot consider the infantile death-rate to be excessive, although rather high in proportion to the death-rate. The deaths from the seven principal zymotic diseases were 201, or 4.9 per 1,000 of population, which was a high rate of mortality, especially when the total number of deaths are considered. The mortality from diarrhoea was unusually great, and always is in Aston Manor; this is attributed to polluted air and water from foul open middens, and soil sodden with sewage. The deaths from scarlet fever were much fewer than in 1874. But few important sanitary improvements were effected, as the complete system of sewerage approved by the Board last year has been delayed by negotiations with the Handsworth urban sanitary authority, which an adjoining district.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 26TH, 1876.

DR. CARPENTER'S ADDRESS IN PUBLIC MEDICINE.

THE prominent position and comprehensive scope of action which Public Medicine has succeeded in asserting for itself, is shown no less by the able and suggestive address delivered by Dr. Alfred Carpenter than by the number and variety of the papers contributed to this Section during the recent meeting at Sheffield. Indeed, it may be with some reason asserted that a number of the papers which were read in the Section of Medicine, especially on the the third day of the meeting, would, if anything like a strict classification had been adopted, have been much more appropriately dealt with in the Section of Public Medicine. Probably, however, those to whom this arrangement was due were more influenced in making it by the necessity of adapting a limited time to a superabundance of material, than by any rigid adherence to scientific precision. In selecting Dr. Carpenter to deliver the annual address on this subject, the Council of the Association could not have made a more appropriate choice. Dr. Carpenter has identified himself with the most prominent advances of sanitary science, not only by the persistence and energy with which he has advocated the cause of sewage-utilisation, even at a time when the practicability of doing so successfully was much less evident than it is now, but by the numerous contributions which he has made on other subjects to sanitary literature, and by the fact that he has not feared to submit himself to a searching official test of the exactitude and extent of his knowledge, which, though essential in the case of younger and less known men, might have been, without fear of cavil, dispensed with by one who had so unquestionably won his spurs in the arena of public discussion.

It is unnecessary for us to deal in any detail with the numerous subjects of Dr. Carpenter's address, which we trust that any of our readers who do not already happen to have read, will peruse for themselves. The views which he enunciates in the earlier part of it, on the anomalous position of medical officers of health, on the unavoidably permissive nature of a good deal of sanitary legislation in the experimental position in which many sanitary problems are at present placed, on the registration of disease, and on the inseparability of preventive and curative medicine, will, we are sure, find as ready an echo in the opinions of every intelligent practitioner, as will the well-merited tribute which he pays to the labours of Dr. William Farr and Mr. John Simon as being, without disparagement of the labours of others in the same cause, the real foundations upon which the superstructure of sanitary science, so far as it has as yet been raised, has been based. Perhaps the most interesting portion of Dr. Carpenter's address is that in which he discusses the subject of the utilisation of sewage, and the nature of the appliances by means of which this outcome of our daily life should be carried to the locality where it has to be dealt with. Dr. Carpenter's special experience at Croydon, which, as is well known, has been, for various reasons, a sort of *corpus vile* for sanitary experimentation, enables him to give the general public some excellent and forcible advice on this latter point. Some of his statements are so tersely and happily expressed, that they might with advantage become stereotyped as aphorisms. That "the first principle of sanitary work is motion"; that "any sewer so constructed as to allow of stagnation

of any of its contents in any part of its course is wrongly made"; that the ventilation of sewers "must be free and absolute, ingress being allowed, as well as egress, in a way which cannot be counteracted"; that "sewage must continue in motion, and pass on to its destination"—are laws of sanitary construction which cannot be too strongly impressed upon the memory of all who have to do with these matters, and which the experience of Croydon itself has done much to establish. As might have been expected, Dr. Carpenter gave an interesting account of the experiment in the utilisation of sewage by irrigation which has for some years been carried on at Croydon, and particularly referred to its economical results, about which many incorrect statements are being continually made by those who know little, and who too often care to know less, about it. That these results have been in the highest degree satisfactory, and in one point of view financially successful, Dr. Carpenter clearly shows; and, if he had done no more than persistently to bring these facts before the public on every suitable occasion, as he has done, he would have deserved well in the cause of sanitary progress.

We trust that we shall not seem in any way to disparage the general value of Dr. Carpenter's statements, if we take some slight exception to his somewhat too decided assertion that, when sewage is applied to a field of ryegrass, "the spongioles seize upon the albuminous matters in the sewage by a kind of elective affinity, including the contagium-particles, remove them from the water, and digest them with an avidity which is most remarkable". That the process of sewage-irrigation is attended with a disappearance of albuminoid and other organic constituents from the sewage, is undoubtedly true; but to leap from this fact to the conclusions that this disappearance is due to the direct absorption of these constituents in an unconverted form by the spongioles of plants, and that this removal is accompanied or followed by anything analogous to the process of digestion, as it takes place in the alimentary canal of animals, is, we venture to think, to assert what may possibly be true, but what is certainly not satisfactorily established at present; as well as to somewhat misconceive the nature of that process to which the term digestion is ordinarily applied. We are well content to support Dr. Carpenter's advice that the sewage should be kept near the surface of the soil, without binding ourselves to the reason for so doing which he gives; namely, "that the contagium-particles which may be contained therein shall not get beyond the reach of the spongioles of the crop, but shall be digested at once, before they can become reproductive". We are quite satisfied to adopt as our reason for so doing the principle which Dr. Carpenter himself lays down, that "motion in contact with atmospheric air in the sewer, on the farm, and from the farm, constitutes the first principle of sewage-irrigation. I say in contact with atmospheric air, because this is the *sine quâ non* of utilisation." We have in the converting influence of atmospheric oxygen upon organic bodies, and in the unquestionable facility with which the results of this process are absorbed by plants, a sufficient explanation of the beneficial effects of sewage-irrigation to serve our purpose; until it can be shown more satisfactorily than has yet been done that the vegetable cell is capable of absorbing and appropriating organic elements like albumen, which, though in some degree homologous with some of its own products, seem fitted, so far as our experience as yet goes, to be assimilated only by animal structures.

But we must pass on to the concluding portion of Dr. Carpenter's address, which, to those who have some acquaintance with sanitary matters, will probably be of more interest than the preceding parts, from the hypotheses which it contains on the nature of zymotic disease. Dr. Carpenter is inclined to make seven distinct classes of zymotic disease, and to include in them several which at present are assumed to be peculiar to animals alone. It is to be regretted that the limits of space to which he was unavoidably restricted have prevented him from giving the whole of the details of his system of classification, only three of his seven classes being specifically described. The grouping which Dr. Carpenter adopts in these three classes does not appear to differ very materially from that which is accepted by most

authorities on this subject, except in so far as he includes catarrh in his second group, along with measles, whooping-cough, influenza, and eczema epizootica, all of which he thinks attributable for their origin to a germ of living organic matter, most probably of vegetable origin. That the form of catarrhal congestion, which is commonly known as hay-fever, is due to the cause suggested, is as entirely free from doubt as anything of the kind well can be, but we can scarcely think that Dr. Carpenter intends to attribute to the same cause the production of ordinary catarrh; for in this disease the certainty is no less strong that in the large majority of cases the sole exciting cause is cold, acting either directly on the bronchio-pulmonary mucous membrane, or on some portion of the cutaneous surface generally. In a subsequent paragraph, Dr. Carpenter does undoubtedly qualify the word "catarrh" by the prefix "epidemic"; but this form of the disease is so slightly, if at all, different from influenza, that if he wished to limit the term catarrh to it, there seems scarcely any necessity for introducing it into his category at all. With the view of explaining the possible relationship of the factors involved in the production of zymotic disease, Dr. Carpenter invokes the assistance of the algebraical method of demonstration. We cannot say, however, that the result is very satisfactory. In the first place, an equational form of statement is of very little value for any practical purpose, except where it is desired to express numerically the value of a previously unestimated quantity. Now, Dr. Carpenter neither attempts to do this, nor does he make any claim that it is possible in the present state of our knowledge to do so with regard to the matters with which his equation deals. In the second place, the statement of the equation itself, in the various cases to which he applies it, is by no means so precise and clear as is necessary if we are to obtain from it any really useful results. The symbol E , which he uses to denote the excess of waste which is not removed from the body by the excretory process so regularly as it ought to be, is to some extent a function of U , the general mass of waste material, and the variable which is the result of their combination cannot be represented by the simple formula $U + E$. In employing the equational process in this case, Dr. Carpenter has, we think, been led to do so from an erroneous conception of the use of which algebra is calculated to be in such inquiries. The employment of symbols as a sort of shorthand is often a convenient thing, especially as a means of simplifying to those who are unacquainted with the subject the demonstration of the relationship of somewhat complex phenomena; but, then, this is a very different thing from an algebraical equation.

We have so completely exhausted our limits that we are unable to even refer to several other points of great interest which Dr. Carpenter raises in dealing with the subject of zymotic disease. In all of them his views are suggestive, and sometimes original; and if we do not quite accept them as so free from doubt as they appear to be in his own mind, it is not so much because we deny the premises upon which he founds them, as because we consider the conditions involved to be rather more complex than they seem to be to him.

CHOLERA.

WE have learned, from a private source, that several of the Levantine ports were lately disturbed by rumours of the reappearance of cholera at Aleppo. The rumour appears to have been entirely without foundation, and is to be regarded as one of the indications of the unsettled state of feeling which has existed, and which, indeed, still largely exists, in the Turkish dominions. It is not to be wondered at that, after the recent horrible events in Constantinople, and with plague present in Mesopotamia, the populations of the Levant should be prone to unpleasant rumours; and having regard to the recent prevalence of cholera in Northern Syria, it is fortunate that the Levantine ports escaped a panic on the rumoured reappearance of the disease.

Last year's outbreak of cholera in Syria was one of three outbreaks at which it may be as well to glance, now that there seems to be a re-awakening epidemic activity of the disease in India. The outbreaks

referred to had this in common, that they broke out at a time when no migration of cholera from India was seemingly in progress, and, while themselves presenting all the phenomena, as well symptomatological as etiological, of the Asiatic pestilence, were seemingly entirely dissociated from any direct, and except in one instance remotely indirect, connection with the original birthplace of the disease—India. The outbreaks to which we refer, in addition to the Syrian outbreak, were those of Southern Europe in 1869, and of New Orleans in 1873. The outbreak in Southern Europe in 1869, as is well-known, was the beginning of a wide epidemic extension of the disease throughout Europe; that of New Orleans in 1873, the beginning of a great extension of the disease throughout the valley of the Mississippi. Each of the outbreaks in question has furnished much matter for speculation.

The Syrian outbreak began at the out-of-the-way town of Hamah, under circumstances which appeared to render infection from without impossible. At the time of the appearance of the disease there, it was not known that epidemic cholera existed any nearer to Syria than Western India, and the staunchest infectionist was at fault to suggest a clue. Wanting this clue, therefore, speculation had free way, and certainly did not fail to exercise it. One set of reasoners saw in this outbreak of cholera at Hamah the resuscitation of "choleraic germs" which had been lying sterile there since the last prevalence of the malady in the town, in 1865. Another set of reasoners saw in the event a proof of the "spontaneous generation" of a specific disease from an undetermined concatenation of conditions. The battle of the germs was in fact fought around the presumed facts of the outbreak with all the vehemence of the Romaic, Syrian, Turkish, and Arabic languages, eked out with Italian, French, and German technology, and, for the moment, Bastian and Tyndall became as prominent characters in the Levant as they were here.

The outbreak of 1869 in South Russia had provoked another kind of discussion, one even of greater practical interest than that which arose from the outbreak in Syria. Cholera, the last remnant of the epidemic of 1865-68, had not quite died out when the outbreak occurred, and the disease still lingered in the province (Kiev) which was the seat of the outbreak. In the absence of any traceable connection between this outbreak and previous prevalence of cholera eastwards, for example, in Persia, Russian physicians came to the conclusion that it was a "recrudescence" of the unexpired epidemic in Russia. In other words, they credited Kiev and Russia with developing out of the embers (as Dr. Pelikan phrases it) of the epidemic of 1865-68, another epidemic which proved for Europe almost as great in magnitude.

The outbreak of New Orleans in 1873 happened under circumstances when even such objections as can be urged against the etiological deductions from the Syrian and South Russian outbreak seemingly quite failed. The danger of cholera to New Orleans is from Europe, and there, at the time of the outbreak, there was little cholera, and none, it is believed, at those places from which infection was most likely to be transferred. Research, at first, appeared to preclude any likelihood of the disease having been introduced into New Orleans by shipping, and in the absence of such likelihood it was concluded that the disease was not only of local origin, but also that it was not Asiatic cholera at all, but the common cholera-morbus of the United States, in a more severe form and more prevalent than customary.

If the question had rested here, the New Orleans outbreak would have been held by many to present a crucial instance of the spontaneous development of pestilential cholera in another country than India; for the notion that the disease which appeared in New Orleans, and afterwards spread over the Mississippi valley, was the simple cholera-morbus of the States, could not long be seriously entertained. Fortunately, the magnitude of the epidemic of 1873, induced Congress to institute an official inquiry into its origin and distribution. The inquiry was conducted by Dr. Ely McClellan, of the United States Army, aided by Dr. Woodworth, the supervising surgeon of the United States (Merchant) Marine Hospital Service; Dr. John C. Peters, o

New York city; and Dr. John S. Billings, United States Army; with whom co-operated a host of the medical men who practised within the area over which the epidemic had spread. The results of the inquiry have now been given to the world, in a volume crammed from beginning to end with valuable material for the study of the epidemic.

Confining ourselves to the question we have raised, the origin of the epidemic, as set forth in the report, at once enlists the attention. Now, on this question, Assistant-Surgeon Van Buren Hubbard, United States Army, throws quite a new light; a light, however, which Pettenkofer will tell us ought not to have been needed, if previous knowledge and research as to cholera is to be regarded other than as a sham. He informs us that, at the time when cholera appeared in New Orleans in 1873, the examination of ships at the quarantine station of the city was of no higher quality than that carried out by the Customs' officers under the Quarantine Act in this country. In other words, it consisted merely in putting certain questions to the captain. We have abundant experience of the degree of efficacy of such questioning. Under an examination of the kind, cholera was brought several times into London, once into Liverpool, and once into Southampton in this country in the same year, 1873. In fact, the examination, worthless for practical purposes, is still more worthless for scientific purposes; and the local investigators at New Orleans in 1873 had been led entirely astray when they concluded that the information they received from the quarantine authorities set aside the possibility of introduction from without. It now proves that this cardinal question was unsolved then, remains unsolved now, and until more light is thrown upon the matter the common rule of deduction must be applied to the New Orleans case. The probability is wholly in favour of the introduction of cholera into that city that year from some unsuspected source without; and the fact that the now proved insufficient investigation made at the time of the origin of the disease did not discover such origin, is no argument to the contrary.

In like manner, Mr. Netten Radcliffe has shown, in his recent Report on cholera from 1865-74, that the opinion of Russian physicians on the origin of the outbreak of 1869 in Europe, was founded on most imperfect evidence; and he justifies his late election as a corresponding member of the Imperial Medical Society of the Caucasus, by advancing facts as to prevalence of cholera in that division of the Russian empire, and across the Transcaucasian frontier in Persia, of essential importance in reference to the question, but which are ignored in the Russian argument, and have no place, as if unknown, in Russian official literature on the subject.

Again, with reference to the late outbreak of cholera in Syria, it is notorious that there is no history of its beginning worthy of the name. Cholera had been present in Hamah some time before the nature of the disease was recognised; during the discussions which occurred upon the nature of the disease, all chance of recovering the history of the earlier cases was lost; and the Ottoman sanitary physicians sent to the place to recover it were frustrated in their efforts.

The learned Tristram Shandy observes that, in discussion, heat is commonly proportionate to the lack of argument. It would almost seem as if among those epidemiologists speculation was in proportion to the defect of observation. In the three notable outbreaks of cholera to which we have referred, outbreaks which have provoked so much discussion as to their origin, it would appear that essential facts of their development have still to be ascertained, and that until these are ascertained it is idle to speculate about them. To regard these outbreaks as casting doubt upon the conclusions derived from outbreaks more accurately observed, is to seek to elucidate light by darkness; or, to adapt a Persian proverb, to go into darkness for the purpose of studying the reflections from a mirror.

A PROPOSAL by M. Clémenceau for the appropriation of an annual sum of 13,000 *francs* to the creation of a Chair of Mental Alienation and Diseases of the Nervous System in the Faculty of Medicine in Paris, has been adopted by the Chamber of Deputies.

THE University of Upsala is making preparations for the celebration, in September, of the four hundredth anniversary of its foundation.

THE King of the Belgians has placed a palace at the disposal of the Academy of Medicine in Brussels.

THE ninth International Statistical Congress will be held in Pesth on the 29th instant.

A NEW hospital, on the plan of isolated pavilions, to contain three hundred beds, is being built in the twentieth *arrondissement* of Paris.

M. LEGUEST has been appointed a Commander, and Professor Germain Sée, of the Faculty of Medicine in Paris, an officer of the Legion of Honour.

MR. JOHN GAY, F.R.C.S., has been appointed Honorary Consulting Surgeon to the Soldiers' Daughters' Home, at Hampstead, in the vacancy occasioned by the decease of Mr. Campbell De Morgan.

IN the recent discussion on the budget in the Chamber of Deputies in Paris, M. Liouville proposed that the salaries of the Professors in the Faculties of Medicine and Science in Paris should be raised from 13,000 to 15,000 *francs* (£520 to £600). The proposal was supported by M. Cornil, but was not adopted.

DR. FRANK BULLER, lately House-Surgeon to the Moorfields Ophthalmic Hospital, has been appointed Oculist and Aurist to the Montreal General Hospital, and has during the Summer Session delivered a course of fifteen lectures on Ophthalmology in connection with McGill Medical College.

THE Medical and Surgical Society of Bordeaux offers a prize of 1,000 *francs*, to be awarded at the end of 1879, for an essay on "The Microscopical Study of Human Blood, fresh and dry, in the foetus and in the adult, compared with that of other mammalia, in a medico-legal point of view". The essays are to be written in French or in Latin, and sent to M. Donaud, Secretary of the Society, before August 31st, 1879.—The Medical Society of Toulouse offers two prizes of 300 *francs* each for essays on the following subjects. For 1877: "The Mind in Disease: its physical, chemical, or microscopical characters; the analytical proceedings employed in order to detect these changes". For 1878: "What are the motives which, in late years, have led to the abandonment of bloodletting in the treatment of most diseases? Is the tendency to substitute tonics for antiphlogistics justified?"

IT was made a distinct condition with Mr. Cross, the Home Secretary, by those who represented the conduct of the opposition to the Experiments on Animals Bill, that that opposition should not be withdrawn except upon certain terms, a principal one of which was, that the Act should not apply to cold-blooded animals. That condition was violated when the Home Secretary supported the amendment of Mr. Forster, which limited the operation of the Act to vertebrata. One might have supposed that, amongst non-scientific persons, this breach of a distinct agreement might be attributed to a want of knowledge as to the difference between these two classes of animals; but this could not have been the case, because Mr. Playfair and Dr. Ward supported Mr. Cross's original amendment, and no doubt fully explained the distinction to the Committee. Indeed, there would be no difficulty in showing that, whilst the amendment brings tadpoles and newts into the same rank as monkeys and pigeons, it leaves such highly organised and sensitive animals as may be found in the articulate division wholly unprotected. Mr. Cross could scarcely have assisted Mr. Forster in carrying this mischievous amendment against his own better judgment, if he had been supported by the members of the medical profession who ought to have been present at the Committee, and who were only represented by Dr. Ward, to whom all credit is due for his steady devotion to the interests of our profession.

PRACTICE OF MEDICINE IN RELIGIOUS HOUSES.

A SATISFACTORY solution has been lately given to a question as to the right of religious communities in France to practise medicine and surgery. One of these communities, the Sisters of St. Projet, had from time immemorial carried on an illegal practice of this kind. In consequence, however, of the persevering endeavours of the Medical Association of the Gironde, the Cardinal Archbishop and the *Bureau de bienfaisance* of Bordeaux have taken up the subject, and have formally recommended the *religieuses* to abstain in future from interfering in medical matters.

AMERICAN PUBLIC HEALTH ASSOCIATION.

THIS Association will meet in Boston from October 3rd to 6th. The Executive Committee has recommended that for this meeting the leading discourses, papers, and discussions shall be arranged under the following divisions of subjects:—1. Legislation and the Applications of Law for Public Health Purposes; 2. Dangerous Employments and Harmful Processes and Products; 3. Surveys and other Expert and Systematic Works for Public Health Purposes. Special subjects for discussion will be:—The Sanitary Regulation of Abattoirs, Expert Testimony, Measures for the Prevention of Yellow Fever, the Influence of Private and Public Buildings on Public Hygiene, and Illuminating Gas in Relation to Health. Dr. Austin Flint will deliver a discourse on "Food in its Relations to Personal and Public Health"; and Mr. Charles Francis Adams, junr., will submit a series of propositions in reference to increasing safety in travelling.

THE WEATHER IN PARIS.

OUR Paris correspondent writes:—In the absence of other general subjects to talk about, the unusual tropical heat of the weather is the all-absorbing topic of the day. Profuse perspiration, a sense of lassitude, and an insatiable thirst, are the universal complaints. It is now that the drinking-fountains, so benevolently and with such forethought erected in the different thoroughfares of Paris by Sir Richard Wallace, are fully appreciated by the French public. They were at first sneered at, but gradually the Parisians took to them; and it will be gratifying to Sir Richard Wallace to know that they are now eagerly availed of not only by passers by, but housewives of all classes resort to them to fill their bottles. In referring to these fountains, a daily contemporary lately observed that they "have not decreased drunkenness in the French capital". There is, doubtless, some truth in this assertion; but, I may add, if they have not decreased drunkenness, they cannot, at any rate, increase this degrading vice. As might be expected, many cases of insolation are occurring every day among man and beast; and, owing to the quantity of fluid imbibed to quench ardent thirst, diarrhoea is rife, particularly among children. The very dogs are going mad in the streets, under the influence of the great heat; and the Prefect of Police has very wisely cancelled his own order, which compelled dogs to be muzzled, as it is now admitted that this cruel appendage afforded one of the surest means of driving a dog mad.

A MEDICAL ASSOCIATION IN NEW ZEALAND.

WE are glad to learn that an endeavour is being made to combine the members of the profession in New Zealand into an Association having a similar organisation and objects to those of the British Medical Association. The promoter of the scheme is Mr. Millen Coughtrey, who was formerly attached to the Liverpool School of Medicine, and is now Professor of Anatomy in the University of Otago. In a circular dated May 16th, he says: "The advantages that would accrue to the public and to the profession if the latter possessed one representative and united organisation, whereby its voice on questions of medical politics might be heard, are obvious; and it appears to me that there is every probability, amid the many constitutional changes through which the colony is now passing, and the consequent adjustment of details which will inevitably follow such changes, that there will be many matters of medical interest cropping up, upon which it would be pre-

ferable that the voice of the profession as a whole should be known. No medium is more likely to secure a healthy voice than a General Association, which might migrate from city to city, annually or otherwise, according as it may be determined on, and permanently located *Branch Societies* (founded on one common basis and on harmonious principles), in which questions touching the existing position of the profession, medical ethics and science, might be temperately discussed and weighed." Mr. Coughtrey also issued a circular calling a meeting to be held in Dunedin on June 28th, for the purpose of forming a Branch Society for Otago; and has solicited the co-operation of the profession in New Zealand in the formation of Branches in other districts. We shall watch with interest the progress of the new Association, to which we cordially wish prosperity and success.

PRIZES AT APOTHECARIES' HALL.

AT the recent competitive examination for the prizes in Materia Medica and Pharmaceutical Chemistry, the successful candidates were: 1. Hutton Castle, of St. Thomas's Hospital; 2. Albert William Graham, of St. Bartholomew's Hospital.

CLINICAL INSTRUCTION IN MENTAL DISEASES IN PARIS.

M. DE MARCÈRE, the French Minister of the Interior, has, on the application of MM. Liouville and Robin, sanctioned the re-establishment of clinical lectures in the St. Anne, Salpêtrière, and Bicêtre Asylums, which were suppressed two years ago by the Prefect of the Seine. The closure of those institutions against clinical instruction excited at the time strong remonstrances from the French medical press, but without effect. We are glad to hear of the removal of the restriction, which must have had a very injurious influence on an important branch of professional education.

DEATH FROM CYANIDE OF POTASSIUM.

AN inquest was held on the 18th instant, on Edward Holmes, who was found dead in a coffee-house on the preceding Tuesday morning. The evidence of his widow showed that he had not been so prosperous in his business—that of a hairdresser—as he had anticipated, and on the Sunday before his death became much disturbed in his mind through a false alarm that his place of business in the city was burnt down. He had not talked about suicide, but had taken a great interest in the Bravo case, which he had read minutely; and he used to say it was a great mistake to think the public could not get poison, as anyone who knew how to go about it could with ease, and, if he chose, he could buy a pound of tartar emetic at a time. He once said the easiest death was that by cyanide of potassium. He used to say that when he was reading the medical evidence. He used poison to dye hair with, and carried on his business in the city. Mr. Donahoo of Blackfriars Road, who was called to the man when he was found dead, said:—"I have made an examination, and found every organ smelling greatly of cyanide of potassium. The heart was flabby and the brain slightly congested, but otherwise the organs were all generally healthy. Death was caused by cyanide of potassium. The deceased must have taken a great deal of it. The tumbler on the washstand contained a strong solution of this substance—possibly an ounce. The paper packet contained rather more than seven ounces of the same poison. This poison would begin to act immediately, and death would take place in about three minutes. After taking it, he must have lain down. His face was black, owing to the position in which he lay. But for this position, his face being buried, he must have shrieked and been heard. There was as much cyanide of potassium in the room as would have killed half the parish. Half a teaspoonful of the solution in the tumbler would destroy life. There were no marks upon deceased, and there was no disorder in the room to indicate that any struggle had taken place, or that he had been in any way forced to take the poison."—Police-sergeant Concha said that he had found in the pocket of the deceased a bottle of oil, which had apparently been sold to him by Messrs. Glover and Co., druggists, in Tottenham Court Road. He had asked there for two ounces of cyanide of potassium,

but had been refused. Sergeant Concha said that every place in London where poisons were sold had been visited, and no entry could be found that poison was sold to a person answering the description of the deceased. The jury returned a verdict of suicide during temporary insanity. The question as to where the deceased got the cyanide of potassium is a highly important one, as the failure of the police to trace the sale of the poison indicates that there are means of evading the provisions of the Sale of Poisons Act—at least with regard to certain poisons. Cyanide of potassium is one of the articles which the Act forbids to be sold to anyone unknown to the seller, unless introduced by some person known to the seller; and an entry of the sale must be made. The subject is one demanding careful inquiry.

A NEW AMERICAN SURGICAL JOURNAL.

WE have received the first two numbers of a new periodical, the *Archives of Clinical Surgery*, which is to be published monthly in New York. It is devoted to surgery, including its special departments, such as gynaecology, dermatology, laryngology, etc.; and consists of original clinical papers and a synopsis of interesting surgical cases and operations in the American hospitals. The first number contains the following original papers: 1. Removal of Naso-Pharyngeal Polypus by the Galvano-Cautery, by James L. Little, M.D.; 2. Remarks upon the Enucleation of Uterine Fibroids (illustrated), by T. Gaillard Thomas, M.D.; 3. Herniotomy for Reducible Inguinal Hernia, by Paul F. Eve, M.D.; 4. Acne Rosacea—Outgrowths removed by Operation (illustrated), by Clinton Wagner, M.D.; 5. A New Operation for Laceration of the Female Perineum, by Daniel M. Stimson, M.D.; 6. Transfusion of Blood in the Last Stages of Phthisis, by Joseph W. Howe, M.D.; 7. Unrecognised Dislocations of the Shoulder-Joint, by Stephen Smith, M.D. In the second are original articles on Contraction of the Palmar Fascia, by Dr. A. C. Post; on the Structure and Function of the Upper End of the Femur, by Dr. Wight; on Arthroplastic Operations on both Femora, by Dr. A. G. Walter; and on Excision of the Umbilicus for Malignant Disease, by Dr. W. Parker. There are also brief reports of cases and operations from the Pennsylvania Hospital; the Mercy Hospital, Chicago; the King's County Hospital, Flatbush, Long Island; University Hospital, Baltimore; New York Hospital; the Albany Hospital, etc. The articles are throughout of a practical character. The founders of the journal have our best wishes for its success.

THERMIC DIARRHŒA.

THE prevalence of diarrhœa in summer weather is notorious, and various are the explanations offered of this phenomenon. The fruit hypothesis, though generally accepted, has never stood careful examination. In a leading article in the *Philadelphia Medical Times*, August 5th, the Editor (Dr. H. C. Wood) writes on sun-stroke, or thermic fever; a subject to which he has given great attention. He further says:

"There can be little doubt that many of the cases reported as cholera infantum, enteritis, etc., are really instances of thermic fever, and are curable by treatment as such. Especially does this seem to be true of those cases in which the disease is popularly said to 'go to the head'. Cases of this character usually owe their cerebral symptoms either to intense exhaustion, to be treated by stimulants, or to intense fever to be treated by cold baths. Anyone who has seen, as I have this summer, the child on whom drugs had ceased to act, and who was seemingly doomed to die, relieved in twelve hours by enforced cold bathing every three or four hours, will grant to Dr. Comegys (*Philadelphia Medical Times*, vol. v, p. 664) the credit of having introduced one of the most life-saving improvements in modern infantile therapeutics. The sudden sweet sleep, replacing, after the bath, the fretful nights and days of unrest, is a thing never to be forgotten when once seen, and the arrest of the diarrhœa is certainly no less remarkable."

During the recent hot weather in New York, the increase of diarrhœa, especially among young infants, was very marked; and its association with the prevalence of sun-stroke is in favour of the thermic origin of the diarrhœa as given above. In the treatment of summer diarrhœa, the use of the clinical thermometer will give the most valu-

able indications; if the body-temperature keep rising while the diarrhœa (a cooling process) persists, then the use of cold as an apyretic is clearly called for. If the diarrhœa be accompanied by a normal, or even low, temperature, then the ordinary measures with stimulants are indicated; but, if there be a steady rise, the plan here advocated seems to offer the best prospects.

HEALTH OF WATERING-PLACES.

AT the Brighton Congress of the Social Science Association last year, a resolution was passed recommending the Council of the Association to suggest to the local sanitary authorities of watering-places the desirability of establishing a system, by means of which owners of lodging-houses and hotels should be enabled to have their premises inspected, and certified if found in a general healthy condition with reference to drainage and other sanitary arrangements. The Council solicited the views of the local authorities on the subject, and received a number of answers in reply, which have been considered, and on which is founded the following report.

"a. That it is desirable that the system, in the first instance, should be a voluntary one, and that owners of lodging-houses and hotels should be invited by the sanitary authority of the town to apply to the medical officers of health to certify that the drainage and other sanitary arrangements of their respective houses or hotels are satisfactory, and generally that the same are in a healthy, habitable condition.

"b. That these certificates be renewed every three months, or more often if the sanitary authority think it desirable, but that it shall be the duty of the medical officer of health between the renewals of his certificate to visit the premises so certified as occasion may require, in order to ascertain that the same remain in the sanitary condition to which the certificate applies.

"c. That a minimum charge, at the discretion of the sanitary authority, shall be made for the issue of such certificates.

"d. That a register shall be kept at the Town Hall, or other public office, of the certified houses and hotels, open to inspection without charge during usual office hours; and that local authorities should exercise their best efforts, by advertisement and otherwise, to inform the public of the regulations herein suggested.

"e. That the owners of the certified hotels and lodging-houses should be required to produce the certificate when called upon, and should exhibit the same in some conspicuous part of the house, and that this should be a condition of registration."

The report has been forwarded to the local authorities of the several watering-places and health-resorts in England and Wales.

ANTIVIVISECTION IN FRANCE.

VIVISECTIONOPHOBIA, our Paris correspondent says, like all other phobias, seems very catching; and this disease has spread to France, as will be seen by the following notice, which is being circulated in Paris. A prize of 1,500 francs is offered by the Society for the Protection of Animals in Paris for the best memoir against vivisection. It should be written in the French language, and may be delivered either in the form of a manuscript or a printed work. The memoirs should reach the office of the Society, No. 19, Rue de Lille, Paris, not later than March 1st, 1877. They are not to contain the author's name, but a motto instead; the name of the author being enclosed in a sealed envelope bearing the same motto, and which is to accompany the memoir. The memoirs forwarded become the property of the Society; and an additional sum of 500 francs is placed at the disposal of the Society by Madame la Comtesse A. de Noailles, Patroness of the Society, to give the successful memoir the greatest publicity possible.

PRIZES OF THE ACADEMY OF MEDICINE IN PARIS.

THE following prizes are offered for 1877. *Prize of the Academy*—1,000 francs: subject—"The Etiology and Diagnosis of Glycosuria". *Portal Prize*—1,000 francs: subject—"Is there a caseous pneumonia independent of tuberculosis?" *Civrieux Prize*—1,000 francs: subject—"Ascertain by what treatment general paralysis may be arrested at the commencement, and amelioration or cure obtained". *Capuron Prize*—2,000 francs: subject—"Chloral in the treatment of eclampsia". *Barbier Prize*—3,000 francs—for the discovery of means of curing cer-

tain diseases generally regarded as incurable, such as hydrophobia, coma, epilepsy, scrofula, etc. *Godard Prize*—1,000 francs—for the best work on internal pathology. *Amussat Prize*—1,000 francs—to be awarded to the author of the work or of researches based on anatomy and experiments, which shall realise or lead to the most important advance in surgical therapeutics. *Huguier Prize*—3,000 francs—to be awarded to the author of the best essay, manuscript or printed in France, on diseases of women, especially their surgical treatment (excluding delivery). *St. Leger Prize*—1,500 francs—for the procuring of bronchocele in animals by the administration of substances derived from the water or soil of countries where goitre prevails. *Rufz de Lavison Prize*—2,000 francs—for an essay on the effects of acclimatisation on man and animals.

RECENT URBAN MORTALITY.

DURING last week, 5,532 births and 3,844 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 25 deaths annually in every 1,000 persons living: in Edinburgh it was 12; Dublin, 17; Plymouth, 18; Bristol, 19; Glasgow and Newcastle-upon-Tyne, 22; London, 23; Bradford, 24; Wolverhampton, Brighton, Liverpool, and Sunderland, 27; Nottingham, 28; Oldham, 29; Hull and Norwich, 30; Portsmouth, 31; Salford and Birmingham, 32; Manchester, Sheffield, and Leeds, 33; and Leicester, 46. The zymotic death-rate in the twenty English towns was 7.9, and ranged from 4.3 and 5.4 in Plymouth and London, to 14.3 and 24.4 in Birmingham and Leicester. The fatality of scarlet fever showed a further increase in Portsmouth. Small-pox caused 11 deaths in Liverpool, and 12 in Manchester and Salford, including 2 in the Monsall Hospital. The fatal cases of diarrhoea in the twenty towns, which had been 904, 851, and 712 in the three preceding weeks, were last week 751. The annual death-rate from diarrhoea averaged 5.6 per 1,000 in the twenty towns, and ranged from 2.5 and 3.6 in Portsmouth and Plymouth, to 12.6 and 17.9 in Birmingham and Leicester. In London, 2,285 births and 1,509 deaths were registered. The births were 5, and the deaths 107 below the corrected average numbers of the week. The annual death-rate from all causes, which in the three preceding weeks had been equal to 29.5, 25.1, and 23.5 per 1,000, further declined last week to 22.6. The 1,509 deaths included 5 from small-pox, 25 from measles, 46 from scarlet fever, 3 from diphtheria, 26 from whooping-cough, 24 from different forms of fever, and 232 from diarrhoea; in all, 361 deaths (against 669, 522, and 415 in the three preceding weeks), which were 124 below the corrected average of the week, and equal to an annual zymotic death-rate of 5.4 per 1,000 persons living. The deaths referred to each of these seven zymotic diseases were below the average. The fatal cases of diarrhoea, which had been 522, 401, and 294 in the three preceding weeks, further declined last week to 232, notwithstanding the intense heat of the first three days of the week. The deaths of one adult and two children were referred to sun-stroke. During the seven weeks ending last Saturday, 99 deaths from drowning were registered in London, which exceeded the corrected average for the period by 23, or 30 per cent. In greater London, 2,750 births and 1,819 deaths were registered, equal to annual rates of 33.5 and 22.1 per 1,000 of the population. In outer London, the general and zymotic death-rates were 20.3 and 7.2 per 1,000 respectively, against 22.6 and 5.4 in inner London. The mean temperature during the week at Greenwich was 72.0 degs., and was 10.5 degs. above the average for the corresponding week in sixty years. The mean showed a marked excess on each day of the week, and was equal to 76.7, 75.2, and 76.2 degs. on Sunday, Monday, and Tuesday, when the excess was 14.5, 13.2, and 14.5 degs. respectively. These three days were hotter than any days since the memorable heat in July 1868. The highest reading of the thermometer in the shade last week was 93.8, on Monday. A quarter of an inch of rain was measured on Friday and Saturday.

SCOTLAND.

THE mortality returns for the City of Edinburgh for the week ending on Saturday last, show a rate of 12 per 1,000; and those of Leith for the same period, a rate of 8 per 1,000—both numbers being far below the average even at this season of the year.

THE Greenock Local Authority have resolved to proceed with a scheme of improvement under the Artisans' Dwelling Act. The properties proposed to be demolished are situated in the lowest and filthiest parts of the town.

THE total quantity of water in stock at the reservoirs which supply Edinburgh was, on the 15th instant, 407,000,000 gallons, against 225,000,000 gallons at the corresponding period of last year. The delivery has been at the rate of 27.2 gallons a day to a population of 281,200.

IT is to be remarked as a happy circumstance, that the inauguration of the statue of the Prince Consort in Edinburgh by her Majesty the Queen on the 17th ult., was not attended by a single accident as far as could be learnt; there were, at any rate, no patients received into the Royal Infirmary in consequence.

LADYBANK WATER-SUPPLY.

THE water taken from one of the Artesian wells recently sunk in the town of Ladybank has been analysed by Dr. A. S. Taylor, F.R.S., of London. He reports that the sample sent was colourless, and free from either taste or smell, and that it contained not more mineral matter than is usually found in good river or spring water, and no organic matter in a state of decomposition, or anything affecting injuriously its quality for drinking purposes.

HYDROPHOBIA.

TWO deaths from hydrophobia were reported in Scotland during last week. The first was a young man in the prime of life, who succumbed to the disease in the Aberdeen Royal Infirmary on the 13th, having been bitten by a dog in a railway carriage on the 4th of the present month. The other, a boy fourteen years of age, residing near Bathgate, was bitten by a dog about two months ago, and began, on the 13th ult., to suffer from nervousness and difficulty of swallowing. The disease rapidly ran its course, and he died on the evening of the 16th, after severe suffering.

LUNACY IN SCOTLAND.

THE eighteenth annual report of the Lunacy Commissioners for Scotland is issued. It shows that the total number of lunatics in Scotland, of whom the Commissioners had official cognisance, on January 1st, 1875, was 8,225, of whom, 3,850 were males, and 4,375 females. Of these, 5,002 were in royal and district asylums, 226 in private asylums, 1,472 in private dwellings, and the remainder in parochial asylums and poorhouses, with the exception of 49 in the lunatic department of the Perth General Prison, and 143 in training schools; 6,700 of them are maintained by parochial rates, 49 by the State, and the remainder from private sources. Of the unreported insane, maintained by their friends in private dwellings, the Commissioners have no certain knowledge. The number of registered lunatics when the Commissioners first entered on their functions, namely, in January 1858, was 5,823: so that there is shown in the seventeen years an increase in lunatics of 2,402; but this increase may in part be due to more lunatics in proportion to the total number having come under official cognisance. In 1858, the number of lunatics per 100,000 of population, was 191; in 1875, it was 230—there having been a gradual increase in the proportion during the intervening years. This proportion of lunatics to population is lowest in the country of Renfrew, where, in 1875, the figure was as low as 126 per 100,000; and highest in Kinross, with 375 lunatics per 100,000 of the population. The total number admitted to

asylums during the year 1875 was 2,191, being 490 private, and 1,701 paupers. During the same period, 974 were discharged recovered; 397 removed, not recovered; and 561 died; the total number removed being thus, 1,932—of whom, 461 were private, and 1,471 paupers. The average rate of recovery is highest in parochial asylums. This, the Commissioners say, is probably explained by the fact that the patients received into these institutions comprise a greater proportion of persons labouring under the ephemeral forms of insanity than those received into public and private asylums. Of the unrecovered patients removed, 21 escaped. The total number of escapes during the year was 257; of whom, 161 were brought back within twenty-four hours, 60 within a week, and 15 after a week. There were six cases of suicide. The total expenditure for pauper lunatics in Scotland was, for the year ending May 14th, 1875, £157,806; being nearly double the amount expended in 1858. The amount paid from imperial sources towards the support of these lunatics was £59,483; so that the direct burthen on the payers of parochial rates was £98,323.

HEALTH OF SCOTLAND.

THE Registrar-General's monthly return relating to the eight principal towns of Scotland continues to present an improving bill of mortality. The deaths registered in July were 2,102, which is 476 under the July average for the last ten years, allowing for increase of population. The mortality shown is at the annual rate of 18 deaths per 1,000 persons in Edinburgh; 21 in Dundee; 22 in Glasgow, Greenock, and Leith; and 23 in Aberdeen, Paisley, and Perth. Of the deaths recorded, 44 per cent. were children under five years of age. The zymotic class of diseases proved fatal to 414 persons, three-fourths of whom were children under five. The proportion of mortality from these deaths—19.7 per cent. of the whole number of deaths—has never been lower in July since the Registration Act came into operation; but the number shows an increase of 113 over June, owing to the prevalence of diarrhoea, the deaths from which rose from 30 in June to 170 in July. Fever caused 36 deaths, 23 of them from enteric, and 10 from typhus fever; measles, 44 deaths; whooping-cough, 43; scarlatina, 39; diphtheria, 19; croup, 15; cholera, 7; small-pox, none. Amongst the deaths, there were four by sunstroke. The births in the eight towns in July were 3,681, which is below the number in that month in the two last years. The marriages were 1,199, or 23 under the average. The meteorological returns show a rather warm and windy month, the wind being chiefly from the west. The mean temperature was 60.8 degrees at Dundee, but only 57.3 at Paisley; at Dundee, the thermometer reached 87.3 degrees. The rainfall was scanty; at Edinburgh, only 1.22 inches; but at Glasgow, 2.87 inches.

IRELAND.

DURING the recent thunderstorm several deaths from lightning took place in various parts of the country.

COOMBE LYING-IN HOSPITAL.

THE new hospital is nearly completed, and will shortly be thrown open. It will give accommodation to the extent of about forty beds, which, with those at present in use, make a total of nearly sixty beds. The institution consists of three divisions, viz.: the lying-in wards, for which the new building is set apart; the chronic ward, contained in the "Guinness wing"; and a dispensary for the treatment of diseases of women and children. The hospital is situated in the Coombe, a densely populated and poor locality. During the re-erection of the Hospital buildings, the Guinness Dispensary building was arranged to receive as many patients as possible; and the following return shows the work done during the year ending August 31st, 1875. *Intern Hospital Branch*—Labour cases admitted into hospital, 350; chronic cases admitted, 47. *Extern Midwifery Branch*—Labour cases attended at their own homes, 1,371. *Dispensary Branch*—Cases of diseases of females and children attended at their own houses, from the dispensary

attached to the hospital, 5,634; cases prescribed for and supplied with medicine, etc., at the general dispensary, 15,310; making a total of 22,712 cases. The increased accommodation on opening the new buildings will necessarily greatly increase the expenditure, and the Governors of the hospital appeal for liberal support, not only to assist them now, but also to place the charity on a sure and firm footing. The institution is an admirable one, and we cordially wish it every success in its enlarged sphere of usefulness.

ORTHOPÆDIC HOSPITALS.

Two special institutions of this character have lately been started in Dublin. One, known as the Dublin Orthopædic Hospital, is recruited from the staff of Steevens' Hospital: the consulting surgeons being Messrs. Hamilton and McDonnell; consulting physician, Dr. Burke; and the acting surgeons, Drs. Swan and Bookey. The other, entitled the National Orthopædic Hospital of Ireland, has been organised from the surgeons of the Meath Hospital: the consulting surgeons being Messrs. Porter and Smyly, and the acting surgeon Mr. Ormsby. All that is required for these institutions is plenty of funds, as the applications for treatment from persons suffering from various deformities, as club-foot, rickets, spinal disease, etc., may be expected to be considerable, a very large percentage of the poorer classes in Dublin being afflicted with these affections.

HEALTH OF IRELAND: QUARTERLY REPORT.

DURING the second quarter of the year, the births registered amounted to 37,398, being equal to an annual ratio of 1 in every 35.6, or 28.1 per 1,000; and the deaths to 25,602, affording an annual ratio of 1 in every 52.0, or 19.2 per 1,000 of the population. There was a considerable diminution (764) in the number of deaths from the principal zymotic, or so called preventable, diseases, compared with the corresponding quarter of last year, and this decrease may, to some extent, be attributed to the improvement in the sanitary condition of the country. From small-pox, 2 deaths took place; measles, 156; scarlet fever, 485; diphtheria, 76; whooping-cough, 343; fever, 679; diarrhoea, 395; and simple cholera, 15. One death from hydrophobia, caused by the bite of a dog, was registered in Cork. Of the thirty registrars who have furnished reports as to the sanitary condition of their several districts, twenty have reported favourably, and have also testified to the benefits resulting from the successful working of the provisions of the Sanitary Act.

DUBLIN SANITARY ASSOCIATION.

THE Committee of this Association have recently published a memorandum in reference to Mr. Gray's evidence before the Select Committee on Irish Local Government and Taxation, and which will be forwarded to Sir Michael Hicks Beach, Chairman of the Select Committee. They state that Mr. Gray has brought three distinct charges against the Dublin Sanitary Association; viz., first, that the Association has a political tinge; secondly, that many of the reports to the Public Health Committee have been dictated by the medical officers of the Corporation as amateur members of the Association; and lastly, that its communications to the Public Health Committee have been uncourteous in tone. As regards the first charge, the Committee submit that there is no evidence proving that the Association possesses anything whatever of a political or party complexion, every effort having been made from the foundation of the Association to render its basis as broad and free from any sectarian or party bias as possible. With reference to the second indictment—the connection of the city medical officers with the Association—it seems that some of the dispensary medical officers were acting on the Executive Committee up to the passing of the Public Health Act, 1874; but, when that Act came into operation, it was at once felt by the dispensary medical officers that it was not necessary nor proper to continue to furnish reports to the Sanitary Association, their duty being to report directly to the Public Health Committee. As to the charge of discourtesy in their communications with the Public Health Committee, the *Freeman's Journal*

of September 11th says: "It is impossible to pass over such flagrant discourtesy as that displayed by the Committee of Public Health in their correspondence with the Dublin Sanitary Association. We can quite sympathise with the Public Health Committee in finding the confidence of the public generally transferred to a private association of citizens founded for the purpose of doing that which the Public Health Committee ought to do".

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

THE next meeting of the above Branch will be held at the Royal Sea Bathing Infirmary, Margate, on Thursday, September 7th, 1876, at 3 o'clock; Dr. PITTOCK of Margate in the Chair.

Luncheon will, by the kindness of the Chairman, be provided at the Infirmary, from One till Two. The dinner will be at the Cliftonville Hotel at 5 o'clock precisely. Charge, 6s. 6d., exclusive of wine.

Gentlemen who wish to make communications to the meeting are requested to inform me at once, in order that a notice thereof may be included in the circular convening the meeting.

EDWARD WHITFIELD THURSTON, *Honorary Secretary*.
Ashford, August 20th, 1876.

NORTHERN COUNTIES (SCOTLAND) BRANCH.

THE annual meeting of the Northern Counties (Scotland) Branch will be held in Inverness on the Evening of Friday, September 8th, at half-past seven o'clock. Full particulars by circular.

J. W. NORRIS MACKAY, M.D., *Hon. Sec. and Treasurer*.
Elgin, August 23rd, 1876.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at Coatham, on Thursday, September 21st.

Gentlemen who are desirous of reading papers or making other communications, are requested to give notice to the Secretary.

G. H. PHILIPSON, M.D., *Honorary Secretary*.
Newcastle-upon-Tyne, August 19th, 1876.

CORRESPONDENCE.

MEDICAL EDUCATION AT CAMBRIDGE.

SIR,—As Dr. Humphry invites criticism on the scheme of medical study provided at Cambridge, perhaps he will explain how no provision is made for either the study of, or examination in, the not altogether unimportant subject of Obstetric Medicine? As the number of medical men who can pursue their profession without practising either midwifery or gynecology must always be limited, surely the absence of any provision for the acquirement of these subjects would of itself prevent many students availing themselves of the supposed advantages for study at his University.—I am, etc.,
August 18th, 1876.

OBSTETRICUS.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

POLLUTION OF RIVERS.

THE new Act for making further provision for the Prevention of the Pollution of Rivers (39 and 40 Vic., cap. 75) has just been printed. The principal object of the statute, as declared by the preamble, is "to prevent the establishment of new sources of pollution". There are twenty-two sections, divided into six parts. The first relates to prohibiting the putting of solid matters into streams; the next, to sewage pollutions; the third, to manufacturing and mining pollutions. The fourth part has reference to the administration of the law, and sanitary authorities are to afford facilities for factories draining into sewers, and those authorities have power to enforce the statute, as also the Lea Conservancy Board. The other provisions relate to legal proceedings,

etc. Offences are to be restrained by summary orders of County Courts, with the right of appeal to the High Court of Justice. The Inspectors of the Local Government Board have similar powers as the Inspectors under the Public Health Act of last year; they are to give certificates as to the best practicable means for rendering harmless any sewage-matter falling or flowing into any stream. There are provisions as to the execution of the new law in Scotland and Ireland. Under this Act, sanitary authorities and the Local Government, by active exertions, may prevent the pollution of rivers.

THE LEIGHTON BUZZARD GUARDIANS AND THEIR MEDICAL OFFICER.

THE Leighton Buzzard rural sanitary authority last year appointed, as medical officer of health, Mr. G. G. Bothwell, medical officer of a large district of the union. This year, however, when the appointment became vacant by lapse of time, they elected another gentleman to the office, alleging, as a principal reason, that Mr. Bothwell had shown a want of conciliation in his intercourse with them and with the officers of the union. A short time ago, the master of the workhouse was charged before the magistrates at the division petty sessions with assaulting Mr. Bothwell, and fined for the assault. The guardians have called on Mr. Bothwell to resign his office of Poor-law medical officer, both on account of the alleged disagreements and also on account of his having altered the diet-table, a proceeding which they hold to be beyond his functions. The case is one in which Mr. Bothwell appears to have good reason for complaining of the treatment to which he has been subjected. We trust that it will be investigated by the Local Government Board.

POOR-LAW MEDICAL APPOINTMENTS.

BELFIELD, Chas. W., L.R.C.P.Ed., appointed Medical Officer for No. 3 District of the Bristol Incorporation of the Poor, *vice* W. Cooper, L.R.C.P., deceased.
GOWAN, Charles, M.D., appointed Medical Officer and Public Vaccinator for the Anston District of the Workson Union, *vice* C. M'Caskie, L.R.C.P.Ed., resigned.
HILL, Thomas, M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Middleton Cheney District of the Banbury Union, *vice* J. Dewar, L.F.P.S.G., resigned.
JACKSON, Wm., L.R.C.P.Ed., appointed Medical Officer to the Skipton Workhouse, *vice* W. Birtwhistle, M.R.C.S.Eng., resigned.
M'CHERRY, John, L.K.Q.C.P.I., appointed Medical Officer and Public Vaccinator for No. 1 District of the Sudbury Union, Suffolk, *vice* F. H. Marshall, M.R.C.S.Eng., resigned.
SPENCER, John A., L.K.Q.C.P.I., appointed Medical Officer and Public Vaccinator for the Ahascragh District of the Ballinasloe Union, co. Galway, *vice* L. C. Kerans, M.R.C.S.Eng., resigned.
WALKER, Wm. Newman, jun., M.R.C.S.Eng., appointed Medical Officer for District No. 4 of the Hackney Union, *vice* A. Butler, M.D., resigned.
WATSON, John Adam, L.R.C.P. & S.Ed., appointed Medical Officer and Public Vaccinator to the Chudleigh District of the Newton Abbot Union, *vice* C. H. Massiah, L.R.C.P.Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

EXCHANGES IN THE ARMY MEDICAL DEPARTMENT.

SIR,—In your number of August 5th, you come to a conclusion on the above subject with which I for one do not agree, and perhaps you will kindly allow me to state why.

The exchange of two officers on the roster only affects these two officers, and, it seems to me at least, does not affect the home or foreign service of other officers. A. does not want to go to India, because, perhaps, his health will not allow him; the climate disagrees with him. B. wants to go, perhaps partly for money; and it may happen that the climate agrees well with him. Now, why should the authorities insist on sending A. to India, when he does not want to go, and keep B. at home, when he wants to go to India, and when an exchange between the two would interfere not in the least with the home or foreign service of any other members of the department? And, as to the question of money, if it is worth A.'s while to give B. money to go, it is worth B.'s while to take the money. Besides which, exchanges are allowed in the combatant ranks among officers, with the equal result of allowing some men to obtain a great deal of home-service, and of keeping another set of men much abroad. In common justice, what is allowed to them ought to be granted to us. Out of whom do you think the country is likely to get the best service: out of two willing medical officers, or out of two unwilling ones; out of an officer sent to India against his will with a grievance in his mind, or out of one who went willingly; out of an officer kept at home, where he cannot afford to serve, or out of the same officer with ample pay in India? In comparison with the rest of the army, or at least in comparison with the combatant officers, I look upon the prohibition of exchanges among medical officers as a gross injustice, and considering that they were allowed when most of us entered the service, as a breach of faith, as of course we took the service as it then appeared. However, I will not trespass much more upon your space, but remain yours, etc.,
August 14th, 1876.

A VICTIM OF INDIAN SERVICE.

NAVAL MEDICAL APPOINTMENTS.

FREEMAN, Surgeon D. J., to the *Aurora*.
 GOODE, Surgeon W. H., to Plymouth Hospital.
 GOODMAN, Staff-Surgeon Godfrey, to the *Duke of Wellington*, for service at Haslar Hospital.
 GRAY, Surgeon G. J., to the *Endymion*.
 LONEY, Fleet-Surgeon Henry, to the *Minotaur*.
 MARCH, Surgeon Herbert E., to the *Wolverine*.
 REID, Staff-Surgeon Walter, to the *Wolverine*.
 ROCHE, Surgeon W., to the *Duncan*.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—First M.B. Examination, 1876.—Examination for Honours.—Anatomy.

First Class.

Saunders, John Charles (Exhibition and Gold Medal), Downing College, Cambridge, and St. Bartholomew's Hospital
 Boyd, James Stanley Newton (Gold Medal), University College

Second Class.

Baddeley, Charles Edward, King's College.
 Sheppard, Charles Edward, St. Thomas's Hospital

Third Class.

Gabb, James Percy Alwyne, University College
 Heath, William Lenton, St. Bartholomew's Hospital

Physiology, Histology, and Comparative Anatomy.

First Class.

Tuke, William Samuel (Gold Medal), University College
 Saunders, John Charles (Gold Medal), Downing College, Cambridge, and St. Bartholomew's Hospital

Neale, John Edward, University College

Second Class.

Uhthoff, John Caldwell, Guy's Hospital

Third Class.

Mackern, George, Guy's Hospital
 Whitney, Neville Scott, University College

Organic Chemistry, and Materia Medica and Pharmaceutical Chemistry.

First Class.

Smith, Kenneth Rawlings (Exhibition and Gold Medal), University College
 Uhthoff, John Caldwell (Gold Medal), Guy's Hospital
 Whitney, Neville Scott, University College

Second Class.

Berry, Frederic Haycraft, Guy's Hospital

Third Class.

Lory, William Manley, University College

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 17th, 1876.

Alford, Charles Edward, Upper Helmsley, Yorkshire

Bott, Henry Septimus, Bury, Lancashire

James, Thomas, Aberdare

Jolly, Robert William, Shooter's Hill, Kent

Peake, Joseph, Coventry

The following gentlemen also on the same day passed their primary professional examination.

Fagg, Thomas William, St. Bartholomew's Hospital

Hammond, Alexander Billing, Guy's Hospital

Langdon, John Winkley, St. Bartholomew's Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ASTON UNION.—Medical Officer for the No. 5 Nechells District.
 BRIGHTON and HOVE DISPENSARY.—Resident Medical Officer and Dispenser. Salary, £130 per annum, with furnished apartments, etc. Applications on or before September 4th.

CEYLON.—Medical Officer for the District of Hewaheta. Salary to commence at 5000 rupees per annum, and private practice allowed.

GENERAL INFIRMARY, Leeds.—House-Surgeon. Salary, £100 per annum, with board, residence, and washing. Applications on or before September 6th.

HOSPITAL FOR WOMEN, Soho Square.—House-Physician. Applications on or before August 31st.

KNIGHTON UNION.—Medical Officer for the Brampton Brian District.

LONDON HOSPITAL.—Aural Surgeon. Applications on or before Sept. 4th.

NEWCASTLE-UPON-TYNE INFIRMARY.—Junior House-Surgeon. Salary, £50 per annum, with board, lodgings, and washing. Applications to be made on or before September 5th.

NORTHAMPTON GENERAL INFIRMARY.—Surgeon. Applications on or before August 28th.

NORTH STAFFORDSHIRE INFIRMARY, Stoke-upon-Trent.—House-Surgeon. Salary, £120 per annum, with furnished apartments, etc.—Also, House-Physician. Salary, £80 per annum, with furnished apartments, etc. Applications on or before August 30th.

NORTH WITCHFORD UNION.—Medical Officer for the First District.

SOUTHMOLTON UNION.—Medical Officer for the Parishes of Burrington and Kingsnorton. Salary, £20 per annum, and fees. Applications on or before the 26th instant.

STOURBRIDGE UNION.—Medical Officer for the Oldswinford No. 1 District.
 THINGOE UNION.—Medical Officer for the Eighth District. Salary, £18 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant to the House-Surgeon. Lodgings and board will be provided. Applications to be made on or before September 18th.

WORKSOP UNION.—Medical Officer for the Anston District. Salary, £25 per annum.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

HEX, Harry, M.R.C.S. Eng., appointed House-Surgeon to the Birmingham and Midland Eye Hospital, *vice* H. Eales, M.R.C.S. Eng., resigned.

MACDONNELL, M. A., M.D., appointed Assistant House-Surgeon to the Liverpool Dispensaries, *vice* W. Clibborne, M.B., resigned.

NEWBY, C. H., L.R.C.P., appointed Surgical Registrar to St. Thomas's Hospital.

PLANT, Henry W., M.B., appointed Resident House-Surgeon to the Brixton, Streatham, and Herne Hill Dispensary, *vice* T. W. Williams, M.R.C.S. Eng., resigned.

SPARROW, G. Gordon, M.R.C.S., appointed House-Surgeon to the Chichester General Infirmary, *vice* H. Cotton, M.R.C.S. Eng., resigned.

STONE, Wm. D., M.D., appointed Physician to the Western General Dispensary, Marylebone Road, *vice* F. A. Mahomed, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

MARCH.—On August 20th, at Tennyson Place, Bradford, Yorkshire, the wife of *Frederick K. March, L.R.C.P.E., of a son.

MARRIAGE.

HUTCHESON—JOSEPH.—At Llwyngwrl Parish Church, on August 17th, by the Rev. A. G. Edwards, B.A., Warden of Llandoverly College, assisted by the Rev. J. E. Davies, M.A., Rector of Llwyngwrl, John Davis Hutcheson, M.B., of Aberdare, to Marie Louisa, daughter of Thomas Joseph, Esq., J.P., of The Buttrills and Ty Draw, Glamorganshire.

HOSPITAL SATURDAY FUND.—Hospital Committees and those of kindred medical institutions who desire to participate in this year's Hospital Saturday Distribution, but who have omitted to furnish to the Council of the Hospital Saturday Fund the information on which the Council will make their awards, are reminded that the time for supplying the required information has been extended to Hospital Saturday, September 2nd. Medical institutions, the committees of which neglect to send in returns by September 2nd, will necessarily be excluded from this year's distribution, the plan of which has already been prepared. As in the two previous years, the distribution will be made equitably to each institution according to the amount of relief given, economy practised, and efficiency attained.

BEQUESTS.—Mr. Charles Frederick Beyer, late of Manchester and of Llantysilio Hall, Denbighshire, has bequeathed, among other legacies, £2,000 to the Manchester Royal Infirmary. After specifying various bequests, such part of the rest of his property as he can legally give for that object is left for the purposes and benefit of Owens College, Manchester, to be applied in such manner as the governing body shall think expedient in or towards the foundation and endowment of professorships in science, one at least of which shall be a professorship of engineering, in the said College. The residue he gives to his executors for their own absolute use, but expresses an earnest wish, which is not to have any legal obligation, that they will apply it for the benefit of Owens College.—Mrs. Elizabeth Taylor, late of Margate and Craven Hill, Bayswater, has bequeathed £1,000 each to the Asylum for Idiots at Earlswood, the British Home for Incurables, and the Margate Infirmary.

EAST LONDON MEDICAL DEFENCE ASSOCIATION.—On the 18th instant, the Committee and officers of the East London Branch of the Medical Defence Association were entertained at dinner at the "Ship" Hotel, Greenwich, by Mr. James E. Adams, F.R.C.S., one of the Vice-Presidents of the Branch. Covers were laid for twenty-five guests, and among the company present were: Dr. A. Ernest Sansom; Mr. H. Nelson Hardy and Mr. George Brown (Vice-Presidents of the Branch); Dr. R. H. S. Carpenter (Honorary Secretary); Mr. F. G. Aubin (Vice-Chairman of Committee); Drs. Wills, Edgar Potte, Stirling, T. Richardson, Chaple, O'Connor, and G. Danford Thomas; Mr. Gordon Brown, etc. After dinner, several toasts were drunk, among them being "Our Host, Mr. James E. Adams"; "Success to the East London Branch of the Medical Defence Association", replied to by Dr. G. Danford Thomas; "Success to the Medical Defence Association", replied to by Mr. George Brown; "Health to the Chairman, Vice-Chairman, Treasurer, and Law Officers of the Branch", replied to by Mr. F. G. Aubin. A very pleasant evening was spent, and the company broke up in time to catch the last train to town.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

THE BRAVO CASE.

SIR,—The strongest proof in my opinion that Mr. Bravo committed suicide lies in the fact that, when he was told by his medical attendants that his symptoms could not be attributed to laudanum, he was perfectly silent as to who administered it to him. If he did not take the poison himself, he would be certain to ask or express something regarding the matter; but observe, he did not throw out the slightest hint, nor did he make any observation touching the question. This course would not be adopted by a sane man, provided he was ignorant of the cause of his illness, more especially when he was told by those in whom he should place the most confidence that he must have swallowed poison.—I am, dear sir, yours faithfully,
A. MACKINTOSH, M.D.

Chesterfield, August 21st, 1876.

MR. M. M. BRADLEY (Jarrow-on-Tyne).—Our correspondent will very probably be able to obtain the information he requires by application to Mr. H. K. Lewis, 136, Gower Street; or Mr. Kimpton, Bookseller, Holborn.

COMPETITOR.—We cannot say on what day or week it is probable that the award of the Hastings prize will be made; but it is not likely to be before the meeting of the Committee of Council in October.

A TERRIBLE THREAT.

THE following occupies a prominent position in the *Home Chronicle* of August 5th. "A New Anti-Vivisection Society.—We have received several letters suggesting that an association should be formed of ladies and gentlemen who pledge themselves not to seek the advice, or allow anyone over whom they exercise control or influence to seek the advice, of the consulting-physicians or surgeons who have signed the memorials to the Government, or who have in other ways declared themselves in favour of vivisection.

"It is desirable that members of this association should be found in almost every town in the kingdom, in order to exert an appreciable influence; and we shall be happy to receive the names of ladies and gentlemen desirous of joining the society, in order that steps may be taken for its proper organisation. We have no doubt that such a society would have a very useful effect when the anti-vivisection battle comes to be renewed, as it will be, next session."

One can scarcely imagine the desolation that would reign in Grosvenor Street, Brook Street, Cavendish Square, Harley Street, and other places where consulting-physicians and surgeons flourish, if this proposal were carried out to the extent that is evidently desired. But will the members of the proposed society stand by their resolution in all circumstances? And if so, where are they to find a consulting-physician or surgeon who has not in some way declared himself in favour of vivisection?

PROFESSIONAL ETIQUETTE.

A. is in attendance upon B., when sudden severe hæmorrhage occurs, which is promptly stopped. Next day, B. is going on well, and out of danger, when the parents of B., while expressing complete confidence in A., suggest a consultation between A. and C., a qualified homœopath, and the ordinary medical attendant of one of the parents. What ought A. to do under the circumstances?

M.B. LOND.

•• A. should decline to meet C. in consultation.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

It is particularly requested that, during the months of August and September, communications for "The Editor of the BRITISH MEDICAL JOURNAL" be so addressed, and not to any person by name.

TREATMENT OF POSTNASAL CATARRH.

SIR,—If any of your readers have met with cases of chronic catarrhal inflammation of the posterior nares, I shall be glad to have any suggestion as to treatment in the following case.

The patient is troubled with copious mucous discharge from the left nostril, following a severe cold caught about a year since. He has slight deafness in the left ear, and total loss of smell. There is no polypus or other obstruction of the nostril, and fluids can be drawn up into the fauces without difficulty. The sound of the voice is nasal, as usually observed in persons suffering from a cold in the head. His general health is good. The complaint is aggravated by cold or damp weather. I have tried iodide of potassium internally, and have used injections of alum, sulphate of zinc, gallic acid, and sulphurous acid fumes, but all without effect.—I am, etc.,
RUSTICUS.

DISEASE OF THE BONES IN THE INSANE.

SIR,—You will, I trust, allow me to observe, in reference to your interesting and instructive comments on the case of the late Mr. F. W. Wimberly, in the JOURNAL of this day, that the peculiar liability of the bones of the insane to disease, and consequently to fracture, "even when no extraordinary violence is used," has been long known. You have written thus: "Numerous observations on the subject have been made in recent years." Certainly to Drs. Clouston, Rogers, Brown, Sankey, and others, are due the credit of teaching, in 1870, that the osseous system of the insane is especially liable to undergo certain chemical changes, "approaching that observed in osteomalacia." Much credit is due also to Dr. Morrell of Florence, for his article entitled "Fractures of the Ribs, and a Peculiar Form of Osteomalacia in the Insane." Let me add, however, that long years before, or anterior to either one of the several gentlemen named in your editorial of August 10th, 1876, I had written thus, in 1857: "One word more: osteomalacia may be confined to one or more bones, or even to a portion only of the same bone. In the examination of patients who have died insane—inmates of the Middlesex Asylums at Hanwell and Colney Hatch—I have met with six examples of this affection of the skeleton: the greater number of the patients alluded to were afflicted with paralysis. An interesting fact this, and one which bears me out in the views here taken of both osteomalacia and of this specific form of paralysis so common to the alienated." (See my *Ganglionic Nervous System*, chap. iii, "Pathology," p. 265.) It was in 1842 that I detected, at the Hanwell Asylum, the existence of osteomalacia in those dying insane. Furthermore, in the *Medical Times*, No. 170, vol. vii, p. 195, *et seq.* (1842), is seen recorded by me a highly interesting example of the coexistence of osteomalacia and insanity in a female patient who died under my care at Hanwell, in whom six spontaneous fractures of the long bones—femur, humerus, and so on—were found *post mortem*. In this case I have described the skeleton as "converted, in great part, into a dark semi-calcareous grumous matter".

Under the circumstances, then, you will, I trust, afford me this opportunity to make a prior claim—one of no less than twenty-eight years' standing—to the recognition of a "condition of the bones of the insane", of so much importance both to the jurist and pathologist.—I am, sir, your obedient servant,

JAMES GEORGE DAVEY, M.D., M.R.C.P. Lond., etc.

4, Redland Park Villas, Bristol, August 19th, 1876.

FICTITIOUS DUMBNESS.

SIR,—In your issue of July 29th, Mr. Hovell, in the first place, suggests that I made a very great error in diagnosis, and upon that assumption proceeds to dogmatise upon the "inhumanity" and "cruelty" which resulted from my error. Upon the latter point I am sure Mr. Hovell cannot be aware that it is not competent for officers in Her Majesty's Service to discuss publicly any affairs of discipline, or he would have confined his criticism to the professional aspect of the case. With reference to the diagnosis, I have to state—1. That I acted upon my own knowledge and experience, which, if not extensive regarding "emotional aphasia", has, hitherto been of some service to me in cases of malingering; 2. That before deciding upon the case I took an experienced medical officer into consultation; 3. That the lad confessed his crime. Some time afterwards he feigned lunacy, or, perhaps, had emotional insanity; but the acting in this instance was hardly up to the mark, and he was again successfully dealt with by the executive authorities.

Whilst readily conceding that all cases published in the JOURNAL are open to criticism, hostile or otherwise, from a professional point of view, I beg to submit that it is, fortunately, not the custom of the profession for one member to arraign before the bar of public opinion, or any other bar, a professional brother of whom there is no *prima facie* evidence that he has exercised his judgment without a reasonable amount of skill, or without good faith; and I have yet to learn that, granting my diagnosis had been incorrect, I am open to such grave charges as are involved in being a party to inhumanity and cruelty.—Yours faithfully,
August 7th, 1876.
ROBT. NELSON, R.N., Staff-Surgeon.

E. W. W. may try the following lotion for sunburn: Half pint of sweet milk, juice of a lemon, table-spoonful of brandy. Boil these, skim the fluid well, and set it aside to cool, after which it may be used.

FOREIGN DEGREES.

SIR,—I was very much surprised by the communication from M.D. Brussels which appeared in this week's MEDICAL JOURNAL, in which he states "that operations on the dead subject are not required by either of the Colleges of Surgeons of London, Edinburgh, or Dublin, or the Glasgow Faculty". I must, in justice to the Irish College of Surgeons, deny this altogether. Operations on the dead subject have been required by all their licentiates for the past three years. I myself had to perform two; and, besides, it is quite a common thing for several men to be "plucked" at them. Operations are also required for the M.Ch. Univ. Dub. The graduate in medicine from Brussels ought to "look before he leaps", and not to make such mistakes in his communications. Surely those gentlemen who take out their degrees in foreign Universities and Colleges cannot expect to share the same rights with those who spend their money, time, and, in a great many instances, risk their health, to obtain a good medical and surgical degree.—Yours truly,
Gifford, co. Down, August 2nd, 1876.
ROBERT M'BRIDE, M.B.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to **Mr. FOWKE**, not later than *Thursday*, twelve o'clock.

DISEASE FROM POTATOES.

SIR.—No person having as yet replied to the question of Signor Pizzi in the **JOURNAL** of July 8th, regarding the presence of any specific disease in Ireland, due to the insufficiently nutritious qualities of potatoes, I may perhaps be permitted to do so. I do not think there is any such disease. During fourteen years' practice, public and private, in various parts of the country, I have found none such. On the other hand, since I have been engaged in the special treatment of the insane, I have noticed, at the period of the year when potatoes are not available—i.e., when the old potatoes are unfit for use and the new ones have not yet come in—a peculiar form of debility to be prevalent among the insane at that time, presenting hardly any marked features except failure of strength, weak pulse, and depression of spirits, not of the nature of melancholia, but of utter *nonchalance* from physical prostration.

While I was superintendent of the Londonderry District Asylum, I used to keep over a small supply of potatoes specially for the use of these cases, after I had been obliged to put all the rest of the house on bread, and I always found the potatoes renew the strength of these patients. I lost some of them before I recognised the cause of their debility, but I think none afterwards. The character of the debility struck me as being analogous to that which accompanies scurvy, and I have even seen it present the well known livid patches on the skin. I recently had a well marked case in this asylum, in which the lividity covered an extensive surface on the lower extremities. The value of potatoes, whether raw or boiled, in the treatment of scurvy is well known. I have also known a child of a year old—one of my own, indeed—suffering from eczema of the scalp, exhibit a most intense craving for potatoes, and recover rapidly when allowed to use them. This was, however, probably an exceptional case, as I have also known them prove injurious in such cases.

The idea of deficient nutritiveness of potatoes is, I think, a mistaken one. They undoubtedly contain a very small proportion of nitrogen; but it must be remembered that the value of nitrogen consists rather in its repairing the furnace—i.e., the muscular tissue—than in its supplying the fuel. The fuel consists in the carbonaceous elements of the food; and of these the potato has an abundant quantity. It is also rich in salts, particularly the salts of the vegetable acids; and hence, no doubt, its value in these diseases of debility. The terrible famine-fever of Ireland in 1847 was not due to the use of potatoes, but to the want of them or any other article of diet.

Lately, endeavouring to investigate by the statistical method the cause of the remarkable difference between the relative frequency of general paralysis among the insane in Great Britain and Ireland, the disease being almost unknown in Ireland, I could find only two well-marked differences between the popular diets of the two countries: one of these being the much greater consumption of beer in England than in Ireland; the other the much smaller consumption of the potato. The method of elimination led me strongly to the conclusion that to one or other of these differences in diet, perhaps to both combined, the smaller amount of general paralysis found in Ireland is probably due. I beg to enclose to you a copy of my paper on this subject.—I am, etc.,

ISAAC ASHE, M.D.T.C.D.

Central Criminal Asylum, Dundrum, Dublin, August 7th, 1875.

THE USE OF TESTIMONIALS.

SIR.—A gentleman who is associated with me in practice is, with my full approval, a candidate for a district union appointment, now vacant. To assist him, I wrote a testimonial in his favour. Dr. S., a young gentleman who has just come into the district, is also an applicant for the same post, and has, without consulting me, published the following testimonial, which I gave to him more than a year ago, in answer to his request to assist him in obtaining a gaol surgery.

"I have a high opinion of Mr. S.'s professional capabilities, and believe he would be a very valuable officer in the appointment he now seeks."

Dr. S., in answer to my desire for an explanation, tells me that "the testimonial, being without date, was a general one, and that, in the opinion of three well known surgeons of B— (whose names he is careful to withhold), he was fully justified in using it without referring to me". Now, sir, on general grounds, if to testify one's belief in a man's fitness for the special post, "he now seeks", is to be taken as implying a large belief in his fitness for any and every post which he may hereafter seek, no matter where or of what nature, the responsibilities of a testimonial writer are indeed heavy, and the embarrassments which must result from the reappearance of old testimonials will be many and remarkable. I myself hold very strong views as to the giving of testimonials to two gentlemen who are candidates for the same appointment. I hold the practice, although very common, to be both undignified and unjust, and I believe that nothing has so much tended to lower the public estimate of the value of these professional expressions of opinion. You will easily see that, with such convictions, I am not a little annoyed to find myself made to commit the immorality of advertising the respective merits of both candidates.—I am, sir, your obedient servant,

J. H.

*A testimonial given for one purpose cannot properly be used for another except with the assent of its author.

CHRONIC DIARRHŒA.

SIR.—The case of A Young Practitioner presents this difficulty, that opiates frequently occasion retention of urine in old patients—all the more likely when complicated with prostatic enlargement. I have used with success in many cases the following pill, for the formula of which I am indebted to an article by Dr. J. J. Skegg, published in 1868. R. Sulph. cupri, pulv. opii, sing. gr. ix; mucilagin. q. s. Divide into twelve pills, one thrice a day. A Young Practitioner may exclude the opium in his case, or give it in a smaller dose—both for the reason already stated, and because old persons, like the young, are easily narcotised by opium. He will find in his copy of *Squire's Companion*, that sulphate of copper is "astringent and tonic," and "diminishes excessive secretion from mucous membranes". Dr. F. T. Roberts, in his *Handbook*, recommends sulphate of copper with opium in chronic cases; and, as a suggestion from the same source, I have given tincture of steel, twenty drops twice daily, to a gentleman aged 45, with decided tincture. This advice takes for granted that there is no hepatic congestion, glandular disease, abscess, fecal retention, ulcer, stricture, internal piles.

—Yours truly,

Kirkintilloch, August 5th, 1876.

W. WHITELAW, M.D., F.F.P. & S.G.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

A SINGULAR CASE.

SIR.—Amongst your numerous correspondents, I should be obliged if any of them could furnish me with the diagnosis and treatment of what I consider a very singular case, as the patient has already consulted many physicians of note, without receiving permanent benefit from any mode of treatment recommended by them.

W. T., aged 38, who, till about five years ago, had always been a healthy man, was suddenly seized while sitting in a railway carriage with a heavy dull pain, which might be covered by the hand, about the floating ribs of the left side, and which, while it lasted, was so violent as to make him scream out. Since then, it has frequently recurred, comes on without any warning, and can be pressed upon while the pain is on, without making it worse. He has noticed that though it does not occur at regular intervals, it is most frequent after fatigue, walking fast, being warmed and allowed to cool again, and especially by long fasting. He is completely prostrate while the pain lasts, but on its passing off he is able to resume his duties as a commercial man. He fancied himself at first that it was flatulency; and though he was not a smoker of tobacco, he smoked a pipe for some time when he was first attacked with it, and received temporary benefit, though now it is of no use whatever. The last he consulted was the late Dr. Warburton Begbie, who recommended him, when the pain came on, to take a draught of whisky and cold water: this also for a time seemed to relieve it, but now he gets most relief from mustard-plasters and hot fomentations. It leaves no soreness whatever when it has passed off; indeed, feels like any healthy part of the side.

As his medical man, I can give him no relief. It impedes his progress very much as a commercial man, and it is thus I crave space in your pages to ask any professional brother to advise me in the proper line of treatment.—I am, sir, yours faithfully,

INQUIRENS.

UNQUALIFIED ASSISTANTS.

SIR.—In the city in which I reside, there is a practitioner who is a Justice of the Peace and Poor-law Medical Officer, and who employs an unqualified assistant to discharge the duties of the latter appointment. Is it not strange that a magistrate should do what would not be sanctioned by the ruling authorities?—I am, sir, yours truly,

August 19th, 1876.

FEE FOR ATTENDANCE ON INQUIRENS.

SIR.—Given a case of presumed suicide in a private asylum. I am taken thereto, upwards of twenty miles, by the husband, in company also of his solicitor, "to watch the case" before the coroner. The verdict restrained the husband from prosecuting the officials for neglect of duty, though the jury made a presentment reflecting on their conduct. I paid my own expenses, and was from home ten hours and a half. Oblige by stating, in the interests of the profession, to what amount of fee you think I was entitled.—I am, etc.,

August 21st, 1876.

ENQUIRENS.

*Two guineas, exclusive of travelling expenses, would be a fair charge.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; etc.

*We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

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LECTURES ON PARALYSIS AS AN EFFECT OF BRAIN-DISEASE.*

Delivered at the Royal College of Physicians of London.

BY
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LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—I have, in the last two lectures, accumulated facts, or at least conclusions from facts, to show that the views that are held as regards the production of paralysis cannot be any longer kept. I have now to say but very few words in addition to what I have stated, before I try to establish by what mechanism, according to the views we have now, paralysis appears.

Among the few series of facts that I have not mentioned at all, there is this one, which is capital: that those affections of very slow growth, such as tumours, for instance, aneurisms, and so on, very frequently will produce a paralysis quite as suddenly as any sudden lesion can do it. Of course, if paralysis depended upon the destruction of tissue, it would take place in these cases as slowly as the growth of the tumour itself, and proceed according to the rapid degree or progress of that morbid growth. We see the reverse, also, very frequently. We find very frequently with affections that are sudden, such as hæmorrhage and softening, that, although the cause of paralysis is sudden, it may not appear at the time of the change in the brain, and of its pressure by the blood, if it be blood which is effused; and that it will come some time afterwards, and proceed slowly. Hence there is no relation, in a great many cases at least, between the rapidity of the production of the disease that causes paralysis and the rapidity or suddenness of paralysis itself. There is another fact, or series of facts, which is of value. It is, that the left side of the body is usually more completely attacked with paralysis than the right side for similar lesions, and also it is more frequently attacked; so that the frequency, and rapidity, and extent of paralysis will be greater in the left side of the body than in the right, for similar lesions in the opposite sides of the brain.

Another fact, or rather a series of facts, as I have said, of great interest, is that the upper limbs will be affected with paralysis more frequently when disease is located in front of the pons Varolii, in the cerebral lobes, either in their base or in the convolutions; while paralysis of the lower limbs is somewhat more frequent than paralysis of the upper limbs in cases of disease of what the French have called the isthmus of the encephalon, that is, the pons Varolii, the medulla oblongata, and the cerebellum. Lesions of the spinal cord, in its upper part, in the cervical region, will also give rise much more readily to paralysis of the upper limbs than paralysis of the lower limbs, the lesion existing above the origin of the nerves of the upper limbs. The spinal cord, therefore, in that respect resembles, as regards its morbid properties, the cerebrum proper, the corpora striata, and optic thalami; while lesions of the other parts of the brain, which exist between the parts of which I have spoken and that part of the cord I have mentioned—those parts of the brain, on the contrary, produce paralysis of the lower limbs. In this variety you see pretty much the same thing that I have mentioned all along; you see that, although there are perhaps generally rules, there is one great thing which dominates everything. It is that, according to the excitability of parts, the paralytic effects that will appear will vary considerably; and this really is the great point in the lectures I have delivered, that, according to the excitability of parts, effects excessively varied will occur.

There have been great efforts made, and I am sure very remarkable ones, by a physician of this city, Dr. Hughlings Jackson, to reconcile some of the facts I have mentioned with the old views which are taught in books, and which, I may say, most of us here have taught. He has tried to show, for instance, as regards the corpus striatum, which is often found diseased without any paralysis at all, that a small part of that organ is a whole corpus striatum—if I may say so—that is, each small part possesses the functions of the whole organ; so that, if a destruction take place there, only taking away three-fourths or more, but leaving some of the organ, there is yet a power persisting. This view certainly answers perfectly

well for those cases in which a part of the organ is found healthy, but it stops there. Let disease destroy one of the corpora striata, and then the supposition vanishes if paralysis do not appear; and there are such cases. Still further, there are cases in which the two corpora striata have been found diseased, without any marked paralysis; and, in one remarkable case, there was no paralysis at all. But, against the view of Dr. Jackson, there is this, which is more decisive—that, if we admit the correctness of the view for a nervous centre, that is, for a cluster of nerve-cells, we should not admit it for the crura cerebri, we should not admit it for parts where there are fibres only; and we see the same thing for parts where there are fibres that we see for the corpora striata, that is, we may find disease destroying the conductors of one-half of the base of the brain, and destroying a great part also of the conductors of the other side, without any marked paralysis. Still more, if Dr. Jackson's view were accepted on the data that he has given, there would remain this great fact against it, Why is it that paralysis will occur at all? If you carry the disease to all parts of the brain, how is it that an excessively small lesion will produce paralysis? Another supposition that he and others have made is, that there are two sets of conductors, coming from each half of the brain, so that each half of the brain would be good for all the functions of the whole brain. He supposes that there two sets of conductors for each half; and if paralysis appear sometimes in one-half of the body, sometimes in the other half, from a lesion in the base of the brain, he considers that disease has in some cases destroyed those conductors that go to the corresponding side, and, in other cases, the conductors that go to the opposite side. It is very well so far as this goes, but why is there a complete paralysis, if it be so, in any instance whatever, in cases in which there is disease limited to one-half of the brain, if the two halves of the brain have fibres that may transmit the orders of the will to muscles to each side of the body? And if paralysis appear only from the destruction of conductors, there ought not to be a paralysis in any case whatever when disease is limited to one side of the brain. Hence another supposition must be made to explain paralysis, than to admit that it proceeds from the destruction of conductors or from the destruction of a nerve-centre.

A third supposition has been put forward by Dr. Jackson, and by a good many of my friends in France, Dr. Charcot among others, viz., that there are supplementary organs in the brain. My friend Dr. Broca has been compelled, by facts, to come to that supposition for that third frontal convolution on the left side, where he has located the force of expressing ideas by speech—he has been compelled to admit that, for this function, there are other parts of the brain which are in a dormant state as regards their activity; and which may assume full activity when the third frontal convolution on the left side has been destroyed; so that aphasia, which has appeared at first from a lesion of that place, can disappear completely, from the education and development of power in the part which naturally has been endowed with that faculty, but where it had not been developed. As regards his supplementary action, of course much can be explained by its help; but there is a very great deal more that cannot be explained. It is said, for instance, that if a disease in one anterior lobe do not produce the least trace of paralysis, it is that other parts of that lobe serve to the same function, or (and this is the view that is held by a few of my English friends) the other anterior lobe serves there in place of that one which is diseased. But what becomes of those views if we find either an almost complete destruction of one-half of the brain without paralysis, or, which is more common, an affection destroying the tissue at the base of the brain, and destroying it to a considerable extent, so that in some cases the whole half of the base of the brain is gone altogether, and without any paralysis. In those cases we have to have recourse, not to supplementary action coming from the same side, but to the supplementary action coming from the opposite side. But what is the worth of that hypothesis? There are some cases in which not only the two anterior lobes, but a part of the middle lobe and the two sides, have been completely destroyed. What also of those cases in which the two middle lobes have been occupied by a tumour on each side, without any trace of paralysis? or of those cases in which there was a destruction more certain than that which could be produced by a tumour occupying the part under the ventricle?—that is, of those parts which are considered as centres for the action of the will to the muscles, the corpora striata and the optic thalami, if they serve; and, as regards the optic thalami, it is a question whether they serve or not the voluntary action. On the other hand, we can find disease in one of these parts only with complete paralysis, and we may find disease in the two sides without any paralysis. The theory, therefore, that paralysis will cease after the development of a power which existed but which had had no education, cannot hold good; and certainly is quite in opposition to what facts teach in those cases in which there is a considerable disease on the two sides, in the same parts, without any marked paralysis.

* Specially reported for the BRITISH MEDICAL JOURNAL.

And now, as I have not yet referred to a part of the brain, which lately many physiologists, Professor Carpenter among others, have been led to consider as an organ of intelligence, and which Meynert and others have considered as the centre for sensation—the posterior lobes—I will say about these posterior lobes that, although galvanising them in animals does not produce convulsions, disease there will produce convulsions very frequently, and will also produce paralysis; and paralysis will appear oftener in these cases on the corresponding side than on the other, that is, oftener if we compare the frequency of that kind of paralysis with its frequency when there is disease in the other lobes. I do not mean to say, absolutely speaking, that that kind of paralysis is more common when the disease is there than the other kind of paralysis. These posterior lobes, therefore, it would be very easy to show, have none of the functions that have been attributed to them; that is, they have not exclusively these functions, and they possess the power of producing paralysis and all the other symptoms of brain-disease, as well as in any other part of the brain-centres. Now, can we explain the phenomena that I have mentioned, in admitting the view which I hold, that a few fibres alone are sufficient for all the actions of the will on muscles; and can we admit also, that a few nerve-cells are sufficient to produce all the actions of the will on muscles? I will not try to prove that it is so, as it would carry me far beyond the limit of this lecture; but there is one point of view about this which ought to be mentioned. If some among you have accepted as true, from the facts I have mentioned, that a few fibres can be sufficient for the transmission of the orders to the muscles, it may be said that perhaps, a few fibres being quite sufficient, if there be disease in the base of the brain destroying the tissue, there are a few fibres escaping; and that, therefore, there is no need for admitting that each half of the brain may serve for the movement of each half of the body. The other view might be held true, that it is the right side of the brain that moves the left side of the body, and *vice versa*. This cannot be admitted for this reason, that, in the first place, it does not apply to cases in which paralysis appears as the result of an extremely small lesion; that would have to be explained by something else; but it does not also hold good, on account of this, that in some cases (not a great many unfortunately, because microscopical examinations are things which have not been made very frequently, except during the last twenty years) where there was complete destruction and absence of fibre on one side of the brain, the voluntary actions were yet as perfect as ever. More than that, these few fibres that are essential must have pretty much the same location; you cannot place them indifferently in one place or another. And disease shows that it cannot be so, as there are a great many cases in which, taking the medulla oblongata for instance alone, either the interior pyramid alone, or the lateral column of the cord alone, or the posterior column, the corpus restiforme, have been destroyed completely without paralysis; and when paralysis has appeared in these cases, it has sometimes existed on the same side. There is no possibility, therefore, of explaining the facts that I have mentioned by this supposition of only a few fibres; there must be this addition, that the two halves of the brain have the power of acting in the two sides of the body. There are individuals, evidently, in whom it does not seem to be so at all; but there are some in whom it is so. There are persons who are absolutely right-handed, in the full meaning of the word, and completely unable to make use of the left side of their body. These persons are likely to be completely paralysed in case they have paralysis of one-half of the brain, because they have not educated the two sides of the brain properly to perform the actions of the two sides of the body. If you examine the movements of a child, a year or eighteen months, or two years old, you will find that they are performed equally by the two sides of the body. If any action be performed by one arm, the other is doing it at the same time; there is, evidently, at that age an action in the two halves of the body. I cannot of course assert—although there are very good reasons for it, which I have not time to mention—that it is one-half of the brain only which is acting then; still, I repeat, there are very good reasons for supposing that it is so. But, even admitting that the two halves of the brain are acting, there is a simultaneous action of the two halves of the body. Unfortunately, we are barbarous enough to prevent such a thing from going on; and we destroy, I am afraid, a good deal of the power of one-half of the brain. I have had the opportunity of delivering a number of lectures on the importance of educating equally the two halves of the body; and the facts I brought forward clearly show that there is a great likelihood, at least, that we leave in a dormant state a great deal of the power of our brain, and that we make use, unfortunately, of only a part of the whole organ, and many of us of only one-half of the brain, for most of the actions of the body. You will say, and it is perhaps an objection present in your minds, that if it be so, admitting that the right side of the brain is the one we make use of for certain actions of the body, supposing that it is the organ that we em-

ploy for the movements of the two sides of the body, as I suppose it to be, how, then, is paralysis produced only on the left side of the body generally when there is disease in the right side of the brain? and how is it also that there is paralysis at all in the right side of the body, when there is disease in the left side of the brain? This is no objection, if everything that I have mentioned, and what I will say again in a moment, shows that paralysis appears, not from the destruction of the conductors or of centres for the will-power, but owing to the irritation which puts into play a certain activity of the part where the disease is, from surrounding parts, so that there is a transmission of that irritation to the nerve-cells at a distance, so as to stop their activity and cause paralysis. And, as I have tried to show, paralysis, owing to such a cause, may appear anywhere, never mind where you locate the cause of it in the brain. Hence there is no great objection to the view that we employ only one-half of the brain for certain actions, and the other half for the other actions.

Now, there is another possible explanation of some symptoms of brain-disease and the production of paralysis. We have all more or less been inclined, when we have seen a patient in a state of coma from a considerable effusion of blood in the brain, or from fracture with depression of the bone pressing considerably upon the brain, or from any other cause whatever producing pressure on that organ—we have all been inclined to look upon the cessation of activity of the brain in these cases, that is, of coma, as the effect of pressure. Pressure on the brain will produce a great variety of phenomena, although it is located in the same place, in a great many instances; and if it produces a great variety of phenomena, it is not by a simple cessation of the function, as the function is identical for the same place. The occurrence of a great many various phenomena implies that pressure acts by simple irritation, and not by a destruction of the function. Still more, the brain can bear a degree of pressure which is infinitely greater than many of you know, or are perhaps ready to believe. Experiments have shown that considerable pressure on a healthy brain, in dogs, will sometimes produce no effect at all, while in other cases a much smaller amount of fluid will produce symptoms which will be various in animals as well as in men. Therefore, we cannot look upon pressure as having the extent of power that is supposed. There are cases in which, in men, immense pressure has produced no symptoms at all; and there are cases, and this is very remarkable, where pressure, existing in the two halves of the brain, from effused blood, has produced nearly every symptom. And there lies another fact, namely, that paralysis and other symptoms appear from the irritation acting on other parts, and not from destruction of functions, or the direct putting in play of the special activity of the part pressed upon. If blood be effused on one side of the brain, symptoms are far more likely to appear than when pressure exists in two halves of the brain. And we have something similar to what we observe when we take away parts of the brain of animals; if we take away more on one side than on the other, these phenomena will occur; but if we take away parts of the brain on both sides equally, these symptoms do not appear until we have reached almost the end of the brain. There is an irritation on the two sides, a counter-action which prevents the manifestation of phenomena, and this we know indeed for a great many cases of disease. If we be exposed to a draught on our full face, striking us just in front, that draught will not produce a facial paralysis—it will not produce bad counter-effects; but let us be struck by a cold wind, blowing violently on one side only of the face, there is not that counter-action which comes from the opposite side, and we may be attacked with either paralysis or other morbid effects. It is very remarkable indeed to find that, in a great many cases of considerable hæmorrhage pressing on the two sides, there was no paralysis at all or very little. Pressure, therefore, is to be considered as acting, as indeed might the point of a knife, or a galvanic current, or some cause of excitation brought upon the brain, and not by the destruction of the function of the neighbouring parts, those on which it acts chiefly.

There is another fact which shows that irritation has a great deal to do with the production of paralysis, that is, what takes place in muscles. If we compare what occurs in paralysis upon a limb, especially the left arm, as it is nine times out of ten the left arm that is paralysed, where there is paralysis there, even when that paralysis is absolutely complete, the muscles remain well nourished, and there is no marked alteration of tissue. It is, then, not owing to the lack of action, to the lack of activity of muscles, that these parts become atrophied when they are paralysed. Paralysis from brain-disease will produce alterations in the muscles, sometimes exceedingly fast. There are cases, and I have seen two, in which paralysis from hæmorrhage in the brain was accompanied by considerable atrophy within a fortnight, so that it is clear that an irritation takes place in the brain, or centre, which is propagated so far as the muscles themselves, producing a change in their

nutrition. There are already a great many facts showing that disease in the brain will produce a great variety of changes of nutrition, and of structure, and, of course, of vitality of functional manifestation in the spinal cord. Those changes have much to do with the production of paralysis. I have no doubt. The important point, as time presses, is my stating that, through all irritations taking place in the brain causing paralysis very quickly, we find changes occurring in every part between the brain and the parts paralysed, that is, the muscles, and including them. There is one other great argument, which is, that the same irritation which causes paralysis will often cause also convulsions, that is, an active phenomenon. You know I have stated that the view I hold of this production of paralysis is that, in all cases where it occurs from organic disease in the brain, it is owing to an influence which is similar to that which is exerted on the heart, that is, inhibition, or suspensory action, or arrest, if you wish to call it so. As inhibition cannot exist without effects of irritation, there is something of the same kind as that which causes convulsions in cases of brain-disease; and it is important to establish their origin, to find the very same cause will very frequently produce the two phenomena. The very same cause applied to two parts of the brain will cause on one side paralysis, on the other convulsions; and very frequently, as you know, convulsions begin in cases of disease of the brain, and paralysis follows; and there are a number of cases in which, after each attack of convulsions, the paralysis makes progress, so that there is a great analogy between them.

I pass now to the ultimate part of this course, which is to show, if I can, that paralysis depends, as I have said, on inhibition; but, before doing so, I must pay a compliment to a gentleman of great ability, a Fellow of this College, who has fought against me with great talent, with great energy, and who has tried long ago to show that, in certain cases of paralysis, those which are called reflex paralysis, the cause is inhibition. I have now become a convert to my antagonist's views; and I not only agree fully with him, as regards the production of paralysis in those cases by that mechanism, but I go very much further. I now consider, as I have said frequently, that every paralysis due to an organic disease in the brain is caused (as Dr. Handfield Jones believed to be the case in reflex paralysis) by inhibition. I will not dwell at length on facts which show that it is through inhibition that paralysis appears. I will say, however, that when we study cases of diseases of the brain, there are a great many facts which appear to prove that it is through inhibition that paralysis comes. Among those facts, we find this, that the very same cause which produces paralysis will very frequently cause, at the same time, purely inhibitory phenomena. We find that hemorrhage in the brain will cause an arrest of the heart's action, more or less complete; we find that it will cause also a diminution in the power of respiration, not that kind of alteration which we know to exist in coma, and which consists rather in a trouble and a difficulty than in a diminution of respiration, but a simple weakness. We find a great many other facts of the same class—among others, this peculiar phenomena, worthy the attention of surgeons, and to which I have tried, vainly I must say, to call their attention so far, that is, the peculiar kind of influence exerted on nutrition, and which shows itself by a cessation of those exchanges in many parts of the body; so that the blood will return from those parts quite red, just as it comes from the arteries, and it will also come out with a diminished temperature; so that, after a time, the part will be excessively cold. The cessation of the exchanges between tissue and blood is a phenomenon of arrest, as clearly as the cessation of the activity of the heart; and I must say there are a great many facts which show that disease of the brain, as well as a good many other purely reflex causes, may produce a cessation of the secretory power of any gland, as well as the cessation of the action of the heart. There is, therefore, a variety of clear inhibitory phenomena. Among that class of effects of disease of the brain, there is one extremely remarkable, which has been stated, as you well know, by Russian physicians: it is what takes place in the reflex activity of the spinal cord. When we act so as to stop this reflex activity, in those cases, as well as in many experiments (and that can be done even in tetanus, so that for a time at least the tetanic phenomena may disappear—whether they be due to strychnine or to disease)—that cessation of the reflex activity is clearly also a cessation through inhibitory influence. And so it is in the action of the sphincter of the bladder and the sphincter of the bowels. Those two sphincters, as you know perfectly, are paralysed sometimes in cases of disease of the brain. It is perfectly known now that a disease, occupying the spinal cord in its upper part, may not paralyse those sphincters; on the contrary, they remain so active through the action of their centre, which is in the lower part of the cord, that there is no issue possible of either urine or feces. There is, therefore, an inhibitory influence exerted on the cells

of the spinal cord that serve to those sphincters, in some cases of disease of the brain. Deglutition is also a mere reflex action, and deglutition is frequently affected by brain-disease. There is in that case also a proof of the same thing, that is, that there may be an arrest of the activity of certain cells, caused by an affection of the brain. But the demonstration can be given by experiment in a very clear way indeed. If we prick the medulla oblongata suddenly, we see symptoms that every kind of activity of the brain is lost, not only the activity by means of which respiration is carried on, not only the activity of the heart, through a reflex action of the medulla oblongata in the cells of that organ, but also the activity of the mind of the animal, the activity of its will, as it falls down dead to every appearance, and dead permanently in most cases, and in such a peculiar way that the body will not decompose after death, for perhaps a month or so, even at a temperature of 50 or 60 in a laboratory. In fact, I had a dog that was so unwilling to become decomposed, which, being shown to the Society week after week for four weeks, annoyed the Society so much that they told me the dog would never become decomposed, and it was quite useless to bring it there. It did not decompose till two months after it had been killed by a mere prick. There is, therefore, a power in an irritation of the brain of acting on cells, not only of the brain, but of other parts—the base of the brain and the medulla oblongata, and probably the spinal cord itself, and certainly on the cells of the heart. There is a power of arresting suddenly the action of those parts.

But now the great difficulty about this view remains: How is it that paralysis will last so long sometimes, when it is caused by a very small lesion of the brain? We know by experimenting that, if we continue to galvanise the par vagum, for instance, after having produced arrest of the heart's action, if we maintain life in the animal, notwithstanding the persistence of the irritation of the par vagum, the heart will beat for a time, in most cases. And that certainly seems to me quite in opposition to the view I maintain, that paralysis may be due to an irritation producing inhibition, and that inhibition may persist in its effect for years sometimes. But the circumstances are quite different; and so many facts show that nerves are absolutely different from nerve-centres in their action, that this objection is certainly not a very good one. Now, on the other hand, we find often that, although disease is extending in the brain (and this is the case particularly when there is an inflammation in that organ), the paralysis, which at first had been produced, will diminish and gradually disappear. We find a series of facts of paralysis appearing and disappearing, by attacks just like convulsions, although the cause of it is a persistent one. Hence, I must say, I do not see that the objections to be made on that ground of persistence of paralysis, and the difficulty of accepting that inhibition can persist, will prove good. There are many cases in which the pulsations may fall to something like forty in a minute, and remain there for weeks and months, from a disease in the brain. Here is an inhibition which is considerable; and how can we tell that a degree of inhibition as great as that is not sufficient, in nerve-cells, to produce a cessation of the power of the will upon them?

There are other arguments which I cannot bring forward. At any rate, I do not consider that this part of the views I hold is fully proved; and one of the great objects I have had in view in propounding it, especially before an assembly like this, is that perhaps some one more able than I am, younger and more active and freer in mind, will be able either to prove or to disprove this view; and, if it is disproved, to establish some other view in its place.

I have now to say a few words on the theory of brain-disease generally. It seems very difficult to admit that a few cells will be sufficient, as I have said they are, for all the functions of the brain. When I say a "few," I do not know what is the number—it may be two hundred or three hundred, or more; but experiments show that a very small part of the brain in animals, and the lower you go in the scale of beings, a very minute part, is quite sufficient for all the functions of the brain. As soon as all is gone, then we fall into automatism, and there is no more will; but, so long as there is a part, there is will-power. In man, we have no fact going so far as that; there is no case in which destruction has been so great, and has allowed the persistence of will-power; but there are many cases showing a considerable destruction of brain-tissue on the two sides, with persistence more or less complete of the brain-faculty. It is clear, therefore, that a number of cells may be quite sufficient; but then, you will say, what can be the use of such an immense deal of cerebral matter, if so much can be destroyed without destroying the functions? Of course, that would not be an objection to facts; but it is something to consider, and I believe it leads to this, that the great mass of brain-tissue is employed chiefly in the production of nerve-force. I have observed carefully patients who had shown that they had some symptoms of disease of the brain, more or less extensive, and which the necropsy showed to exist after a time; and I found that those

patients, although they had no real paralysis, had not the power of continuing long in action—there was certainly a diminution of nerve-force in them. This has been noticed by the celebrated surgeon Larrey in a case in which part of the brain had been carried off in a military man, in whom the mental power had remained pretty good, but could not be employed for a very long time. There seems to be, therefore, a clear use of a great part of the nerve-tissue in the brain in producing nerve-force. There may be also something else; and I will conclude by this, regretting that I have no time to develop the subject. I have had, in several instances, to deliver lectures on what Professor Carpenter has called unconscious cerebration. I have tried to show that there is a power of the nervous system, whatever it may be, which is of a mental order; that is, it has psychological attributes, psychological faculties, mental faculties as our ordinary mind; but it is by far, infinitely I should say, superior to our ordinary mental power. It is that other power which makes discoveries, and not our common power. The discoveries come like a flash to us, just as a tune or a piece of poetry will come to a composer or a poet. There are experiments which certainly show that that mental power makes use of our senses much better than we can—appreciates distances much better than our mind does. There is, therefore, a power besides our own mental power which must be located somewhere. It is very likely that the brain is its location. I would not say that it is located in one part more than in another; in fact, I cannot but believe that it is located in cells and diffused, as cells having special functions are, according to my view, in the brain, but certainly as functions belonging to that kind of power. It would be a most interesting point to ascertain, in men of eminence who have the misfortune to be attacked with disease of the brain, if they lose that power of discovery, that power of policy, that power of composing, that in health they possessed. If so, it would show that a good part of the brain possesses that power through the few fibres of which I have spoken, as being essential for communication between the brain and the body. I cannot conceive that anything else but something like telegraphic messages are sent; and that, of course, implies that in the spinal cord there are other powers of a mental order also, quite inferior of course, and having no spontaneity, but able to receive, to understand a message, and to execute what it states.

I am very sorry to have indulged in these few hypotheses, as I have no time to dwell at length upon them; and it remains for me to thank the President for his kindness in permitting me to deliver this course of lectures, and to thank the gentlemen who have been so kind as to honour me with their presence.

OVARIAN DROPSY: SOME POINTS IN ITS PATHOLOGY AND TREATMENT.

By PROTHEROE SMITH, M.D.,

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IN bringing the subject of ovarian disease and ovariectomy before the Association, I am not so much actuated by the desire to express my own opinion as to invite discussion, in order to determine what is the most eligible mode of dealing with a malady which has become of frequent occurrence, and which, without the aid of operative assistance, almost invariably proves fatal in its issue. To accomplish my purpose satisfactorily, I shall divide the matter of which I am about to treat into three parts or inquiries; and the replies to these inquiries will, I hope, elicit such remarks from others as shall greatly enrich, if not exhaust, our subject.

The three heads or questions alluded to are:

1. Can any reliable prophylactic means be devised to lessen the frequency of ovarian disease by obviating *in limine* its cause?
2. What is the best manner of preparing patients for ovariectomy, and of performing the operation with a view to success?
3. What treatment after the operation is best calculated to ensure the recovery of the patient?

1. Can any reliable prophylactic means be devised to lessen the frequency of ovarian disease by obviating *in limine* its cause?

During a period of thirteen years, commencing in 1836, whilst engaged there as assistant obstetric physician with the late Dr. Rigby, the result of my observation of the out-patients of St. Bartholomew's Hospital in comparison with those seen subsequently at the Hospital for Women, leads me to the impression that ovarian dropsy has, during the last thirty years, increased in frequency. If such be the case, it would suggest the importance of inquiry into the possible causes of this increase. First, assuming that the ovaries usually become diseased in consequence of a morbid procreative effort—of which the subjects of it

may be and generally are entirely ignorant—we should naturally expect that these maladies would be most frequent during that period of life which is allotted to menstruation and utero-gestation; and, as a rule, such is the case. As I have before elsewhere observed, there are certain developmental stages in our existence when organs receive additional force to perfect that which was incomplete at first—as in dentition, at the termination of the first seven years; and, in puberty, at the end of the second seven years, etc.

From this time of life, in accordance with the unerring wisdom of an all-wise Creator, there is imparted to woman an additional nutritive power for the purposes of procreation. This is shown by a state of hyperæmia; and, if this be not employed according to the divine law, "increase and multiply", or by the counteracting vital expenditure at menstruation, she, at times, realises the curse pronounced against her at the fall, viz., "I will greatly multiply thy sorrow and thy conception". Whilst, however, the laws of God and man necessarily limit marriage life, it follows that this restriction, when menstruation is faulty, may lead to uterine and ovarian engorgement, and so explain the origin at times of ovarian and uterine disease.

This predisposition to disease may be recognised by the flushed countenance, with dysmenorrhœa, and other disorders of menstruation, and a full bursting sensation, with hysterical affections, mental disturbances, contracted and incompressible pulse, and sound, as the twang of a tense string, accompanying the heart's action, and a heightened temperature. Such conditions I often saw, in my early professional career, treated by venesection; a remedy which appeared almost invariably to relieve the patient at once of her distress. At this time, forty years ago, when I was resident in Devonshire, ovarian disease was there very rarely seen; but since bleeding has gone out of fashion, whether *post hoc* or *propter hoc*, the malady has apparently become more frequent. With a view to confirm the idea that the frequency of ovarian and uterine disease might, during the procreative period of life, to a certain extent depend on undue or excessive nutrition, insufficient menstruation or sterility, and the general neglect of bleeding as a remedy, I have in vain sought for statistics at a time—half a century ago—when the lancet was more commonly employed, in order to compare the relative frequency of ovarian disease then with what now obtains. Failing this, I sought for information in a country in which bleeding is still often employed; and the result of such investigation has been to confirm me in the belief that, by judicious dietetic restrictions and cautious use of the lancet, many cases of ovarian disease might be at times prevented, by removing that condition of hyperæmia which, if not relieved naturally by menstruation or utero-gestation, tends to mischief in those organs for whose special use it had been supplied.

I should not find time now to give in full my correspondence with Dr. Saucher, Marquis de Foca, of Madrid; but, in reply to my inquiry, whether he could supply me with any facts, statistical or otherwise, to show whether, as venesection is still commonly practised in Spain, and had been virtually abolished in England during the last half century, the instances of ovarian disease were less numerous in Spain than with us, he states: "Venesection is frequently employed in Spain, especially in hot climates and in the south provinces"; and again, after speaking of the predisposing causes of ovarian disease, and generally tracing them to hyperæmia, hypertrophy, or hypersthenia, he says, "ovarian cysts are very rare among us comparatively with England".

Although I admit that the opinion herein expressed offers insufficient grounds to allow any definite conclusion, still I hope I may have advanced enough to warrant the anticipation that others, with more time and ability, may be led by my remarks to obtain more conclusive evidence as to the cause of the frequent occurrence of ovarian disease. I pass on now to my second inquiry.

2. What is the best manner of preparing patients for ovariectomy, and of performing the operation with a view to success?

It is desirable, when not contraindicated by extreme weakness, that, for some time previous to the operation, the patient should abstain from animal food and stimulants, and be kept quiet; and, if possible, in bed, attention being paid to the state of the bowels, the character of the urine, and the temperature of the body. Should slight attacks of circumscribed peritonitis occur during the development of the cyst, it may be enough only to apply leeches and hot poultices to the abdomen, and to prescribe a light diet without stimulants. As a rule, advanced cystic and other diseases of the ovary, requiring operative treatment, are accompanied more or less with inflammation, partial or general, of the peritoneum, proper to the cyst itself, or covering adjacent organs. The pathognomonic signs of this condition are often indistinct; but where, in addition to abdominal pain, there exist crimson lips, and a hard though small and very incompressible pulse, so that no pressure above by an assistant obliterates the radial pulsation, venesection will

generally relieve this state, and show by the buffed and cupped character of the blood, if drawn *pleno rivo*, and by the excessive proportion of firm crassamentum in comparison with the serum, an element of mischief which, in the prospect of ovariectomy, is most desirable to remove. It has been, therefore, my custom of late to employ phlebotomy before operating; either to take a small quantity for the purpose of testing the quality of the blood, or the existence of inflammatory action; or, when the pulse and other symptoms demand it, a larger quantity (from 8 to 18 ounces or more), occasionally repeating it, or otherwise applying leeches to the seat of pain, to the anus, or to the uterus. By reducing the patient in this way, as well as dietetically, to a condition opposed to that which predisposes to inflammation, hæmorrhage, and serous exudation, she is so prepared that she is more likely to escape from any unfavourable consequences after operation; and the result of such practice has justified the means employed.

As to the operation, the best manner of performing it after taking the above-named precautions is, I believe, to make as small an abdominal section as is consistent with the easy abstraction of the emptied cyst or cysts—to pass the hand within the primary cyst, and break down any secondary ones, evacuating their fluid contents thus, through one aperture—very gradually withdrawing the diseased mass by traction, and peeling off any bands of connecting lymph, adhering to the sac, as close to it as possible. Considerable time and care should be given to this, and to securing and stopping bleeding vessels. The pedicle, if long, is best treated with a clamp; if, of moderate length, by actual cautery; but, if the cyst be close to the uterus, by ligatures. After carefully mopping out ascitic and other fluids and coagula from the abdomen and pelvis, the wound should be closed with silk sutures at about half an inch apart, and the wound dressed simply with a small piece of lint squeezed out of carbolic oil. Over this should be placed a cloth and a compress of cotton-wool, firmly held in place by long strips of ordinary strapping and flannel bandage.

I must apologise for entering into these ordinary details; but I have known ovariectomy to fail from want of their adoption.

3. What treatment after the operation is best calculated to ensure the recovery of the patient? Amongst the causes of death after operation may be enumerated, according to the frequency of their occurrence, peritonitis and serous and sanguineous exudations, followed by so-called septicæmia or pyæmia; as also effusions into the pleural cavities (by no means an uncommon accident in ovarian dropsy), and those of the brain; whilst the frequent occurrence of hæmoptysis, hæmatemesis, albuminuria, hæmaturia, and the undue occurrence of menstrual discharge, show a tendency to relieve the surcharged vascular system; and the sudden withdrawal of the cyst, preventing that serous drain into it after the operation which beforehand the custom of months, and sometimes of years, had made second nature, sufficiently explains this tendency.

Regarding the disease as an effort to relieve the hyperæmia of the ovarian organs, it would naturally follow that vicarious efforts by means of other organs would be made after the customary reservoir had been summarily removed by ovariectomy. To meet this habit of depletion, thus established, and to prevent the injurious consequences just named, I have usually, of late, not only prepared my patients by abstinence from animal food and stimulants, and by venesection, before the operation; but afterwards I have endeavoured to cut off all occasions of distress to the wounded parts which might ensue from disorder and flatulent distension of the stomach and bowels. This is done by keeping these organs absolutely at rest; that is, by entirely avoiding any act of digestion and assimilation, by which means excessive peristaltic action of these viscera and tympanites are avoided for the first five or eight days after the operation. To satisfy the cravings for food and drink, it is enough to administer at first only distilled water sweetened with glycerine in teaspoonfuls, or to give small pieces of ice; whilst life is sustained, and the nervous system tranquillised, by the repeated use of morphia hypodermically, or by the anus—watching temperature, tongue, and pulse, etc., for the time when more support will be indicated.

As peritonitis and sanguineous-serous exudations in the abdomen and pelvis, in the cavities of the brain and pleura (apt to be mistaken at times for septicæmia or pyæmia), are amongst the most frequent of the unfavourable sequels of ovariectomy, when such an attack is threatened by rigors, a rapid increase of temperature, tympanites, and pain, with a wiry, hard, incompressible pulse, and dry hot skin, one or two bold bleedings will often cut it short. This course I adopted in my second case of ovariectomy in 1848, in which peritonitis appeared fifty-five hours after the operation, when the patient was bled to ten ounces. She made a good recovery, and is still alive and well. With a view to relieve brain-symptoms and to reduce temperature, bladders of powdered ice and salt to the head and face, and cold sponging with vinegar and

water to the extremities, are of great use. Dr. Day has recently proposed an ingenious mode of employing cold to the head by means of a double cap and flowing iced water, which has, I understand, been employed with good results by Mr. Spencer Wells. Observing the frequent recurrence of menstrual discharge immediately following the operation, when the catamenia are not present, and the symptoms are not sufficiently grave to demand venesection, I have seen leeches, applied *per speculum* to the uterus, produce the greatest relief by reducing the temperature and the frequency of the pulse.

Whilst, however, advocating the use of the lancet, I do not wish to overlook the importance of the greatest possible vigilance for the moment, when such treatment may not only be contraindicated, but the judicious use of ammonia, brandy, and champagne, may become as urgently required.

Time restricts me to this mere outline of a subject too extensive and important to allow of anything more in so short a paper. It only remains for me, in illustration, to say that since November 1874, when our hospital was reopened, having invariably pursued this course, I have operated on four cases at the Hospital for Women, and they have all made satisfactory recoveries, although some of them had serious complications, as seen in the following summary.

CASE I.—Elizabeth W., aged 27, married, was admitted into hospital December 1st, 1874. The pulse was small, wiry, and incompressible; and the lips deep red.—December 8th. Six leeches were applied to the abdomen.—December 10th. She was bled to 1½ ounces (crassamentum=1 ounce; serum=½ ounce).—December 17th. She was bled to 3½ ounces. The pulse was rendered softer and fuller, and more compressible.—December 31st. Four leeches were applied to the abdomen.—On January 2nd, 1875, ovariectomy was performed. A great number of adhesions were found, which were broken down. The tumour extended high up into the chest on the right side, and was adherent to the diaphragm, omentum, and abdominal walls. There was free hæmorrhage from the place of the adhesions, which was stopped after some considerable time by pressure and cold sponges. The peritoneum of the abdominal wall was found inflamed. The cyst was multilocular. At 10.48 P.M., she was bled to 4½ ounces (crassamentum=2 ounces; serum=2½ ounces). Thin pedicle, of moderate length; clamp.—January 3rd. She was bled to 3 ounces (crassamentum=2 ounces; serum=1 ounce).—On February 6th, she was discharged cured.—[This patient has since given birth to a healthy child, and is herself very well.]

CASE II.—Ann W., aged 42, married fourteen years, was admitted on January 21st, 1875. Before she was admitted, she had been tapped in August 1874, when 32 pints of dark fluid were drawn off; and again in November, when 28 pints were removed. She came in complaining of abdominal pain. There was a history of phthisis in the family. The chest was sound; no evidence of tubercle. The lips were deep crimson. The pulse was hard, small, and incompressible.—January 23rd. She was bled to 15 ounces.—February 4th. The operation was performed. There were adhesions of the cyst to the abdominal wall, and a multitude of secondary cysts. There were 25 pints of fluid. The abdomen was sponged out. There were a considerable number of adhesions to the omentum and intestines. The pedicle, which was short, was clamped. After the operation, the patient suffered from sickness, abdominal pain and distension, with pulse 40 and temperature 103 on the fifth day. On February 10th, at 9.30 A.M., the clamp was removed on account of its dragging on the pedicle. Before doing so, I transfixed the charred edges of the pedicle with two wire and one silk ligature, and allowed it to drop into the abdomen. I pumped out of the abdomen 10 ounces of bloody serum, with relief to the symptoms; and the wound was brought together by plaster. At 12.30, three leeches were applied to the cervix uteri; a fair quantity of bleeding followed. At 4 P.M., she was bled to 2½ ounces (crassamentum=2 ounces; serum=½ ounce). On February 11th, the wound was again opened, and the abdomen syringed out with distilled water and Condy's fluid; a quantity of serum having been previously pumped out of the abdomen and pelvis. On March 16th, she was discharged cured.

CASE III.—Elizabeth, aged 34, married eleven years, was admitted March 27th, 1875, complaining of pain in the back, slight dyspnea, and frequent micturition. She had deep-coloured lips, and a hard, wiry, incompressible pulse; temperature 102. On April 1st, she was bled to 13 ounces (crassamentum=8 ounces; serum=5 ounces). On the 8th, six leeches were applied to the abdomen.—April 17th. The expectoration was pneumonic.—On the 23rd, six leeches were again applied.—April 27th. Four leeches were applied to the os uteri.—On April 29th, ovariectomy was performed. There were no adhesions. The pedicle, very thick and broad, was clamped.—On May 6th, there was hæmorrhage from the pedicle, which was stopped by the application of

ice. The patient had no food for eight days, except glycerine, brandy, and distilled water. On May 26th, she was discharged cured.

CASE IV.—Mary W., aged 21, single, a servant, was admitted April 30th, 1875. On May 28th, she complained of severe pain in the left side. On the 31st, five leeches to the abdomen gave great relief. On June 6th, twelve leeches were applied to the seat of pain. On June 17th, the operation was performed. The cyst was multilocular, and extending into the right hypochondriac region. There was slight hæmorrhage. There were adhesions of the peritoneum to the cyst anteriorly, but none to the other neighbouring organs. The abdomen was carefully sponged out. The clamp was applied. During the first forty-eight hours after the operation, the patient took nothing but small quantities of tepid water (24 ounces in all). The urine contained albumen and lithates; these disappeared on the 19th. The amount of nourishment taken between 11 A.M. on the 19th and 11 A.M. on the 20th was, glycerine, 5 drachms and 5 minims; brandy, 7 drachms; water, 23 drachms; with 40 minims of aromatic spirits of ammonia. The nourishment taken during twenty-four hours between 11 A.M. of the 20th and 11 A.M. of the 21st consisted of glycerine, 1 ounce, 1 drachm, 25 minims; brandy, 1 ounce, 1 drachm, 40 minims; water, 20 drachms.

ON DISLOCATIONS OF THE ELBOW-JOINT AND FRACTURES OF THE LOWER END OF THE RADIUS.*

By ALEX. OGSTON, M.D.,
Surgeon to the Aberdeen Royal Infirmary, etc.

THE preparation of compound dislocation of the elbow-joint and injury to the lower extremity of the radius, which I have the honour of showing you, has the following history.

A. B., a boy, aged twelve, was climbing a cherry-tree in the country, about ten miles from Aberdeen, on August 10th, 1875. He fell to the ground, and received a compound luxation of the right elbow-joint. He could give no account of the position of the arm at the time of the fall. He was seen by Dr. Fiddes of Aberdeen, who sent him into the Aberdeen Infirmary. Dr. Kerr being ill, I saw the boy for him, two hours after the receipt of the injury. There was no swelling of the arm. The lower end of the right humerus protruded completely through a lacerated wound on the front of the elbow, and could not be reduced. On inserting a finger into the cavity of the elbow-joint, the epitrochlea and epicondyle could be felt separated from the humerus, and lying in their proper position in relation to the radius and ulna. The pits from which they had been torn could be seen in the protruded humerus. The posterior surface of the protruded humerus was stripped of its periosteum for two inches up. There was almost no hæmorrhage.

The wrist of the same arm exhibited signs of fracture of the radius above the wrist-joint. The fracture could be reduced, and its signs made to disappear temporarily. When this was done, the deformity did not tend to reappear unless the arm was lifted by the hand. It was observed, however, that bony crepitus could not be elicited, and that the styloid process of the radius did not present the displacement upwards, which is observable in cases of Colles' fracture. It was, on the contrary, in its normal position, of a quarter of an inch lower than the styloid process of the ulna, instead of being shortened so as to be on the same level.

The arm was amputated above the lower fourth of the humerus.

The subsequent dissection of the extremity showed the following peculiarities. The wound through which the humerus projected was found to be transverse in direction, with lacerated margins, and to involve the skin, superficial fascia, and deep fascia. It was smaller than the circumference of the protruded part of the humerus, and embraced it so tightly as to preclude reduction. The subcutaneous veins of the forearm were uninjured; the humerus having protruded above the fork formed by the median vein, dividing into the median-basilic and median-cephalic veins. The cutaneous nerves of the forearm had also escaped injury; the nerves of Wrisberg and the cutaneous branches of the internal cutaneous passing on the inner, and the cutaneous branch of the musculo-cutaneous on the outer side of the wound. The tendon of the biceps muscle lay in the outer side of the wound, but the slip which it sends off to the deep fascia of the forearm was torn through. The brachial artery lay in the wound against the inner side of the protruded humerus; it was quite exposed, but not denuded of its sheath. Still more inwardly lay the uninjured median nerve. The brachialis

anticus muscle was almost wholly torn through; for the lower end of the humerus had perforated it, giving rise to a large hole through its middle, a bundle of the lateral fibres, of the size of the little finger, passing down on each side of the shaft to the insertion of the muscle, and thus forming a muscular collar embracing the bone, which of itself would have been sufficient to have prevented replacement. A slight extravasation of blood existed in the hollow of the elbow in front of the torn lower end of the brachialis anticus. The fleshy origin of the pronator radii teres from the humerus above the internal condyle was torn through. The epitrochlea was detached through its epiphysal cartilage, and a shell of bone from the humerus, corresponding to the common attachment of the flexor muscles of the forearm, was detached along with it. The epicondyle was fractured off along with a small thin shell of bone corresponding to the common origin of the extensor muscles of the forearm. On the outer side of the humerus further up, the origin of the extensor carpi radialis longior, and of the supinator radii longus, as well as the external intermuscular septum, were detached from the bone for a distance of two inches upwards. The posterior and internal surfaces of the humerus were denuded of periosteum to the same extent.

At the wrist, the lower epiphysis of the radius was found separated, a transverse diastasis having taken place through the epiphysal cartilage. The lower fragment was displaced backwards, but, owing to the transverse direction of the fissure, there was no shortening, and the shell of cartilage had prevented the occurrence of bony crepitus. The fissure was just at the lower margin of the pronator quadratus, and a few of the lowermost fibres of this muscle were torn across at their insertion into the radius. The front surface of the upper fragment of the radius underneath the pronator quadratus was partially denuded of its periosteum for three-quarters of an inch upwards, and this periosteum hung as a short flap from the upper edge of the lower fragment at its anterior part. Extensive infiltration of blood, but no distinct coagulum, was found in the connective tissue beneath the fascia, separating the superficial from the deep muscles on the front of the forearm, and this was most extensive in two situations, viz., in front of the interosseous membrane, between the flexor longus pollicis and the flexor profundus digitorum muscles, and between these muscles and the pronator quadratus. Similar extravasation extended into the palm of the hand, along the tendon of the flexor longus pollicis, and was also present on the back of the wrist below the tendon of the extensor secundi internodii pollicis. Finally, the styloid process of the ulna was fractured off at its tip, an injury which was not observed before dissection.

Nothing else abnormal was revealed by the dissection, which was conducted with great care.

My reason for bringing forward these minute details is, that they suffice to show exactly how the injuries had been produced, and are of value as adding to the knowledge we already possess regarding similar accidents to the radius and elbow-joint. The only possible explanation of their mode of production, and the one now generally adopted to explain similar injuries, is, that the boy had fallen with outstretched arm, on the palm of his hand, while the wrist was bent backwards. This is supported by the absence of cutaneous abrasion and extravasation from any other part of the arm on which the impact with the ground could have occurred; it being known that the palm of the hand usually escapes without such lesions. The palm of the hand resting on the ground, the weight of the body had to be borne by the forearm, and, as usual, the radius gave way at its lower part, just above the wrist. The fracture occurring by diastasis, or separation of the epiphysis, there was no impaction of the upper into the lower fragment, which was carried backwards with the carpus, and the strain thrown at the same time on the internal lateral ligament of the wrist-joint sufficed to break off the tip of the styloid process of the ulna to which it is attached.

The symptoms of fracture thus produced were somewhat peculiar. It is known that when this does not occur by diastasis of an epiphysis, the lower end of the radius, which articulates with the carpus, is not only carried backwards, but it is displaced obliquely, so that the articular facet is altered from its normal direction, *i.e.*, looking downwards, forwards, and inwards, and is found directed downwards, backwards, and outwards. The preparation of an old Colles' fracture, which has united, which I now show, will illustrate this alteration of direction very well when compared with the normal bone. The displacement results from a rotation of the lower fragment on the horizontal axis which runs through both forearm bones from within outwards, as well as on its antero-posterior axis. This last rotation, coupled with the frequently oblique direction of the plane of fracture from before upwards and backwards, or with the more or less marked impaction of the upper into the under fragment which is usually

* Prepared as a communication to the Aberdeen, Banff, and Kincardine Branch.

present, leads in almost every case to a shortening of the radius. Of this the most marked symptom is one which is invariably, or almost invariably, present, viz., a drawing up of the styloid process of the radius in relation to that of the ulna. Normally, the forefinger and thumb, if firmly pressed against the upper row of the carpal bones, easily feel that the styloid process of the radius is a quarter of an inch lower down than that of the ulna. But after Colles' fracture, the two processes are pretty nearly at the same level from the shortening of the radius. This sign has not been absent in any of the Colles' fractures, amounting to about a dozen, which I have met with during the past year. But in the boy who sustained the above injury, the styloid processes were noted as standing in their usual relationship, and on dissection this peculiarity was confirmed. It is evident that in him the existence of diastasis of the epiphysis, as distinguished from Colles' fracture, was the reason of this peculiarity, as well as of the absence of crepitation on moving the fragments on each other. The rotation of the articular facet was simply backwards, without the usual outward obliquity.

The continuation of the force acting on the arm, which, at the moment of the fall, had been extended at the elbow-joint, led in the next place to an over-extension of the elbow, and to dislocation backwards of both the forearm bones. The forearm bones are, I believe, capable of being dislocated backwards only by an over-extension of the elbow-joint; at least, any other mechanism very rarely produces this displacement. The humerus was by the hyperextension of the elbow-joint so much tilted forwards, that its lower extremity came to lie in front of the heads of the radius and ulna. The anterior ligament was then torn through, and the pressure of the lower end of the humerus led to the brachialis anticus being skinned and stretched over it, and finally to its being perforated by the bone, the brachial artery and median nerve slipping inwards over the internal condyle, and the tendon of the biceps, set free by the rupture of its aponeurotic slip to the deep fascia of the forearm, slipping over the outer condyle. At the same time, the internal and external lateral ligaments of the elbow-joint tore off the epitrochlea and epicondyle to which they were attached. The lower end of the humerus, when thus set free, had only to tear the aponeurosis, superficial fascia, and skin, to produce the compound dislocation which was observed.

This state of matters in the elbow-joint seems to throw some light on the occasional occurrence of irreducible dislocations of the elbow. Here the brachialis anticus, tightly embracing in its perforated opening the shaft of the humerus, would have defeated all attempts at reduction, even had the wound of the more superficial parts been enlarged. And it would have been a very hazardous operation to attempt the division of the remaining lateral fibres of the brachialis anticus, on account of the proximity of the brachial artery and median nerve on the inside, and of the biceps tendon and radial nerve on the outer side.

We sometimes meet with an irreducible dislocation of the elbow presenting a great similarity to the above case, except that it is not compound, i.e., without the wound of the skin and fasciæ. The cast which is before you, for instance, was taken from such an irreducible dislocation of the right elbow-joint in a boy aged 14, who presented himself at the Infirmary after the injury was four months old. He could give no account of the position of the arm at the time of the fall. He had fallen from a wall, and his able medical attendant at once diagnosed dislocation backwards of both forearm bones. Strenuous and prolonged efforts, with and without chloroform, were made to effect reduction, but unsuccessfully. On examination at the Infirmary, after the lapse of this time, the forearm was found to be shortened on its anterior aspect, owing to the projection forwards, at its upper part, of the lower end of the humerus. Beneath the skin in front of the elbow, this portion of the humerus could be felt, and all its anatomical peculiarities were so distinctly to be made out that it was evidently covered by little more than the integuments of the forearm. The bones of the forearm were dislocated backwards in company, but were directed diagonally inwards across the articular surface of the humerus, giving the latter bone the appearance of being rotated outwards on its long axis, so that the internal condyle pointed forwards and inwards. The trochlea lay in front of the shaft of the ulna below its coronoid process, and the radial eminence immediately in front of the head of the radius. Above the head of the radius, instead of the articular pit being perceptible, there was felt a bony knot immovably connected with the humerus, and not moving with the radius, which seemed to be the epicondyle of the humerus detached and re-united. The forearm was midway between extension and right-angled flexion: the articulation permitted pronation and supination to be well performed, but flexion and extension were very limited in extent. The broken off epicondyle and the uncovered lower end of the humerus, are almost positive

proof of the correctness of the supposition that the humerus had perforated the brachialis anticus. Of course, even if the brachialis anticus had not been perforated, it might, in the interval of time between the accident and our seeing the arm, have wasted so as to leave the humerus seemingly bare, but the total irreducibility of the injury when recent, speaks strongly in favour of the view I have stated.

OBSTETRIC MEMORANDA.

ON THE HYPODERMIC INJECTION OF ERGOTIN IN CASES OF UTERINE FIBROIDS.

IN the interesting article which appeared on this subject in the JOURNAL of June 17th, the remark is made that I, in common with all those who practised the hypodermic injection of ergotin, as recommended by Hildebrandt, have found that this treatment, sooner or later, resulted in the formation of troublesome sores. I think it of some importance to say that, though this is perfectly correct with reference to the cases published by me, and quoted by Dr. Byford in his essay, it is not so with respect to my more recent ones. I have availed myself, since my appointment to the Mastership of this Hospital, of the larger opportunity offered me here to carry out this treatment more extensively; and I give the following cases as examples of the results obtained. Case 1, of large intramural fibroid, in a widow, nulliparous, aged 38; prominent symptoms, distress from weight and size of tumour, menstruation increased but not excessive, returning at intervals of twenty-one days; with an intramenstrual discharge of blood, moderate in quantity, lasting for three days, thirty injections, practised at intervals of two and three days. Result: total disappearance of the intramenstrual discharge, slight prolongation of the intramenstrual period, hardening and apparently slight diminution of the bulk of tumour, no pain caused by injection or irritation following it. Case 2. Single woman, aged 45, rendered exsanguine by profuse menorrhagia, accompanied by excessive pain, and lasting fifteen days and upwards, intramenstrual period of not more than from seven to ten days; of late, in fact, seldom free from a red discharge; large intramural fibroid, filling up pelvis, and reaching to within an inch of umbilicus. Upwards of sixty injections of ergotin; admitted January 6th. Result: March 10th, flow diminished in quantity and lasting for six days, intramenstrual period prolonged to twenty-one days; April 1st, menstruation reappeared this day, lasted but two days; May 21st, menstruated to-day, flow lasted four days. Marked as the improvement was as regards the check put on the loss of blood, her condition in other respects was not satisfactory; her sufferings, always great, were aggravated, the injection being always followed by severe pain, referred to the tumour, necessitating the constant use of morphia; she seldom could leave her bed; and I finally abandoned the treatment, and am now endeavouring to enucleate the tumour. I hope, at a future time, to publish the case *in extenso*. At present, I wish merely to point out the fact that the injection of ergotin, in neither of the two cases I have detailed, was followed by the formation of sores; nor has it been in several others in which it has been recently practised for a shorter time by me. The only explanation I can give of the greater success, in my later cases, is this, that whereas I formerly added a small quantity of glycerine to the solution of ergotin, as recommended by Hildebrandt, I now employ a solution of one part of the extractum ergotæ liquidum (*British Pharmacopœia*) in two of water, injecting 15 or 20 minims of this each time. I always insert the needle into the gluteus muscle, making it penetrate to the depth of more than an inch.

LONBE ATTHILL, Rotunda Hospital, Dublin.

MISCARRIAGE OF TRIPLETS.

ON July 10th, I was consulted by Mrs. C., a healthy woman, thirty years of age, with reference to a very large abdominal tumour, which, she said, she had only noticed for about six weeks, and she complained of great pain in the right lumbar region. On November 5th, 1875, she was delivered by forceps of a dead child; this being her tenth confinement, and her last menstruation was on February 14th, 1876. The tumour felt like a solid, hard mass; but without the irregularities of surface generally noticeable in the pregnant state, and was freely movable. No fluctuation could be detected; and there was nothing to suggest fluid as the cause of the tumour, except its rapid growth. The uterus was high up, and, on vaginal examination, the os could with difficulty be reached with the tip of the index. The mammae presented marked signs of pregnancy. As Mrs. C. desired admission to an hospital, I sent her to St. Thomas's, where she was seen by my friend Dr. Robert

Cory; but she could not then be received as an in-patient, and I, therefore, visited her at her own home, at four o'clock in the afternoon of July 14th, when I found that labour had begun. At eight o'clock the same evening, Dr. Cory joined me; and as the patient was very weary, and the cervix was still hard, though a portion of membrane was protruding into it, on Dr. Cory's suggestion we introduced one of Barnes's dilating bags. This was three times expelled by uterine action, and, soon after the third expulsion, there came a rush of twelve or fourteen pints of liquor amnii; and during the next twenty minutes, with a little manual help, three girls were born, the first two having one amnion between them, and the third one of its own. There was but one placenta. In each case there was life, with feeble efforts at breathing, which lasted only about an hour, and then death supervened. The foetus, which had the most flesh of the three, weighed nine ounces. The patient has recovered perfectly well.

JOHN GILL, M.D., Sackville Street.

THE OAKUM-PESSARY.

I WRITE to advocate the use of the oakum-pessary, as superior to all others in almost all the cases requiring support. The sort I always use is the very finely carded oakum, called "Antiseptic Marine Lint", sold by Maw and Thompson. Most other sorts are too irritating to the vagina. It must be packed in, bit by bit, as the patient is lying; and not the least of its advantages is that she can use it herself, and change it as often as is desirable. I am not aware that any medical man has used it, except those to whom I have recommended it. I am indebted to Dr. Copeman of Norwich for the original idea of using tow, but I humbly submit that this is far preferable.

HERBERT M. MORGAN, Lichfield.

THERAPEUTIC MEMORANDA.

TREATMENT OF CHRONIC ECZEMA.

IN reply to a request on this subject, from a correspondent in the JOURNAL for July 15th, I think a few recent cases, illustrating the curative effect of carbolised oil in this painful disease, are well worth recording. I have used it in a great many cases with complete success. I may further add, that, although bathing in plain water frequently increases the irritation of the diseased parts, I have always found that bran-water (prepared by pouring boiling water on bran, and allowing it to cool) immediately relieves the smarting. CASE I.—H. B., aged 50, plasterer and moulder, a strong, healthy man, rather intemperate, suffered from eczema of the phalanges of both hands off and on for several years. He came under my notice in January 1875, when his hands had been bad for seven months, and he was quite unable to work. Both hands were very irritable, covered with deep fissures, and weeping freely. I ordered him to bathe his hands twice a day in bran-water, and apply lotio plumbi constantly, and to take a saline mixture with five minims of liquor arsenicalis three times daily. In a few days, the irritation had all subsided, and he was then ordered to dress the fingers twice daily with lint soaked in carbolised oil (thirty minims of carbolic acid to one ounce of olive oil). This treatment was continued for six weeks, when he was dismissed cured. He came under my care in June 1876, with a slight attack of eczema of the right leg, which speedily gave way to treatment; the hands had remained perfectly free from the complaint. CASE II.—J. S., aged 42, a baker and confectioner, very temperate man, always had good health, with the exception of an occasional attack of cracked fingers. He now suffered from severe eczema of all the phalanges of the left hand, which had been on him for several months. He was ordered to take three minims of liquor arsenicalis in half a wineglassful of water after each meal, to bathe the hands frequently in bran-water, and rub the fingers well with carbolised oil night and morning. He was completely cured in three weeks. CASE III.—Mrs. W., aged 36, at present under treatment, is the mother of several children, of temperate habits, rather inclined to corpulency, but otherwise enjoys good health. She has had eczema of all the phalanges of both hands for more than two months. The fingers are very red and swollen, with numerous fissures, which are extremely painful, and discharge watery fluid. She was ordered to bathe the hands frequently with bran-water, and then cover them with lint constantly moistened with lotio plumbi. The inflammation quickly subsided, and the usual carbolised oil was substituted for a lotion. She is taking internally a saline aperient mixture, and is rapidly getting well.

HARRY CROOKSHANK, M.D.C.S., F.R.C.S.,
(Brit. Med. Journal) Lichfield.

PAIN PRODUCED BY CHLORAL-HYDRATE.

I HAVE so frequently observed a peculiarity following the use of chloral, which I have not yet seen recorded in any medical book or periodical, that I feel sure it will be interesting for me to describe it. In several cases where I have given chloral-hydrate in ordinary doses (generally when it has been continued for several days at least), a feeling of pain is experienced all over the body, sharper than that of chronic rheumatism, and often so sharp as to make the patient beg for relief. In each case, I have found no relief obtained till the chloral was discontinued. It seems to me to be a general hyperæsthesia of the cutaneous nerves, but sometimes localised in one particular spot. Tincture of gelsemium gives relief to the pain sooner than other remedies.

HERBERT M. MORGAN, Lichfield.

SUMMER DIARRHOEA.

ACCORDING to my experience, one-half of the fatal cases of summer diarrhoea in infants perish through delay in treatment caused by mothers attributing the looseness to teething. The most efficacious remedies this season have been calomel, bismuth, and aromatic confection, followed by oxide of silver, bismuth, and aromatic confection. An easy way of dispensing these medicines is to throw them dry into a phial, add a little water, shake well and fill up. Two grains of calomel may be given in an ounce and a half mixture, with twenty grains each of the other substances. A quarter of a grain of oxide of silver is enough for an ounce and a half mixture. The dose is one teaspoonful every hour. Turpentine and hot water should be rubbed over the abdomen, back, and thighs; and raw arrowroot mingled with water given as food. Raw food appears to be best suited to irritable gastro-intestinal membrane. There is one other drug useful in convalescence from diarrhoea; viz., casparia. For dysentery, a small quantity of castor-oil mingled with aromatic confection is effectual in the relief of the tenesmus.

FREDERICK JAMES BROWN, M.D., Rochester.

WHEY AND RAW MEAT-JUICE IN THE TREATMENT OF INFANTILE SUMMER DIARRHOEA.

THE treatment of infantile summer diarrhoea by a diet consisting solely of whey and raw mutton-juice is probably no novelty to many practitioners, but it may have escaped the notice of some, and to such I recommend it as well worthy of a trial. Under its use, the character of the stools is immediately improved; they become less frequent, and contain no undigested curd; vomiting ceases; and the infant, which before its use may have been in a state of impending collapse, begins to pick up after the first bottleful. The following, I find, is the best way of preparing the food. To a quart of warm new milk add three teaspoonfuls of pepsine wine, and set it to stand in a warm place (inside the fender is very convenient). In about two hours, a firm curd will be found to have formed. Remove this by straining, with pressure, through fine muslin, and, after slightly sweetening the whey, add to it a fourth part of the meat-juice and twenty drops of brandy. The meat-juice is made by finely mincing two ounces of lean of mutton, and covering it with cold water in a jam-pot, allowing it to stand inside the fender for two hours; the juice should then be separated from the solid part by pressure through muslin, in the same way as in removing the curd. This quantity of raw mutton-juice and whey should be sufficient nourishment for twelve hours for an infant under six months, and it should have no other food.

I find the old-fashioned "boat-bottle" much easier for the infant to suck, and more likely to be kept perfectly sweet and clean than the syphon feeding bottles so much in use now.

R. HARVEY HILLIARD, M.D., Upper Holloway.

ON THE VALUE OF TEPID SPONGING IN THE TREATMENT OF FEVER.

I WISH to bear testimony to the value of sponging in fever cases. The water employed may be either hot, tepid, or cold; but the tepid is considered preferable to the other two; it is agreeable to the patient. After considerable experience in this hospital, where cases of typhus and enteric are received, I am prepared to speak of this practice in high terms. Among its advantages may be named its cleansing, its cooling, and its soothing effects. Those three points are of very great importance in a severe case of fever. The cleansing effect is worthy of consideration, because some cases are so weak and exhausted on admission, that they are at once put to bed without being bathed. Under such circumstances, sponging with soap and lukewarm water takes the place of the bath. If the patient should have clammy or offensive perspiration, Cond's fluid may be added to the water, and in this way

the skin is made fresh and sweet. The cooling effect of tepid sponging is doubtless of a very temporary character, but it is not devoid of value on that account. The process may be continued for a long time, or frequently repeated, without subjecting the patient to annoyance or fatigue. The soothing effect is in many cases very marked. The sponging, if efficiently performed, soothes nervous irritation and predisposes to sleep. In cases of fever, where there are insomnia and hot burning skin, sponging should have a prolonged trial before "draughts" are resorted to; for we are aware of the drawbacks which attach to the employment of narcotics in many instances. It is not meant for a moment that sponging is an efficient substitute for chloral or opium, but merely that it is well worthy of a prolonged trial as a preliminary. I would beg strongly to advise the employment of tepid sponging in cases where the temperature is high and the patient restless and sleepless. The nurses here report very favourably of the practice, and it is undoubtedly grateful and beneficial to the patient.

JAMES W. ALLAN, M.B., Superintendent and Physician,
Belvidere Fever Hospital, Glasgow.

REPORTS

OR

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

GYNÆCOLOGICAL NOTES.

KING'S COLLEGE HOSPITAL.

Anteflexion: Treatment.—Dr. Playfair, as a rule, preferred a "cradle-pessary" with cross-bar; and a patient who had long suffered from pain and difficulty in walking, dependent upon this displacement, expressed great relief after wearing the instrument. Dr. Playfair had reason to fear the use of intra-uterine stems; but, of the different kinds, when one was really necessary, he preferred the expanding one, which moved with the uterus. A curious coincidence had occurred in his practice. He had introduced a stem-pessary, and, six hours afterwards, the woman died. *Post mortem* examination disclosed perforation from a gastric ulcer, of which there had been no known symptoms during life.

Malaria, Menorrhagia, etc.—A woman, aged 30, married, and having one child, had been for four years at the Cape, and, during most of this time, had had menorrhagia and other illness. She had now been five weeks in England, three in hospital. On two days, her temperature was 104 deg., without sufficient apparent cause; and Dr. Playfair, suspecting malarial origin, ordered thirty grains of quinine, since which dose no relapse has occurred. Another case had come under his care, in which a temperature of 106 deg. Fahr. was present three days after labour, and occasioned much anxiety, though the patient did not seem so seriously ill as would be expected in puerperal fever. On inquiry, it was learnt that she had suffered from malarial fever in the tropics. Large doses of quinine were given, and soon cured her pyrexia. Patients who have once suffered in this manner readily get a recurrence when health is impaired from any cause.

SAMARITAN HOSPITAL.

Anteflexion: Value of a Stem-pessary.—With Dr. Wynn Williams we saw two instructive cases. He also has had reason to dislike the ordinary forms of instrument, but has had excellent results from the one which bears his name. The specialty of this consists in its shield or support, which is an oval ring of wire covered with thick rubber, and having a perforated floor of thin India-rubber, part of which is hollowed so as to fit the base of the stem, which itself is of the ordinary vulcanite kind. The shape of the shield in one position is very much that of a "sou'-wester" hat, the crown of it supporting the uterine stem. This permits free movement, and yet keeps its place in the vagina, much like a Hodge's pessary. H. B., aged 25, single, a servant, about twelve months ago, got a railway shock, and soon afterwards began to suffer from pain in the back, hips, and abdomen, and from menorrhagia, with frequent nausea and sense of prostration, and, after a few months, had to leave service. She had various treatments, and was kept lying down for a time, but was not examined until she came to the hospital in May, when anteflexion of the uterus was ascertained, and the described pessary introduced. The patient states that her symptoms were at once relieved. She has worn the instrument constantly without any inconvenience, and feels well enough now to take a place again.—K. M., aged 17, governess, single, always delicate, has some spinal curvature. The menses began at 14, and have been scanty

and with pain. About twelve months ago, she fell from a window. The pains have since been worse, and, for about two months before admission, she was unable to walk properly, only dragging her legs along. On examination on July 6th, anteflexion was recognised, and the stem and shield were introduced. She wears them still with comfort; is free from pain, and able to walk naturally.—In Dr. Smith's practice at the hospital in Soho Square, we noted a case of obstinate vomiting of pregnancy, apparently dependent upon anteversion, and cured by an air-pessary.

Cancer: Injections of Bromine.—We saw also, with Dr. W. Williams, a woman, aged 50, whose cervix uteri had been amputated for epithelial cancer by Mr. Baker Brown eight years before. The actual cautery had been applied later by Dr. Routh, and, later still, Dr. W. Williams had injected bromine at three sittings, after which the whole of the affected part came away, and complete healing took place. The parts were now quite sound. There was apparently only an inch of uterus left. The solution used is one part of bromine to three of rectified spirit. This develops heat, and should be prepared before being carried for use. From five to ten minims are injected into the tissues by means of a long syringe with platinum nozzle and India-rubber piston. It is desirable to remember that it may destroy the sense of smell in the operator; but this loss may be prevented by alkalised cotton-wool placed in the nostrils.

ST. MARY'S HOSPITAL.

We saw, with Dr. Wiltshire, a woman, aged 29, who had had five children, one "false conception", and miscarried, producing a "mole" about five months ago. Some hæmorrhage had continued constantly, and occasionally a large clot was passed. The os having been dilated with sponge-tents, a few flocculi—probably remnants of placenta—were scraped away by the fingers, and the patient is now convalescent.

Pelvic Hæmatocele: "Traumatic Jaundice".—Dr. Wiltshire observed that the diagnosis of hæmatocele might be assisted by noting a patient's complexion, which sometimes assumed a yellow tint. At the same time, there were no collateral symptoms of jaundice, nor absence of bile from the stools. He had observed the same thing in other cases of hæmorrhage after intermittent hæmaturia, and notably in a case of serotal hæmatocele (in the London Hospital), the tint was distinguishable from that of mere anemia.

Pregnancy: Amniotic Dropsy: Simulation of Ovarian Cyst.—A thin woman, aged 29, having three children, menstruated last in April. She had no other sign of pregnancy; but, six weeks ago, her abdomen began to enlarge, and is now as large as in the last week of pregnancy, and is globular, uniform, smooth, fluctuating, and dull. She was sent in as an ovarian case, but, from the purplish condition of the vagina and state of the os, was diagnosed as pregnant two or three months, and as having a thin-walled single cyst also. She had persistent pain and very marked emaciation. On August 19th, after an attack of diarrhoea, a fetus was suddenly born; then the water escaped to the amount of about thirty pints; then a second fetus. Both were living, and cried, and seemed between four and five months advanced, which would tally with the period of cessation of menstruation.

Diabetes: Pruritus Vulvæ.—An aged woman applied with severe pruritus, which was finally cured by a borax lotion, after other remedies had failed. She was found to have diabetes, and it was suggested that the saccharine urine provided a nidus for the parasite, and that the symptom of pruritus was often to be met with in such cases. Nutrition also was impaired by the malady, and Brown-Séquard had shown that this favoured development of parasites; e.g., the fifth nerve having been divided in an animal, the parts supplied by it were found infested with lice when other parts were not so.

In a case of anteflexion, Dr. Wiltshire took occasion also to express his fear of the risks of intra-uterine stems; he generally used a cradle-pessary, but found much advantage from a pad bound over the pubes.

Varia.—"The best diuretic was a mustard plaster to the loins." Turner of Edinburgh had proved direct connection between the circulation of this part and of the kidneys.

"Iron with ergot is the best combination for menorrhagia in Londoners."

Assafoetida deserved more frequent use.—A young woman, hysterical, and having "tenderness of spine", for which she had worn an instrument several years, came for advice on crutches. She complained of flatulent distension and violent headache, but, after some weeks' use of an assafoetida pill, discarded her crutches, and found herself able to do more than for years past.

Useful Lubricants.—Glycerine with soft soap and carbolic acid is the ordinary form at St. Mary's; soft soap and olive-oil at the Samaritan Hospital. Both of these are much more readily cleansed from the finger than oils or ointments.

FORTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in SHEFFIELD, August 1st, and, 3rd, and 4th, 1876.

PROCEEDINGS OF SECTIONS.

SURJOINED are abstracts of most of the papers presented to the several Sections of the Association at the Annual Meeting.

SECTION A.—MEDICINE.

On Dilatation of the Pulmonary Capillaries. By I. B. BERKART, M.D.—Dr. Berkart related the case of a female, aged 23, who had been under observation for several years, suffering from dyspnoea, palpitation, and all the other symptoms usually attributed to cheirosis. Organic lesions of the heart always were suspected, but the nature of such lesions could not be inferred from the attendant physical signs. The patient gradually sank; and, on *post mortem* examination, there was found a pneumonia of the left upper lobe, small portions of which had recently become necrotic. The heart was hypertrophied, but its muscles were degenerated. The aorta was very narrow. The microscopic examination of the lungs showed a varicose dilatation of the pulmonary capillaries; so that the necrosis of the left apex appeared to be the result of such varicosity, a process analogous to what, under similar conditions, takes place in the lower extremities. All these pathological changes had undoubtedly developed, in consequence of the hypoplasia of the aorta, and as, according to Virchow, a narrow arterial system is of frequent occurrence. Dr. Berkart thought that a series of symptoms, hitherto explained as ambiguous theories, might now be traced to definite organic lesions.

Diseases affecting Lead-Workers. By W. HOLDER, M.R.C.S. Eng. (Hull).—This paper treated of the effect of lead-inhalation and absorption amongst lead-workers—more especially amongst the workers in white lead manufactories, in whom its deleterious results are seen in great intensity. The author mentioned cases, in one of which amaurosis and paralysis were the result of but a few months' labour in a lead-mill; in another deafness, decay of the teeth, paralysis of the arm, and a general breakdown of the whole system, resulted. He stigmatised this poisoning as perhaps the most baleful of all trade-diseases, as it was slow to kill, and its tortures were prolonged. The investigations of Burton, Fletcher, Andral, and others, were mentioned. The author considered that lead acted locally by absorption upon the tissues. The pathology of lead-poisoning was discussed. The yellow degeneration of the muscle was ascribed rather to disuse and general anæmia, than to the mixture of lead with the tissue. The treatment recommended, after the usual administration of diluted sulphuric acid, was extract of belladonna, with the Turkish bath, precipitated sulphur, and generous diet. Faradisation should be persisted with for a long time. In chronic cases, iodide of potassium should be given in large doses. The author, whilst considering the remedies efficient and sufficient for acute cases, deplored the scanty opportunities of giving relief in the more advanced and chronic cases.

SECTION B.—SURGERY.

The Surgery of Syphilis. By S. M. BRADLEY, F.R.C.S. (Manchester).—In this communication, the first subject touched on was the formation of syphilitic peripheral osteal abscesses. Mr. Bradley stated that abscesses of this nature were an occasional sequel of syphilitic periostitis, or a general osteitis, or made their appearance without marked inflammatory symptoms. They occurred on the shafts of long bones, they were about the size of a fibert, and were lined with a membrane continuous with the periosteum. As a rule, they were not painful, and gave rise to but slight constitutional symptoms. The best treatment was to scrape away the lining membrane and clear out the contents of the abscess by means of Volkmann's spoons, and afterwards dress the wounds antiseptically. He next discussed the question of operating in cases of aneurism produced by syphilis, and pointed out the special danger there was in such cases of the aneurism being multiple. If such proved to be the case, he deprecated the use of the ligature, but advised instead Tufnell's method of dieting, combined with pressure, especially pressure with the shot-belt. At the same time, the internal administration of iodide of potassium was of the first importance, while, if pressure proved ineffectual, electrolysis should be tried. If this were done, the introduction of needles connected with the positive pole, the employment of a small number of cells and the retention of the needles

in the sac of the aneurism for a long time, 22, a couple of hours or more, were essential to success. In treating the *virulent bubo*, he advised a free early opening of the resultant abscess, and dressing with iodoform; if the gland itself became riddled with sinuses, the free application of potassa fusa cum calce was desirable, with which every sinus, however long, should be freely laid open. For the sympathetic bubo, Mr. Bradley used pressure with a truss in the first instance, and, if this did not prove successful, he injected the gland with iodine. The other subjects dealt with were the treatment of sinuses and of epitheliomata evolved from pre-existing syphilitic sores.

SECTION D.—PUBLIC MEDICINE.

Wednesday, August 2nd.

THE Chair was taken by the President, Dr. J. R. RUSSELL (Glasgow), who delivered an address, which was published at page 206 of the JOURNAL for August 12th.

Chaos as exemplified in Central and Local Sanitary Administration. By JOSEPH ROGERS, M.D.—This paper was published at page 266 of the JOURNAL for August 26th.

Impediments to the Progress of Sanitation. By F. T. GRIFFITHS, M.D. (Sheffield).—The author said that the first serious matter regard to the Public Health Act of 1872 was, that the whole country was not mapped out into workable districts, and that the whole of the officers were not elected within a given fixed date. Had this course been adopted, it would have tended to prevent the evils arising from a healthy district being contiguous to an unhealthy one; whilst all the appointments would have been uniform, and have expired at one period. But, further, some authorities elected their officers for periods of one, two, and three years only; so that the Act of 1872, and the order authorising appointments for five years, had been misapplied. Where the appointments were made for a short term only, except when the salary was really remunerative, first-class men would not accept them. Some of the latter, who indulged in the belief that the exercise of intelligence, activity, and discreet behaviour would ensure their being continued in their appointments, had been grievously disappointed. All abrupt changes were detrimental to the public welfare, and likely to be very mischievous. The appointments made under the sanction of the Local Government Board defined—although somewhat ambiguously—the duties of the medical officers of health, and as distinctly also those of the inspectors of nuisances. Town councillors frequently asked whether the medical officer was not or could not be appointed inspector of nuisances. In one town, the issuing of summonses, preparation of briefs in prosecutions, and the actual conduct of proceedings before the magistrates, had been imposed upon the medical officer. The local influences which impeded sanitary progress might be not those alone due to so-called health-committees, but those which their clerks might originate. The uncertainty and insecurity of the tenure of office paralysed honest sanitary work, reduced the officer to a condition of bondage, and impeded and lessened the zeal which should animate and sustain him. Apart from this, an unpleasant feature was the injustice which followed the abrupt dismissal of an efficient and industrious officer who had entered upon the work of sanitation with enthusiasm. A cry had been raised about centralisation. It was the usual one amongst ignorant men, whether in or out of authority. A controlling power would not allow guardians to kick an educated underpaid servant out, and brand him for the rest of his life, and perhaps ruin him, without sufficient cause. Without some such controlling power, no man would be safe in an appointment for more than three months, unless he were a brother, a son, or a relative of a guardian. The best thing that could happen for the public health of the country was to make the appointments of well-qualified officers of health permanent during efficiency and good behaviour, and independent of the health-committees and sanitary authorities. The next impediment to real progress was the unqualified inspectors of nuisances. The duties of an inspector were next in importance to those of the medical officer, although very different in character. Many men now holding office were well qualified, but the majority were very ignorant. The qualifications were, fair education, intelligence, good temper, discretion, and activity, together with ability to comprehend what was a nuisance, and the best mode of remedy within the meaning of the Public Health Acts. The Adulteration of Food Acts should also be understood by the inspector, and he should have some knowledge of surveying. In conclusion, Dr. Griffiths said that the foregoing impediments were such as harass the medical officers in almost all parts of the kingdom, and therefore deserved as much attention, with a view to remedy, as many other deficiencies in the laws relating to public health.

The Relations of the General Medical Practitioner to the Sanitary Authority. By JAMES THOMPSON, M.B. (Leamington).—Dr. Thompson observed that he came before the Section as a defender of the rights of the general medical practitioner. Dr. Griffiths had spoken of the condition of bondage to which the rural authorities wanted to reduce their medical officers, and he (Dr. Thompson) wanted to save the general medical practitioner from a condition of bondage. Medical men held a dual relationship to their patients from the cradle to the grave: first, the family relationship; and secondly, their relationship to their patients as units of the State. He thought that surgeons were not aware of the great responsibility which would fall on them, if the compulsory duty were imposed on them of informing the medical officer of health of the occurrence of infectious disease in their practices. All medical men thought it desirable that information should be given, but he warmly deprecated the forcing it on the general practitioner. Family doctors could easily urge on occupiers of houses and heads of families the necessity of giving early information to the sanitary authority of the occurrence of infectious diseases. The Council desired to express "their decision that the proper person to make the return should, in the first instance, be the householder, and not the medical attendant on the case". He urged on the members present not to submit to the imposition of such duties.

On the Registration of Disease, and the Part to be taken therein by the Medical Profession. By WILLIAM SQUIRE, M.D. (London).—The immense results to medical and sanitary science, as well as to political and social statistics, produced by the registration of deaths, lead to the prospect of a knowledge more complete and of more immediate benefit to result from a registration of diseases. The objects of registration of disease are twofold: the scientific and the practical. The scientific inquirer, following the course of disease as influenced by season and locality, by an ingressing or receding infection, on variously susceptible communities, and wishing to trace its earliest beginnings, has his perception quickened and his energy increased by seeing how his knowledge may be usefully applied. Nor should the practical sanitarian neglect the wider bearings of disease, or confine his attention to the worst cases only; these may guide to the more glaring sanitary defects in urgent need of removal, or to an intensified contagium in some special instance that should at once be destroyed; but the slighter ailments around us often call as clearly for "sweetness and light", and would as often supply a warning that might be of general service. No practical scheme for the registration of disease could be founded on the views of either party exclusively. If to ask for a registration of all diseases, be asking too much, to ask for a notification only of infectious disease is asking too little; for a report of severe cases only, useless. It is the milder cases of epidemic diseases, so called, that are to be guarded against; these carry the torch that will ignite and destroy the delicate and susceptible organisations we are called upon to protect. If the registration of all infectious diseases were made compulsory either upon householders or doctors, it would fail at this point: the doctor would not be called in to the milder cases, and they would be unrecognised or concealed. The difficulties are commensurate with the importance of the subject. The complex machinery of our social life renders accurate information on many social accidents a great and pressing necessity: it furnishes at the same time some means for obtaining and utilising such information. The establishment of sanitary districts, with their medical officers of health, affords the centres of action by which a complex system might be worked; gathering and assorting the local information for immediate use, transmitting some to the district registrars, or reporting to some central medical board, so that inferences of a more general utility might be gained from the facts. The sources whence information might be derived are numerous: the Poor-law system of medical relief; medical charities; hospitals; dispensaries; public institutions; schools; households. The institution of school-boards and an universal almost compulsory education has hastened the necessity for some action. The spread of certain epidemics can be directly traced to the action of the new educational system: the same system might be made a means of preventing the extension of disease. The way in which the masters of elementary schools might assist the medical officers of health was pointed out at Brighton, by Mr. Rathbone of Liverpool, last year. No school should be exempt from a care for the health of its scholars; it is necessary that a record of their diseases should be looked after by the managers. All we want in this case is, that a copy of such record should be forwarded to the medical officer of health. Householders apply to the local authority if their drainage or water-supply be defective, if their dustbin be neglected, or their neighbour's pigsty offend them; let them be encouraged to report the ailments that befall their families. A clerk, who receives complaints for the inspector of nuisances to investigate, could receive these re-

ports and bring them under the notice of the medical officer of health, who might order a medical certificate to be procured, or investigate the circumstances for himself. All acute diseases, all infectious diseases, all children's diseases, ought to be reported. This could not be effected without the assistance of the doctor; nor would it have value without his concurrence. He would often have to point out what should be done, to give the necessary certificate, and even to send it himself to the local centre. The responsibility of all this should rest, not with him, but with the head of the family or household. In the case of infectious illness, the necessary cleansing and disinfecting might be done free of expense for those who duly reported the existence of certain specified infectious diseases. Wilful concealment of these might be met with a fine. It might be right to issue medical certificates of unfitness to travel or attend school: no certificate would do away with the risk arising from an infected house, or from early convalescence. The members of our profession might further co-operate in giving returns periodically of acute diseases coming under their notice. In the case of dispensaries, medical charities, and the system of Poor-law medical relief, some increase of pay would be justly due to certain of the medical officers for the increased work involved in the duty of reporting. Direct remuneration for reporting any case of infectious disease no member of the medical profession would probably consent to receive. The medical offices of health requires the assistance that would be afforded to him by a well-trained statistical clerk. He also requires the support of a well-organised central authority. These things as they should be, his function would be more definite and more widely useful. No sickness-returns without medical authority should be relied on. The responsibility of sending returns for all sickness among children, or for all acute disease under some specified age, and for certain specified infectious diseases, should rest with the head of the family, and not with the doctor. The registration of all infectious diseases, or of so-called epidemic diseases only, would quite fail in the chief object for which this limitation is urged; the registration of all children's diseases would best lead to the end in view. Short of this, a health-record for schools would guide to valuable results. The medical attendant need not be the person required to give information. If the information were unaccompanied by medical report or signature, the health-officer might inquire; for, without some medical verification of the facts, they would be without their chief use in the early recognition and possible arrest of epidemic disease.

State Recognition of Medicine. By P. DIVER, M.D. (Kenley).—Dr. Diver read a paper on the desirability and the importance of a more complete recognition of our profession by the State. He said that the means taken by the State in recognising the medical profession was anomalous in the extreme; namely, through boards of guardians. That link was certainly unfit to connect the profession with the State, as much as one could possibly imagine anything to be. If from the first the profession had been organically connected with the State, as was the sister profession of the law, such a state of things would never have existed. In consequence of the present state of things, there was required an exercise of patience and endurance and self-forgetfulness to such an extent as to be harmful. This habit had begotten the quality of expecting, under any circumstances, the medical profession to demean itself or else bear censure, which would seek to carry away that remnant of peace still remaining to them. He suggested that the country should be mapped out in a similar way to parliamentary divisions; and each of these divisions should have a local medical board to deal with all local medical matters, of which it should have the exclusive cognisance. These various councils—which might be composed of justices of the peace, with a majority of medical men—should be subject to a central medical council in London. Let there also be a medical man in Parliament. This suggestion, if carried out, would relieve the already congested Government Board; and the guardians of the poor would still be left with all the proper duties pertaining to that office to perform, they being only relieved of their supervision over the medical officer. The time had already come when the medical men should bestir themselves in their own behalf, because, unless they did, Government was not very likely to do so. Up to the present time, the medical profession had lightly regarded State distinctions, and it was by no means always the best men who got such distinctions. Regarding, however, their increasing importance in the State, they ought no longer to regard lightly such distinctions, as the obtaining of such would, no doubt, tend to a better state of things than at present existed in the profession.

Dr. BRITTON (Halifax) thought the proposed scheme for registration of disease, though desirable, impracticable, as it would be opposed by householders whose business would be imperilled, and would cause cases of infectious disease to come into the hands of unqualified practitioners. He thought that most was to be expected from voluntary

co-operation of medical attendants.—Dr. EASTWOOD (Darlington), speaking as a member and chairman of a sanitary authority, concurred in the desirability of longer tenure of office of medical officers of health, and considered that the constitution of the Local Government Board was defective.—Mr. L. ARMSTRONG (Newton Abbot) recounted his experiences of the unsatisfactory mode in which the appointments of medical officers of health are made and renewed.—Dr. BOND (Gloucester) pointed out the difficulty in overcoming the inertia of the legislature on matters in which there is no great pressure of public opinion; also the conflicting recommendations made to the Sanitary Commission. He considered that the difficulties thrown by the Local Government Board in the way of the renewal of appointments were due to the fact that those made under the Act of 1872 were made for a term of five years, as an experiment; and that, after that time, new and more satisfactory arrangements would be made. He dissented from Dr. Britton as to the impracticability of obtaining registration of disease, and agreed with Drs. Thompson and Squire that the householder should be the person to give information, but that the medical practitioner should, in every case of infectious disease, be required to give to the householder formal notice of its nature.—Dr. ROGERS (London) thought that all additional work thrown upon Poor-law medical officers under present contracts should be paid for, but that, in fresh contracts, it should be made a part of their duty to supply information of infectious diseases to the medical officer of health.

Sewer-Ventilation. By J. MAKINSON FOX, M.R.C.S. (Cockermouth).—The summing up of this paper was as follows. I will only further detain the Section by recapitulating in order the points sought to be enforced in the paper. Sewers and water-carriage continue to be the approved method for the removal of excreta, solid and liquid. Defective arrangements of them are to be amended, and not used as arguments against the system. The excremental function may well be supposed to afford a difficulty in regard to its inoffensive performance in a populous town. But the difficulty should rather be diminished by a system involving concentration than by one of diffusion. Ventilation is the keystone to the difficulties most experienced at the present time. The ventilation should be thorough, and independent of atmospheric and other conditions. A severance between the soil-pipe and the sewer by means of an open man-hole is objectionable. On the other hand, all other sink, slop, and overflow pipes should be thus severed, alike from sewer and soil-pipes, and deliver in the open air. The soil-pipe of every water-closet inside a house should be extended through or above the roof. This should be enforced at least by the by-laws of every sewered town. The responsibility of individual closet, or peripheral sewer, ventilation should lie upon owners. The additional sewer-ventilation thus secured would be enormous. There is less suction of foul air from the sewer in the closets of the poor, which are outside houses. The charcoal baskets in street sewer-ventilators offer much impediment to the passage of air, are useless, and should be removed. Surface storm-water gullies, remote from dwellings, should also be untrapped, and frequently cleared from road detritus. An interchange of the inside and outside air goes on in all modern street sewer-openings for ventilation; and currents of air are also casually established between them. But ventilation should surely and systematically secure the ingress of pure air and the liberation of foul. Connection of the sewers with mill-chimneys may in some cases secure this end. Connection with house-flues is most objectionable, and rain-water and down-spouts are not to be depended upon. The banner ventilating-cowl is the inexpensive adaptation of the suction principle, by means of which local currents are established in sewers. This apparatus is perfectly efficacious, is capable of universal adaptation, as well to a sewer as a closet, and obviates each peculiar defect attaching to every other known expedient for the same end.

Thursday, August 3rd.

Obstacles which delay our obtaining Legislative Power for the Protection and Treatment of confirmed Drink-cravers. By STEPHEN S. ALFORD, F.R.C.S. (London).—After referring to the medical meeting at Edinburgh in 1875, the resolution passed at that meeting, and the appointment of a committee to obtain legal power, an account was given of the action of this committee. It succeeded in obtaining the co-operation of the Social Science Association and the formation of a joint committee. The joint committee carefully drew up a general petition, but too late to be presented this session of Parliament; there was, besides, the difficulty of securing a leader in the House of Commons to take Mr. Dalrymple's place in this matter. The first obstacle mentioned was the want of a leader in the House of Commons; for, although public feeling was much roused in promoting temperance, a strong feeling existing to take care of habitual drunkards, and many

members were willing to support the movement, hitherto no member had come forward to take the lead. Notwithstanding, it was shown that they would not lack support either in or out of the House. An appeal was, therefore, made for each one to use his influence with members of Parliament. A second obstacle was stated to exist from the constitution of the present House of Commons. It was shewn that, whatever influence publicans may have, the taking care of confirmed drunkards is really conferring a benefit on publicans, as the confirmed inebriate brings discredit on the latter, besides being an intolerable nuisance to them. Besides, these drink-cravers are secret drinkers rather than frequenters of public-houses. A third obstacle mentioned was the ignorance and apathy of the public in estimating the importance and probable success of this plan for recovering confirmed drink-cravers, together with promoting habits of moderation and self-denial amongst the rising generation. All acknowledge the evil, but few realise the imbecile condition of the dipsomaniacs, incapable as they are of self-control, or of managing their own affairs. Each one should do his utmost to convey correct views of the helpless pitiable state of these poor souls, and demand sufficient legislative power, without which all plans of treatment are futile and disappointing. Another hindrance brought forward was the diversion of public attention as to the treatment of the secret drunkards by other efforts to promote temperance, such as permissive restrictive licences and total abstinence; all doing good in checking general drinking, but not touching confirmed drink-cravers, as long as such are left at liberty to follow their infatuation, carrying misery and danger to all within their reach. It was urged that, by the treatment advocated in regard to these insane drinkers, the temperance cause itself would be promoted and the public greatly benefited. Another objection stated arises from a cry against legislative restraint, as interfering with the liberty of the subject. This was asserted to be a delusion; for what liberty is taken away where all is slavery and bondage? inebriates being the worst of slaves, having paralysis of the will and loss of all self-control. Protection from such anarchy must be liberty indeed. They are dangerous to themselves and all within their reach. Bouts of drinking are allied to temporary insanity, and, unless checked, soon pass into a more constant condition. There are constant checks to "the liberty of the subject" all through life, as in education, vaccination, and the restrictive laws of society. "Street Arabs" and young criminals are taken care of and trained. Why, it was asked, should, from a distorted cry about liberty, these helpless imbeciles be left to perish? It was particularly urged to bear in mind that power is only sought for protection and treatment of unmistakable confirmed drunkards. The objection was brought forward that such would give undue power to relatives and others interested, especially where there was property, which risk, it was stated, should be met by stringent enactments and jealous supervision. It was thought that an adaptation of the industrial and reformatory schools system could be arranged to meet those cases. And it was recommended to leave this power in the hands of magistrates, with or without a jury. The restriction should be for a longer or shorter period, not exceeding twelve months. The fallacy of the objections urged having been exposed, it was shown the treatment advocated had been elsewhere tried with success. Such institutions in America show a percentage of about 60 per cent. of cures. Mr. C. Holthouse was referred to as having had very fair success in this country, even without legal compulsion. In America, 94 per cent. voluntarily submit to be put under control, and only 4 per cent. have been committed by justices. These retreats are more than self-supporting. Most cases can pay, whilst the poorer are generally skilled workers when sober. It was suggested that all fines for drunkenness shall be appropriated towards their support. Convicts, after years of forced abstinence, seldom lapse into drunken habits. It was asserted that the deterrent influence of such power would be an active agent in promoting temperance and preventing persons lapsing into confirmed drinking habits. It was thought advocates for restrictive and permissive licences and total abstinence do not sufficiently estimate the effect such would have on the general public. All were advised to look into this subject, and read the evidence given before Mr. Dalrymple's committee, together with the many other useful papers published on the subject; and, when convinced, as they speedily will be, to use their influence with others, but especially with members of Parliament and all persons of influence. The great attention that is everywhere being directed to this bane of intemperance in the Church of England, and in other organised movements, was acknowledged. At the same time, all were urged to remember the poor helpless drink-slaves, and not only offer them remedies which their chains and slavery render them incapable of accepting.

Alcohol and Public Health. By CHARLES R. DRYSDALE, M.D. (London).—The object of this paper was to contribute a short essay to the question of the use of alcohol as a food or necessary of daily

consumption. Next to the question of the selection and attention to the numbers of posterity, came in importance that of whether alcohol should be indulged in. Spirit-drinking made modern times a sad spectacle in some respects, compared with ancient civilisations. The Greeks and Romans had wine; but, as that was expensive, it was uncommon to meet with that brutal abuse of alcohol among all classes before the eleventh century, the era of distillation. Chronic alcoholism was at present, next to phthisis pulmonalis, the most prominent cause of death in hospitals in Paris, and doubtless also in London. It was worth while to run over the diseases produced by chronic alcoholism. Acute alcoholism was comparatively unimportant and caused but few deaths; when such occurred, they seemed to be due to congestion of the lungs and vessels of the brain, causing in the latter extravasation of blood in some instances. The stomach is much deteriorated in chronic alcoholism; its mucous membrane very thickened, and dotted with black spots. Chronic gastritis occurs, and much viscid mucus is secreted. Dyspepsia is very common. The liver is rarely without pathological changes in drunkards, either cirrhotic or degenerated. Cirrhosis is almost invariably a fatal disease. Chronic peritonitis occurs in drunkards. In the lungs, drunkenness produces bronchitis, acute congestion, pneumonia, chronic induration, and is one of the prevalent causes of pulmonary consumption, according to Dr. Drysdale's experience at the North London Consumption Hospital. Laryngitis is common also in drunkards, and the voice becomes hoarse. Pericarditis of adhesive type is sometimes caused by drunkenness. Fatty deposits on the heart and fatty degeneration of its muscular tissue are common. Has drinking been a cause of rheumatism? In the encephalon of drunkards thick membranes are seen on the convex aspect of the hemispheres, near the longitudinal sinus. The capillary vessels are rarely healthy, and the nerve-cells are frequently degenerated. Atrophy of the brain is seen. Bayle attributed one-third of all cases of insanity to drunkenness. Delirium tremens is one form of insanity, and may relapse long after drinking habits have been abandoned. Alcoholic epilepsy is an admitted disease. Gout is very common among the great beer-drinkers of London, but hardly seen in Paris or Edinburgh among the wine and spirit-drinkers. Bright's disease is due in some instances to drunkenness. The generative functions are greatly impaired by it. Summing up, it may perhaps be said generally that spirit-drinking tends to produce inflammations of the adhesive type in the organs, whilst beer-drinking tends to produce fatty degenerations. Considering, too, that the average of life is considerably lower among drinkers, even so-called moderate drinkers, than among abstainers from alcohol, the author thought that it was wise in medical philosophers to inculcate and give an example of habitual total abstinence from alcohol.

Twelve Months' Experience of the Treatment of Inebriates at Balham. By CARSTEN HOLTHOUSE, F.R.C.S. Eng. (London).—The home was opened for the reception of patients on July 1st, 1875; and from that date to June 30th, 1876, there were 98 applications for information respecting it, most of the applicants stating that they had a relative or friend or patient whom it was desirable to place in it. To all of these a prospectus of the rules and terms was given or sent, with the following results: 23 entered the establishment, and 22 remained there for treatment for periods varying from one week to six months; 14 could not be induced to enter, though their friends were most anxious that they should do so, and were willing to pay for them; 9 could not afford the terms; 4 could not bring themselves to submit to the rules; 3 promised amendment if not sent in; in 3 cases, relatives objected; in 3, the proximity of London was objected to; 3 were declined, as more fit for a lunatic asylum; and, in the remaining 36 cases either no second application was made, or, after arrangements had been entered into for the reception of the patient, no more was heard of him. Of the 22 cases that came under treatment, there were cured, 6; uncured, and incurable under existing laws, 10; greatly improved and temporarily cured, but ultimate result doubtful, 4; still under treatment, with hope of permanent cure, 2; died, 1. In using the word cure, it is not to be thereby inferred that drunkenness is a disease. The word is equally applicable to a vice or a habit; and in this sense it simply means that a person who has for months or years indulged immoderately in intoxicating drinks, to his own detriment and the injury and grief of his family and friends, has ceased to take them, and has again become a useful member of society, capable of exercising all the duties of his station, and resisting the temptation when he has the opportunity to indulge. The treatment consisted, in the first instance, in relieving as far as possible the most urgent symptoms where such existed; these were sleeplessness, loss of appetite, and a sinking sensation at the stomach. In every case, alcoholic stimulants were at once withheld, not only without danger, but with the advantage of a more speedy return to health than if they had been gradually dropped.

With the medical treatment the moral was combined; and, as soon as the patient was in a fit state and aware of what he was doing, a written pledge was exacted that he would abstain from alcohol and all other intoxicating drinks. To give effect to this, and to remove temptation, he was further required to give up possession of his money, and not to go beyond bounds unattended. In every instance, it was explained that he came to the establishment as a patient, and must submit to the rules which were considered necessary for the treatment of his case. As nearly all these people had lost both self-respect and self-control, strict supervision was also exercised. The conclusions at which the author arrived, as far as the short time and the small number of patients warranted, were the following. 1. Women, if once they can be induced to enter an inebriate institution, are far more tractable, amenable to treatment, and curable, than men. 2. There is not always a necessary relation between the duration of the habit and the time required to cure it. In one case, a drunkard of twenty years' standing was cured in three months; while, in another, six months' treatment failed to reclaim a drunkard of only twelve months' standing. 3. In all cases of drink-craving, removal of the individual from his surroundings and usual haunts and temptations is essential. He requires to have a fresh start in life granted him; to be subjected to influences antagonistic to those he has been accustomed to; to have time to reflect on the past and the future. 4. The sending away of drunkards to a distant colony has, in all the cases which have come under the notice of the author, been attended with the worst results. 5. Properly conducted inebriate asylums offer the best chance for the reclamation of the drunkard. The abuses which are said to exist in American asylums do not affect the principle on which they are founded; and, in the absence of a law for compulsory admission, these places must be made attractive, or nobody would go into them. 6. Whether drunkenness be regarded as a disease or only a vicious habit, it is so widespread and ruinous, not only to the drunkard himself, but to his family, as to call loudly for legislative interference.

Dr. DREW (Chapelton) had never seen a case of inebriety so speedily cured, and much doubted the reality of such cures.—Dr. NORMAN KERR (London), from investigation of statistics of American asylums, could find that but 30 per cent. of male and 3 per cent. of female drunkards were permanently cured. He alluded to the advantages conferred on the country by the temperance movement. At least three-fourths of the cases of sickness coming under his charge were caused by alcohol. He advocated further restrictions on the sale of drink, and urged extreme care in the administration of alcohol, especially to women and young children.—Dr. CARPENTER (Croydon) agreed that no course but total abstinence was safe for reclaimed drunkards. He did not agree with Dr. Drysdale that we ought not to attempt to interfere with the liberty of the subject. Drunkenness was often a disease, although commencing as a vice. He strongly advocated asylums, *not prisons*, where drunkards could be treated by physiological and moral means. This measure need not interfere with the passing of the Permissive Bill.—Dr. EASTWOOD (Darlington) had treated many cases of dipsomania as lunatics, although having reluctantly to refuse many others who desired treatment, but were not insane. He spoke hopefully of the prospects of asylum treatment.—Mr. ALFORD (London) disclaimed any idea of antagonism to other means of checking drunkenness, but thought that they needed to be supplemented.—Mr. G. B. CLARK (London) wished that the opponents of inebriate asylums had been better represented, as he wondered what objections could possibly be raised to such a measure. He advocated the Permissive Bill, and thought that inebriates would gain more good in hydropathic establishments than if congregated together in special asylums.—Dr. WILSON (Rochdale) thought that the want of better dwellings for the lower classes lay at the root of much of the prevalence of drunkenness.—Dr. DRYSDALE thought that the difficulty of reclaiming drunkards was greater than many speakers thought.

On the Legislative Measures which are necessary in order to prevent the Spread of Infectious Diseases. By F. T. BOND, M.D. (Gloucester).—Dr. Bond said that a person infected with a disease of an infectious character ought to be looked upon as a house on fire, and everybody ought to do all they can to prevent its spread, even at the sacrifice of the liberty of the person infected. The formal notification of there being a person suffering from infectious disease in his house should be made by the medical attendant to the householder; and the latter should then, under penalty, be expected to communicate the fact to the medical officer of health, who should be empowered to properly perform the duties laid upon him; that he should not only be authorised, but required, to take such steps as are practicable to follow out the duty imposed upon them. There should be hospitals erected on the model of the workhouse hospital; but such a charge imposed upon those who availed themselves of them, that the stigma of pauperism should be

taken from them. Until that were done, he was convinced that very little would be done towards the attainment of the object in view.

The Dissemination of Zymotic Disease amongst the Public by Tradespeople. By CORNELIUS FOX, M.D. (Chelmsford).—The author stated that the necessity for preventing trades from being so conducted as to be injurious to public and private interests is admitted on all hands. We have Factory Acts, Acts for the Regulation of Coal Mines, Bake-houses, Workshops, a Petroleum Act, a Pharmacy Act, and an Alkali Act,—all, with the exception of the three last-named, being directed more especially to the prevention of injury to the health of those engaged in them and to the non-employment of those who are physically unfit to be exposed to such unwholesome avocations. The protection of the public health by the regulation of offensive trades, such as those of blood, bone, tripe, and soap-boiling, tallow-melting, etc., is relegated to the Public Health Act of 1875, under which power is also given to compel the consumption of smoke in certain cases. The existence of all these legal enactments shows conclusively that the principle of the regulation of trades has been deemed by the Legislature to be sound, wholesome, and expedient. Legislation has proceeded on the assumption that, if a trade be so managed as to be injurious to the health of those engaged in it, or to the public at large, or in such a manner as to be a nuisance (*alias* an excessive annoyance) or danger to the public, the best practicable means of preventing the evil shall be adopted. The liberty-loving people of this free country would never be able to submit to such interference with their modes of carrying on business for less important considerations than those of national health and wealth. Admitting, then, that certain legal enactments at present exist of a very imperfect character, having for their object the regulation of certain trades, so that they shall not be injurious to health, is it not a matter of logical necessity that, if it can be shown that there exist other trades not yet provided for, which are positively engaged actively every now and then in sowing broadcast the seeds of preventable disease, some remedy for such an anomalous state of things cannot be with any sense of consistency and justice longer withheld? Dr. Fox then narrated seven cases, all showing the mode in which some of the preventable diseases are disseminated amongst the public by tradespeople. The first was that of scarlet fever imported into a public-house situated in an out-of-the-way country place, from which it spread to the surrounding parishes, destroying young lives in its course. No power exists of compulsorily closing for a short time such a business. The second case described was that of a dairyman, who distributed sewage-water with his milk, spreading typhoid fever amongst his customers. The third instance was that of measles in a village school, in which the master and his family lived. His children suffered from measles, and communicated the disease to the children of the parish who attended the school. No legal power exists whereby a school can be temporarily closed. The presence of small-pox in a public-house and restaurant, which spread amongst the frequenters, formed the fourth case. An interesting case of the distribution of enteric fever through the medium of clothes coming from a tailoring establishment, in which a case of fever existed, was then described. The sixth example was that of the spread of scarlet fever from a village grocery and Post-office; and the seventh one of whooping-cough from a village beer-shop. As none of these cases have before been published, they form an alarming addition to the list of those of a similar kind which have already appeared in the pages of medical and sanitary journals. They one and all point to the necessity of a regulation of all trades by legislation, and that they should be placed under the supervision of those authorities who are entrusted with the care of the public health.

Ought the Contagious Diseases Acts to be extended? By F. W. LOWNDES, M.R.C.S. (Liverpool).—Mr. Lowndes argued in favour of the extension of the operation of these Acts.

Contagion and Contagious Hospitals. By A. COLLIE, M.D. (Homerton).—In this paper, it was maintained that direct contact of the healthy with the sick is necessary for the communication of infection or contagion, and that the doctrine of mediate contagion is not supported by evidence; that the hypothesis of Dr. W. Budd as to the origin and spread of enteric fever, whilst containing a valuable and neglected truth, does not explain all the facts; that the place for a contagion hospital is not "out in the open", as the phrase is, but in the most densely populated portions of our large cities, inasmuch as more or less danger is incurred by the removal of persons suffering from acute disease long distances by the persons themselves; their friends are unwilling that they should be removed to a great distance from their own homes, in consequence of which infectious disease is often retained in crowded homes, to the great danger of the community; that contagious hospitals may exist, and as a matter of fact have existed and do exist, in the midst of thickly populated localities without danger to their inhabitants; and, finally,

that the fear which exists, that nurses and visitors to such hospitals may, themselves being free from infectious disease, communicate infection by mixing in the community by rail or on the highway is, in the opinion of the writer, entirely groundless.

The Origin of Scarletina. By T. BRITTON, M.D. (Halifax).—Scarlet fever is an infectious febrile disease characterised by a diffuse scarlet efflorescence on the skin, and the mucous membrane of the fauces and tonsils, commencing on the second day of the fever, and declining about the fifth, being followed by desquamation of the cuticle. The period of incubation is four to six days. The cuticular scales given off during the desquamating stage are believed to be the main agents in the propagation of the disease. It is a wide-spread belief that scarlatina is never now generated *de novo*, but always produced by infection from a previous case. Dr. Carpenter, however, had published cases which seemed to show that the poison of scarlet fever might be generated afresh by decomposing blood and animal refuse. The author, as the result of many investigations into the origin of cases of scarlatina, felt disposed not only to accept Dr. Carpenter's hypothesis, but to think that house-slops and sink-waste which contain a certain amount of animal matter, might also generate the poison. In illustration of the former mode of origin, a case was brought forward in which the offal of a horse, killed on account of an injury, was, after having been for two months buried in a dunghill, scratched up and devoured by two dogs, who forthwith repaired to the houses of their respective masters, and although promptly expelled, filled them with an abominable stench. Several persons who were exposed to the stench, sickened at once. Some of those who were so taken, recovered after suffering a few days from vomiting and purging, but one child, six days afterwards, came out in the red rash of scarlatina, and died a fortnight afterwards from nephritis. A second child in the same house commenced a week after the first, and a third followed. The local circumstances were such that all chances of infection from a pre-existing case could be excluded with a high degree of certainty.

Foul Air as a Cause of Enteric Fever. By M. T. SADLER, M.D.

Excessive Prevalence of Infectious Diseases among Children, with some Suggestions for the Control of such Cases. By J. M. WILSON, M.B. (Rochdale).—Of the total population of England and Wales, 35 per cent. are under twelve years and a half of age; and this group of young persons contributes 46 per cent. of the total deaths. Of the deaths, 21 per cent. are caused by zymotic disease, and three-fourths of these zymotic diseases occur in children under twelve years and a half old, according to the Registrar-General's report. The English life-table gives 30 per cent. of total deaths, and 62 per cent. of zymotic deaths as occurring under that age. This high rate of mortality Mr. Wilson attributed to careless exposure of children in public, and especially in schools. He proposed to remedy it by new legislation, and particularly by medical inspection of schools, by prohibiting the attendance at schools of children likely to convey infection, and by recouping from local rates school-teachers or managers for the loss of school-pence caused to them by the non-attendance of such children.

On the Grounds of Belief in Medical Evidence touching Insanity. By JOHN C. BUCKNILL, M.D., F.R.S. (Rugby).—The author called attention to a recent charge of Lord Moncrieff, in which it was laid down that soundness or unsoundness of mind was not to be judged of as a matter of science, but by the ordinary rules of daily life; the jury being as good judges as any doctor whether a man, whom they might have met in daily life, was sane or not. The author quoted the opinions of the late Lord Westbury to the like effect. He then disputed this dictum, showing that the complex impressions which form our notion of a man's habit of life are not properly described as simple facts, and that common jurymen have few opportunities and less capacity for judging of them. He mentioned that they were matters which needed, for their just appreciation, both trained skill and scientific opinion; and that the common jurymen must necessarily accept the authority of experts thereupon, as he would accept the authority of a surgeon on the question of lithotomy in his own person. By authority, he meant the influence of one man's opinion on the belief of another who does not comprehend the proof. He said that the tests of authority which were applied in courts for the satisfaction of the jury were the possession of special knowledge, of veracity, of freedom from prejudice and interest, and the consensus of opinion. He reduced expert evidence of insanity to the logical formula expressed or understood as follows. All men who present any one of certain groups of signs of mental states are of unsound mind. This man presents one of those groups of signs; therefore, he is of unsound mind. He said that, in support of the major premiss, which is a generalisation of knowledge, the alienists of the present day possessed a great fund of knowledge, accumulated by laborious researches in all civilised countries, and verified by themselves; and which was proved to be scientific by the fact that

it enabled its possessors to predict the course and termination of mental disease. The *minor* premiss was founded, not upon a notional assent or generalisation, but upon a real assent, needing, except in gross and glaring instances, exact observation of the individual, the faculty for which was only to be acquired by careful training and frequent use, quite beyond the ability of a jurymen. The author concurred with Lord Westbury, that the question which the jury had to decide was always a moral, and not a scientific one; and that, with this moral question, the medical witness had little to do. It was, however, the corollary of the scientific proposition which, in most cases, the jury could only determine upon authority. The responsibility of the jury was in giving due weight to this authority; and in this, aided by the Court, they exercised their choice and reason. The author concluded by quoting Sir George Cornwall Lewis, to the effect that "a Court of Justice, which was highly esteemed for its judgments in questions of law, would render itself ridiculous, and shake its authority even within its own sphere, if it attempted to determine questions of science".—Dr. CRICHTON BROWNE thought that a difficulty in the way of accepting the proposed group of signs as tests of insanity was, that few medical men would be found to agree as to what the groups should be, or whether their presence in a given case proved irresponsibility. The existing legal test of responsibility—viz., whether the agent, at the time of committing the offence, had a knowledge of right and wrong—liberally interpreted, he considered the best practicable in the existing state of knowledge. It must be remembered that it was necessary, for legal purposes, to draw hard and fast lines, although none such exist in nature.—Dr. WOOD agreed with Dr. Bucknill that the existing legal standard of responsibility had no ground in fact, and perpetrated a grave injustice.—A vote of thanks to the author was proposed by Dr. WOOD and seconded by Dr. EASTWOOD.—Dr. BUCKNILL replied.

Life Assurance and Suicide. By J. W. EASTWOOD, M.D. (Darlington).—Dr. Eastwood had been induced to take up this subject, by noticing the want of unanimity of agreement in the manner in which insurance offices deal with suicides who have been insured. From information received direct from about eighty out of ninety offices, it appeared that a considerable proportion make a rule that a policy is void by suicide, whether of sound or of unsound mind, but in many instances the directors allow a return of the premiums paid, or part, or the whole of the sum assured. The directors judge of the cases on their own merits, and sometimes decide whether the case be one of *felo de se*, or suicide from insanity or disease. A small number always pay the amount assured; a few others pay after six months; a larger number after twelve or thirteen months; a few after three or four years; whilst the largest number of all make the assurance positive after five years. All these taken together amount to less than one half of the whole, the remainder doing that which seems to them right under the individual circumstances. There is much uncertainty in this practice, and no distinct principle appears to guide the offices in their mode of dealing with the assured. Very few of them look upon the matter as a question of disease, or consider that there is great difficulty in ascertaining that the person who has committed suicide is really of sound mind, as coroners' inquests are not to be relied upon for this purpose. The suicide is classed amongst guilty or criminal persons. Then, again, a commercial spirit seems to rule the directors; for, if a policy be alienated in a legal manner, the sum assured is always paid to the holder of that policy, whereas, if it is not alienated, the widow and family of the suicide suffer the loss of what is to them not only a pecuniary loss, but a misfortune. This seems unjust and unkind to the family of the insured, as the object for which an insurance is usually made is really defeated. Dr. Eastwood recommended an uniform practice, which in some cases might be objectionable, yet in the great majority of instances would be far preferable to the present state of things. In order to prevent a person from insuring his life and immediately committing suicide, he recommended that the full amount be paid in any case after thirteen months, that is, after two annual premiums have been paid. The policy should then be a positive one. The question of unsoundness of mind should be left in abeyance. Directors would find it advantageous to come to an agreement on this subject, even if it were necessary, which is not likely, to make a very slight increase in the annual payments, and they were earnestly recommended to make an uniform rule to suit these cases.—Dr. EASTWOOD proposed that the views expressed in his paper be adopted by the Section, and recommended to insurance-offices, in order that an uniform system may be adopted.—Dr. BUCKNILL seconded the proposal. Dr. CRICHTON BROWNE proposed a negative, thinking it undesirable to weaken any motives deterring from suicide.—Dr. McDOWELL (Wadsworth) thought it unlikely that insurance-offices, having their own actuaries and medical referees, would pay much attention to the recommendations of the Section.—Dr. EASTWOOD, with the consent of Dr. Bucknill,

modified his motion to the effect that policies should not be invalidated by suicide after the lapse of thirteen months.—Dr. CRICHTON BROWNE moved, and Dr. McDOWELL seconded, the previous question.—On a show of hands, the numbers being equal, Dr. Eastwood withdrew his motion.

The Flat Roof as a Recreation Place in British Towns. By W. WILBERFORCE SMITH, M.D. (London).—In the East, the house-top has been utilised from early times. In the South of Europe, it is commonly made available. In this country, it is used very exceptionally. (A photograph was exhibited of the boys' play-ground at Sheffield, nearly level with the lofty roof; also of model dwellings at Notting Hill, with drying-ground on the roof.) The author suggested that attention should be directed to the practicability and advantages of constructing houses in crowded towns, with the roofs available. Thousands of acres of open spaces could thus, by degrees, be reclaimed from the occupation of the town sparrows. The air circulating freely over house-tops is found by experience to be comparatively fresh and breezy. The cost involved, it is ascertained, would be but small. Inquiry has elicited no important objection. The limits which our climate offers apply, in a nearly equal degree, to the play-ground or the grass below. The idea that smoke would interfere is not sustained by experience; for instance, at the model dwellings at Notting Hill there is seldom any hindrance to drying clean linen. An obstacle, which it is necessary to overcome, is the noise occasioned by children playing overhead. This can be obviated by leaving a slight additional space between the roof and the ceiling, and filling it with such a material as sawdust. The ordinary construction of flat roofs is already familiar to many builders (in London, for instance). The additional requisites are the necessary staircase, and a strong parapet or railings. Blocks of buildings could be arranged with a large common roof. The author contended that the gradual adoption of such a plan would be of incalculable value to the public health.

Illustrations of the Practice of the Coroner's Court. By JOSHUA PARSONS, M.R.C.S. (Frome).

On Filtration. By J. A. WANKLYN, Esq.—This paper was taken as read.

On Public Baths. By F. VACHER, L.R.C.P. Ed. (Birkenhead).—Dr. Vacher, after some comments on the increased attention bestowed, in recent years, on all matters affecting personal cleanliness, showed that one of the chief results had been an extension of the bathing accommodation available for the upper and middle classes. These classes, it was remarked, had to be educated up to a bathing point; that is, till a healthy desire for bathing was awakened, and this they were able to gratify. For the lower classes, however, it was not enough to educate them till such a desire was aroused—the means to gratify it must be provided. It was, indeed, impossible to prove to individuals belonging to the labouring class that they wanted baths, by mere process of reasoning. Baths must be brought to their doors, and they must be induced to bathe and experience the comfort of clean skins. This, the author stated, was what the framers of the Act to encourage the Establishment of Public Baths, etc. (9 and 10 Vict., c. 74) sought to promote. Virtually, it said: "Baths are for the public benefit; they may, therefore, be constructed at the public cost. Erect extensive buildings, if you can afford it, with accommodation for two or three classes, if you think the locality requires it; but do not forget that labourers and their families have a prior claim on your care—at any rate, let there be good cheap baths for them." And in order to secure the full benefit of the contemplated institutions, it was enacted "that the number of baths for the labouring classes, in any building" erected under the provisions of the Act, "shall be not less than twice the number of the baths of any higher class, if but one, or of all the baths of any higher classes, if more than one, in the same building"; and, in a schedule, the "maximum charges during the first seven years after the establishments are opened for public use" are fixed as follows: Baths supplied with clean water for every bather—for an adult, including the use of one clean towel, cold bath, one penny; warm bath, twopenny. Open bathing places, where several persons bathe in the same water—for one person, one halfpenny. How, asked the author, have the provisions of this most estimable Act of Parliament been carried out? In many towns absolutely nothing has been done. They, by their councils, with whom the decision rests, have not seen fit to determine that the Act shall be adopted. In others, the obvious aim of the Legislature in passing the measure seems to have been disregarded. Huge handsome edifices, with turrets and wings, and plate-glass windows, and carved stone-dressings, vie with one another which shall provide the amplest accommodation for all classes, which shall exhibit the most striking façade to admiring town-councillors. Such magnificent piles would be quite lost in out of the way neighbourhoods, surrounded by the squalid dwellings of the poor. So the adoption of a costly design has, in many cases, involved the

purchase of a costly site; and the grand building is found a place among other grand buildings, in a wide and fashionable street. In brief, Dr. Vacher's complaint was that, while the enabling powers, granted by the Act just quoted from, authorised local authorities to provide a serviceable sanitary appliance mainly for those who had not such an appliance before, in probably not less than nine out of every ten towns where these enabling powers had been used, they had been made to sanction an outlay mainly for supplying the appliance to those who already had the thing supplied at their own homes. In other towns, no steps at all had been taken to give effect to the provisions of the Act. Dr. Vacher then entered into particulars of some attempts made to provide bathing accommodation at Birkenhead. The subject, he said, was constantly being brought forward and debated; and, many years ago, the Commissioners, the local authority, in going to Parliament, included in their Bill powers for the erection of public baths. The matter was fully reported on, and a special meeting of the Board called to receive the report; plans were approved, and a suitable site purchased; and yet, up to the present time, no bath had been erected. Excellent reasons for not proceeding with the work had been plentiful, the most frequently urged being that the state of the finances of the town did not warrant it; but the real reason, Dr. Vacher thought, was probably that the Commissioners had in view the erection of a big building, with a frontage to the street of 150 feet and a depth of 140 feet, the net cost of the entire scheme, at the time it was approved, being estimated at £17,058. If only a plain building, suitable for the labouring classes, with a plunge bath of moderate size and eighteen or twenty slipper baths, had been in contemplation, it was not likely want of funds, or any other cause, would have deterred the health committee from recommending the necessary outlay. The cost of such an erection, the author was advised, including the price of site, water service from the main, tanks, etc., would have been but £2,500. The half a dozen buildings, on this pattern, had they been required, might have been established in the most thickly populated parts of the district for £2,000 less than the estimated cost of the splendid architectural design the health committee had approved. Plans and sections of small bath-houses, suitable for erection in localities inhabited by the labouring class, were submitted; and it was suggested that the council of any borough or town, who may determine to adopt the Public Baths Act for such borough or town, would do well to discountenance all big projects, and be content to erect simple unpretending buildings, for the poor, among the poor. About one bath-house of the size indicated would, probably, be sufficient for every 10,000 of the inhabitants of an urban district. It was, said the author, more important that public baths should be useful than ornamental; and a wise town council would perceive public baths were more likely to be useful as near as possible to the dwellings of the labouring class than in one of the chief streets of a town, and elect to construct several small buildings instead of one big building. The author had nothing to urge against the erection of handsome bath-houses, pleasing to the eye externally, and replete with all modern appliances for luxurious bathing within; his contention was merely that work of this sort was not intended to be encouraged by the Public Baths Act, and should be paid for always, as it often is, with private capital. Baths erected at the public cost should be for the poor, and in the form of what Dr. Vacher ventured to style cottage bath-houses. In respect of such buildings in poor districts, it was submitted: 1. That they were equally suitable for towns of all sizes; 2. That they meet the requirements of the labouring class better than any other form of bath-house; 3. That they would cost less than any other form of bath-house; (a.) as to building, the material suggested being of the simplest description; (b.) as to site, land in localities inhabited by the labouring class being cheaper than land in conspicuous parts of a town; (c.) as to water-service, localities inhabited by the labouring class being generally on a lower level than the chief streets of towns.

Alcohol in Workhouses and in the Treatment of the Sick Poor. By N. KERR, M.D. (London).—Dr. Kerr stated that until he was asked to read a paper at the recent Metropolitan Poor-law Conference, he had no idea of bringing this subject before the guardians and the profession, and he would not have trespassed on the time of those present at the Annual Meeting, had it not been for the advice of an influential member of the Association. It was surely unnecessary for him, in such presence, to prove that alcohol was not a necessity of life. They all knew, from the vital statistics of assurance companies, and of accurately recorded experiments both at home and abroad, that "moderate" drinking was much more unhealthy than total abstinence, the latest illustration of which was the experience of the 17th Regiment at Peshawur, in India, eight hundred strong, with an average of two hundred teetotallers, only one of the abstainers being invalided, while, to be equal to the drinkers, there ought to have been twelve. Alcohol being then a mere luxury, more or less dangerous, what moral

right had guardians to present healthy paupers with beer, many of the struggling ratepayers having a very difficult task to procure but a scanty supply of the barest necessities of existence? Strong and unfair pressure was often brought to bear on medical officers to induce them to sign the beer-book; and he proposed that a resolution should be passed condemning the giving of beer to paupers who are not sick, and requesting the various boards of guardians who kept up this practice to discontinue it, and abstain from pressing the medical officer for his formal signature. Dr. Kerr then gave a variety of illustrations showing the great differences in the amount of alcohol ordered in different parishes for both indoor and outdoor paupers; and, after detailing his own and other medical officers' experiences in the treatment of the sick without alcohol, unless in emergencies, concluded by saying that he cordially concurred in the proposal unanimously agreed to at the recent Poor-law Conference, "That it be suggested to the Local Government Board, that it would be advisable that the medical officers of the metropolitan parishes should meet together to discuss the question of the administration of alcoholic liquors to the poor under their charge". In the course of the paper, Dr. Kerr stated that the St. Marylebone guardians had discontinued the issue of beer to healthy paupers for the last three years, with an annual saving of £300.

Mortality of Ironworkers. By R. W. FOSS, M.D. (Stockton).—The paper was founded on the statistics derived from the death-registers of Stockton-on-Tees and Middlesbrough-on-Tees, the chief towns for the manufacture of Cleveland iron. The population was a rapidly increasing one, now over 100,000. The names and causes of death of all males above fourteen years of age was obtained from the year 1870 to 1875, a period of five years for each town. The total number of deaths as above during this period was close upon 3,000, which were divided into three classes: 1. Those distinctly registered as ironworkers; 2. Labourers and general labourers; 3. Males of other occupations. In the first class were 586; and the following, showing the cause of death of a part of them (the puddlers), gave a good idea of the general table. Typhoid fever, 18; typhus fever, 2; small-pox, 6; syphilis, 2; rubecula, 1; phthisis, 16; pneumonia, 9; bronchitis, 1; broncho-pneumonia, 1; pleuro-pneumonia, 1; congestion of lungs, 1; asthma, 1; heart-disease, 9; aneurism, 1; obstruction of bowels, 1; diarrhoea, 1; intussusception of bowels, 1; brain-disease, 1; paralysis and apoplexy, 3; epilepsy, 2; abscess, 1; killed, 6; drowned, 2; natural causes, 1; old age, 1—total, 89. Hence, zymotic disease was very fatal. There were 27 deaths registered from this cause, and 8 from accident, leaving 56, of which 40 were due to chest-disease, 30 to lung-disease alone (more than half the remainder), and 16 were entered as due to phthisis, an excessively high mortality. The same result was obtained from the larger tables. The causes of death were also arranged in decimal periods, according to the age of the person; and a high mortality due to phthisis and chest-diseases were found to exist between the age of twenty and forty years—one-half of the ironworkers dying between these periods, and only 20 out of the 586 attained seventy years. The probable causes were briefly discussed, especially considering the five great influences (mentioned by Dr. B. W. Richardson) which tend to reduce the life-value of the industrial classes, namely:—1. Intemperance; 2. Heredity to disease; 3. Errors of diet and improper cooking of food; 4. Moral surroundings; 5. Uncleanliness.

CHARGE OF ILL-TREATING A LUNATIC.—At the Lambeth Police Court, on Wednesday, John Smith, late an attendant at Camberwell House Asylum, appeared to a summons charging him with ill-treating Frederick Wimberley, a patient. In May last, the defendant was in charge of the patient, and it was alleged that he kicked him with such force as to break two of his ribs. Dr. Paul and Dr. Schofield stated, in addition, that Wimberley was a very violent man. Mr. Ody, for the defence, urged that the evidence of the chief witnesses, who were epileptic patients, should be received with great doubt. Mr. Lushington said he could come to no other conclusion than that the ribs of the patient were fractured through violence on the 19th of May. It had been stated that his ribs were so brittle that but little violence was required to break them. The evidence given by the two patients at the inquest differed but little from the statements they made before this Court, and he should certainly take them as competent witnesses. They stated that the defendant kicked the patient in the ribs more than once. With regard to the asylum in question and other establishments of the kind, the doctors and managers, no doubt, did all they possibly could for the benefit of the unfortunate persons placed under their care, but could not be expected to have their eyes everywhere. He should be wanting in his duty if he passed lightly over such a case. He, therefore, sentenced the defendant to pay the full penalty of £20; or, in default, to be imprisoned or three months. The money was not paid.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 2ND, 1876.

THE CHEMISTRY OF THE BRAIN.

THERE are various ways of attacking the great problem of the mode of normal nervous action of the brain and other centres. It may be approached on three sides: anatomical, physical, and chemical. The anatomist scrutinises not only the arrangements revealed to the naked eye with the aid of the dissecting trough and scalpel, but it is his province to reveal to us the minute structure of the brain, to investigate the connections of groups of nerve-cells in the grey matter, to trace the deep origins of the nerves, and to describe the anatomy of the vascular arrangements by which the brain and cord are supplied with blood, and of the lymphatic channels by which the waste products are carried off. Even a slight acquaintance with the present position of our knowledge of the minute anatomy of the brain, will indicate that there is much still to be done in this direction. Great labour has been expended upon it. Certain investigators, like Park, Livingstone, and Cameron in Africa, have given us a kind of general chart of the whole, with certain territories defined and certain great channels clearly marked out, but the details require to be filled in by an elaborate topographical investigation of every stratum and of every area.

By physical methods of investigation, we mean such procedures as the application of electrical or other stimuli to the surface, observations made by the electrometer or galvanometer as to the electrical condition of the brain-matter, methods of artificially supplying the brain with varying quantities of blood, or with blood altered from the normal quality in a definite way, and experiments on the effects of altering the lymphatic arrangements. Such lines of research have already elicited facts of great importance, and there is no doubt they will still do more.

But there is still a third department in the investigation of nervous phenomena, and that is what we have termed the chemistry of the brain. There are good grounds for believing that changes of all kinds in the nerve-centres are accompanied by certain chemical phenomena which are manifested by physical concomitants, such as increased temperature or electrical variation, and by the formation of waste products produced by the decomposition or dissociation of more complex chemical substances forming the basis of the nervous tissues. But before we can understand these chemical changes in the living brain, it is evident we must first know the properties of the chemical substances existing in it. This, however, cannot be done without a careful investigation into the chemistry of dead brain. It must be analysed with all the skill possessed by the most accomplished organic chemists of the day. But even supposing the chemistry of dead brain were thoroughly worked out, and certain proximate principles were separated and their properties examined, there is still the difficulty that possibly these proximate principles may not manifest the same properties during life as they do after death. This is a view of the matter often lost sight of by many writers. Take, for example, the common statement that an amoeba or moneron is merely a lump of albumen (see Haeckel's *History of Creation*, vol. i, p. 343). Apart from the difficulty of analysing so small a body, and even supposing that it coagulates on heating, and manifests the chemical and physical properties of a bit of albumen, say from a hen's egg, we are not entitled to conclude that the matter form-

ing the body of the amoeba or moneron was of the nature of albumen during life. During life, this transparent bit of plasm had the power of movement and of the assimilation of matter, by which matter outside of it became converted into the protoplasm of the body of the amoeba. After death, it manifests neither of these properties. We may apparently get out of the difficulty by assuming that living albumen is an allotropic condition of dead albumen. That may be so. It is a reasonable hypothesis to account for the differences of properties. We know that phosphorus, for example, exists in two states, the yellow and the red, which have very different properties. Physically, they are dissimilar, but chemically, they are the same. The molecular condition of the two must however be different. Again, we find that two plates covered by a thin film of chloride of silver, apparently physically and chemically the same, may be differently affected by the action of light. No doubt there must be some difference in molecular structure between the two (indeed the film has to be deposited on the plates in two different ways), but it escapes at present all our modes of observation, and we know it only by its effects.

It appears, therefore, when substances having certain physical and chemical characters are isolated from masses of dead brain, we must not conclude either that they necessarily are present in living brain, or that, if present, they are in the same condition. They may possibly be formed by the splitting up of more complex bodies by the chemical processes to which the brain matter is subjected; or if they do exist in brain, they may be present in an allotropic condition, manifesting properties very different from those we see in the laboratory.

These remarks have been suggested by the perusal of the elaborate reports made by Dr. Thudichum to the medical officer of the Privy Council, on the chemical constitution of the brain,* and of an interesting lecture by Mr. Kingzett, Dr. Thudichum's assistant, "On the Relations of Chemistry to Physiology and Pathology, with special reference to the Brain" (*Chemical News*, February 25th, 1876, p. 79). The labour expended on this great research must have been enormous. From the difficulty of obtaining human brains in sufficient quantity, the brain of the ox was employed. It was also found necessary in most cases to operate on large quantities of the substance, and it is stated that no fewer than 2,000 brains have been used.

Without going into minute chemical details, which are given in the report with great exactitude, we shall now attempt to show briefly the results arrived at.

1. Brain-matter contains a large quantity of *water* chemically combined with various substances so as to form a colloidal mass, thus permitting great "motility" of particles, and also penetrability of other substances by liquid diffusion. This condition of "motility" is what one would anticipate in the substance of an organ which is so constantly in action as the brain.

2. The brain contains "a considerable amount of an *albuminous base*", which, according to Dr. Thudichum, is not present in a liquid unattached form as in serum, but appears to be "governed" by matters peculiar to the brain. He has not in this investigation investigated the exact condition of the albumen of the brain-matter.

3. There are certain substances found in large quantity in brain-matter, though not peculiar to it. These he has divided into three groups.

- a. *Phosphorised Bodies*, containing five elements, carbon, hydrogen, nitrogen, oxygen, and phosphorus. All of these bodies contain the phosphorus in the form of phosphoric acid, which is combined with glycerine. Under various processes, glycerine-phosphoric acid is produced. But Dr. Thudichum has found that they differ among themselves in the mode in which they contain the nitrogen and the acid radicles, or, in other words, the molecule is differently built up, and he has accordingly split them up into sub-groups—the *Kephalines*, the *Myelines*, and the *Lecithines*. He thus summarises

* Reports of the Medical Officer of the Privy Council and Local Government Board. New Series, No. III, No. 5, page 113; also, New Series, No. VI, No. 5, page 209.

the distinctions between these bodies: "The Kephelines possess the tendency to be oxidised—oxidisability; the Myelines are not easily changed by any agent or influence, and possess, therefore, stability; the Lecithines easily fall to pieces—they are afflicted with lability." Dr. Thudichum points out that these phosphorised bodies have a remarkable diversity of affinities; for example, alkaline affinities for acids; acid affinities for alkalies; and alkaloidal affinities for salts. He also states that these affinities are overcome by water in quantity, but that the affinity for water is in turn overcome by such metallic oxides as those of lead, copper, manganese, iron, etc. The inference is, therefore, that if these substances do exist as such in living brain-matter, we have an incalculable number of states or conditions of this matter, and, as Dr. Thudichum states, "It foreshadows on the chemical side the remarkable properties which nerve-matter exhibits in regard of its vital functions. From this it also follows, that nerve-matter (if only as characterised by the phosphorised bodies) must yield obedience to every, even the slightest, external chemical influence, which may reach it by way of the blood. It must take up metals, acids, salts, alkalies, and alkaloids presented by the blood; it can retain only oxides when the serum is again free from the combinants; a watery serum will wash the brain, a more watery one will make it swell and displace mechanically, within physiological limits, what it can; a still more watery one will make the brain dropsical, and produce all the conditions of mechanical pressure on the brain."

(b). *Nitrogenised Substances*, containing four elements, but no phosphorus, such as cerebrin, stearoconote, phrenosin, etc. As compared with the phosphorised bodies, their peculiarity is slight solubility; they are more stable compounds, and less liable to oxidation. Like the phosphorised bodies, they are colloidal, and do not pass through the septum of the dialyser.

(c). *Oxygenated Principles*, containing only three elements, namely carbon, hydrogen, and oxygen. The chief of these is cholesteraine, regarding the rôle of which in the body almost nothing is known.

In this research, no fewer than *eighteen* bodies have been discovered for the first time as ingredients in brain-matter. At the end of the Report, Dr. Thudichum gives an alphabetical list of the names of substances said to have been found or produced from the brain of man and animals, and also a most valuable account of previous researches, from the days of Hensing, in 1715, to those of Klauss and Kessé, in 1867.

Few can read this report, or strive to grasp its conclusions, without feeling that here is a line of inquiry to be pursued with all vigour. Its practical importance is manifest. Until we know the chemistry of the brain and cord, how can we hope to explain the precise action of any neurotic remedy? All that we know at present is that certain substances act on the brain, others on the cord; that some act on sensory centres, while others act on motor centres; and that some seem to act by a kind of catalysis, while others split up and disappear. But we know nothing definitely of the precise chemical changes which follow a dose of morphia or strychnia, or of almost any other active substance. When we know the chemical constitution of the substances forming the centres, their chemical affinities, their precise relations to oxygen, their influence over the matters dissolved in the blood, then we may hope to offer a rational explanation of the action of our neurotics. We, therefore, regard such work as Dr. Thudichum's as being of great value, although it may be apparently on the very outskirts of one of the most abstruse and difficult investigations to which any man could devote his energies, and we wish him all success in its further prosecution.

MEDICAL OFFICERS OF HEALTH.

MEDICAL officers of health throughout the country must have indeed been surprised at Mr. Slater-Booth's reply to Dr. Cameron's question as to their tenure of office and the course pursued by the Local Government Board. Mr. Slater-Booth's statement as to the practice of his department leaves little or nothing to be desired, if such only

were the practice; that is, taking it in its broad and liberal light. But, unfortunately, no such practice as that referred to by the right honourable gentleman has hitherto prevailed. We cannot call to mind one single case of permanent reappointment, although it is self-evident that "the efficiency of an officer is increased by the permanency of his appointment". Neither were the first appointments of medical officers generally for a period of five years. An appointment for five years was, and still is, quite the exception; one, two, or three years being the rule, even where the whole of the officer's time was devoted to his work. Surely this reply will prove to be the last straw which has been so long looked for and wished for to break the Local Government Board's back. Nobody will accuse Mr. Slater-Booth personally for giving so painfully incorrect a reply; but the departmental officer who misinformed his chief ought to be punished.

We will furnish the President of the Local Government Board with information on which he may rely, starting from the date of the existing five-years appointments. In some districts, some Local Government Board Inspectors urged combination on the sanitary authorities; in other districts, isolated appointments were recommended. In some districts, the inspectors manfully advised the combined authorities to make the appointments for the full period allowed by the Act; in other districts, they as strongly and decidedly recommended the authorities to make them for short—that is, one, or at the most two-year periods. The result of these gentlemen's labours was, that the great majority of combined districts made very short appointments; and these appointments were approved by the Local Government Board, just as were the very few longer-period ones. Out of all the appointments made, only three occur to us as for five years—notably Gloucestershire, West Kent, and another southern combination. So certainly the reply was incorrect on this head. But this would be comparatively a venial mistake, if the whole tenour of the reply were not as incorrect as to its details. The inference to be gathered from Mr. Slater-Booth—and we have no doubt that he expressed his own common-sense feelings—is, that the Local Government Board have been, and are, anxious to secure good men, and to do all that lies in their power to render them independent within fair and reasonable limits; and be it remembered that the last Public Health Act gives the Board ample power, both to effect combination and to insist on even life-tenure of office if it think fit. The practice of the Board has been, unfortunately, just the opposite. Combination after combination has been allowed to grow small by degrees and beautifully less. Reappointments have been sanctioned for yearly periods; and, instead of leading the authorities, the authorities have driven the Local Government Board. Some medical officers have lost parts or the whole of their districts on the score of economy; but the Local Government Board has sanctioned the appointment of successors who do not devote the whole of their time to the work, at half the old salaries. In other cases, the sanitary authority simply laughs away the idea that a medical officer of health is required, and appoints a dummy, without the slightest let or hindrance from the central authority, but with its approval and half the salary. Mr. Slater-Booth must ask to be furnished with a list of permanent appointments, and also for one containing all past and present appointments.

The long and short of the matter is, that the medical element in Public Health administration is completely swamped, and might as well not even exist or draw its pay. Surely we are not asking for too much when we urge the division of the purely medical work from the purely lay or Poor-law. Now, no work at all is accomplished, for there is no system, and the scandals referred to in a previous article still flourish. "Chaos", as Dr. Rogers styles it, is too mild a word, for it is chaos and misrule combined.

Most of the medical officers of health to combined districts are gentlemen who sacrificed their private professional incomes on the faith of being fairly supported by an enlightened Local Government Board; and they have great right to complain of breach of faith, for the Local Government Board has not only not acted after the manner of Mr.

Slater-Booth's reply to Dr. Cameron, but it has thrown every impediment in the way of their being peaceably reappointed on the expirations of their terms of office. Even when the authorities in combination, or those remaining in combination, by distinct and unanimous resolutions express their desire to reappoint, and, as they imagine, do reappoint, in steps the precious Local Government Board with its red-tape. A simple and inexpensive proceeding will not suit them, and the medical officer must be harried and harrowed a bit. The "order" must first be issued; and this order inevitably orders the reappointment to be advertised as though it were an original appointment. The old occupant is thus caused a good deal of annoyance; candidates who have not the remotest chance of election are incited to aspire to the post; and the sanitary authorities are put to a considerable loss both of money and time.

We are quite sure that, now we have called Mr. Slater-Booth's attention to this last nuisance, he will at once give orders that where the authorities are, or such of them as are, willing to reappoint their old officer, they shall be allowed to do so by an "order" from his department merely confirming such resolution on their part. Nothing further is required, save that the Local Government Board should now and then exercise the powers it possesses of enforcing combination where it is evident that combination is desirable.

DR. WILLIAM FARR has been elected one of the Presidents of the International Statistical Congress now being held in Pesth.

PROFESSOR TARDIEU of Paris has been promoted to the rank of Commander of the Legion of Honour.

THE Library and Museum of the College of Surgeons were closed on Thursday last, and will be reopened on Monday, October 2nd.

DR. PONFICK, Professor of Medicine in the University of Rostock, has received and accepted an invitation to the University of Göttingen.

THE sermon preached before the British Medical Association at the annual meeting in Sheffield, by the Rev. Dr. Gaffy, has been published in compliance with a request to that effect.

A MEETING for the organisation of an American Dermatological Association will be held in the University of Pennsylvania, Philadelphia, on Wednesday, September 6th, at 6 P.M.

DR. AXENFELD, Professor of Medical Pathology in the Faculty of Medicine in Paris, who was disabled four years ago by an attack of cerebral hæmorrhage, died last week.

A COMMUNICATION to the *Petit Lyonnais*, referred to in *Le Progrès Médical*, reports that Dr. Bergeret, of the St. Etienne Hospital, has detected in a number of workmen symptoms of poisoning produced by wine coloured with fuchsine.

COLONEL LOYD LINDSAY, Mr. MacCormac, Dr. Charles, and a number of other representatives of the National Society for the Aid of the Sick and Wounded in War, arrived in Belgrade on Tuesday, and had an interview with Prince Milan, by whom they were cordially received. They have since gone on to Alexinatz.

THERE will be no introductory addresses this year at St. Bartholomew's or Guy's Hospitals; but at the latter there will be a *conversazione* in the evening, in the course of which the medals and prizes for the past session will be distributed by the Treasurer. We have so long urged the advisability of doing away with these multiple prohibitions on a threadbare subject, that we hail with pleasure the course which Guy's Hospital has taken in joining St. Bartholomew's in practically carrying out this view. This example of two leading medical schools of the metropolis will, we trust, be followed by many others.

THE German journals announce the death, on August 17th, of the well-known surgeon, Max Joseph von Chelius, at the age of eighty-two. He was appointed extraordinary professor of surgery in the University of Heidelberg in 1817, and in 1819 became ordinary professor. His *Handbook of Surgery* first appeared in 1822, and from that time to 1858 went through eight editions. It had a wide circulation, and was translated into English by Mr. South. Chelius retired from his professorial duties in 1864.

MR. VICTOR DE MÉRIC.

WE regret to hear of the death of Mr. Victor de Méric, which took place at his residence in Brook Street on Tuesday last. Mr. de Méric, who was a native of France, settled in London more than a quarter of a century ago, and during his residence won the esteem of his professional brethren by his genial character and honourable conduct. He was Surgeon to the Royal Free and to the German and French Hospitals, and was specially known as a diligent student of syphilis and the allied affections, to the literature of which he made some valuable contributions. Mr. de Méric died at the age of 65.

THE INTERNATIONAL MEDICAL CONGRESS IN PHILADELPHIA.

THE International Medical Congress is to be formally opened at noon on Monday next, September 4th. The sessions of the Congress and of its Sections will be held in the University of Pennsylvania. The general meetings will be held daily, from 10 to 1 o'clock. The Sections will meet at 2 o'clock. Luncheon for members of the Congress will be served daily in the University building from 1 to 2 o'clock. On Wednesday evening, September 6th, Dr. J. J. Woodward, U.S.A., will address the Congress on the Scientific Work of the Surgeon-General's Bureau. The public dinner of the Congress will be given on Thursday evening, September 7th, at 7 o'clock.

THE SULTAN.

THE following is stated to be the text of Dr. Leidesdorf's report on the health of the Sultan.

"His Majesty has suffered for a period of six weeks from a tenacious sleeplessness, caused by the shock of events. This prolonged sleeplessness, which has at length been relieved by suitable treatment, has nevertheless left the nervous system of His Majesty in a state of irritability which demands for a time perfect calm and much care and circumspection."

At the time of going to press, we hear that Sultan Murad has been deposed. If this event had not occurred, the prospect of his recovery would, judging from Dr. Leidesdorf's report, have been far from hopeful.

CHARGE AGAINST A SURGEON FOR EXPOSING AN INFECTIOUS PATIENT.

MR. JAMES BISSHOPP, a surgeon residing at Tunbridge Wells, was lately summoned before the magistrates assembled in petty sessions, on the ground "that he, being a person in charge of one William Field, who was suffering from a dangerous and infectious disease, unlawfully and wilfully did expose the said William Field without proper precaution against spreading the disease, in certain streets and public places in Tunbridge Wells, on the 24th and 25th June, 1876". The facts of the case were briefly these. The local authority of the town have erected a fever-hospital, and—there being no resident surgeon—have made a regulation that the patients are to be attended by the medical men who send them in. Patients are admitted with a certificate from the medical man, in the form of which the object is stated to be "that I may continue the treatment with less risk to others". Mr. Bishopp altered this to "that...the treatment may be continued". With this certificate, admission was refused to the man Field; and the charge specially urged against Mr. Bishopp was, that instead of having the man removed in the ambulance provided by the Local Board, he sent him through the streets to the police-station at the Town Hall; and that, next day, he took the man across a common to the Chairman of the Local Board, and allowed him to lie on

the common for an hour, while he obtained from the chairman an order for his admission into the hospital, to which he was subsequently removed in the ambulance. Dr. Baylis, the medical officer of health, considered that Mr. Bishopp had acted in a justifiable manner; the danger of infection in the early stage of the disease (in which the man then was) was very low. Dr. Fussell of Brighton agreed with Dr. Baylis. The charge was dismissed by the magistrates, no order as to costs being made. While we would have the law against wilful exposure of persons suffering from infectious diseases strictly carried out, we must say that it appears to us to have been overstrained in the case of Mr. Bishopp. In assuming that every medical man who sends a patient to the fever-hospital is to continue his attendance on the case, the Local Board of Tunbridge Wells goes beyond the powers which such an authority should possess. To provide such a hospital is highly proper; but arrangements should be made for a regular medical attendant, resident or otherwise—it being, of course, left to the option of practitioners to continue their attendance on patients sent by them to the institution. Mr. Bishopp probably had reasons for not desiring to do this. As regards the charge of exposing the patient so as to produce danger to others, we have the evidence of Dr. Baylis and Dr. Fussell, which is in accordance with the ordinary experience of the profession, that it is not in the early stage that scarlet fever is infectious; at least, it is very far from being so dangerous then as in the stage of desquamation. It is exceedingly questionable whether Mr. Bishopp would have acted more rightly than he did if he had sent the man back to his own lodgings. In any case, he appears to have acted in a manner which ought to have been interpreted as at most an error of judgment, and not as a wilful infraction of law.

POISONING FROM LEAD IN VEGETABLES.

DR. D. DE LOOS of Leyden, writes in the *Weekblad van het nederlandsch Tijdschrift voor Geneeskunde*, that he was consulted in October last regarding certain symptoms of paralysis and nervous disturbance which suggested the idea of lead-poisoning. The symptoms occurred in a family residing in the neighbourhood of a place where a manufactory of white lead had stood twelve years previously; they made use of vegetables growing on the spot. In order to make it certain that the poisoning was produced, as he believed it to be, by the vegetables, Dr. De Loos examined chemically some red beet, endive, and carrots, and ascertained the presence of lead in all. In a beet weighing 650 grammes, he found the equivalent of a centigramme of metallic lead; in another of about the same size, $1\frac{1}{3}$ centigrammes; in six carrots, weighing altogether 272 grammes, there were $1\frac{3}{4}$ centigrammes of metallic lead; and the metal was also found in the endive. The ashes of the plants also contained traces of copper, which had probably existed as an impurity of the lead.

PRESENTATION TO DR. CHADWICK OF LEEDS.

THE members of the West Riding Medical Charitable Society last week presented Dr. Chadwick with a service of plate, consisting of a silver salver and dessert centre-dish and side-dishes, in recognition of his valuable labours as secretary of the society during twenty-three years. The ceremony took place at a dinner at the Royal Victoria Hotel, Sheffield, in the presence of a large number of members of the profession in the West Riding. The chair was occupied by Dr. John Charles Hall, who presented the testimonial in the name of 117 subscribers. In accepting the gift, Dr. Chadwick said: "Contrary to the generally received opinion, numerous rewards were enjoyed by the medical practitioner. He did not now refer to pecuniary gain—this was seldom commensurate with the labour and responsibility incurred; nor yet to that inner consciousness of recompense enjoyed by those who faithfully fulfilled their duties alike to God and man. He had in view another series of rewards which fell to their lot, arising from the confidence reposed in them by individuals and the public, through which they were appointed to various offices of trust and importance. These enabled them still further to benefit their fellows, and to the ex-

tent they were thus privileged to exercise their beneficent designs, they, if their minds were properly constituted, found the reward of all their labours. These he had abundantly experienced, and he instanced several in which he had enjoyed these opportunities of doing good. None had he valued more highly, or, in the discharge of its duties, had he experienced greater happiness than in the office to which, for the twenty-fourth time, they had that day appointed him. But they would not permit him thus alone to realise its abundant recompense. In the splendid testimonial gifts now before him, they were pleased to mark more emphatically their approval of his services, and these he gratefully accepted. They would be equally valued by himself and by those who would afterwards possess them, in their association with one of the most soul-satisfying occupations of his life." At considerable length, Dr. Chadwick further referred to the pleasure he had derived from the office he had so long held, not only in its immediate and gratifying results, but also in the association it had involved with the best and most honoured members of the profession. He concluded by assuring them that, in the success the charity had attained, and in its now established permanency as an institution of the West Riding, they with himself had reaped an abundant reward.

FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE annual meeting of this association has been this year held at Clermont Ferrand, under the presidency of the celebrated chemist M. Dumas. In his opening address, after referring to the British Association, the President said:

One striking contrast exists between the world of science in France and in England. In the latter, until of late years at least, all the universities and important seats of learning were away from the capital, while in France all science centred in Paris, the provincial schools and universities being deemed but of secondary importance. To remedy this, to extend the domain of science and to restore to the provinces some of their ancient scientific eminence, is one of the objects of the French Association for the Advancement of Science. France must not forget that science is a great power, and that its effects are visible in every branch of social and domestic life. When the Revolution of 1792 isolated us from the rest of Europe, and left us at once destitute of all those external products upon which we had so much depended, it was to our men of science that we looked to remedy these wants, and persons of such eminence as Lavoisier, Berthollet, and Chaptal laboured with their own hands to fill the void. To science are due those terrible engines of war, and likewise the steam-engine, which has peaceably revolutionised all our manufacturing and our domestic life. Science also it is that causes the noisome tar, the refuse of our gas-works, to afford us some of our brilliant dyes and some of our most delicate perfumes, and shows that, in the production of a stearine candle, there also lies a substance so terrific in its effects as is nitro-glycerine. Science follows us everywhere, whether we like or not. It must be our companion, to possess it or to be possessed by it. If ignorant of it, we are its slaves; if learned, it obeys us.

In the report of the Council, it was announced that the Government had recently decreed that the Association was of public utility. Such a decree is equivalent to a charter in England. The Section of Medical Sciences was presided over by M. Chauveau, Director of the Veterinary School of Lyons. The following papers were read in the Section: Dr. Gallard, on Certain Changes in the Mucous Membrane of the Stomach; M. Leudet (Rouen), on Cerebral Anæmia consecutive on Irritation of the Pleura in Operations for Empyema; M. Courty (Montpellier), on the Treatment of Chronic Parenchymatous Metritis by Ignipuncture; M. Ollier (Lyons), on the Treatment of Coxalgia; M. Philipeaux (Lyons), on Otoscopy applied to the Diagnosis of Deafness; M. Onimus (Paris), on Deformities of the Sole of the Foot, especially in Children, in Atrophic and Paralytic Affections of the Leg; Dr. Mignot, on Cholera in the Centre of France; M. Dagrève, on Paralysis of the Muscles of the Arm, cured by the Continuous Current; M. Verneuil, for M. H. Petit, on the Relations between Pleurisy and Hydatid Cysts of the Liver; M. Verneuil, for M. Terrillon, on a Case of Amputation in an Albuminuric Patient; M. Houzé de l'Aulnoit, on the Medico-Legal Aspects of Deglutition in New-born Children; M. Tripiér (Lyons), on Ether-

isation in Young Children; M. Laennec (Nantes), on the Lung-Test in Cases of Putrefaction; M. Delore, on the Removal of Benign Tumours; Dr. Létievant, on Resection of the Upper Jaw; M. Lassalas, on Hæmoptysis in Pulmonary Consumption; M. Teissier, senior (Lyons), on Neuralgiæ and Visceral Neuroses in Cerebro-spinal Diseases; M. Galezowski, on the Operation for Cataract, and on Separation of the Retina and its Treatment; M. P. Reclus, on a Special Variety of Epithelioma; M. Pernot, on the Use and the Action of Carbolate of Soda in certain Nervous Affections of the Respiratory Passages. Dr. Manouvriez, junior (Valenciennes) showed a new Æsthesiometer with isolating points; M. Colrat and M. Rebatel, a new Pneumograph; M. Fabreguettes (Saint-Etienne), a new Apparatus for Fracture of the Lower Limbs.

THE SANITARY CONDITION OF POPLAR.

THE medical officer of health for Poplar (Mr. S. K. Ellison) has recently issued his report on the health of his district during the year ending March 25th, 1876. It is much to be regretted that so many of the metropolitan medical officers of health should issue reports for years ending at arbitrary dates instead of the natural year. The value of such reports for all statistical purposes is thus nearly destroyed; comparison with similar figures for other urban populations is thus rendered impossible. This report does not contain, however, a calculated birth-rate or death-rate, so that it is difficult to form any estimate of the health of the district during the four quarters of 1875-6, although Mr. Ellison states that it "was never in a better sanitary condition". The most noticeable feature of the report is the official representation forwarded to the Metropolitan Board of Works in March last, with reference to the application of the provisions of the Artisans' Dwellings Act of 1875 to an "unhealthy area" in Poplar. The area contains about 22 streets, courts, alleys, and places, with 208 houses. These houses were found, when specially inspected for the purpose, to contain 267 families and an aggregate population of 1,115 persons. The official representation contains a description of the various courts, alleys, and streets of this area, which appears most completely to justify its condemnation as unhealthy. The large proportion of the houses are declared to be "unfit for habitation". It is to be regretted that no attempt was made in the representation to measure the effect of these unsanitary conditions upon the health of the residents. We have to ascertain that 43 deaths occurred within this area during the year 1875, which is equivalent to a death-rate of 38.6 per 1,000 of the enumerated population of the houses, 1,115 persons. If to this death-rate were added the proportion which the houses undoubtedly contributed to swell the number of deaths in the union work-house and in hospitals, the real death-rate would probably considerably exceed 40 per 1,000; whereas we calculate the death-rate in the whole of Poplar at 24 per 1,000 for the natural year 1875. If this condemned area were never in a better sanitary condition than is evidenced by this high death-rate, the representation was not made a day too soon, and it may be hoped that the urgency of the case will not be lost sight of by those who are responsible for hastening the adoption of the Poplar improvement scheme.

CHEMISTRY APPLIED TO PALÆOZOOLOGY.

AT a recent meeting of the Academy of Sciences in Paris, M. C. Husson presented a communication, for the purpose of showing that it is possible to determine the presence of nitrogenised animal matter in the oldest layers of the secondary formation. According to M. Husson, the test lies in a comparison of bituminous matters obtained from the coal-formation with those found in the secondary formation: the former have a tarry odour, and the latter a foetid smell like that of animal oils. When it is remembered that these formations are due to the decomposition of vegetable or of animal substances, and that the products of the distillation of these substances in closed vessels differ in odour, it is, he thinks, fair to conclude: 1. That bitumens having a tarry odour are essentially of vegetable origin; 2. That those having a

foetid odour are of animal origin; and 3. That the secondary and the oldest tertiary formations contain the ultimate remains of the animal matter which is found in a profoundly modified state in the diluvium, and which exists in the state of osseine in the soil of bone-caverns.

A HINT TO LIFE-INSURANCE COMPANIES.

IN June last, Dr. Thomas drew attention, in a paper published in the JOURNAL, to the relation of ear-diseases to life insurance; and several other papers by Drs. Cassells, Jagielski, and Underhill, and Mr. Nix, have since appeared on the same subject. At first sight, the need of any precaution in a matter apparently so comparatively unimportant seemed doubtful; but subsequent investigation and an actuary's experience have convinced us that the managers of life-offices will be wise if they take steps to insure greater care in the medical examination of candidates, either by adding to their list of questions one bearing on this subject, or by specially drawing the attention of their medical officers to the points raised in these papers with reference to the general question of protecting the interests of the public by using all possible means to exclude "doubtful" lives from insurance. Dr. Underhill's suggestion of having a separate private report from the ordinary medical attendant of the candidate, in addition to that of the medical referee of the district, on the ground that the family doctor is alone cognisant of many uterine and other diseases, and consequently he alone can give the facts accurately, deserves universal adoption. In the same way, although we are fully alive to the importance of restricting as much as possible the number of questions put to the candidate, we are of opinion, for the following reasons, that it will be wise for the insurance managers to add to their questions one to this effect: "Have you ever had a discharge from the ears? Are you, or have you ever been, subject to deafness or pain in the ear?" Everybody must admit the importance of detecting any old injury or disease which is at all likely to lead, even indirectly, to the shortening of life. With this object, questions are put in insurance forms on every part of the body except the ear; but, for some unexplained reason, this organ has been entirely overlooked both by English and by foreign offices. The question, "Have you ever had scarlet fever or measles?" is always put, although it is a matter of very slight importance, except with regard to the frequent ear-disease which is left after these fevers, because all other points are covered by separate questions. It has been urged by some that the consideration of otorrhœa is merely the hobby of a few specialists with whom the profession do not sympathise; but many English and German writers have proved by statistics that one-half the published cases of cerebral abscess are the direct result of chronic ear-disease. On this point, Dr. Roosa gives 35 cases where the average age was 28 years at the time of death, in which the discharge from the ear had continued for several years; and Mr. Toynbee quotes 16 fatal cases in which the age of the patient was 18 years and upwards, where the average duration of the discharge was fourteen years. It cannot be doubted that the origin of many cases of fatal meningitis is overlooked, as the medical attendant too frequently fails to gain any history of the case when called to a person who has suddenly and rapidly become comatose, and where a *post mortem* examination is quite out of the question, although the cause of death is decidedly obscure. Yet the *post mortem* room can alone satisfactorily reveal the true cause of death, and many pathologists of long standing will bear out the truth of the assertion, that they have found in their own experience more than one or two cases of abscess of the cerebral lobes where ear-disease had existed before death, which were not even suspected during life. It would be desirable that every case of this kind should be carefully noted, in order that the statistics on the point may be made as complete as possible. It is too often forgotten that otorrhœa is not necessarily a manifestation of scrofula and kindred diseases, but that it more often arises from fever, from a blow, or from acute inflammatory injuries. The recent case of a boy (*vide* JOURNAL, page 224) who was struck on the ear by a schoolmaster at Liverpool, and who, four months afterwards, shortly before death, complained of a pain in his

ears, with deafness, is a case in point. Here, as we stated in reporting the case, it is much to be regretted that neither the doctor's statement nor the history are as clear as we could desire. It is too much the habit with general practitioners to underestimate the importance of ear-affections, and to pass them over as unimportant, whilst consoling the parent with the remark that the children will grow out of them as they get older and stronger. Dr. Hughlings Jackson called attention a few years ago, in this JOURNAL, to certain epileptiform seizures in children, and venous thrombosis, which occurred from ear-disease, and we then advised that a careful investigation of all similar cases should be made. On the whole, therefore, it must, we think, be admitted that a case has been made out for further investigation, and that ear-disease in relation to life-assurance, apart from the other evils which may result from otitis, is of sufficient importance to merit the careful consideration of all who are responsible for the protection of life-offices from insuring doubtful lives without adequate precautions.

CHARGE OF MANSLAUGHTER AGAINST A MIDWIFE.

AN inquest was held last week in Birmingham on a woman named Catherine Lane, who was alleged to have died through neglect and want of proper skill on the part of a midwife named Ann Shelly, who attended her in her confinement. It was stated that the woman had expressed a desire to be attended by a surgeon, but that the midwife said that she did not consider this was necessary. The immediate cause of death appears to have been hæmorrhage, and the charge against the midwife was, that she neglected to call in a qualified medical man in time to arrest it, and so save the woman's life. The jury returned a verdict of manslaughter against the midwife, who is a woman sixty-seven years of age.

MORTALITY STATISTICS IN IMPROVED DWELLINGS FOR THE WORKING CLASSES.

THERE are few branches of vital statistics which are at the present time more deserving of study and attention than that which deals with the effect of improved dwellings upon the health of the working classes. The subject, however, is one which requires very careful handling, and it has scarcely yet been dealt with in a manner to inspire confidence in the results which have been obtained. In February 1875, Mr. Charles Gatliff read a paper before the Statistical Society on "Improved Dwellings, and their beneficial effect on health and morals". This paper especially dealt with the statistics of the mortality which prevailed in the improved dwellings erected by and belonging to the Metropolitan Association; and the annual death-rate among the residents of these dwellings, during eight years, was said to have averaged only 14 per 1,000. Now any one who has studied the subject of rates of mortality, who knows the class of population living in these dwellings, and the exceptionally large number of children which such a population contains has no difficulty in arriving at the confident conclusion, that a supposed death-rate of 14 per 1,000 in such a population must be a fallacy. The fact is, Mr. Gatliff had trusted to the superintendents of the several blocks of buildings for a report of the deaths occurring therein, and there can be little doubt that a considerable proportion of the deaths thus escaped his knowledge; the result was an understated death-rate. A similar course led to an understatement of the death-rate in the Peabody Buildings in the trustees' annual report for 1875. More recently, Dr. Bateson, in his interesting annual report upon the health of the parish of St. George the Martyr, Southwark, has arrived at unsound conclusions as to the recent rate of mortality in the group of Peabody Buildings situated in the Blackfriars Road, in his district. Dr. Bateson states that twenty-seven deaths were registered in these houses in the year ending March last; and, further, that these deaths were equal to a death-rate of 12 per 1,000 persons living. Now, we believe that only twenty-six deaths really occurred in these buildings in the twelve months referred to; but, assuming twenty-seven to be the correct number, let us consider the number of inhabitants of the buildings. The number of residents on December 31st last was returned to the Trustees of the Peabody Fund as 1,373; and the aver-

age number on the first day of the four months, May, June, July, and August of this year, was 1,408. The twenty-seven deaths reported by Dr. Bateson were equal to a rate of 19.7 per 1,000 of the 1,373 persons living in the buildings on December 31st; and, even taking 1,408 as the average population of the year, the death-rate would be 19.2. In order that twenty-seven deaths might be equal to a rate of 12 per 1,000, Dr. Bateson must have assumed the population to be 2,250, which is more than 60 per cent. in excess of the true number. In calculating death-rates in blocks of private dwellings, moreover, it should always be remembered that an addition should be made to the recorded deaths, for the proportion of deaths of residents drafted into workhouses and hospitals. A good cause is too often injured by the advocacy of over-zealous friends. The beneficial effect of improved dwellings upon the health of the working classes is beyond dispute; but if the promoters of this form of well-doing are led to expect the death-rate among the residents of these dwellings to be reduced to 12 or 14 per 1,000, nothing but disappointment will be the result. It should be borne in mind that the death-rate among the London rookeries, from which the residents of improved dwellings are principally drawn, ranges from 35 to 40 per 1,000; and that the lives of the recent residents of those rookeries are far from being "selected" lives. Philanthropists should, therefore, be more than satisfied if, during the first year or two of residence in improved dwellings, the death-rate of the residents falls to 20 or even 25 per 1,000. This is a low death-rate for a purely working class urban population.

DEATH FROM SELF-ADMINISTRATION OF CHLORAL.

ANOTHER death from the self-administration of chloral is reported. The victim was the Rev. J. M. Harvey, D.D., until lately a minister of the United Presbyterian Church in Edinburgh. In March last, failure of health compelled him to resign; and he had since been suffering from nervous prostration and general debility, the results of overwork. Some days ago, he went to Silloth in Cumberland (having been previously staying at Gainsborough); and on Tuesday, August 22nd, on arriving in the evening at Silloth, he complained of being very much exhausted. He rested for an hour or so, and, at half-past nine, went to bed. He could not sleep, and at midnight he took a narcotic, consisting of sixty grains of bromide of potassium, and what he considered would be a teaspoonful of hydrate of chloral, though he did not measure it. About five o'clock next morning his wife became alarmed by his breathing, and found that he was unconscious. Dr. Lietch of Derwent Bank found the patient in an almost comatose state, and took measures to try to rouse him, and succeeded so far that he induced him to walk about the room. His physical powers, however, soon failed him, and, on lying down, he again became unconscious, in which state he remained until his death at eight o'clock. At the inquest, Dr. Lietch stated as his opinion that death had resulted from a dose of hydrate of chloral, not in excess of what the deceased had been in the habit of taking, but so large that his weakened physical condition had been unable to resist its action. It was stated that the deceased had been in great mental anxiety with regard to charges of drunkenness made against him, on the supposition that the nervous prostration from which he suffered was due to intoxicants. The jury found that Dr. Harvey met his death through taking a dose of chloral for the purpose of procuring sleep.

RECENT URBAN MORTALITY.

DURING last week, 6,057 births and 3,676 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 24 deaths annually in every 1,000 persons living. In Edinburgh it was 16; Dublin, 17; Bristol, 18; Glasgow, 19; Oldham, Plymouth, and London, 20; Portsmouth, 21; Newcastle, 22; Wolverhampton and Brighton, 25; Bradford, 27; Liverpool, 28; Leeds, 29; Nottingham and Birmingham, 30; Sheffield, and Sunderland, 32; Manchester, 33; Hull, 35; Salford, 37; Norwich, 40; and again the highest rate

during the week, 46 in Leicester. The zymotic death-rate in the twenty English towns was 7.6, and ranged from 4.1 and 4.3 in Newcastle-upon-Tyne and Plymouth, to 15.6 and 23.9 in Norwich and Leicester. Scarlet fever continues fatally prevalent in Portsmouth. The fatal cases of diarrhoea in the twenty towns, which had been 712 and 753 in the two preceding weeks, further rose to 756 last week. The annual death-rate from diarrhoea averaged 5.7 per 1,000 in the twenty towns, and ranged from 2.5 and 2.6 in Portsmouth and Bristol, to 14.1 and 20.7 in Hull and Leicester. In London, 2,616 births and 1,370 deaths were registered. The births were 339 above, the deaths 148 below, the corrected average of the week. The annual death-rate was 20.5. The 1,370 deaths included 10 from small-pox, 10 from measles, 57 from scarlet fever, 8 from diphtheria, 21 from whooping-cough, 15 from different forms of fever, and 198 from diarrhoea; in all, 319 deaths (against numbers declining from 669 to 361 in the four preceding weeks), which were 116 below the corrected average, and equal to an annual zymotic death-rate of 4.8 per 1,000. The fatal cases of diarrhoea, which in the four previous weeks had steadily declined from 522 to 232, further fell last week to 198. Drowning caused 18 deaths; whilst the deaths of two adults and one child were referred to sunstroke. In greater London, 3,182 births and 1,686 deaths were registered, equal to annual rates of 38.7 and 20.5 per 1,000 of the population. In outer London, the general and zymotic death-rates were 20.7 and 6.2 per 1,000 respectively, against 20.5 and 4.8 in inner London. The deaths from diarrhoea in the outer ring, which had been 96 and 90 in the two previous weeks, further declined to 73 last week, but again showed a higher rate of mortality than that which prevailed from the same disease in inner London. The mean temperature of the air at Greenwich, which during the eighteen days ending the 22nd instant, had been 68 degs., and had exceeded the average for the corresponding period in sixty years by 6.4 degs., was only 56 degs. during the last four days of last week, and showed an average deficiency of 4.6 degs. Rain fell on four days last week, to the aggregate amount of .64 of an inch.

SCOTLAND.

The Local Authority of the favourite Highland village of Pitlochry are making the requisite preparations for having it thoroughly drained.

THERE have been recently, in Glasgow, several prosecutions of tradesmen for selling adulterated butter and milk, in all of which convictions were obtained and penalties inflicted.

NEWTOWN ST. BOSWELL'S.

THE water-supply of Newtown St. Boswell's has long been inadequate to the wants of the district; but this state of matters will, it is hoped, have now been put an end to. Since the month of June, works have been in progress for bringing a supply of water from the Eildon Hills, permission to do so having been granted by the Duke of Buccleuch. The cost of the works has been raised in a great measure by subscriptions. The works were formally opened on Saturday last by Lady Grisel Baillie of Dryburgh.

GLASGOW: HOGGANFIELD WATER-SUPPLY.

AT a recent meeting of the Local Authority of the Barony Parish, Glasgow, it was resolved to proceed at once to provide a supply of water for the district of Hogganfield, which had been created a water-supply district in terms of the Public Health Act. With regard to the drainage of Maryhill and Possil, the meeting had under consideration a plan and report by which it was contemplated to carry off the sewage of these places by a large main drain extending from Springburn to the Kelvin. The local authority were of opinion that the Kelvin was already polluted to an extent dangerous to health, and that its further pollution should be prevented; and that any provision for dealing with the sewage of any of the populous districts around Glas-

gow should be made a part of a general and comprehensive scheme. The local authority were of opinion that by united action a scheme for the efficient drainage of the Kelvin valley between Maryhill and the Clyde may be matured and carried into operation under the existing law. With this view, the meeting instructed its inspector to request a conference with the Master of Works for the City of Glasgow and the burgh engineers.

THE BROXBURN NUISANCE CASE AT LINLITHGOW.

AN important case was decided last week by the Sheriff of Linlithgow, in which two householders of the village of Broxburn brought an action, under the Public Health Act of 1867, against a manufacturer of artificial manure whose works were in the village, on the ground that such works were a nuisance. The sheriff has granted the interdict craved, and has prohibited the defendant henceforth from carrying on the business of bone-boiling and manure-making in the village. The defendant is found liable in expenses. The reason for this decision is, that "the work complained of is a work offensive, and likely to be injurious to the health of the neighbourhood, and so conducted as to be injurious to health". In a note, the sheriff says: "Dr. Littlejohn's reports are clearly affirmative of a nuisance. In his first report, he says, 'The smell was heavy and sickening, and, in my opinion, must be injurious to health'; and again, at the close, 'I can suggest no remedy but the removal of the works'. It is said that this work has been in existence twenty-five years; but it is plain, from documents in process, that during that period it has repeatedly been complained of."

IRELAND.

DURING the week ending August 19th, the deaths registered in Dublin amounted to 100, representing an annual mortality of 16.5 in every 1,000 of the population; and, omitting the deaths of persons admitted into public institutions from localities outside the Dublin District, the rate was 16.2 per 1,000. This extremely low death-rate was principally due to the small mortality from zymotic diseases, which amounted to 25, against an average of 35 for the corresponding week of the previous ten years. One death each from small-pox and fever were registered during the week.

STEPHEN'S GREEN AS A PUBLIC PARK.

At a special meeting of the Corporation of Dublin held on Saturday, the 26th ult., it was resolved that a Bill should be promoted in the next parliamentary session for compulsory powers to purchase the interests of the Commissioners of the Green and others, in order to open it as a People's Park, under the management of the Corporation. There is little doubt that the Bill will be energetically opposed by the Stephen's Green Commissioners and the owners of the property in the square, who object *in toto* to the Corporation having the Green under their control.

BELFAST ROYAL HOSPITAL.

THE quarterly meeting of the Committee was held last Monday, and from the report of the Board of Management we learn that a bazaar is to be held next December, to raise funds in behalf of the institution; and, as an inducement, it has been determined that any lady who obtains by her exertions £50 shall be privileged to nominate a life-governor in the hospital. During the quarter ending July 31st, donations and bequests to the amount of £510 were received; but the financial condition of the hospital is far from satisfactory, owing to a considerable falling off in the subscriptions. The number of cases treated in the hospital during the quarter was 422 intern patients, of which 294 were surgical and 128 medical; 51 operations were performed, and 120 accidents admitted requiring immediate treatment. In the extern department, 2,012 cases were treated; 288 operations were performed; making, in both departments, a total of 2,434 cases under treatment. Dr. Smith, honorary physician, and Dr. J. Moore, honorary surgeon, who retired by rotation, were re-elected without opposition.

FUNCTIONS OF THE CORTEX CEREBRI.

IN connection with the lectures of Dr. Brown-Séquard, of which we have published reports, the following excellent statement of the progress of recent investigations of the functions of the cortex cerebri will be read with interest. It is from the pen of Dr. H. P. Bowditch of Boston; and we are indebted for it to the pages of the *Boston Medical and Surgical Journal*.

Investigations by Local Irritation.—Our readers are well acquainted with the labours of Hitzig, Ferrier, and others, showing that certain groups of muscles can be brought into activity by the irritation of definite points on the surface of the cerebral lobes. Since that time, the subject has occupied the attention of numerous investigators, who all admit the existence of "active spots" (as Burdon Sanderson calls them) in the cortex cerebri, but differ widely in their views of the mechanism by which the irritation of these spots gives rise to muscular movement. Three possible explanations of the phenomenon may be given. 1. The movement is caused by the irritation, not of the part to which the electrodes are applied, but of some deeper seated portion, in consequence of the spreading of the electric current through the cerebral substance. 2. The "active spots" are nerve-centres, *i.e.*, collections of ganglion-cells, presiding over the groups of muscles which are brought into activity by their irritation. 3. The "active spots" are not themselves nerve-centres, but stand in nervous connection with the deeper seated centres of definite groups of muscles. The movements in question are, therefore, of a reflex nature.

The first of these propositions has been maintained by Dupuy (*Examen de quelques Points de la Physiologie du Cerveau*, 1873) and by Carville and Duret (*Gazette Médicale de Paris*, January 10th, 1874). These authors, however, only showed that it is possible to irritate remote parts of the brain by electrodes applied on the surface, not that it is impossible to produce muscular movements by an irritation of the cortex under conditions which preclude the possibility of any but local action. That local irritation of the cortex may really produce the movements in question has been shown by Braun (Eckhard's *Beiträge zur Anatomie und Physiologie*, Band vii) in a series of experiments consisting in dividing with a sharp knife the connections between an "active spot" and the subjacent tissues. After this operation, which would not be likely to prevent the spreading of electric currents to the deeper tissues of the brain, irritation of the "active spot" was found to be without effect, even when the intensity of the current was made much greater than that which, before the operation, was sufficient to produce definite movements. A similar investigation made entirely independently by Dr. J. J. Putnam (*Boston Medical and Surgical Journal*, vol. xci) led to the same result; except that, after section of the subjacent tissues, it was found necessary to increase *only slightly* the intensity of the current applied to the cortex in order to produce the same muscular movements as before. Carville and Duret deny that these experiments prove what their authors intended to show, for they maintain that the blood effused when the tissues under the "active spots" are divided is a so much better conductor of electricity than the brain-substance, that the currents no longer penetrate into the deeper tissues, unless they are made more intense. How far this objection is valid can be determined only by careful investigations directed to this special object. It is proper to mention, however, that Carville and Duret, influenced by other considerations, have admitted in a recent work (*Archives de Physiologie*, 1875, tome vii) that electrical irritation of the cortex "has a certain local action, and that the result of this action varies with the points of application of the electrodes".

The observations of Hermann (Pflüger's *Archiv*, Band x), that destruction of the "active spots" by drying or by nitric or acetic acid does not prevent the irritation from producing the usual effects, and that, after mechanical removal of the "active spots", irritation of the underlying brain-substance still calls forth the same movements, do not, of course, disprove the existence of excitable nerve-tissue in the cortex, but only show that the tissue under the "active spots" is also excitable. In view of the above-mentioned positive results obtained by Braun and Putnam, the negative results of Hermann's experiments are of little importance.

The excitability of definite spots in the cortex being, therefore, regarded as well established, it remains to inquire whether the movements in question are due to a direct irritation of centres in the grey substance or are reflex phenomena taking place through deeper seated centres, the excitable nerve-tissue of the cortex (whether nerve-cells or nerve-fibres) acting in this case in the same way as the terminations of peripheral nerves in an ordinary reflex action.

To appreciate the force of arguments bearing upon this point, it is

necessary for us to consider what information we can obtain from other sources in regard to the mechanism by which the cerebral centres are brought into connection with the motor nerves. The fact that the cervical cord contains fewer nerve-fibres than the spinal nerve-roots, shows that the brain cannot have a direct connection with every muscular fibre; and our inability to innervate an isolated muscular fibre, or even a single muscle (except with difficulty and after much practice), is quite in accordance with this anatomical observation. Moreover, the occurrence of purposive reflex movements in animals whose cervical cord has been divided, and their apparent identity, as far as muscular mechanism is concerned, with voluntary movements, have led to the hypothesis that the cord is the seat of so-called "co-ordinating centres" presiding over groups of muscles, and that these centres may be brought into activity either by an impulse coming from without through an efferent nerve, in which case the movement is reflex, or by an impulse coming from above, for example, from a centre of volition, in which case the movement is voluntary. By an extension of the same hypothesis higher, "co-ordinating centres" presiding over more complicated muscular movements, for example, those of walking, have been assumed to exist in the ganglionic masses at the base of the brain. It will thus be seen that, while it is very easy to decide whether a movement called forth by the irritation of a nerve-trunk is direct or reflex in its character, the decision is much more difficult when the movement is the result of irritation of the cortex cerebri. For, in the former case, apart from the help afforded by a knowledge of the anatomical distribution of the nerve, the character of the movement (*i.e.*, whether tetanic, purposive, etc.) and the time required for its accomplishment, are usually conclusive in regard to the matter. In the latter case, however, not only does anatomy afford us little or no assistance; but, if the above-mentioned theory of nervous mechanism be correct, we cannot expect that a direct will differ materially from a reflex movement, either in character or in the time necessary for its performance. This will be evident when we consider that in both cases the impulse must be transmitted through co-ordinating centres which bring whole groups of muscles into action, and that it is in these centres that the delay in transmission occurs which is commonly regarded as characteristic of reflex phenomena.

It has been urged by Schiff (*Archiv für experimentelle Pathologie*, 1874, Band iii) that these movements are reflex, because they are stopped by complete narcosis, because no tetanus is produced by a rapidly interrupted induced current, and because the time elapsing between the beginning of the irritation and the production of the movement is from seven to eleven times greater than it should be if the impulse were directly transmitted, with the normal rapidity of nerve-force, from the point irritated to the muscles. On the other hand, it has been shown by Gliky (Eckhard's *Beiträge*, Band vii) that the movements in question cannot be inhibited by a powerful irritation of a peripheral nerve. This writer is, therefore, inclined to deny to nerve-centres all participation in the production of these movements, though he admits that the experiments are not decisive.

In the imperfect state of our knowledge of the conditions affecting the activity of the cerebral centres, it is difficult to devise conclusive experiments; but in their absence it is interesting to notice such observations as those of Lander (*Centralblatt für die medicinischen Wissenschaften*, 1875, page 225) on the brain of an idiotic boy fifteen years of age, who had had an attack of infantile spinal paralysis at three years of age, and since that time had suffered from paralysis of the muscles of the trunk and neck, especially on the right side. In this brain a decided atrophy was noticed in those convolutions which, according to the observations of Betz (*Ibid.*, 1874, page 596) on the ganglion-cells of the cortex, are to be regarded as analogous to the motor regions of the grey substance demonstrated in experiments on animals. The atrophy was more marked on the left side than on the right. Soltmann (*Ibid.*, 1875, page 209) found that irritation of the cortex cerebri of puppies less than nine or ten days old produced no muscular movements, and that the "active spots" on the brains of young animals differ in size and shape from those of adults. Whatever view, therefore, may be taken of the mechanism by which irritation of the cortex gives rise to muscular movements, it seems evident from these two observations that the "active spots" are regions of the cortex whose development is connected with the power of causing contraction in certain sets of muscles.

Not only do groups of striped muscles seem to be thus functionally connected with definite regions of the cortex cerebri, but there is also reason to believe that a similar relation exists for the heart, the blood-vessels, the spleen, the intestines, and the salivary glands. Thus it has been found by Lépine (*Gazette Médicale*, 1875, No. 25) that irritation, with feeble induced currents, of the postfrontal convolution of a curarised dog causes a rise of blood-tension, in the crural artery, of seven centimètres of mercury. This is accompanied by an increased

rapidity of the heart-beats; but, if the irritation be very strong and the vagi intact, a diminution in the rate of the heart-beats results. If the irritation be applied to a spot which, on an uncauterised dog, would cause movements of one of the opposite feet, the temperature of this foot rises several tenths of a degree. The temperature of the foot on the same side rises also, but to a less degree, while that of the rectum remains stationary. Lépine also discovered certain spots whose irritation caused an increased secretion of saliva. Bochefontaine (*Gazette Médicale*, 1875, No. 52), operating in a similar way, found four different spots on the surface of the brain whose irritation caused contraction of the spleen, and six spots from which movements of the intestines could be produced.

A much more decided rise of temperature in the limbs than that noticed by Lépine was observed by Eulenberg and Landois (*Centralblatt für die medicinischen Wissenschaften*, 1876, page 260) as the result of the application of the actual cautery to the cortex on the opposite side. They regarded this result, however, as due to the destruction, not to the irritation, of the parts in question, for they were able by electrical irritation of the same parts to obtain a slight and transient diminution of temperature in the limbs.

Investigations by Local Destruction.—In the experiments above alluded to, the motor functions of the cortex were studied by irritating the points in question, and noticing what movements were produced. Another class of investigations consists in destroying the part of the cortex whose function is to be studied, and observing what muscles become incapable of voluntary movement. In experiments of this sort it was soon found that, whatever may be the immediate result of the mutilation, the paralysis wholly or in great part disappears if the animal survive the operation a few days, or at most one or two weeks. To explain this, a sort of vicarious function of the different portions of the cortex has been assumed; but various opinions have been held as to the parts which are thus capable of assuming each other's functions. Carville and Duret (*Archives de Physiologie*, 1875) consider that every part of the cortex of each cerebral lobe may act for every other part of the cortex of the same lobe, but deny that the functions of any portion of one lobe can be assumed by the corresponding (or by any other) part of the opposite lobe. This opinion derives apparent support from the fact that, after the disturbances produced by a local destruction of cortical substance on one side have passed away, they may be reproduced by a further destruction on the same side, but not by a destruction of the corresponding part of the opposite side.

Soltmann (*Jahrbuch für Kinderheilkunde*, Band ix), on the other hand, is of the opinion that, when a portion of the cortex is destroyed, its functions may be performed by the symmetrically situated portion on the opposite side. He supports this view by the following experiment. On a dog four or five days old, the cortex of the whole prefrontal and of part of the postfrontal lobe on the left side was removed. The animal showed no motor disturbances, and recovered completely from the operation, being distinguished only by a somewhat smaller size from the other pups of the same litter. Three months later the brain was exposed on the right side, and the centre for the fore leg irritated. Movements of the leg, not only of the opposite, but also of the same side, followed this irritation. It was found impossible, by any variations of the intensity of the electric current or of the point of application, to produce movements in the leg of the opposite side alone. When, however, the centre for the hind leg was irritated, movements were produced in the leg on the opposite side alone, the corresponding centre on the other side being apparently still intact.*

The fact that such diametrically opposite opinions can be held by intelligent observers, shows clearly the need of renewed investigations and improved methods. Goltz has, in a recent article (*Pflüger's Archiv*, Band xiii), given the results of a series of experiments, made in a way which seems calculated to avoid some of the difficulties experienced by other observers. One of the principal obstacles in the way of arriving at a correct solution of this question, is the difficulty of keeping animals alive after the loss of a considerable portion of the cortex cerebri. Profuse hæmorrhage or inflammation of the brain-substance often leads to a fatal result, before the most important observations can be begun. To avoid these difficulties, Goltz had recourse to a method of removing the cerebral substance which is often employed for making anatomical preparations of the cerebral blood-vessels, namely, washing it away by a jet of water thrown with force sufficient to break up the delicate brain-tissue without greatly injuring the firmer blood-vessels. The jets of water were applied by means of cannulae variously formed, and inserted through openings trephined in the skull. For a very cir-

cumscribed destruction of the cortex, a single opening was sufficient. For a more extended operation, several holes were made near each other, and the brain-substance between them removed by a process of tunnelling. By a series of operations of this sort, which, however, were by no means bloodless, Goltz succeeded, in one instance, in washing away all the convolutions of one of the cerebral lobes which could be reached by openings through the skull. The animal lived in this condition for several weeks, and was used for numerous observations.

As the result of his investigations, Goltz maintains that the extent, and not the locality, of the injury is of importance in determining the nature of the disturbance produced; *e.g.*, the effect of the operation is the same whether the brain-substance is washed away in the interior portion of the so-called "excitable zone" of Hitzig or far back in the posterior lobe. This want of agreement with the results obtained by other observers may perhaps be partly explained by the fact, that in all Goltz's operations a comparatively large portion of the brain was destroyed; *e.g.*, where the jet of water was applied through a single opening in the skull, the diameter of the excavation thus produced was about 1.7 centimètres.

The author describes the results of unilateral destruction of the cortex cerebri as disturbances (1) of sensation, (2) of vision, and (3) of motion, all on the opposite side.

I. Sensation. Immediately after an extensive destruction of the cortex the animal is often completely anæsthetic on the opposite side. Pinching and pricking of the limbs and face call forth no expression of pain. This condition is, however, transient. A few days after the operation painful impressions are felt all over the body, but less distinctly on the opposite side, as may be shown by observing the weights which are sufficient to produce annoyance when placed on the different paws. To this condition of impaired sensibility, which is found to be very persistent, the author attributes, in part at least, various awkward movements of the limbs on the side opposite to the injury. Thus a dog with an injury to the cortex on the left side, when placed upon a table, is apt to fall off whenever, in moving about, his right feet come near the edge; because, according to Goltz, his sensibility is so far impaired on that side that he does not perceive quickly enough that he is treading on nothing. Disturbances of vision and motion doubtless also contribute to this result.

II. Vision. Blindness on the opposite side results from an extensive destruction of the cerebral cortex. This is at first so complete, that the animal in moving about strikes its head against obstacles on that side. Afterwards, sight is so far recovered that obstacles are avoided, but there is a persistent defect of vision, in consequence of which objects seen with that eye fail to call forth their usual emotions. Thus a dog with an extensive destruction of the cortex on the left side, and with the left eye extirpated, learns to move about without running against obstacles, but shows no fear of objects which before the operation had excited great terror; does not recognise a piece of meat held before his face, and is not frightened when held outside of a window, as is the case with an unimpaired dog. To explain these phenomena, Goltz makes the hypothesis that a dog thus operated on has very imperfect sensations of the position and colour of objects whose images are thrown upon his retina; that everything appears grey and indistinct, as if surrounded by a mist. He, therefore, sees objects sufficiently well to avoid them in moving about, but gets very imperfect ideas of their nature. Another hypothesis, which seems quite as reasonable, would be that the retinal images produce their normal sensations, but that the power, acquired by experience, of interpreting these sensations has been lost in consequence of the injury.

III. Motion. Extensive destruction of the cerebral cortex causes at first a paralysis on the opposite side, so complete that the animal in attempting to stand falls upon that side. After a few days, control over the limbs is so far restored that the animal moves about in an apparently perfectly normal manner. A close examination, however, reveals a variety of motor disturbances which are very persistent in their character. In the first place, if the animal be moving on a very smooth floor, the feet on the side opposite to the injury often slide out from under it. Even when lying quietly, the animal often allows its legs on that side to assume, or be brought into, very awkward positions, without exhibiting any annoyance. These phenomena may depend to a great extent on the diminution of sensibility above described, but there are other motor disturbances which cannot be thus explained. For instance, a dog with an injury to the cortex on the left side does not use the right fore paw to reach and hold its food, nor to scratch away the earth for the purpose of burying a bone. If trained to give the fore paw at command, a dog thus operated upon gives invariably the left paw, and if by long persuasion and reiterated commands the animal be finally taught to give the right paw, a further destruction of the cortex on the same side as

* See also Brown-Séquard's Observations on Vaso-motor and other Disturbances on the same side as the Cerebral Lesion (*Archives de Physiologie*, 1875).

before produces the former helpless condition.) In other words, it is the power to use the paw, not as a locomotive organ, but as a hand, which is affected by the injury.

It will thus be seen that the effects of destruction of the cortex are of two sorts, namely, transient and persistent. It is the latter only which, according to Goltz, are to be regarded as indicating the functions of the part destroyed, and which he calls therefore "phenomena of deficiency" (*Ausfallerscheinungen*). They may perhaps be best described collectively as a failure on the part of the animal to make an intelligent use of its sensations, and its power of motion. The former, *i.e.*, the complete loss of motion, sensation, and vision, he regards as due to an inhibitory process, starting from the wound in the brain, and acting upon deeper-seated centres. The phenomenon is, therefore, similar to the temporary absence of all reflex movements in an animal whose cervical cord has been divided. If this theory is correct, it is necessary to suppose that the mechanical irritation due to the removal of a portion of the cortex acts not only in a very different way, but over a very different extent of brain-substance from an electrical irritation applied to the same spot. From this point of view, Goltz regards the immediate results of local destruction of the cortex as observed by Hitzig (Reichert and Du Bois Reymond *Archiv*, 1874), as inhibitory phenomena, and dissents from Hitzig's conclusion that the disappearance of the disturbances produced by the injury indicates that some other portion of the cortex has assumed the function of the part destroyed. As conclusive against Hitzig's view, he instances his own experiment, in which a dog with the whole surface of a cerebral lobe washed away moved his limbs, head, tongue, eyes, eyelids, ears, jaws, and tail in a perfectly normal way.

Eulenberg and Landois, whose observations were alluded to in the first half of this report, found that cauterisation of Hitzig's centres for the movements of the limbs caused a rise of temperature in those parts amounting to from 9 to 12.5 Fahr., and lasting two or three days. Their statements have recently been confirmed by Hitzig. (*Centralblatt für die medicinischen Wissenschaften*, 1876). It is difficult to reconcile these observations with those of Lépine (on the rise of temperature in the limbs caused by irritating the cortex), except on the supposition that the phenomenon depends upon the irritation and not upon the destruction of the parts, as the authors suppose. This view is not inconsistent with the authors' observation (*Centralblatt für die medicinischen Wissenschaften*, 1876), that feeble electrical irritation of the cortex caused a diminution of temperature in the limbs; for, in the first place, this cooling was very slight in amount (0.36 to 1.08 Fahr.), and was not a very constant phenomenon; and, in the second place, there is reason to believe that irritation of the cortex by the actual cauterisation has a very different effect from that produced by electricity. By an extension of Goltz's theory, it might fairly be assumed that destruction of a portion of the cortex causes a temporary inhibition of vaso-motor centres, as well as those of locomotion, vision, etc. This view is quite in accordance with Brown-Séquard's recent observation, that all the effects of section of the cervical sympathetic may be produced by cauterisation or "thermic irritation" of the cortex. In this case, however, the results were produced on the same side as the operation.

THE ARMY MEDICAL WARRANT.

THE following remarks, which are made on the Army Medical Warrant by our contemporary the *Pioneer*, show how that document is regarded in India.

The New Royal Warrant for the Army Medical Department has at length been promulgated, bearing date 28th April, 1876; as it stands, and reading it without any explanation from the War Office as to the bearing its different clauses will have on the present officers of the department, it is, to say the least of it, a most unsatisfactory document, and one which will probably excite an enormous amount of discontent among all those now serving. The Warrant commences with these words: "Whereas we deem it expedient to alter the terms and conditions of service in the Medical Department of our Army; our will and pleasure is that the pay, relative rank, allowances, retirement, and service of all officers who shall join the Medical Department of our Army on and after the date of our present Warrant, shall be governed by the following rules." Then follows a table of the pay for the different ranks, by which it appears a surgeon is to commence on £250 a year, plus allowances, which bring his pay up to a total of about £318 a year. This is evidently the sprat thrown out to catch the salmon, as no further increase is given till after the completion of ten years' service. The weak point of this is seen at once. In the first place, it is unreasonable

to value a man's services when he is only a recruit and is really learning his duty, at the same rate as when he has completed, say, five years' service, has become acquainted with the routine of the duties, and is, in fact, capable of taking charge of troops. In the next place, the terms, which are nominally better than before, are really just the same in practice, inasmuch as every young medical officer is sent abroad immediately on being gazetted. Fully 90 per cent. come to India, and their pay out here is a maximum of 317 rupees per mensem for the first five years, or reduced to English money at current rates, just £300 a year, so that, while nominally given £318 a year at home as an inducement to enter, they will receive £300 in India, or some £18 a year less to serve in a trying climate, with enormous expenses. When this becomes known, as known it soon will be, in the medical schools at home, it does not require a prophet to foretell what will follow. The next rate of pay is 17s. 10d. a day for men who shall have completed ten years' service; but, as only six men each year are to be retained after ten years' service, it matters little to the great bulk of the young hands what the pay will be of the few fortunate ones. Promotion is guaranteed at twelve years' service, and the examination is abolished, the reasons being, we presume, that the 6 *per annum* selected to remain will be so markedly superior, it would be a work of supererogation to examine them. Medical officers are *not* to be permanently entertained as heretofore, but only for ten years; and of these only 6 *per annum* will be kept on for promotion to the rank of surgeon-major, and for future administrative duties. This number is ridiculously low, and, if the plan be carried out, it will result in a department composed as follows:—About forty-five surgeons-general and deputy surgeons-general for the administration of the service; and, assuming fifteen years as the probable time for getting promotion after the rank of surgeon-major has been attained (twenty-seven years' service in all), this period multiplied by six will give about ninety surgeons-major for the whole British army, the remainder of the Army Medical Department consisting of young men varying from one to ten years' service, about seven or eight hundred in number. This is what it must come to in a few years time under the terms of this Warrant; and what the result will be, if war should break out, is startling to contemplate. India alone has now over two hundred surgeons-major of the Royal Service employed, and when the whole strength of the rank is brought below one hundred, out of which home and the colonies must be served proportionably to the number of troops, there will not be more than fifty surgeons-major available for the three Presidencies—not one to each station, much less one to each regiment or brigade. Granted that young medical men can be found to accept the short service system (and the medical journals unite in saying they will not do so), what will be the result after ten or fifteen years? The charge of important stations, large hospitals, regiments, and brigades will, in a great degree, devolve on young inexperienced officers, with a fatal result to the army. There is no profession in which experience is of more value than in the medical, and it does not follow that the best surgeon or physician would necessarily have the healthiest regiment. A man may be a splendid operator, and yet lack that ripe experience in sanitation and knowledge of the British soldier that is so necessary in dealing with the large questions constantly coming before him, and a skillful youngster of five or seven years' service would certainly want that weight in council so necessary in dealing with cases of everyday occurrence.

The old officers have gained little. Promotion to the rank of surgeon-major has been guaranteed to all who complete twelve years' full-pay service, a tardy act of justice considering that the Indian medical officers have been in the enjoyment of it for the last fifteen years, and it was found necessary to give local rank to surgeons of the Army Medical Department of over twelve years' service to prevent their being superseded by their juniors of the Indian Medical Service. The seniors of the administrative ranks will be obliged to retire at sixty years of age, thus giving a slight impetus to promotion. All regimental appointments are abolished, and the Army Medical Department is now "unified" in the full acceptance of the term. None of the old standing grievances have been redressed. Forage has not been restored to officers of field rank in accordance with the terms of the old Warrant of 1858. No increase either to present pay or future pension has been granted, and the great bulk of the surgeons-major are worse off than they were before; all "fixity of tenure" is done away with, and, no matter how long a man's service, he is liable henceforth to be moved anywhere and everywhere at the beck and nod of the administrative officers of the department. Apparently, then, officers of the rank of surgeon will benefit to the extent of getting promotion at twelve years' service, and the senior deputy surgeons-general and surgeons-major will get some promotion in consequence of the operation of the sixty years' rule, but the great bulk of the working men of the department, *viz.*, the surgeons-major of from fifteen to twenty-five years' service, gain absolutely nothing—

indeed, lose to a great extent by being deprived of all lien on their regimental appointments. These men are the mainstay of the Services, and on their shoulders will fall the greater portion of the executive duty for the next ten or fifteen years. Is it wise, then, to utterly disgust them, and through them to taint with the leaven of discontent the younger men of the profession both in and out of the Service?

Mr. Hardy, when introducing his scheme, claimed for it the merit of being cheap, and said it was calculated that £50,000 a year would be saved to the country when the Warrant was in operation. Mr. Hardy carefully omitted the fact that this sum will be saved directly out of the pockets of the doctors, and yet he seems to think he is giving them a boon. The only way to put matters on a proper footing will be to issue a Royal Commission, and hear the evidence not only of officers of the Department, but of commanding officers of regiments, who are one and all opposed to these innovations.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Prehistoric Trephining.—The Origin of Syphilis.—Objections to Cremation.—Quinine in Surgical Affections.—Effect of Pregnancy in Traumatism.—Treatment of Ranula.

At a recent meeting of the Anthropological Society of Paris, M. Broca presented, in the name of M. Prunieres, a number of skulls that were found in a monument (dolmen) at a village called Aumède-Haut, in the Department of Lozère in France, which are exceedingly interesting in more than one point of view. Some of these skulls, which were declared to be of prehistoric origin, bore evident marks of certain morbid conditions, both traumatic and idiopathic, while others presented traces of an operation which M. Broca has, for the sake of convenience, termed "trépanation" (trephining), to which it may be more or less compared. This gave rise to a discussion as to whether the operation was performed for surgical or medical purposes—in other words, whether it was intended to fulfil certain medical indications—or whether it was employed as a remedial agent for the cure of certain traumatic affections, such as fracture of the skull, etc. M. Broca is of opinion that the operation was performed for the cure of idiopathic or spontaneous maladies principally confined to infantile convulsions, as the cicatrices on the cranial bones indicated that the trephining was effected at that period of life.

Other skulls, portions of skulls, and different parts of the osseous system, which were found in the same place, were also exhibited. A great number of these bore marks of traumatic or pathological lesions, which, although very interesting to the physician or surgeon, cannot be entered into here. I may, however, refer to two or three skulls on which were to be seen the existence of exostoses, which, according to M. Broca, were far from being characteristic of tertiary syphilis. M. Broca did not, however wish it to be understood that syphilis was a modern disease; that it had not existed in Europe long before the discovery of America. This led to a rather interesting discussion as to the origin of syphilis, in which M. de Quatrefages took an active part. According to this savant, syphilis must be almost as old as humanity, for it not only existed in Europe from time immemorial, but it was known in America long before the arrival of Europeans there, as reference is made to it in the written traditions of the country, to which, it will be remembered, Cook, the great circumnavigator, referred in his writings. If we consider the testimony of Cook and that of other travellers in different parts of the globe, M. de Quatrefages adds, there is reason to believe that syphilis was developed spontaneously in different races, but that it assumed an aggravated character only when it was communicated by one race to another. To this, one of the members remarked that it cannot be said that the disease was imported from America, as it was found among the French troops at the siege of Naples in 1495, when America had not been discovered. The disease was said to be contracted by the cavalry soldiers from mares affected with farcy; but this assertion was completely disproved by M. Sanson, a distinguished veterinarian, who retorted that farcy can only engender farcin and syphilis syphilis, and that the latter is completely uncommunicable in herbivorous animals. M. Broca then reminded his hearers that syphilis was known in Europe long previous to the expedition of Charles VIII. In a chart of Copenhagen of the fourteenth century, the disease is described as "le mal Français", whilst in France, after the return of the army of Charles VIII, the French designated it "le mal Napolitain". The ancients, however, recognised it under the name

of "mal de campane", and the disease was well described in their writings, though the connection between the primary and secondary forms was entirely ignored. It is now known that the constitutional form of the disease shows itself some time after the appearance of the primary sore, and that the symptoms present themselves in a great variety of forms. It is probable, continued M. Broca, that many syphilitic affections were confounded with other diseases; and he had gleaned from ancient authors that, during the middle ages, persons affected with syphilitic eruptions were classed among the leprosy, and treated as such. In some excavations in the "Rue Bruxelles" in Paris, M. Broca found, about fifteen years ago, in an ancient lazaretto, the bones of human skeletons bearing unmistakable marks of constitutional syphilis, which would seem to corroborate the opinion enunciated above. The alleged discovery of the fifteenth century as far as regards syphilis is, therefore, simply reduced to this: syphilis is a morbid entity essentially confined to the human species, and manifests itself in every variety of form, not a single organ or tissue of the body being exempt from its dire influence.

In writing the above lines, the thought suggested itself to my mind that, if cremation were universally carried out, no human bones could ever have been found, and consequently all that is now known of ancient or prehistoric man could never have been learned, and future generations would be deprived of the means of studying the osseous characteristics of their predecessors in this world. In addition to this, there are other cogent reasons against the practice of cremation, not the least of which is that it would put a stop to the posthumous detection of poison in cases of homicide or suicide.

M. Verneuil, the well known surgeon of La Pitié Hospital, lately delivered an interesting lecture on the utility of quinine in surgical affections. He referred to several cases in his wards in illustration of the efficacy of this most valuable remedy in all affections in which the element *pain* is one of the conspicuous symptoms. Thus, for instance, in two cases of cancer of the uterus, M. Verneuil succeeded in relieving the excruciating pain characteristic of the disease by the administration of the sulphate of quinine, after having failed to afford the desired relief by the other means usually employed in such cases. M. Verneuil then summed up by announcing that the sulphate of quinine would be found particularly useful in all cases of an ataxic or adynamic nature, in neuropathic affections, and in septicæmia. In ataxic cases, the lecturer stated that it was not necessary that the symptoms should be of an intermittent character to justify the administration of the drug, and, as for neuropathic affections, no remedy can compare with it in these cases. He has found it particularly useful after operations on the eye, and in septicæmia its efficacy is undeniable. M. Verneuil explains its action thus in the latter affection: it diminishes the pus-forming process, and acts as a corrective of the septic elements generated at the seat of the lesion, whether caused by the surgeon's knife or by accident. Here the sulphate of quinine is doubly useful, not only on account of the above properties, but, even when employed locally, it acts as a powerful antiseptic.

Some time ago, M. Verneuil read a very interesting paper before the Surgical Society of Paris, when he endeavoured to show that pregnancy had a prejudicial influence on the course of traumatism, even when this latter condition occurred in any part of the body not directly connected with the uterus; but M. Guéniot, before the same society, lately endeavoured to refute this assertion. According to the experience of this distinguished obstetrician, gestation would seem to have little or no influence on traumatism, and adduces statistics in support of his opinion. M. Guéniot declared that, even after grave operations, the cases proceeded as in ordinary circumstances; but he makes exception to traumatism of the pregnant womb or its contents, or of the genital organs, or when traumatism coexists with any other morbid condition complicated with pregnancy.

Ranula is admitted by all surgeons to be a most troublesome and, in many cases, a most intractable affection. It is sometimes so little amenable to treatment, that some surgeons, and among them the celebrated Dupuytren, contrived different means by which to keep open a fistulous orifice in the tumour, in order to empty the contents of the latter in the mouth. Jobert de Lamballe endeavoured to effect the same object by inverting a portion of the internal surface of the ranula, and uniting it by a suture with the mucous membrane surrounding the orifice. M. Panas, of the Lariboisière Hospital, finding these methods of treatment unsatisfactory, and after having given a fair trial to the different remedies in vogue for the cure of this affection with equal success, has lately resorted to the practice of injecting these tumours with a solution (1 to 10 parts) of the chloride of zinc, the results of which are most encouraging. M. Panas injects into the tumour from three or four to eight or ten drops of this solution, which also varies in strength according to the age of the patient, and this he does with a

Pravaz's syringe without previously emptying the tumour. But it is not only to ranulae that M. Panas applies this treatment; he has found it successful in other tumours of the mouth, and thinks it may be advantageously employed in all cases of mucous or serous cysts, in whatever part of the body they may occur.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

THE next meeting of the above Branch will be held at the Royal Sea Bathing Infirmary, Margate, on Thursday, September 7th, 1876, at 3 o'clock; Dr. PITTOCK of Margate in the Chair.

Luncheon will, by the kindness of the Chairman, be provided at the Infirmary, from One till Two. The dinner will be at the Cliftonville Hotel at 5 o'clock precisely. Charge, 6s. 6d., exclusive of wine.

Notices have been received of the following communications to be read at the meeting.

1. Mr. Treves: On Excision of the Knee-joint; together with the description of a New Mode of performing the Operation.
2. Mr. Reid: Surgical Memoranda.
3. Dr. Rowe: Notes on an Obscure Case of Spinal Disease.
4. Mr. Wachter: Notes on Two Cases of *Post Partum* Hæmorrhage treated with the Perchloride of Iron.

Gentlemen who intend to be present at the dinner are particularly requested to inform me on or before Tuesday, September 5th.

EDWARD WHITEFELD THURSTON, *Honorary Secretary*.
Ashford, August 27th, 1876.

NORTHERN COUNTIES (SCOTLAND) BRANCH.

THE annual meeting of the Northern Counties (Scotland) Branch will be held in Inverness on the Evening of Friday, September 8th, at half-past seven o'clock. Full particulars by circular.

J. W. NORRIS MACKAY, M.D., *Hon. Sec. and Treasurer*.
Elgin, August 23rd, 1876.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

AN ordinary meeting of this District will be held at the Bear Hotel, Havant, on Tuesday, September 12th, 1876, at 4 P.M.

1. Inspector-General Smart, M.D., C.B., will read Remarks on Severe Scalds and Burns.

2. A discussion will take place on the Treatment of Syphilis. Dinner will be provided at 6.15. Charge, 6s., exclusive of wine.

Members intending to be present are requested to communicate with Mr. St. Quintin Bond, Havant, on or before September 10th.

J. WARD COUSINS, M.D., *Honorary Secretary*.
Southsea, August 29th, 1876.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at Coatham, on Thursday, September 21st.

Gentlemen who are desirous of reading papers or making other communications, are requested to give notice to the Secretary.

G. H. PHILIPSON, M.D., *Honorary Secretary*.
Newcastle-upon-Tyne, August 19th, 1876.

CORRESPONDENCE.

MEDICAL EDUCATION AT CAMBRIDGE.

SIR,—In reply to the letter in this day's JOURNAL from "Obstetrics", who asks me to "explain how no provision is made for either the study of, or the examination in, the not altogether unimportant subject of obstetric medicine" at Cambridge, I may state that there is, and long has been, provision for examination in this subject; and that it is now under contemplation to rearrange this examination and develop it more in connection with the M.B. degree. The study of obstetric medicine is not pursued in Cambridge, because the University hitherto has not attempted, and in my opinion it should not attempt, to form a complete medical school. It rather concentrates its powers in giving a good scientific training in physics, chemistry, botany, anatomy, physiology, and materia medica—the subjects, that is to say, of the first two examinations for the M.B. degree—at the same time that

there is teaching in pathology and the principles of medicine, and opportunities for initiation in clinical work at Addenbrooke's Hospital; but it encourages—indeed, compels—the candidate to pursue and complete his study of medicine, surgery, and midwifery in London, Edinburgh, or some larger field of practice.—I am, etc.,
Cambridge, August 26th, 1876, G. M. HUMPHRY.

THE COST OF UNIVERSITY EDUCATION IN CAMBRIDGE.

SIR,—So much is said in many quarters as to the cost of university education, that I venture to think some of your readers would be willing to know the results of my experience of the expenditure of non-collegiate students at Cambridge, of whom I have had the immediate charge for the seven years during which the scheme has been in operation.

It is convenient to take first into consideration the minimum expenditure by which an ordinary B.A. degree can be obtained. It must be assumed that the student is at the outset fairly prepared for university study, and that he only resides in Cambridge as long as he is required to reside in order to keep his terms. Those who are specially ill-prepared, as well as many of those who aim at higher distinction, require special help from private tutors, which is necessarily costly. Those who pursue professional studies will attend special courses of lectures, which, here as elsewhere, must cost something appreciable in addition to the minimum outlay as described above. Students of the latter class will find it desirable to reside some weeks longer in each year than they are required to reside to satisfy the University statute. Putting aside these special cases, it has been abundantly ascertained that a student accustomed to live cheaply can keep terms and obtain a B.A. degree upon an annual expenditure averaging for the three years £50, and that even an inexperienced student can easily restrict his annual expenditure to £60. The heads of necessary expenditure may be accounted for thus: £10 a year will cover university dues, including fees for matriculation, for examinations, for degree, and for supervision; £10 a year will provide for college lectures, for the obligatory professors' lectures, and for the really necessary books and stationery; £30 a year, allowed for household expenses during twenty-three weeks, may be made to include the small initial outlay necessary for caution-money and for cap and gown. It is under the head of household expenses that the chief variations will occur; and in the main, and in the long run almost entirely, the differences will depend upon the habits and wishes of the students themselves. For instance, while the household bills of one student do not exceed 24s. a week, those of another in equally cheap lodgings amount to 35s., because the latter needs or desires a more liberal diet.

A medical student is required to reside in Cambridge for the same length of time as a candidate for the B.A. degree—viz., nine terms, or parts of each of three years; and, in order to pursue his studies with advantage, it is desirable that he should reside for a longer time in each year than is absolutely required, including parts of the vacations. This additional residence would probably add £15 to the £50 or £60 above stated as the minimum; and the lectures he would attend would probably amount to another £10, making a total of about £85 a year for each of the three years. He may during this time obtain the B.A. degree, either in the ordinary way or through the Natural Sciences Tripos, the subjects of which correspond with those of his professional studies. This, it will be understood, is the sum which has to be spent for residence and study within the University. He will ordinarily be required to pursue his medical studies, either in the University or elsewhere, for about two years more, before or after the three years' residence in the University, to obtain a medical degree or qualification to practise.

It appears, therefore, that the total cost of residence and professional education in the University need not exceed £85 a year; that is, £255 for the three years. To those who wish simply to fulfil the University requirements of residence without professional instruction, the cost need not exceed £50 or £60 a year; that is, £150 or £180 for the three years. The fees for the examinations for the M.B. degree amount to £5:5; and for the non-collegiate student who is already B.A., the fees on taking the M.B. degree amount to £5:3. I do not take into account the cost of professional education additional to that given in the University, as I have no means of computing that.

I think I have said enough to show that the necessary expenses are not such as to preclude even students of very moderate means from obtaining medical degrees in Cambridge.—I am yours obediently,

R. B. SOMERSET, Censor of Non-Collegiate Students.
Cambridge, August 26th, 1876.

M. PASTEUR'S EXPERIMENTS.

SIR,—I thank you, and I think the medical men of England have cause to thank you, for making fully known to the profession the experiments and reasonings of M. Pasteur in relation to the recent labours of Dr. Bastian.

The allusion to myself in M. Pasteur's paper arises simply from an inaccurate reference to me in Dr. Bastian's communication to the Academy of Sciences. M. Pasteur's experiments on alkaline liquids have not only been long familiar to me, but I have devoted a good deal of time to the repetition of the most striking among them.

M. Pasteur has always insisted upon the higher death-temperature of alkaline liquids. With regard to the very substance employed by Dr. Bastian—namely, urine—his words are as follows: "L'urine à l'état frais devient inaltérable, après qu'elle a été portée à une température inférieure à 100°: elle demande une température qui dépasse 100°, après qu'on l'a fait bouillir en présence du carbonate de chaux."

It would be easy to show the weakness—to use no stronger term—of the main inference drawn by Dr. Bastian from his experiments; but this and other collateral questions will be more effectually treated at a future day. The time is approaching when I shall be able to subject both Pasteur's results and Dr. Bastian's recent confirmation of them to the thorough physical scrutiny which they undoubtedly demand.—I am, sir, your obedient servant,

Bel Alp, Brigue, August 25th, 1876.

JOHN TYNDALL.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.—The following gentlemen competed successfully for appointments in Her Majesty's Army Medical Service, at the examination held at the University of London on August 14th, 1876.

	Marks.		Marks.
1. Allin, W. B. ..	2220	18. Robinson, R. ..	1600
2. Ryan, M. R. ..	2087	19. Allen, W. H. ..	1595
3. Robbins, H. J. ..	1976	20. Lamprey, J. J. ..	1485
4. Reynolds, E. O. ..	1935	21. Murchison, F. ..	1435
5. Carey, J. T. ..	1925	22. Bourke, U. J. ..	1409
6. Morris, J. J. ..	1869	23. Keith, A. C. ..	1393
7. Rainsford, W. J. R. ..	1858	24. Peyton, J. S. ..	1340
8. Tutbill, P. B. ..	1850	25. Russell, G. M. ..	1325
9. Williamson, J. F. ..	1840	26. Large, W. B. ..	1305
10. Boyd, J. ..	1790	27. Carleton, A. W. ..	1295
11. Hayes, A. E. ..	1782	28. Brodie, J. ..	1285
12. Hewett, A. ..	1745	29. Gunning, R. C. ..	1255
13. Johnston, P. H. ..	1744	30. Cotton, H. ..	1230
14. Boulger, J. ..	1675	31. Hunt, J. P. ..	1215
15. Lafian, G. ..	1675	32. Hughes, G. A. ..	1180
16. Roche, E. A. ..	1625	33. Eager, F. G. L. ..	1055
17. Emerson, J. B. ..	1615		

NAVAL MEDICAL SERVICE.—The following is the list of candidates for the Naval Medical Service who have passed the recent competitive examination held at the University of London.

	Marks.		Marks.
1. Walsh, H. W. D. ..	2025	11. Newland, C. F. ..	1540
2. Henwood, J. D. ..	1970	12. Dow, J. C. ..	1535
3. Mugliston, T. C. ..	1935	13. Wade, A. B. ..	1485
4. Williams, T. E. H. T. ..	1915	14. Barcroft, P. J. ..	1480
5. Cuppy, H. B. ..	1875	15. Murdoch, R. ..	1460
6. Armstrong, G. W. F. ..	1857	16. Corcoran, L. W. ..	1420
7. Connell, J. J. ..	1822	17. Twigg, G. D. ..	1335
8. Williamson, F. ..	1685	18. Browning, J. N. ..	1315
9. Rae, W. M. ..	1675	19. Fogarty, G. J. ..	1310
10. Kellett, L. H. ..	1599	20. Bookey, W. J. B. ..	1240

MEDICAL NEWS.

UNIVERSITY OF LONDON.—First B.Sc. and Preliminary M.B. conjointly. Examination for Honours.—Chemistry.

First Class

Cook, Ernest Henry, First B.Sc. (Exhibition), Royal College of Science, Dublin
Maguire, Robert, Prel. Sci., Owens College

Second Class.

Higgins, William Henry, First B.Sc., Owens College
Gough, Thomas, First B.Sc., private study
Paul, James Hugh, First B.Sc. and Prel. Sci., private study } equal
Rake, Beaven Neave, Prel. Sci., Guy's Hospital

Third Class.

Fream, William, First B.Sc. and Prel. Sci., Royal Coll. Sci., Dublin
Groom, Henry Thomas, Prel. Sci., St. Bartholomew's Hospital
Bowe, Francis, Prel. Sci., St. Bartholomew's Hospital } equal
Norie, James, Prel. Sci., University College

Zoology.

First Class.

King, David Alexander, Prel. Sci., St. Bartholomew's Hospital

Second Class.

Dawson, Arthur George, Prel. Sci., Owens College
Lukis, Charles Pardey, Prel. Sci., St. Bartholomew's Hospital
Sayer, Mark Feetham, Prel. Sci., University College
Hoyle, William Evans, First B.Sc. and Prel. Sci., Owens College, and Christ Church, Oxford

Chaffey, Wayland Charles, Prel. Sci., St. Bartholomew's Hospital
McDonnell, Denis, Prel. Sci., King's College

Third Class.

Spicer, Robert Henry Scanes, Prel. Sci., private study
Maguire, Robert, Prel. Sci., Owens College
Groom, Henry Thomas, Prel. Sci., St. Bartholomew's Hospital

Experimental Physics.

First Class.

Morley, Henry Foster, B.A., First B.Sc. (Arnott Exhibition and Medal), University College

Second Class.

Bolton, Thomas, First B.Sc., University College

Third Class.

Stephens, Julian, First B.Sc. and Prel. Sci., University College, and private study

Botany.

First Class.

Fox, Joseph Tregelles, Prel. Sci., London Hospital

Second Class.

Atmaram, Anundrao, First B.Sc. and Prel. Sci., University College
Spicer, Robert Henry Scanes, Prel. Sci., private study

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

QUERIES REGARDING FEES.

SIR,—Will you kindly answer the two following questions in the JOURNAL?

1. As a district medical officer of an union, am I entitled to an extra fee for reducing a strangulated hernia by manipulation? I had an order from the relieving officer to attend the case.

2. On August 17th, at 6 A.M., I was sent for, without having been previously engaged, to attend Mrs. W., the wife of a publican, at a distance of three miles. I attended immediately, and found labour completed. I gave the usual directions, and visited the patient twice subsequently. At the last visit, she refused to pay my fee of one guinea, saying, "I had done nothing for it". Can I recover the fee?—Yours faithfully,

T. WELLS HUBBARD.

Lenham, August 22nd, 1876.
* * * 1. "Hernia reduced without a surgical operation does not entitle the medical officer to the fee of £5." (Glen's Consolidated Orders, foot-note on page 134.)

2. We consider that our correspondent can recover a fee under the circumstances he mentions, and we would recommend him to take proceedings in the County Court for recovery of the same. It would be well, however, that he should be in a position to state that when sent for he did not know that she had been delivered, but had at once responded to a call for his professional aid.

POOR-LAW MEDICAL APPOINTMENTS.

HEFFERMAN, William K., L.K.Q.C.P.I., appointed Medical Officer and Public Vaccinator for the Killinaw Dispensary District of the Cashel Union, Co. Tipperary, *vice* Michael O.K. Morris, M.D., deceased.

JACK, Robert M., M.B., appointed Medical Officer and Public Vaccinator for the Parish of Glenmuick, Ballater, Aberdeenshire, *vice* G. W. Beattie, M.D., resigned.

MC CREERY, John, L.K.Q.C.P.I., appointed Medical Officer and Public Vaccinator for No. 8 District of the Thingoe Union, Suffolk, *vice* F. Marshall, M.R.C.S. Eng., resigned.

MERCAM, Nicholas J., L.R.C.P. Ed., appointed Medical Officer, Public Vaccinator, etc., for the Dymertown Dispensary District of the New Ross Union, Co. Wexford, *vice* P. Mullin, L.R.C.S.I.

MULLIN, Peter, L.R.C.S.I., appointed Medical Officer to the New Ross Dispensary District of the New Ross Union, Co. Wexford.

RUST, Henry R. G., M.R.C.S. Eng., appointed Medical Officer and Public Vaccinator for the Wetherfield District of the Braintree Union, *vice* Henry Rust, M.R.C.S. Eng., deceased.

SPARKS, George W., M.R.C.S. Eng., appointed Medical Officer and Public Vaccinator for No. 2 District of the Mansfield Union, *vice* J. Waring Curran, L.K.Q.C.P.I., resigned.

SPARROW, Walter W. B., M.R.C.S. Eng., appointed Medical Officer for the Nethells or No. 5 District of the Aston Union, Warwickshire, *vice* J. C. Weddell, M.D., resigned.

SPENCER, John A., L.K.Q.C.P.I., appointed Medical Officer and Public Vaccinator for the Ahacragh District of the Ballinasloe Union, and for the Clonbrock District of the Mountbellew Union, both in the Co. Galway, *vice* Thomas G. Kerans, L.K.Q.C.P.I., resigned.

STEPHENSON, Francis L., M.B., appointed Medical Officer and Public Vaccinator for the Bredninch District of the Tiverton Union, *vice* T. F. Clarke, M.D., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

MARSHALL, John I. F., M.R.C.S. Eng., re-appointed Medical Officer of Health of the York District.

Atkinson, John Mitford, Prel. Sci., London Hospital
Dallmeyer, Andrew Wm., First B.Sc. and Prel. Sci., University Coll., equal
Sisley, Richard, Prel. Sci., St. George's Hospital

Third Class.

Lukis, Charles Pardey, Prel. Sci., St. Bartholomew's Hospital
Groom, Henry Thomas, Prel. Sci., St. Bartholomew's Hospital

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 24th, 1876.

Dunstan, William, Liskeard, Cornwall
Gairdner, John, Maidenhead Thicket
Holdsworth, Samuel Rayner, Wakefield
Nicholson, William Rumney, Burnley, Lancashire

The following gentleman also on the same day passed his primary professional examination.

Rule, George Frederick Henry, St. Bartholomew's Hospital

UNIVERSITY OF EDINBURGH.—The following candidates received Degrees in Medicine and in Surgery on August 1st, 1876.

Doctor of Medicine, under the new Statutes; with the titles of their theses.—

*** indicates the candidates who obtained Prizes for their Dissertations; ** those deemed worthy of competing for the Dissertation Prizes; and * those commended for their Dissertations. — *Frederick William Barry, Scotland, M.B. and C.M., 1874; Diphtheria. *Johannes Aveticion Calantariants, Armenia, M.B., 1874; The Senses and the Undulatory Theory. James Angus Cameron, Scotland, M.B. and C.M., 1867; Obstetrical Notes and Cases. *Alfred Midgley Cash, England, M.B. and C.M., 1873; A Clinical Study and Analysis of a few Cases of Carcinoma. Thomas Dodson Chalmers, England, M.B., 1866; The Therapeutic Action of Change of Climate to Tropical Latitudes in some Cases of Pulmonary Disease. *Holland John Cotton, England, M.B. and C.M., 1874; Three Cases of Cerebral Lesion. John Sim Cowan, Scotland, M.B. and C.M., 1871; Dyspepsia. ***Daniel John Cunningham, Scotland, M.B. and C.M., with First-Class Honours, 1874; The Spinal Nervous System of the Cetacea, with an account of a hitherto undescribed variety of Dolphin. ***Edward Harriman Dickinson, England (M.A. Oxon.), M.B. and C.M., 1870; The Phenomenon of so-called "Direct" Paralysis. Alfred Eddowes, England, M.B. and C.M., 1873; Erysipelas. John Alexander Gailley, Scotland, M.B., 1874; Typhoid Fever. *Alexander James, Scotland, M.B. and C.M., 1873; The Physics and Physical Diagnosis of the Respiratory Organs. Johnstone Macfie, Scotland, M.B. and C.M., 1871; Notes of a few Cases of Chorea, with special reference to the relation of Chorea to Rheumatism. ***Charles Watson Macgillivray, Scotland, M.B. and C.M., 1873; Acute Ulcerative Endocarditis, with Experimental and Microscopic Research on the subject. William Henry Murray, Scotland, M.B. and C.M., 1874; Diseases incidental to the Puerperal State. *Robert Fairman, Scotland, M.B. and C.M., 1872; On the Physiologic Antagonism of Remedies. Robert Edward Phillips, England (M.A. Cantab.), M.B. and C.M., 1874; Preventive Medicine, its Importance and some of its Results. Henry Walter Plant, England, M.B. and C.M., 1874; Scarlatina. *Abraham Wallace, Scotland, M.B. and C.M., 1873; Sterility. Stewart Aaron Lithgow, Scotland; Contributions to Military Surgery from the Siege of Delhi.

Bachelor of Medicine and Master in Surgery.—*** indicates that the Candidate passed the Examinations with First Class Honours; * indicates that the Candidate passed the Examination with Second Class Honours. — Robert Frederick Adams, Scotland; James Anderson, Scotland; James Baker, England; George Andreas Berry, Scotland; Joseph Senior Boothroyd, England; Geo. Victor Louis Bouchet, Mauritius; Chas. Boyce, Ireland; Danl. Catlin Burlingham, England; Robt. Neill Campbell, Scotland; John Theodore Cash, England; Osborne Hen. Channer, India; Thos. Fred. Chavasse, England; Robert Maxwell Clark, India; William Lennox Cleland, China; Charles Alfred Coleman, Nova Scotia; James Craig, Scotland; Alexander Lesslie Curror, Scotland; Michael Dewar, Scotland; Henry Dobson, England; **William John Dodds (B.Sc. Edin.), England; George Augustus Emerson, India; Montague Stokes Eyre, India; John Henry Suffolk Finnis, Mauritius; George Alexander Gibson (B.Sc. Edin.), Scotland; **David Grant (M.A. Edin.), Scotland; James Dundas Grant (M.A. Edin.), Scotland; William Thomas Grant, Scotland; James Allan Gray (M.A. Edin.), Scotland; Henry Brougham Guppy, England; John Hassall, England; Henry Hay, Scotland; John Home Hay, Scotland; Robert William Irvine (M.A. Edin.), Scotland; William Hadden Johnson, Australia; David Johnston Jones, England; Joseph Hay Keay (M.A. Edin.), Scotland; Charles Scott Kilner, England; Robert Kirk, Scotland; William Lamb, Scotland; George Lockwood Laycock, England; John Rudd Leeson, England; Simon Linton, Scotland; William Logie, Scotland; Alexander Lyall, Scotland; William Henry Maberley, England; Peter M'Bride, Edinburgh; Thomas Ranken Macdonald, Scotland; Aymer Robert M'Dougall, Scotland; Hugh M'Laren, Scotland; David Menzies, Scotland; John Bell Miller, Scotland; Byers Moir, England; James Murray, Scotland; Thomas Goodall Nasmyth, Scotland; George Ogilvie (B.Sc. Edin.), Scotland; Leslie Ogilvie (B.Sc. Edin.), Scotland; John James Pringle, Scotland; James George Robertson, Africa; John Robertson (B.Sc. Edin.), Scotland; William James Rose (M.A. Aberd.), Scotland; Arthur Pickston Russell, England; William Russell, Isle of Man; Duncan Robert Stewart, Scotland; Edwin Pringle Thew, England; Abraham Garrod Thomas, Wales; Thomas Edgar Underhill, England; John James Underwood, England; Alexander Walker, Scotland; David Wylie Wallace, England; Bryan Charles Waller, England; Vincent Wanostrocht, England; Charles Henry Waterhouse (B.A. Lond.), England; Charles Scott Watson, Scotland; John Douglas Watt, Scotland; William Henry White, England; John Henderson Wright, Scotland; Alfred Harry Young, England.

Bachelor of Medicine.—Edward Leopold Baker, England; Arthur Richard Barnes, England; William Galletly, Scotland (received the Degree 20th April, 1876); William Henry Montgomery, America; Hans Jurgens Moolman, Cape of Good Hope; Robert Roxburgh, Scotland; *Andrew Smith, Scotland; Charles Edward Henderson Warren, England.

Master in Surgery.—Thomas Harker, England (received the Degree 20th April, 1876); John Hisset Smith, M.B., 1873 (M.A. Aberd.), Scotland.
The Eutles Prize for 1876 was awarded to David Grant, M.A., M.B., C.M.

MEDICAL VACANCIES.

The following vacancies are announced:—

BRIGHTON and HOVE DISPENSARY—Resident Medical Officer and Dispenser. Salary, £130 per annum, with furnished apartments, etc. Application on or before September 4th.
CROYDON UNION—Medical Officer for the Fifth District. Salary, £120 per annum. —Also, Medical Officer for the Tenth District. Salary, £50 per annum. Applications on or before September 13th.
GENERAL INFIRMARY, Leeds—House-Surgeon. Salary, £160 per annum, with board, residence, and washing. Applications on or before September 6th.
HUDDESFIELD UNION—Medical Officer for the Woodhouse District.
HULME DISPENSARY—Assistant Medical Officer. Salary, £130 per annum, with furnished apartments. Applications on or before September 9th.
LANCHESTER UNION—Medical Officer for the Tanfield District.
LIVERPOOL—Resident Assistant Medical Officer for the Tenth Park District. Salary, £100 per annum, with board and lodging. Applications on or before September 13th.
LONDON HOSPITAL—Aural Surgeon. Applications on or before Sept. 4th.
MELTON MOWBRAY UNION—Medical Officer for the Wymondham District.
NEWARK HOSPITAL and DISPENSARY—Resident Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before Sept. 4th.
NEWCASTLE-UPON-TYNE INFIRMARY—Junior House-Surgeon. Salary, £50 per annum, with board, lodgings, and washing. Applications to be made on or before September 5th.
SOUTHMOLTON UNION—Medical Officer for the Eighth District.
TENDRING UNION—Medical Officer of Health. Salary, £100 per annum. Applications on or before September 12th.
TOXTETH PARK—Resident Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before September 13th.
WOLVERHAMPTON and STAFFORDSHIRE GENERAL HOSPITAL—Assistant to the House-Surgeon. Lodgings and board will be provided. Applications to be made on or before September 18th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CANE, Howard, M.R.C.S.Eng., appointed House-Physician to the Westminster Hospital.
CASSIDY, D. McK., M.D., appointed Resident Medical Superintendent of the Lancashire Lunatic Asylum, Lancaster.
COATES, Harcourt, M.R.C.S.Eng., appointed House-Surgeon to the West Ham, Stratford, and South Essex Dispensary, vice R. J. Carey, M.R.C.S.Eng., resigned.
CRITCHTON, George, M.B., appointed House-Surgeon to the Infirmary, Lancaster, vice J. M. Scott, L.R.C.P. Ed., resigned.
EMERYS-JONES, A., M.B., appointed Resident Surgeon to the Royal Eye Hospital, Manchester.
FINLAY, David W., M.D., appointed a Physician to the St. George and St. James Dispensary, vice S. Coupland, M.D., resigned.
HARPER, Gerald S., L.R.C.P., appointed Resident Obstetric Assistant to St. George's Hospital, vice C. S. Lacy, L.R.C.P., resigned.
JONES, P., L.R.C.P. Ed., appointed Assistant Medical Officer to the Grove Hall Lunatic Asylum, Bow.
MCNAUGHTEN, John, M.B., appointed Medical Officer to the General Prison, Perth, vice G. W. Absolon, M.D., deceased.
*NICHOLSON, David, M.D., appointed Deputy Medical Superintendent of the Criminal Lunatic Asylum, Broadmoor, vice D. McK. Cassidy, M.D.
*PRICHARD, Arthur William, M.R.C.S., appointed Assistant-Surgeon to the Bristol Royal Infirmary, vice David E. Bernard, L.R.C.P. Ed., resigned.
RICHMOND, Charles E., M.R.C.S.Eng., appointed Junior House-Surgeon to the Royal Infirmary, Manchester.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

McDOWALL.—On August 26th, at Cotingwood, Morpeth, the wife of *T. W. McDowall, M.D., of a son.

DEATH.

ROBERTSON, John, Surgeon, late of Brighton Place, Manchester, at his residence, Holy Bank, New Mills, Derbyshire, on August 24th, in the 80th year of his age. Friends will please accept this intimation.

LONGEVITY.—The *City Press* says that there is now residing in Bevis-Marks an elderly lady, in the possession of all her faculties, who was born August 25th, 1776, and who, therefore, has completed her hundredth year. Nearly the whole of her life has been spent in the City of London.

TESTIMONIAL.—Dr. Charles R. Brown, on leaving Beckenham for Hastings, was presented by the inhabitants of the former place with a purse containing nearly two hundred and fifty guineas, as a mark of personal regard.

BEQUESTS.—Miss Isabella Kilgour, late of Uckfield, has bequeathed £100 each to the Aberdeen Infirmary and the Lunatic Asylum at Aberdeen.—Mr. William Wallace, late of Shoreditch, has bequeathed £500 each to the Victoria Park Hospital for Diseases of the Chest and the London Hospital, and £200 to the Royal Hospital for Imbeciles.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

It is particularly requested that, during the months of August and September, communications for "The Editor of the BRITISH MEDICAL JOURNAL" be so addressed, and not to any person by name.

ON CHLORIDE OF LEAD AS A DEODORISER AND DISINFECTANT.

SIR,—My attention has been drawn to an extract from an article in the *Lancet* published in a provincial paper, recommending a solution of chloride of lead prepared from the nitrate by the action of salt as the cheapest and most effectual disinfectant of the air and deodoriser of sewage. Where sewage, treated either by filtration or irrigation, passes ultimately into rivers affording the supply of water to towns, such use of lead-salts must be wholly condemned. A solution of chloride of lead being a fixed indiffusible substance, its influence must be confined to those parts of the atmosphere which directly come into contact with it, and I am not aware of any ground for assuming that it can decompose a fetid atmosphere, or destroy poison-germs; its action must be confined to fixing sulphuretted hydrogen.

Chloride of lead is far more cheaply prepared by acting on natural sulphide of lead (galena) with concentrated hydrochloric acid, and this process is largely used in the manufacture of Pattinson's white lead (oxychloride of lead). Besides, a weak solution of nitrate of lead would effect the same result as, if not a better result than, the chloride in absorbing sulphuretted hydrogen. The further assertion that lead sulphide is not injurious, but passes out of the bowel as harmless as charcoal, appears at variance with the known fact that the waters from lead stamping-mills are poisonous to fish as well as to human beings. It must be new to practical chemists, whose pursuits oblige them to daily inhale more or less sulphuretted hydrogen, that typhus poison is developed by this gas, nor do I think such is the generally admitted origin of typhus.

In Dr. Parkes's *Hygiene*, page 478, is the following remark: "In this (scarlet fever) as in all cases, there can be no use in using aerial disinfectants unless they are constantly in the air, so as to act on any particle of poison which may pass into the atmosphere."

For the deodorisation of sewage from sulphuretted hydrogen, perchloride of iron is cheaper, more effective, and is not poisonous, and therefore very generally employed. Allow me to add one extract more from Dr. Parkes, page 373: "On the whole, the carbolic acid and its preparations appear the most generally useful as sewage deodorants, except when sulphuretted hydrogen has to be decomposed, and after them ferric chloride."—Your obedient servant,
St. Mary's Hospital, W., August 1876.

CHEMIST.

Since the above has been in type, a letter has appeared in the *Times*, written by Dr. Goulden, in which directions for the preparation of the solution of chloride of lead are fully detailed, and its employment strongly advocated for the purification of an atmosphere charged with sewer-gas, for the deodorisation of sewers, slaughter-houses, cesspools, etc., and for hospital wards, school-rooms, workshops, law courts, sick-rooms, etc. As will be seen from the letter of our correspondent, there is a fear that the more general use of the lead-salt might poison the water of our rivers, whilst its value as a disinfectant would appear to have been greatly overrated by its introducer.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

THE BALHAM CASE.

SIR,—In reading the correspondence that has appeared in the public journals on the subject of the Balham mystery, I have been struck with one characteristic of all the various advocates of the theory of suicide; and that is, their singular inability to appreciate the value of evidence, or to grasp the significance and bearing of the facts of the case. Nor are the medical supporters of the theory exempt from this defect, which is equally apparent in the otherwise able communication of Dr. Wade in your last impression.

In suggesting that the black sulphuret of antimony may have been taken by Mr. C. Bravo, chiefly on the ground of its being less soluble than tartar emetic, and therefore more likely to adhere to the vomit found outside the window, Dr. Wade has overlooked the fact that this sulphuret would have been recognised at once by its colour, if it had been present in any quantity either in the wine taken by Mr. Bravo or in the ejected matters when examined by Dr. Redwood. But the most remarkable part of this suggestion is the corollary drawn from it—namely, "that if it were proved that Mr. Bravo took this drug and not tartar emetic, the suspicion of suicide would amount almost to a certainty". Dr. Wade came to this conclusion on the strength of the fact that Mrs. Bravo had some means of darkening her hair, and he hints that she might have used the black sulphuret for this purpose. But why this conclusion? Granted the facts that the sulphuret was in the possession of Mrs. C. Bravo and was taken by her husband, why are we to conclude that he took it knowingly and with a suicidal intention? To my mind, such a mode of reasoning appears to be most inconsequential.

In another part of his paper, Dr. Wade disposes of the chief argument against the theory of suicide—the solemn denial of the dying man—in a manner which, I take leave to think, is peculiar to himself. It amounts to this, that it is better to suppose that death-bed declaration to have been false, than to believe that any one could have been so wicked as to poison him. Dr. Wade assures us that we are on the horns of a dilemma; but then this is just the sort of dilemma in which we are constantly placed in criminal investigations, and in which we have to be guided not by our feelings, but by the weight of evidence.

Again, in offering an explanation of this supposed perjury on the part of the dying man, Dr. Wade suggests, in somewhat laboured detail, the process of reasoning and the various motives by which Mr. Bravo's determination to die with a lie upon his lips was come to, although the act implied the possession of an amount of brain-power that was incompatible with the "extreme physical prostration" of the sufferer. The reasons assigned by Dr. Wade are the desire felt by Mr. Bravo to protect his own and his wife's secrets from the exposures which might have followed on the confession of suicide. But here Dr. Wade has fallen into the common error of assuming the truth of certain statements made by the two witnesses most interested. The proof of Mr. Bravo's possession of his wife's secret rests solely on such evidence. Of Dr. Wade's defence of these witnesses, I can only say that it produced an impression on my mind quite opposite to what must have been intended, and it illustrates very forcibly the remarks made in the outset of this letter as to the indisposition or inability of certain writers to appreciate the value of evidence.

For obvious reasons, it would be neither safe nor expedient to meet Dr. Wade's arguments on this point by counter-statements, as might easily be done; and hence it is that the public discussion of the Balham mystery in its present stage is clearly to be deprecated. As it now stands, it is, so to speak, a combat between armed and unarmed, and, as such, is plainly repugnant to our English notion of fair play.—I am, sir, your obedient servant,
Guildford, August 30th, 1876.

HENRY TAYLOR.

J. HOLMES.—Sir James Paget will deliver the Hunterian Oration in February next. The autograph of Hunter is not rare, although very interesting and valuable.

FOREIGN DEGREES.

SIR,—In reply to M.B., who again will insist upon misunderstanding my letter, I must say that, when I made the statement about operations on the dead body, I find I was in error. I got my first information from the *Medical Directory* of 1876, so Messrs. Churchill are not correct in the information they give.

What I say now is, that operations are not required by the College of Surgeons of London, or Faculty of Glasgow, and I am still doubtful of the Irish College. In spite of Mr. McBride, I again say that a foreign degree cannot be obtained by two or three days' absence, and I defy M.B. to prove it. At Brussels, my examination took five days, as long a time as that for any British degree. Hygiene in my day was only taught at Netley, and even now there are very few lecturers on it, two only in London, and to five out of every ten students of the present day it would be a new subject.

I do not ask M.B. to reveal his friend's name, I only require the name of the University; if it be in existence, the friend cannot object to that.

In what I have said about the operations on the dead body not being required in London or Glasgow, I have obtained this information from the secretaries of these Colleges, so that M.B. is equally wrong with myself.

In your JOURNAL of August 26th, Mr. McBride has something to say. In reply to him, I beg to say that I have done all he wishes a man to do. I have spent money, time, and risked my health, to obtain the diplomas I possessed before proceeding to Brussels. The diplomas I hold were not procured by instalments, nor can they be so obtained. Both M.B. and Mr. McBride should read the letter in your JOURNAL of August 26th by M.R.C.S. From what he says, the B.A. and M.B. of Trinity College, Dublin, can be procured little by little. This is also the case with the Irish College of Surgeons, for their regulations of this year distinctly say that any student failing at any examination will only be examined, when he presents himself again, on the subjects in which he has failed. This is not allowed at any of the Scotch or English boards. I have by me the regulations of the following foreign Universities, Brussels, Giessen, Erlangen, and Heidelberg, and they also do not allow such a loose state of things. Had there been examining boards in England similar to those in Dublin, I should have been B.A., M.B., F.R.C.S., and not

August 28th, 1876.

M.D. BRUSSELS.

DELTA (Blyth).—Our correspondent should apply to the Dean of the Faculty of Medicine of the University.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

ALCOHOL AS A MEDICINE.

SIR,—It has come to be rather a common expression, and the generality of writers seem to ignore the fact, that this aspect has many phases. Forgetfulness of this truth leads opponents, more especially, into a maze of errors or misconceptions of the views of temperance reformers. But is alcohol a stimulant? As much valuable space and time have been spent over this vexed question, permit me to give forty years' experience of the careful watching of the results of either large or small doses. At first, for a short space, it is proved to excite or stimulate; but all too early "Want shall assail, and all its strength and vigour fail." This is so patent that I wonder at some of my teetotal friends denying its primary stimulating properties. At the same time, the well balanced brain is set awry; the reflective faculties are sent to sleep; and, whilst caution is paralysed, impulse is off at a gallop; hence quarrels and disputes, assaults, rapes, and murders. As, however, the depression is in exact ratio to its stimulating power, I hold that alcohol makes us no richer in strength or stamina: it proves only a depressant or narcotic.

Mr. Leeds asks, Do teetotal practitioners substitute beef tea and milk for wine and brandy? If Mr. Leeds tell me for what purpose he prescribes wine and brandy, I will answer his question. If he say, to give warmth and strength, to restore the loss of tone and tissue, to recuperate the system, then I say, Yes, most decidedly. On the other hand, if he give it as a stimulant pure and simple (unless in cases of weakness of the heart's action), then I say as distinctly, No. What am I in the habit of using as a stimulant? That depends on the nature of the case, the temperament and age of the patient. Sometimes croton-oil liniment, or a blister, answers very well, or a regular scolding, or a thorough teasing, until the half-frightened-to-death patient (whose fears have been, by the cruel sympathies of some foolish visitor, roused into certainties that she is going to have paralysis) is driven into a perfect rage at her medical attendant, and her wrath at him swallows up all her morbid sensations and dread of a fit. Lastly, a good hearty laugh is a capital stimulant, and what an achievement to make some poor desponding fellow "laugh in spite of his teeth," or his hallucinations either. If, however, it be, as I rather opine, children's treatment he is speaking about; then, whilst giving beef-tea or milk (for there are many cases in which the resources of the non-alcoholic medical attendant are taxed to the utmost), he will find, to his loss, that his trusted remedial agent, beef-tea, purges. He orders it to be discontinued at once, and chicken-broth substituted. This, however, also purges; then there is nothing for it but fall back on the milk. Order it *to be boiled*, and given as hot as the patient can drink it. Again, the patient does not like the milk—it turns acid on the stomach: a little addition of lime-water is sufficient. In cases of scarlet fever, I have found an excellent stimulant for children in the following. R. Glycerini Sij; pulvis. confect. aromat. B; sp. ammon. aromat. Zij; aquæ Jviiss. Fiat mistura. Dose, from a tablespoonful to two teaspoonfuls, according to age. This is viewed more as a cordial than medicine by the young people, and I never found any difficulty in their taking it freely. Of course, where other medicines are necessary, the glycerine in many cases acts as a capital solvent; and I would trust to this and milk, or beef-tea, sooner than run the risk of giving the vile compounds called brandy and wine. Of course, in giving milk, I never give the tincture of iron within an hour. If these be given close on each other, vomiting is almost certain to occur; but has Mr. Leeds never tried the addition of the chlorate of potass to the iron? In most young children, especially, I prefer the syrup of the phosphate of iron. This, too, can be combined with other compatibles.

So thoroughly convinced was I of the benumbing effects of alcohol (my father, a naval surgeon, knew that seventy years ago; and if a man were to be flogged unjustly, or too severely punished for his fault, he ordered him a stiff glass of grog before he was tied up), that I tried it the week before last, where the tongue was so sensitive, that the patient could neither put it out of his mouth nor suffer it to be touched. Whisky and cold water held in the mouth acted like a charm. —I am, dear sir, yours most respectfully, J. C. REID, M.D., Newbiggin-by-Sea, August 12th, 1876. Medical Officer of Health.

SIR,—Mr. T. Leeds writes to the JOURNAL on August 12th, remarking that a certain section of the profession is setting its face against alcohol as a medicine. I hardly think this represents the state of the case.

Naturally, the use of alcohol in therapeutics is a very interesting and important question; because, during the long period of revolt against over-drugging commencing in this century, which culminated in the adoption of hydropathy, *pur et simple*, and in infinitesimal medication, there arose a class of practitioners who seemed to allege that all diseases were caused by lowering of the system; that, in such a supposition, anaesthetics were *always* required in disease; and that alcohol, being rapidly changed in the blood, and being the most easily digested of all hydrocarbons, was the best of all foods in disease. Of course, that theory assumed that alcohol was a food; and this is just the point wherein I venture to differ with Liebig and his medical school. As far as alcoholic therapeutics depend on the idea that alcohol is a food, I believe them to be entirely baseless.

When, however, Mr. Leeds informs us that he has found alcohol useful in several cases of disease, he comes upon very different ground. To deny that it has the power of diminishing the pains of dysmenorrhœa or colic, and of effecting many other benefits in diseased conditions of the body, would be absurd. My conclusion with regard to alcohol as a therapeutic agent is, that we must leave vinum xericum and spiritus vini gallici, or, rather, some more accurately defined solution of alcohol, to be prescribed, as all other remedies are, at the discretion of the practitioner. For my own part, I do not often see indications for using alcohol in disease, either in fevers or in debility; but that is a question of detail, and requires a long paper to itself. I conclude simply by saying that alcohol is not a food, and that it should not be used by doctors as if it were.—I remain, sir, yours obediently, CHAS. R. DRYSDALE, M.D., 17, Woburn Place, W.C., London, August 12th, 1876.

SIR,—I should be obliged if you would allow me to make a few remarks in reply to the letter of Mr. T. Leeds of Sheffield. He must be singularly devoid of reason who would deny to alcohol its rightful place in the *Pharmacopœia*, but it is of importance to know what that position is. Where we wish to make a sudden call upon physical powers already present in our patient's system, or where some brief effort of more than usual magnitude is required, alcohol proves of great service.

But for continued work, or as a means of giving strength which does not yet exist, my own experience leads me to regard it as worse than useless. Especially is this the case with regard to midwifery. Having attended six hundred lying-in patients and only lost two, I consider that the standing orders which I adopt may be of some use to others. They are briefly these, 1. Never to use alcoholic drinks as an aid to labour; and 2. Always to place a binder well round the patient's abdomen and below the hips as soon after delivery as possible. Latterly, I have placed the binder in position beforehand, and believe it to be of service often in forwarding labour. I have had all sorts of cases, including craniotomy, turning, and placenta prævia, but I invariably exclude alcohol. I believe more than half the cases of *post partum* hæmorrhage are due to its use; and I am quite convinced that if it be given early, it tends to retard labour and to depress the patient, and render him uncomfortable. Of course, those who invariably administer it cannot well distinguish between what is due to alcohol and what is due to labour; but to my mind the condition produced on the average patient by alcohol is most marked, and I can generally tell when it has been administered before my arrival. The patient neither works so well nor is she so amenable to treatment. The two cases referred to, which I have lost during fourteen years' practice, had both had brandy; one was landlady of a tavern.—I have the honour to be, sir, your obedient servant, D. B., August 13th, 1876.

THE name of Dr. J. A. Irwin of Manchester was accidentally omitted from the list of members present at the annual meeting in Sheffield.

"INQUIRENS" might try large doses of iodide of potassium, twenty grains three times a day. The case has some of the features of aneurism. For immediate relief, subcutaneous injection of morphia would probably be most efficacious. T. M.

FILTERS.

SIR,—Can you or any of your numerous readers oblige me by giving information respecting domestic water-filters? Which kind of filter is the best? and which the most durable and least liable to get out of order?—I am, yours truly, York, August 1876. HENRY FITZSIMONS, M.D.

GOWER STREET, AND MR. MURRAY.—The time for sending in names of candidates for the examination in Arts, etc., for the membership of the Royal College of Surgeons expired on August 22nd. The examination will take place at Burlington House on the 12th instant and subsequent days.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southampton Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, &c., have been received from:—

Dr. G. M. Humphry, Cambridge; Mr. C. G. Wheelhouse, Leeds; Dr. M'Cook Weir, Birmingham; The Director-General, Army Medical Department; Dr. Hinds, Birmingham; Dr. Tilbury Fox, London; Dr. Shingleton Smith, Clifton; The Rev. R. B. Somerset, Cambridge; Cantab; Mr. Thurston, Ashford; An Associate; Dr. J. Service, Glasgow; Mr. Marcus Allen, Portsmouth; M.D.; Dr. Lofthouse, King William's Town; Exhibition; Dr. Alexander, Halifax; Dr. Taylor, Scarborough; Mr. Emrys-Jones, Manchester; Mr. J. Moulding, Liverpool; Dr. T. C. Paley, Carmel; Dr. Fitzsimons, York; Mr. Borchest, Netley; Dr. C. D. Purdon, Belfast; Dr. Sheen, Cardiff; Mr. S. W. Hope, Petworth; Dr. R. Atkins, Cork; Dr. Dabbs, Newport, Isle of Wight; Mr. C. D. Hunter, Bridge of Allan; Dr. J. J. Ridge, Enfield; H. E.; Mr. D. De Berdt Hovell, Clapton; Dr. Irwin, Manchester; T. K. C.; The Registrar-General of England; Mr. Curtis, Brighton; Dr. Easby, March; The Secretary of Apothecaries' Hall; Mr. Rushton Parker, Liverpool; Dr. Lees, Ashton-under-Lyne; A British Graduate; Mr. F. L. Stephenson, Bradninch; M. W.; Dr. Theodore Davis, Clevedon; Dr. D. E. Flinn, Brownhills; The Registrar-General of Ireland; Our Edinburgh Correspondent; S. H.; Dr. Macdonald, Newburgh; Dr. J. Milner Fothergill, London; Dr. Thorburn, Manchester; A Member; Our Dublin Correspondent; Mr. F. Wallace, London; Delta; Dr. T. MacLagan, Dundee; Dr. Spencer, Dublin; M.D. Brussels (No. 2); Dr. Joseph Bell, Edinburgh; Dr. Edis, London; Dr. J. W. Moore, Dublin; Mr. Eastes, London; Dr. Finlayson, Glasgow; Dr. Quain, London; Dr. J. W. Langmore, London; Mr. Lennox Browne, London; Mr. W. Holder, Hull; Dr. Mackey, Birmingham; Dr. L. L. Thomas, London; Dr. J. Macpherson, London; Dr. J. D. Hewson, Cotton Hill; Mr. Dutton, Dursley; Dr. C. Tilling, Harthill; Professor Tyndall, Bel Alp; M.R.C.S.E., L.R.C.P., etc.; Mr. H. Taylor, Guildford; Mr. Berkeley Hill, London; Dr. Bradbury, Cambridge; Dr. W. W. Smith, London; Dr. I. W. R. Mackie, Cupar Fife; Dr. C. R. Brown, Hastings; Mr. C. L. Williams, Heanor; Dr. H. P. Truell, Dublin; Dr. Parsons, Dover; Dr. J. Styrap, Shrewsbury; Dr. W. H. Walker, Aldbrough; Mr. John Ferguson, Edinburgh; Dr. J. M. Alston, Airdrie; Dr. Deville, Harrogate; Dr. W. Wylie, Skelmorlie; Dr. J. Gilchrist, Dumfries; Dr. W. Hunter, Rothesay; Dr. Cattie, Edinburgh; Mr. T. W. Myles, Edinburgh; Dr. J. C. Souther, London; Mr. G. M. Mackenzie, London; Dr. G. Findlay, Aberdeen; Dr. H. M. Jones, Cork; Dr. A. Mitchell, West Canisbay; Dr. W. F. Wade, Birmingham; Mr. T. Cassan, Southampton; Mr. W. Stewart, Barnsley; Dr. T. S. Cobbold, London; Mr. A. Hallam, Sheffield; Mr. W. D. Husband, York; Dr. J. Godden, Red Hill; Mr. A. W. Stocks, Salford; etc.

REGULATIONS

OF

THE GENERAL MEDICAL COUNCIL AND
MEDICAL LICENSING BODIES.

SESSION 1876-77.*

RECOMMENDATIONS AND OPINIONS OF THE
GENERAL MEDICAL COUNCIL.

PRELIMINARY EXAMINATION.—Testimonials of Proficiency granted by the National Education Bodies, according to the subjoined list, may be accepted; the Council reserving the right to add to, or take from, the list. (A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient Testimonial of Proficiency.) I. *Universities of the United Kingdom.* Oxford: Examinations for Degrees in Arts. Responsions; Moderations. Oxford, Cambridge, and Durham: Local Examinations (Senior); Certificate to include Latin and Mathematics. Local Examinations (Junior); Certificate to include Latin and Mathematics, and also one of the following optional subjects: viz., Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. Cambridge: Previous Examination. Durham: Examination for Students in their Second and First Years; Registration Examination for Medical Students. Oxford and Cambridge Schools' Examination Board: Certificate to include—1. English Language, including Grammar and Composition; 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; 3. Geometry, first two books of Euclid; 4. Latin, including Translation and Grammar; and one of the following optional subjects—Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. London: Matriculation Examination. Aberdeen, Edinburgh, Glasgow, and St. Andrew's: Preliminary Examination for Graduation in Medicine or Surgery. Edinburgh: Examination of (Senior) Candidates for Honorary Certificates under the Local Examinations of the University. Dublin: Entrance Examination. Queen's University (Ireland): Entrance Examination; Examination for the Diploma of Licentiate in Arts; Previous Examination for B.A. Degree. II. *Other bodies named in Schedule (A) to the Medical Act.* Royal College of Surgeons of England: Examination conducted, under the superintendence of the College of Surgeons, by the Board of Examiners of the Royal College of Preceptors. Society of Apothecaries of London: Examination in Arts. Royal College of Physicians and Royal College of Surgeons, Edinburgh: Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined. Faculty of Physicians and Surgeons of Glasgow: Preliminary Examination in General Literature. Royal College of Surgeons in Ireland: Preliminary Examination; Certificate to include Mathematics. Apothecaries' Hall of Ireland: Preliminary Examination in General Education. III. *Examining Bodies in the United Kingdom, not included in Schedule (A) to the Medical Act.* Royal College of Preceptors: Examination for a First Class Certificate. The Examiners for Commissions in the Military and Naval Services of the United Kingdom; Certificate to include all the subjects required by the General Medical Council. IV. *Colonial and Foreign Universities and Colleges.* University of Calcutta, Madras, or Bombay: Entrance Examination; Certificate to include Latin. University of McGill College, Montreal, of Toronto, of Trinity College, Toronto, of Queen's College, Kingston, of Victoria College, Upper Canada, of Fredericton (New Brunswick), of Sydney, or of the Cape of Good Hope, and Medical College, Halifax: Matriculation Examination. University of King's College, Nova Scotia: Matriculation Examination; Responsions. University of Melbourne: Matriculation Examination, Certificate to include all the subjects required by the General Medical Council. Codrington College, Barbadoes: English Certificate for Students of two years' standing, specifying the subjects of Examination; Latin Certificate, or "Testamur". Tasmanian Council of Education: Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics. Christ's College, Canterbury, New Zealand: Voluntary Examinations, Certificate to include all the subjects required by the General Medical Council. South Australian Institute, Adelaide: Preliminary General Examination; First Class Certificate. The Licensing Boards are recom-

mended not to accept the certificate of proficiency in general (preliminary education from any of the Bodies, the names of which are contained in the list annually circulated, unless such certificate testify that the student to whom it has been granted has been examined in—1. English Language, including Grammar and Composition.* 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin, including Translation and Grammar. And in one of the following *Optional Subjects*:—Greek; French; German; Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.—Students who cannot produce any of the testimonials referred to in the first recommendation are required to pass an Examination in Arts, established by any of the bodies named in Schedule (A) to the Medical Act, and approved by the General Medical Council.—Certificates of proficiency, to be received from all bodies legally authorised to examine in General Education in Great Britain and Ireland, and from the several Licensing Bodies enumerated in Schedule (A) to the Medical Act in Great Britain and Ireland, shall bear evidence that the candidates have been examined and approved in at least the above subjects.—In the case of certificates received from similar educational and licensing bodies in other parts of the empire and foreign countries, satisfactory evidence shall be given to the Medical Council, or Branch Councils, that such certificates are equivalent to those recognised in the United Kingdom.

REGISTRATION OF MEDICAL STUDENTS.—Every medical student shall be registered in the manner prescribed by the General Medical Council.—No medical student shall be registered until he has passed a Preliminary Examination.—The commencement of the course of Professional Study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.—The registration of medical students shall be placed under the charge of the Branch Registrars. Each of the Branch Registrars shall keep a Register of medical students according to a form, containing the Date of Registration, the Name, the Preliminary Examination and Date, and the Place of Medical Study.—Every person desirous of being registered as a medical student, shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to the annexed form;† which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and a statement of his place of medical study.—The Branch Registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a certificate of such registration.—Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for registration.—The several Branch Councils shall have power to admit special exceptions to the foregoing regulations, for reasons which shall appear to them satisfactory.—A copy of the Register of Medical Students, prepared by each of the Branch Registrars, shall be transmitted, on or before December 31st in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print an Alphabetical List of all students registered in the preceding year, and supply copies of such authorised lists to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to the several Schools and Hospitals.—The several qualifying bodies are recommended not to admit to the final examination any candidate (not exempted from registration) whose name had not been entered in the Medical Students' Register at least four years previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.

* The General Medical Council will not consider any examination in English sufficient that does not fully test the ability of the candidate.—1. To write a few sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition. 2. To write a portion of an English author to dictation. 3. To explain the grammatical construction of one or two sentences. 4. To point out the grammatical errors in a sentence ungrammatically composed, and to explain their nature. 5. To give the derivation and definition of a few English words in common use. Provided always that an examination may be accepted as satisfactory that secures, on the part of the candidate passing it, a sufficient grammatical knowledge of English.

† *Form of Application for Registration as a Medical Student.*—I hereby apply to be registered as a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. [Name of applicant (to be written in words at length); Surname; Christian name; Preliminary examination; Date of preliminary examination; Place of medical study; Applicant's signature; Address; and Date of Application. To the Registrar of the Branch Council for—]

N.B.—The above form of Application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a Certificate of the applicant's having passed a Preliminary Examination, as required by the General Medical Council, and a statement of his place of Medical Study.

* To save space, we omit those portions of the Recommendations of the General Medical Council and of the Regulations of the Examining Bodies, which are not of direct importance to medical students.

AGE FOR LICENCE TO PRACTISE.—The age of 21 shall be the earliest age at which a candidate for any Professional Licence shall be admitted to his final examination; the age shall, in all instances, be duly certified; and a return of any exceptions in this recommendation allowed by the Licensing Bodies, together with the reasons for such exceptions, shall be transmitted to the Branch Council of that part of the United Kingdom in which they have been granted.—No Licence shall be obtained at an earlier period than after the expiration of forty-eight months subsequent to the registration of the candidate as a medical student.

PROFESSIONAL EDUCATION.—The course of Professional Study required for a Licence shall comprehend attendance during not less than four Winter Sessions, or three Winter and two Summer Sessions, at a School recognised by any of the Licensing Bodies mentioned in Schedule (A) to the Medical Act. The following are the subjects, without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered:—1. Anatomy; 2. General Anatomy; 3. Physiology; 4. Chemistry; 5. Materia Medica; 6. Practical Pharmacy; 7. Medicine; 8. Surgery; 9. Midwifery; 10. Forensic Medicine.*—It is recommended to the several Licensing Bodies that the courses of instruction required by them be framed in such a manner as to secure a due share of attention, both as preparatory branches, and to those more strictly connected with the practice of Medicine and Surgery; and it is suggested accordingly to these bodies, that their regulations should be such as to prevent attendance upon Lectures from interfering with Hospital and Clinical Study. The Council will view with approbation any encouragement held out by the Licensing Bodies to students to prosecute the study of the Natural Sciences, before they engage in studies of a strictly professional character.—A certificate shall be required by each Licensing Body from every candidate for its Degree, Diploma, or Licence to practise Medicine or Surgery, that he has studied Vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the Vaccine Vesicle, and with the methods of preserving Lymph, and is thoroughly informed in every necessary part of the subject. Such a certificate should only be received by any Licensing Body from recognised Vaccine Stations, or from recognised Vaccine departments in Medical Schools, or Hospitals, or other public institutions, where the appointed teacher of Vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (perhaps eight or ten on an average weekly) as may be found, after due inquiry in the first instance, confirmed by authentic returns, or inspections from time to time, to be sufficient for this purpose at each place.

PROFESSIONAL EXAMINATION.—It is desirable that the different Licensing Bodies should combine their examinations, when this is practicable.—The Professional Examination for any Licence should be divided into two parts: the first embracing the primary or fundamental branches directly connected with the practice of Medicine and Surgery; the former should not be undergone till after the close of the Winter Session of the second year of professional study; and the latter, or final examination, not till after the close of the prescribed period of professional study.—The examination in Physics, Botany, and Natural History, may be undergone at an earlier period than the first professional examination.—The professional examinations should be conducted both in writing and orally; and should be practical in all branches in which they admit of being so.—Excellence in one or more subjects should not be allowed to compensate for failure in others.—If a candidate be rejected for failure in any one subject, he should be re-examined in all.—The professional examinations should be held by the several Licensing Bodies, except in special cases, at stated periods, to be publicly notified.—In the case of certificates presented before admission to the examinations of the several Licensing Bodies, each should include a statement from the teacher or teachers, that the candidate had satisfactorily attended examinations, from time to time, held on the subject of study to which the certificate relates.—Observation with the microscope should form part of the examinations of candidates for a Licence.—Candidates in examinations in Anatomy should understand that they may be called upon to perform actual dissections; and candidates in examinations in Surgery should understand that they may be called upon to perform one or more operations on the dead subject.

* It is desirable that the instruction in Pharmacy should be separated from that in Therapeutics; and that the former should be obtained at an early, and the latter at a later, period of the Professional Curriculum. Chemistry should include a knowledge of the principles of Chemistry, and of those details of the science which bear on the study of Medicine. Medicine and Surgery should include a knowledge of systematic and Clinical Medicine and Surgery, and also of Morbid Anatomy.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.

ANY person who shall have satisfied the College touching his acquirements in general Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the By-Laws and Regulations of the College, may be proposed to the College to be admitted a Member. (For synopsis of Regulations, see pages 328-29.)

Every candidate who has prosecuted his studies abroad, whether in part or to the full extent required (except such as shall be exempted), shall nevertheless bring proof of his having attended, during at least twelve months, the medical practice of a hospital in the United Kingdom containing at least 100 beds.

Every candidate for the Membership of the College (except such as shall be exempted) will be required to pass the following examinations.

First Examination; Monday: 7 to 10 P.M., written questions on Anatomy and Physiology. Tuesday: 7 P.M., *viva voce*, on Dissections and Preparations.

Second Examination; Monday: 1 to 4 P.M., written questions on Materia Medica and in Chemistry in its application to Pathology, Pharmacy, and Toxicology. Tuesday: 1 to 4 P.M., the same subjects; the examination being partly *viva voce* and partly practical; 7 to 10 P.M., written questions on Midwifery and the Diseases peculiar to Women. Wednesday, 7 to 10 P.M., written questions on Surgical Anatomy and on the Principles and Practice of Surgery. Thursday: Morning, Practical Examinations either at the College or in the Wards of a Hospital; 7 P.M., Principles and Practice of Surgery and Midwifery, *viva voce*.

Third, or Pass Examination; Thursday, 2 to 6 P.M., written questions on Medical Anatomy and on the Principles of Medicine. Friday, 2 to 6 P.M., written questions on the Practice of Medicine, including the Principles of Public Health, and on Psychological Medicine. Saturday or Monday: Practical examination at the College or in the medical wards of a Hospital. Tuesday and Wednesday: Examination *viva voce*.

Every candidate must give fourteen days' notice in writing to the Registrar of the College of his intention to present himself for examination, at the same time transmitting the following certificates. For the Primary Examination: Evidence of having passed an Arts Examination; and, in the case of those who shall have commenced professional studies after 1861, evidence of having previously obtained a Degree of Arts from some University of the United Kingdom, or of the Colonies, or from some other University specially recognised by the Medical Council, or that he has passed examinations equivalent to those required for a Degree in Arts; of having been duly registered as a medical student; and of having completed the second winter session of professional study at a recognised Medical School. For the Second Examination: Evidence of having completed four years of professional study; of having attained the age of 21 years; of instruction and proficiency in vaccination; of having attended not less than twenty labours; and of having discharged the duties of clinical clerk and of dresser for periods of not less than three months. For the Pass Examination: Proof of having attained the age of 25 years; a testimonial from a Fellow or Member of the College; evidence of having completed the required course of professional study. Blank forms of the required certificates of attendance on hospital practice and on lectures may be obtained on application at the College.

Third or pass examinations for the membership will be held on Thursday, October 19th, 1876, January 19th, April 19th, July 19th, and October 18th, 1877. The first and second examinations are generally held at the commencement of the same months.

LICENTIATES.

For synopsis of Regulations, see pages 328-29.

Of the four years, one winter and two summer sessions may be passed in either of the following ways: 1. Attending the practice of a hospital or other institution recognised by the College; 2. Receiving instruction as the pupil of a legally qualified practitioner holding any public appointment which affords opportunities, satisfactory to the examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction.

Professional studies commenced before the candidate shall have passed an examination in the subject of general education will not be recognised by the College. The course of Lectures on Botany may be attended prior to the commencement of professional studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his preliminary examination will be exempt from attend-

ance on this course. The Principles of Public Health must be comprised in the course of Lectures on Medicine, or in that on Forensic Medicine. The attendance on Lectures on Medicine and Surgery must not commence earlier than the second winter session; and the attendance on Lectures on Clinical Medicine and Clinical Surgery must not commence until after the first winter session.

Every candidate for the Licence, before he is admitted to examination, must sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) to the Medical Act.

Candidates must pass the following examinations.

First Examination, on Anatomy and Physiology. First day, 7 to 10 P.M., written questions. Second day, 7 P.M., *viva voce*, on Dissections and Preparations. Second or Pass Examination. First day, 1 to 4 P.M., written questions on Materia Medica and on Chemistry in its application to Pathology, Pharmacy, and Toxicology; 7 to 10 P.M., written questions on Medical Anatomy and the Principles and Practice of Medicine, including the Principles of Public Health. Second day: Morning, Practical Examination at the College or in the surgical wards of a Hospital; 1 to 4 P.M., on Materia Medica, and on Chemistry in its application to Pathology, Pharmacy, and Toxicology. (This examination will be partly *viva voce* and partly practical.) 7 P.M., written questions on Midwifery and the Diseases peculiar to Women. Third day, 7 to 10 P.M., written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. Fourth day: Morning, Practical examination at the College or in the medical wards of a Hospital; 7 P.M., *viva voce*, on Medicine, Surgery, and Midwifery.

Every candidate intending to present himself for examination is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following certificates. For the First Examination—Evidence of having passed an Arts examination; of having been duly registered as a medical student; and of having completed the second winter session of professional study at a recognised Medical School. For the Second or Pass Examination—Evidence of having completed four years of professional study; of having attained the age of 21 years; of proficiency in the practice of vaccination; and of having attended not less than twenty labours. A testimonial of moral character is required of every candidate. Blank forms of the required certificates of attendance on hospital practice and on lectures may be obtained on application at the College.

Licentiates of this College shall not compound or dispense medicines, except for patients under their own care.

Examinations of candidates for the College Licence will take place as follows. First Examination, commencing on the first Mondays of October and December, 1876, and February, April, July, October, and December, 1877. Second or Pass Examination, commencing on the second Mondays of the same months.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

FOR synopsis of Regulations, see pages 328, 329.

1. *Preliminary General Education and Examination.*—Candidates who commenced their professional education on or after the 1st of January, 1861, will be required to produce one or other of the following certificates:—1. Of graduation in Arts at an University recognised for this purpose: viz., Oxford; Cambridge; Dublin; London; Durham; Queen's University in Ireland; Edinburgh; Glasgow; Aberdeen; St. Andrew's; Calcutta; Madras; Bombay; McGill College, Montreal; and Queen's College, Kingston, Canada. 2. Of having passed an examination for Matriculation, or such other examination as shall from time to time be sanctioned by the Council of this College, at an University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of the College.* 3. Of having

* The following are the Examinations at present recognised under this Clause (No. 2, viz.: Oxford—Responsions or Moderations. Cambridge—Previous Examination. Dublin—Entrance Examination. London—Matriculation Examination. Durham—Examination of Students in Arts in their second and first years; Registration Examination for Medical Students. Queen's University in Ireland—Two years' Arts Course for Diploma of Licentiate in Arts; Preliminary Examinations at end of B.A. Course; Matriculation Examinations. Oxford, Cambridge, Durham, and Queen's University in Ireland: Local Examinations; the Certificate to include Latin and Mathematics. Oxford and Cambridge: Schools Examination Board; the Certificates to include the subjects required in the Preliminary Examination of the College. Edinburgh, Aberdeen, Glasgow, and St. Andrew's—Preliminary or Extra Professional Examinations for Graduation in Medicine. Calcutta, Madras, and Bombay; McGill College, Montreal; Bishop's College, Montreal; University College, Toronto; University of Trinity College, Toronto; Victoria College, Toronto; University of Laval, Quebec; King's College, Windsor, Nova Scotia; University of Fredericton, New Brunswick; Dalhousie College and University, Hal-

passed the preliminary examination for the Fellowship of this College. 4. Of having passed the preliminary examination of the Royal College of Surgeons in Ireland or of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow. 5. Of having passed the examination in Arts of the Society of Apothecaries of London, or of the Apothecaries' Hall of Ireland. 6. Of having passed the first class examination of the Royal College of Preceptors. 7. Testamur of the Codrington College, Barbadoes. 8. Degree of the Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the student has been examined in Latin and Mathematics. 9. Of having passed the voluntary examinations of Christ's College, Canterbury, New Zealand; the certificate to include all the subjects required from time to time in the Preliminary Examination of the College. Candidates who shall not be able to produce one or other of the foregoing certificates will be required to pass an examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of this College.*

11. *Professional Education.*—Professional studies prior to the date at which the candidate shall have passed an examination in general knowledge, are not recognised. The following will be considered as the commencement of professional education:—1. Attendance on the practice of a Hospital, or other public institution recognised by this College. 2. Instruction as the pupil of a legally qualified surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College. The commencement of professional study otherwise than by attendance on lectures in recognised Medical Schools, or by attendance on the practice of recognised Hospitals, will not be admitted until a certificate thereof shall be furnished to the Secretary for registration at the College, by the practitioner whose pupil the candidate shall have become, or by the medical superintendent of the Hospital or other institution to the practice of which he shall have entered, and will date only from the reception of such certificate by the Secretary; the certificate to be accompanied by proof of having passed the preliminary examination in general knowledge.

Blank forms of the required certificates may be obtained on application to the Secretary, and all necessary certificates will be retained at the College.

By the Practical Course (General Anatomy and Physiology) it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not intended that the learners shall perform vivisections.

The Course of Practical Surgery is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of Anatomical facts to Surgery, on the living person, or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of diseases or accidents, on the living person, or on the dead body; the performance, where practicable, of the operation of Surgery on the dead body; the use of Sur-

fax; University of Sydney; University of the Cape of Good Hope; Bellevue Hospital Medical College, New York—Matriculation Examinations. Queen's College, Kingston—Matriculation Examination; Preliminary Examination of Students in Medicine. University of Melbourne—Matriculation Examination, with a Certificate that the Student has passed an Examination in Latin. Adelaide—South Australian Institute.

* The following are the subjects of the examination, viz.—Part I. *Compulsory Subjects.* 1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition: such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple or compound, of Vulgar Fractions, and of Decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History; that is, the succession of the Sovereigns and the leading events of each reign. 8. Mathematics: Euclid, Books I and II; Algebra to Simple Equations inclusive. 9. Translation of a passage from the second book of Caesar's *Commentaries De Bello Gallico*.—Part II. *Optional Subjects.* Papers will be set on the following six subjects; and each candidate will be required to offer himself for examination on one subject at least, at his option; but no candidate will be examined on more than four subjects:—1. Translation of a passage from the first Book of the *Anabasis* of Xenophon. 2. Translation of a passage from X. B. Stintine's *Piccola*. 3. Translation of a passage from Schiller's *Wilhelm Tell*. The candidate will also be required to answer questions on the grammar of each subject, whether compulsory or optional. 4. Mechanics: chiefly elementary. 5. Chemistry: elementary facts. 6. Botany and Zoology: Classification of Plants and Animals. The quality of the handwriting and the spelling will be taken into account. N.B. Each candidate is required to pay a Fee of £2 prior to his admission to examination. Particulars respecting the examination are duly advertised in the Medical Journals; and candidates are required to send in the prescribed forms of application not less than three weeks before each examination. A candidate, in order to qualify for the Fellowship, is required, in addition to the subjects included in Part I, to pass in Greek, French, or German; and in one, at his option, of the remaining subjects in Part II.

TABULAR VIEW OF THE REGULATIONS OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, AND OF THE SOCIETY OF APOTHECARIES IN LONDON.

	ROYAL COLLEGE OF PHYSICIANS OF LONDON.		ROYAL COLLEGE OF SURGEONS OF ENGLAND.		APOTHECARIES' SOCIETY.
	MEMBERS.	LICENTIATES.	FELLOWS.	MEMBERS.	LICENTIATES.
AGE REQUIRED	Twenty-five.	Twenty-one.	Twenty-five.	Twenty-one.	Twenty-one.
EVIDENCE OF PRELIMINARY EDUCATION BEFORE COMMENCEMENT OF PROFESSIONAL STUDY.	A Degree in Arts of a recognised University, or evidence of having passed examinations equivalent to those for a Degree in Arts.	Certificate of having passed examination in subjects of General Education recognised by the College.	Degree in Arts of recognised University; or evidence of examination in Arts required for Graduation in Medicine at Universities; or to pass an examination in English, Classics, and Mathematics.	Degrees in Arts of recognised University; or evidence of an examination in Arts recognised by College; or to pass an examination in English, Classics, and Mathematics.	Examination in Arts by the Society's examiners; or certificate of having passed an examination in Arts recognised by the Medical Council.
DURATION OF PROFESSIONAL STUDY.	Five years, of which four must have been passed at a school or schools recognised by the College.	Four years; at least three winters and two summers at a recognised school or schools.	Six years; in the case of members of the College, two years in addition to the certificates for the diploma of member.	Four years, or not less than four winter and four summer sessions.	Three winter and two summer sessions.
COURSES OF LECTURES, ETC., REQUIRED.	Two winter sessions.	Two winter sessions.	Lectures during two winters; dissections three winters.	Lectures, two winters; dissections, two winters.	First two winter sessions.
<i>Anatomy and Dissections.</i>	Two winter sessions.	Two winter sessions.	Lectures one winter; and Practical Physiology another session.	Lectures, one winter; Practical Physiology, another session.	First two winter sessions.
<i>Physiology</i>	Two winter sessions.	Two winter sessions.	One course.	One course.	First winter session.
<i>Chemistry</i>	Three months.	Six months.	Three months.	Three months.	First summer session.
<i>Practical Chemistry</i>	Three months.	Three months.	Three months.	One course.	First summer session.
<i>Materia Medica</i>	Three months.	Three months.	Three months.	Three months.	Three months.
<i>Practical Pharmacy</i>	Three months.	Three months.	Not required.	Not required.	First summer session.
<i>Botany</i>	Six months; including instruction in hospital <i>post mortem</i> room.	Six months, including instruction in hospital <i>post mortem</i> room.	Lectures, three months; demonstrations in <i>post mortem</i> room during attendance on surgical hos. practice.	Lectures, three months; demonstrations in <i>post mortem</i> room during attendance on surgical hos. practice.	Third winter session.
<i>Morbid Anatomy</i>	Two winter sessions.	Two winter sessions.	One course.	One course.	Last two winter sessions.
<i>Medicine</i>	Three winter and three summer sessions, after second winter session.	Two winter and two summer sessions, after first winter session.	One winter and one summer session.	One winter and one summer session.	Third winter session.
<i>Clinical Medicine</i>	Two winter sessions.	Two winter sessions.	One winter session.	Two winters and two summers; after first winter of practice. Observation and examination of patients at least twice a week for three months.	Not required.
<i>Surgery</i>	Two winter sessions.	Two winter sessions.	Two winter and two summer sessions, after first winter session.	One course; not less than ten labours.	Not required.
<i>Clinical Surgery</i>	Two winter sessions.	Two winter sessions.	Not stated.	Not stated.	Second summer session; twenty cases of labour.
<i>Practical Surgery</i>	Not required.	Not required.	Three months.	Not stated.	Not stated.
<i>Midwifery and Diseases of Women</i>	Three months; not less than twenty labours.	Three months; not less than twenty labours.	Three months.	Three months.	Second summer session.
<i>Clinical Study of Diseases of Women</i>	Six months.	Six months.	Not stated.	Not stated.	Medical practice, beginning with second winter session to end of period of study.
<i>Forensic Medicine</i>	Three months.	Three months.	Three months.	Three months.	Clinical clerk, six weeks at least.
<i>Hospital Practice</i>	Medical practice, three winters and three summers; surgical, three winters and two summers.	Medical and surgical practice, three winter and two summer sessions.	Surgical practice, four winters and four summers; medical practice, one winter and one summer.	Surgical practice, three winters and two summers; Medical practice, one winter and one summer.	Having been examined at class-exam. Instruction in vaccination. Moral conduct.
<i>Hospital Appointments</i>	Clinical clerk, three months; dresser, three months.	Clinical clerk, three months; dresser, three months.	House-surgeon or dresser, six months.	Dresser; or (after a year of study) charge of patients in a recognised institution, under superintendence of a surgeon, for six months.	
<i>Other Certificates</i>	Instruction and proficiency in Vaccination. Moral character from a Fel. or Mem.	Instruction and proficiency in Vaccination. Moral character.	Instruction and proficiency in Vaccination. Comparative Anatomy, one course.	Instruction and proficiency in Vaccination.	

NUMBER OF EXAMINATIONS. FIRST EXAMINATION; WHEN IT MAY BE PASSED; SUB- JECTS; DATES WHEN EX- AMINATIONS ARE HELD.	Three. After end of second winter session. Subjects: Ana- tomy and Physiology.	Two. After end of second winter session; Anatomy and Phy- siology; first Mondays of October and December 1875; and Feb., April, July, October, and Decem- ber 1876.	Two. After third winter session; in Anatomy and Physio- logy; May and November, and such other times as Council may appoint.	Two. After second winter session; in the <i>British Pharmacopæia</i> , Latin Prescriptions, Anatomy and Physiology, General and Practical Che- mistry, Botany, and Materia Medica. Every Wed. & Th. At end of medical studies, in Medicine, Pathology, Ther- apeutics, Midwifery and Diseases of Women and Children, Forensic Medi- cine and Toxicology. Every Wednesday and Thursday.
SECOND EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS; DATES WHEN EXAMINA- TIONS ARE HELD.	After four years of profes- sional study in Surgical Anatomy and Surgery; Materia Medica; Chemis- try in its application to Pa- thology, Pharmacy, and Toxicology; Midwifery and Diseases of Women; and Examination of Surgical Patients. Third Examination: Af- ter completion of required course of study. Subjects: Medical Anatomy, Medi- cine, including Public Health and Psychology; Examination of Medical Patients. £31.	After six years of profes- sional study; in Patho- logy, Therapeutics, Sur- gery, and Medicine (Medi- cine not required from can- didates holding approved diplomas, degrees, or li- censes, or from those in- tending to obtain a medi- cal qualification; in the latter case, the diploma of the College is not issued until proof of having passed the medical examination is pro- duced). January, April, May, July, November.	After end of fourth year of professional education; in Surgical Anatomy, Sur- gery, and Medicine (Medi- cine not required from can- didates holding approved diplomas, degrees, or li- censes, or from those in- tending to obtain a medi- cal qualification; in the latter case, the diploma of the College is not issued until proof of having passed the medical examination is pro- duced). January, April, May, July, November.	Certificate of qualification to practise, £6 6s.; half re- tained in case of rejection and accounted for at subse- quent examination. First examination, £3 3s., re- tained in case of rejection and accounted for subse- quently.
FEE PAYABLE.....	£15 15s.; £5 5s. at first ex- amination, not returned in case of rejection, but can- didate admitted to one sub- sequent first examination without additional fee. Af- ter rejection at second ex- amination, fee returned, minus £3 3s.	If a member, £5 5s. at each examination, retained in case of rejection. If not a member, £26 5s. (over and above charges for stamps), of which £5 5s. is retained in case of rejection.	£22; £5 5s. at first exam- ination; after two failures at this examination, candi- date must pay an additional £5 5s. before being again admitted to that examina- tion. After rejection at Pass Exam., £5 5s. re- tained; and after two failures, an additional £5 5s.	After rejection at first exam- ination, candidate cannot be again admitted till after three months; after exam- ination for license not till after six months.
REJECTED CANDIDATES.....	After first examination, not admitted within three months; at second exam- ination, not till end of six months. In first case, cer- tificate of professional study in interval required; in se- cond, hospital attendance & clinical lectures. After third examination, not readmit- ted (except by special per- mission) within one year. Candidates who have passed examinations in Anatomy and Physiology of any other licensing body; who have obtained Degrees in Sur- gery, or have passed exam- ination in Surgery of a Col- lege of Surgeons; or who have obtained degrees in Medicine; or who are above forty years of age, provided in each case that the evi- dence and testimonials are satisfactory to the censors.	After rejection at first ex- amination, candidates not again admitted for six months; after second ex- amination, not till end of one year, unless Court of Examiners shall otherwise determine.	After rejection at primary ex- amination, candidate must dissect for three months; after second examination, must attend Surgical Hos- pital Practice and Lectures on Clinical Surgery for six months.	Graduates in Medicine of British Universities; licen- tates and members of Col- leges of Physicians & Sur- geons in the United Kingdom or of Apothecaries' Hall in Ireland; candidates who have passed the first profes- sional examination of other boards; candidates appren- ticed before August 1, 1858, or who commenced hospital attendance on or before Oc- tober 1, 1861.
CANDIDATES EXEMPTED FROM CERTAIN PORTIONS OF THE EXAMINATIONS OR ADMITTED UNDER SPE- CIAL REGULATIONS.	Candidates who have passed examinations in Anatomy and Physiology of other licensing body; who have obtained Degrees in Medi- cine or in Surgery at a re- cognised University; who have passed an examina- tion in Surgery at a Col- lege of Surgeons; Regis- tered medical practitioners, with qualifications obtained before January 1st, 1861.	Candidates who have degrees in Arts of a recognised Uni- versity in the United King- dom are required to study for five years only. Mem- bers of College, after eight years, admitted to second examination, on produc- tion of certificate of fitness signed by three Fellows.	Candidates who have studied in Scotland or in Ireland, or at recognised Foreign or Colonial Universities, mem- bers or licentiates of the other Colleges of Surgeons in the United Kingdom, and Graduates in Medicine or Surgery of a recognised University.	

gical Apparatus; the examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise.

The Course of Lectures on Chemistry is not required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

III. *Certificates, etc.*—Certificates will not be received from candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on lectures and hospital practice within fifteen days from the commencement of the session; nor from candidates who have studied in the provincial schools in England, unless their names shall be duly returned from their respective schools.* Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland, from candidates for their diploma. Candidates who shall have pursued the whole of their studies at recognised foreign or colonial Universities will be admitted upon the production of the several certificates required for their degree by the authorities of such Universities. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom; Graduates in Surgery of any University recognised for this purpose by this College; and Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will be admitted to examination on producing their diploma, licence, or degree, together with a proof of being twenty-one years of age. In each of these cases, the candidate will also be required to produce a certificate of instruction and proficiency in Vaccination, and satisfactory evidence of having been occupied, after having passed the preliminary examination, at least four years, or four winter and four summer sessions, in the acquirement of professional knowledge.

IV. *Professional Examinations.*—The First or Primary Examination is partly written and partly demonstrative. The Second or Pass Examination is partly written, partly oral, and partly on the practical use of surgical apparatus and the practical examination of patients. A candidate having entered his name for either the primary or the pass examination, who shall fail to attend the meeting of the Court for which he shall have received a card, cannot present himself for examination within three months afterwards.

DIPLOMA OF FELLOW.

For synopsis of Regulations, see pages 328, 329.

SOCIETY OF APOTHECARIES, LONDON.

For synopsis of Regulations, see pages 328-29.

No certificates of lectures or of anatomical instruction delivered in private to particular students, apart from the ordinary classes of recognised public medical schools, can be received by the Court of Examiners.—All students are required *personally* to register the several tickets of admission to lectures and medical practice within the first fifteen days of the months of October and May.

Examination in Arts.—Examinations in the subjects of preliminary education will be held at the Hall of the Society on the last Friday and Saturday of January, April, and September. Candidates will be examined in the following branches; and no candidate will be approved unless he show a competent knowledge of each branch:—1. The English Language; 2. The Latin Language; 3. Mathematics; 4. One of the following subjects, at the option of the candidate: (a) Greek; (b) French; (c) German; (d) Natural Philosophy.† Candidates applying

to be admitted to any examination must pay the fee (One Guinea) at least one week before the examination.* If a candidate fail to pass the examination, the fee will not be returned to him; but he will be admissible to either or both of the two next following examinations in Arts without the payment of an additional fee, upon giving the usual notice. Certificates in Arts granted by any of the bodies whose certificate is recognised by the Medical Council will be accepted as equivalent to having passed the above examination.

Professional Examinations.—The Court meets every Wednesday and Thursday; and candidates are required to attend at 4.30 P.M. each day. Every candidate intending to offer himself for examination must give notice on or before the Monday previous to the day of examination, and must at the same time deposit all the required testimonials, with the fee, at the office of the beadle, where attendance is given every day, except Sunday, from 10 to 4 o'clock; Saturdays, 10 to 2.

The examination of candidates for the Licence is divided into two parts, and is conducted partly in writing (on Wednesday), and partly *visû voce* (on Thursday.)

Modified Examinations.—1. All Graduates in Medicine of British Universities will be admitted to a clinical and practical examination in the practice of Medicine and Midwifery. 2. Licentiates of the Royal College of Physicians of London or of Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a clinical and practical examination in the Practice of Medicine, Midwifery, Forensic Medicine, and Toxicology. 3. Any candidate who has passed his first examination for the Licence of either of the Colleges of Physicians in the United Kingdom, or of the Colleges of Physicians and Surgeons of Edinburgh jointly, or of the Faculty of Physicians and Surgeons, Glasgow, or of the Apothecaries' Hall of Dublin; the first professional examination for the Degree of M.B., or Master in Surgery in the Universities of Oxford, Cambridge, or London; or the second part of the professional examination for the Degree of M.D. or Master in Surgery in the Universities of Edinburgh, Aberdeen, St. Andrew's, and Glasgow; or the first examination for medical and surgical degrees in the Irish Universities, will be admitted to a single examination in Anatomy and Materia Medica (to those candidates who have not undergone an examination in those subjects), Practice of Medicine, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology, which examination will be partly written and partly *visû voce*. 4. Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the first Anatomical examination of the Royal College of Surgeons, London; the Royal College of Surgeons, Edinburgh; the Royal College of Surgeons, Ireland, are exempt from writing on Anatomy and Physiology only in their first examination. 5. Candidates who were apprenticed before August 1st, 1858, and those students who commenced their hospital attendance on or before October 1st, 1861, will be admitted to a *visû voce* examination on the following subjects: In translating physicians' prescriptions, in such parts of Chemistry and Materia Medica as bear upon the Practice of Medicine, and on Toxicology, in Forensic Medicine, Visceral Anatomy, the Practice of Medicine, including Diseases of Women and Children, and in Midwifery.

All candidates, unless registered, will be required to produce their diplomas.

No rejected candidate for the Licence can be re-examined until the expiration of six months from his former examination. A candidate rejected on his first professional examination can be admitted to re-examination after three months; and no rejected candidate as an assistant until the expiration of three months.

Prizes.—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most; and of a silver medal and a book to the candidate who does so in the next degree. The examination in Botany will be held at the Hall of the Society on the third Thursday in June, at 10 A.M., and will be conducted by printed papers and *visû voce* questions. The examinations in Materia Medica and Pharmaceutical Chemistry will be held at the Hall of the Society on the third Wednesday.

* At the first registration in October, candidates will be required to produce a certificate of having passed one or other of the preliminary examinations in general knowledge recognised by this College.

† The following is the Syllabus of Subjects for Examination in 1877. 1. The English Language. The leading features of its History. Its Structure and Grammar. English Composition. 2. The Latin Language. January Examination: *Cæsar, De Bello Gallico*, Book V. April Examination: *Cicero, De Amicitia*. September Examination: *Horace, Odes*, Book III. Re-translation of easy sentences. Grammatical Questions will be introduced into the Latin Paper, and each Candidate will be expected to give satisfactory answers to these. 3. Mathematics: The Ordinary Rules of Arithmetic; Vulgar and Decimal Fractions; Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Simple Equations; The First Two Books of Euclid. 4. (a) Greek: *Xenophon, Anabasis*, Books I and II; Grammatical Questions. (b) French: *Molière, L'Avare*; Translation from English into French; Grammatical Questions. (c) German: *Fouqué, Undine*; Translation from English into German; Grammatical Questions. (d) Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. [The Books recommended for study in this subject are Smith's *Statics* and Smith's *Hydrostatics*, or Newth's *Natural Philosophy*.]

[NOTE.—The Examiners direct the attention of Candidates and of their Teachers to the large proportion of failures in the English Examination. They recommend the study of one of the following Grammars—Angus's, Adams's, William Smith's, Mason's, and, in addition, Trench's *English Past and Present*.]

* The following form of notice must be copied and written in full by the candidate. I (name in full), residing at (address), intend to present myself for the Preliminary Examination in Arts, at the Apothecaries' Hall, London, on the _____, and that I intend to take _____ as my optional subject. Signature _____ The above has been written and signed in my presence, by the above named candidate, with whom I am personally acquainted. Sign, A. B. Address, X. Date _____

day in August, at ten A.M., and will be conducted by printed papers and *visu* questions.

The Society's Botanic Garden at Chelsea is open daily (except Sundays) from 10 A.M. to 5 P.M. Tickets of admission may be had on application at the beadle's office at the Hall.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY student must reside either in one of the Colleges or Halls, or in a Licensed Lodging-House, for three years. During these three years, he has to pass two examinations in Arts and one in either Mathematics, Natural Science, or Law and Modern History; when, if he obtain a first, second, or third class, he can take his B.A. degree; if he do not gain such honours, he has to pass a third examination in *Literis Humanioribus*. A student deciding to graduate in medicine must, after passing the requisite examination for the degree of B.A., spend two years in study prior to a scientific examination for the degree of Bachelor of Medicine, unless he shall have taken a first or second class in the natural science school, when he may go in at the first opportunity for the first M.B. Examination. Two years after passing this examination, and after four years of professional and scientific study, he may go in for the second or practical examination for the M.B. degree. These four years of medical study may be spent either in or out of Oxford, in an approved medical school.

The M.B. Degree confers the Licence to Practise. For the Degree of Doctor in Medicine, a dissertation has to be publicly read three years after taking the M.B. Degree.

The medical examinations take place annually in Michaelmas Term. Scholarships of about the value of £75 are obtainable at Christ Church, Magdalen, and other Colleges, by competitive examination in natural science. Every year a Radcliffe Travelling Fellowship is competed for by anyone who, having taken a first-class at any of the Public Examinations of the University, or having obtained some University Prize or Scholarship open to general competition, proposes to study medicine. The Travelling Fellows receive £200 a-year for three years, half this period being spent in study abroad.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE.

A STUDENT proceeding to this degree must—(1) Reside in the University two-thirds of each of nine terms; (2) Pass the previous examination; (3) Pursue medical study for five years, unless he have obtained honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, in which case only four years are required.

There are three examinations for the degree of Bachelor of Medicine, partly in writing, partly oral, and partly practical. They include chemical analysis, practical histology, the recognition and description of specimens (healthy, morbid, and microscopical), dissections, and the examination of patients. They are held twice annually, on the Mondays following the completion of the first two thirds of Michaelmas and Easter Terms respectively.

The subjects of the first examination are—1. Chemistry and other branches of Physics, with Heat and Electricity; 2. Botany. The student may present himself for this examination at any time after passing the previous examination. He must produce certificates of having diligently attended one course of lectures on Chemistry, including manipulation, and one course on Botany. Each candidate pays £3:3.

The subjects of the second examination are—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacology. Before presenting himself for this examination, the student must have completed two years of medical study. He must have attended hospital practice during one year, have practised dissection during one season, and must produce certificates of having diligently attended a course of lectures on each of the following subjects: 1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Materia Medica and Pharmacy. Each candidate pays £2:2.

The subjects of the third examination are—1. Pathology and the Practice of Physic (two papers, including questions in Surgery and Midwifery); 2. Clinical Medicine; 3. Medical Jurisprudence.—Before presenting himself for this examination, the student must have completed the course of medical study, must have attended hospital practice during three years, and must produce certificates of having attended one course of lectures on each of the following subjects: 1. Patho-

logical Anatomy; 2. Principles and Practice of Physic; 3. Clinical Medicine; 4. Clinical Surgery; 5. Medical Jurisprudence; 6. Midwifery; also of having been clinical clerk for six months at least at a recognised hospital; or of having, subsequently to the completion of his attendance on hospital practice, attended to practical medicine, with special charge of patients in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless he himself be duly qualified.

After these examinations have been passed, an Act must be kept in the schools. The candidate reads a thesis, composed by himself, on some subject approved by the Regius Professor of Physic; the professor brings forward arguments or objections for the candidate to answer, and examines him *visu voce* as well on questions connected with his thesis as on other subjects in the faculty of a more general nature. The exercise must continue at least one hour.

DOCTOR OF MEDICINE.

This may be taken by a Bachelor of Medicine in the ninth term after his inauguration. He is required to produce certificates of having been engaged five years in medical study, to keep an Act similar to that for M.B., and write an extempore essay on one (at his choice) of five topics relating to Physiology, Pathology, Practice of Medicine, and State Medicine. He pays Ten Guineas for the Act.—A Master of Arts may proceed to the degree of M.D. in the twelfth term after his inauguration as M.A., without having taken the degree of M.B. He must pass the three examinations for M.B., and keep the Act for the M.D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on lectures and hospital practice are required as of the candidate for the degree of M.B.

MASTER OF SURGERY.

The subjects of the examination for this degree are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery; 4. Midwifery.—Before admission to his examination, the candidate must have passed all the examinations for the degree of M.B., and must produce certificates of having attended the surgical practice of a hospital for three years, of having been house-surgeon or dresser for six months, and of having attended—1. A second course of lectures on Human Anatomy; 2. One course of lectures on the Principles and Practice of Surgery; 3. Lectures on Clinical Surgery during one year; 4. Ten cases of Midwifery; 5. Of having practised Dissection during a second season.—The examination takes place at the same time as those for M.B., and in a similar manner. The candidate is required to perform operations on the dead body, and to examine patients in the hospital.

UNIVERSITY OF LONDON.

DEGREES IN MEDICINE AND SURGERY.

THE following Examinations for Degrees in Medicine will be held in the University of London in 1877.

Preliminary Scientific Examination.

Bachelor of Medicine (M.B.) First Examination: Monday, July 25th.

Bachelor of Medicine (M.B.) Second Examination: Monday, November 7th.

Bachelor of Surgery (B.S.): Tuesday, November 22nd.

Master in Surgery (M.S.) and Doctor of Medicine (M.D.): Monday, November 21st.

The certificates in each case must be transmitted to the Registrar at least fourteen days before the commencement of the examination.

The fee for each examination is Five Pounds.* If a candidate withdraw or fail to pass either of the examinations, the fee is not returned; but he is admitted without further payment to two subsequent preliminary scientific, first M.B., second M.B., or B.S. examinations, or to one subsequent M.S. or M.D. examination, provided that he give notice to the Registrar at least fourteen days before the commencement of the examination.

BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine is required—1. To have passed the Matriculation Examination, or to have taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras (provided that Latin has been one of the subjects in which he has passed); 2. To have passed the preliminary Scientific

* For the degree of Doctor of Medicine, the fee will continue to be Ten Pounds to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of Five Pounds at the Preliminary Scientific Examination.

Examination;* 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, in one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom; 4. To pass two examinations in Medicine.

First M.B. Examination.—The candidate must have passed the preliminary scientific examination at least one year previously, and must produce certificates—1. Of having completed his nineteenth year; 2. Of having been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of the three following subjects: Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine;† 3. Of having dissected during two winter sessions; 4. Of having attended a course of Practical Chemistry; 5. Of having attended to Practical Pharmacy, and having acquired a practical knowledge of the preparation of medicines. Candidates are examined in Anatomy, Physiology,‡ Materia Medica, and Pharmaceutical Chemistry, Organic Chemistry. Candidates must show a competent knowledge in all the subjects. The examinations are conducted by printed papers and *vivâ voce* interrogation, by demonstration from preparations and specimens, and by dissections.

Examination for Honours.—Any candidate who has been placed in the first division may be examined for Honours in—1. Anatomy; 2. Physiology, Histology, and Comparative Anatomy; and 3. Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself most in each of these three divisions receives an exhibition of £40 *per annum* for the next two years, payable in quarterly instalments; provided that, on receiving each instalment, he declare his intention of presenting himself at the second M.B. examination within three years from the time of passing the first M.B. examination. Under the same circumstances, the first and second candidates in each subject receive each a Gold medal of the value of five pounds.

Second M.B. Examination.§—No candidate is admitted to this examination within two academical years of the time of his passing the first examination, nor without certificates:—1. Of having passed the first M.B. examination; 2. Of having subsequently attended a course of lectures on each of two of the subjects for which he had not presented certificates at the first examination; 3. Of having conducted at least twenty labours¶ 4 and 5. Of having attended the Surgical and the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine;¶ 6. Of having, subsequently to the completion of his attendance on surgical and medical hospital practice, attended to Practical Medicine, Surgery, and Midwifery, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months; 7. Of having acquired proficiency in vaccination.** The candidate must also produce a certificate of moral

* Candidates for the Degree of M.B. are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies. For the Preliminary Scientific Examination, candidates are examined in Mechanical and Natural Philosophy; Inorganic Chemistry; Botany and Vegetable Physiology; Zoology. They must show a competent knowledge in all the subjects, and in Practical Chemistry. Candidates who matriculated previously to January 1861, are not required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they may pass the Preliminary Scientific Examination and the First M.B. Examination in the same year.

† The subjects numbered 2, 3, and 4, must be attended after passing the Matriculation Examination, or taking a Degree in Arts.

‡ Any candidate is allowed, if he so prefer, to postpone his examination in Physiology from the First M.B. Examination at which he presents himself for examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such candidate is not admitted to compete for honours on either occasion; and he cannot be admitted as a candidate at the Second M.B. Examination until after the lapse of at least twelve months after having passed his examination in Physiology.

§ Any candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former regulations, is required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present regulations; at which examination he is not allowed to compete for honours.

¶ Certificates will be received from any legally qualified practitioner.

¶ The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

** Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.

character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Midwifery, Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The examinations are conducted by printed papers and *vivâ voce* interrogations; by practical examinations in obstetric preparations and apparatus; by examination, and report on cases, of medical patients in the wards of a hospital; demonstrations from specimens and preparations. Candidates are expected to write prescriptions in Latin, without abbreviations.

Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

Examination for Honours.—Any candidate who has been placed in the first division may be examined for Honours in—1. Medicine; 2. Obstetric Medicine; and 3. Forensic Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in Medicine receives £50 *per annum* for the next two years, with the style of University Scholar in Medicine; and the candidates who distinguish themselves the most in Obstetric Medicine and in Forensic Medicine receive each £30 *per annum* for the next two years, with the style of University Scholar in Obstetric Medicine and in Forensic Medicine respectively. The first and second candidates in each of the preceding subjects each receive a Gold Medal, value £5.

BACHELOR OF SURGERY.

The candidates must produce certificates—1. Of having taken the degree of Bachelor of Medicine in this University; 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. The examinations are conducted by printed papers on surgical anatomy and surgical operations; by examination and report on cases of surgical patients; by performance of operations upon the dead subject; by application of surgical apparatus; and by *vivâ voce* interrogation.

Examination for Honours.—Any candidate who has been placed in the first division at the examination may be examined for Honours in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives £50 *per annum* for the next two years, with the style of University Scholar in Surgery; and the first and second candidates each receive a Gold Medal of value of five pounds.

MASTER IN SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Surgery* in this University. 2. Of having attended subsequently—(a) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; (b) or to Clinical or Practical Surgery during one year in a recognised hospital or medical institution, and of having been engaged during three years in the practice of his profession; (c) or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University.† 3. Of moral character, signed by two persons of respectability. The examination is conducted by means of printed papers and *vivâ voce* interrogation; and the candidates are examined in Logic and Moral Philosophy,‡ and in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most at this examination receives a Gold Medal of the value of twenty pounds.

DOCTOR OF MEDICINE.

The candidate must produce certificates analogous to those required for candidates for the degree of Master in Surgery, but having special relation to Medicine. The examination is conducted by printed papers and *vivâ voce* interrogations; and candidates are examined in Logic and Moral Philosophy, and in Medicine. If, in the opinion of the exam-

* Candidates who have obtained the degree of Bachelor of Medicine previously to 1866, will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates, the attendance on surgical practice required by regulation 2, may commence from the date of the M.B. Degree.

† One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

‡ Any candidate who has taken the degree either of B.A., B.Sc., or M.D. in this University, is exempted from this part of the examination; and any candidate who has passed the Second M.B. Examination, may at any subsequent M.S. Examination present himself for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.—An analogous exemption is allowed in the case of candidates for the degree of M.D.

miners, sufficient merit be evinced, the candidate who distinguishes himself the most at this examination receives a Gold Medal of the value of twenty pounds.

UNIVERSITY OF DURHAM.

CANDIDATES for registration as students in medicine must have passed the Medical Registration Examination appointed by the University, or such other examination as the Warden and Senate may deem equivalent thereto.* Any Arts Examination recognised by the General Medical Council is accepted by the University.

Two licences and three medical degrees are conferred by the University of Durham, viz., Licences in Medicine and Surgery, and the Degrees of Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. The examinations are conducted in Newcastle: 1. By printed papers of questions; 2. Practically in Anatomy, Physiology, Chemistry, Materia Medica, Pathology, Surgery, Medicine, Midwifery, and Medical Jurisprudence; 3. *Viva voce* on all the subjects. Every candidate wishing to present himself for any of the above examinations, must give at least fourteen days' notice to the Registrar of the College, and must, at the same time, send the fee, £1, and the necessary certificates.

LICENCES IN MEDICINE AND IN SURGERY.

1. The candidate for a Licence in Medicine must produce certificates of registration as a Student in Medicine, of good moral conduct, of having attained the age of twenty-one years, and such certificates of attendance on lectures and hospital practice as the Warden and Senate shall require: 2. He must have been engaged in medical and surgical study for four years after registration. One of the four years must be spent at the University of Durham College of Medicine, Newcastle-on-Tyne; the other three may be spent either at Newcastle-on-Tyne, or at one or more of the schools recognised by the licensing bodies named in Schedule (A) of the Medical Act.

The regulations for the Licence in Surgery are similar to those for the Licence in Medicine; but the second examination is directed more particularly to Surgery, and may be passed at the same time with the final examination for a Licence in Medicine.

Professional Examinations.—The first professional examination for Licences and Degrees in Medicine and Surgery is held at the end of the second winter session. The following are the subjects of the examination:—Anatomy, Physiology, Chemistry, Botany. The next examination will be held in April 1877. The final professional examination for Licences and Degrees in Medicine and Surgery is held at the end of the fourth year of medical study. The following are the subjects of the examination:—Materia Medica, Therapeutics, Medical Jurisprudence, Pathological Anatomy, Midwifery, Diseases of Women and Children, Medicine, Surgery. The next examination will commence on June 11th, 1877.

BACHELOR OF MEDICINE.

1. The candidate must produce certificates of registration as a Student in Medicine, of good moral conduct, of having attained the age of twenty-one years, and such certificates of attendance on lectures and hospital practice as the Warden and Senate shall require. 2. The candidate must have obtained a Degree in Arts of the University of Durham, or must have passed the Arts Examination for Graduation in Medicine of the University, or must produce one or other of the following certificates:—(a) Of Graduation in Arts at any of the following Universities, viz.: Oxford, Cambridge, Durham, London, Queen's University (in Ireland), Edinburgh, Glasgow, St. Andrew's, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), and Queen's College, Kingston; (b) Of having passed the preliminary or extra professional examination for Graduation in Medicine of any of the following Universities, viz.: London, Edinburgh, Glasgow, St.

Andrew's, Aberdeen, Queen's University (Ireland); or the Arts Examination qualifying for the Membership of the Royal College of Physicians of London; or for the Fellowship of the Royal College of Surgeons of England. 3. He must have been engaged in medical and surgical study for four years after registration as a Student in Medicine. One of the four years must be spent at the University of Durham College of Medicine, Newcastle-on-Tyne; the other three may be spent either at Newcastle-on-Tyne or at one or more of the recognised schools.

There are two professional examinations. The first is held at the end of the second winter session, the final at the end of the fourth year of medical study. The subjects are the same as for the Licence in Medicine, but the examinations are more stringent.

MASTER IN SURGERY.

The regulations are the same as for the Degree of Bachelor of Medicine, except that the final examination is directed more particularly to Surgery.

DOCTOR OF MEDICINE.

1. The candidate must have obtained the Degree of Bachelor of Medicine, must be of the age of twenty-four years, and must have been engaged, subsequently to his having received the Degree of Bachelor of Medicine, for at least two years in attendance on a hospital, or in the military or naval services, or in medical and surgical practice. 2. The candidate must write an essay, based on original research or observation, on some medical subject, selected by himself, and approved of by the Professor of Medicine, and must pass an examination thereon, including the collateral medical sciences involved in the subject of the essay.

EXAMINATION FOR THE DEGREE OF DOCTOR OF MEDICINE, FOR MEDICAL PRACTITIONERS OF FIFTEEN YEARS' STANDING, WITHOUT RESIDENCE.

The Warden and Senate of the University of Durham, with the view of affording to practitioners of fifteen years' standing an opportunity of obtaining the Degree of Doctor of Medicine, have instituted a special examination, under the following regulations.

1. The candidate must have been registered by the General Council of Medical Education and Registration of the United Kingdom. 2. He must have been in the active practice of his profession for fifteen years. 3. He must not be under forty years of age. 4. He must produce a certificate of moral character from three registered members of the medical profession. 5. If he shall not have passed, previously to his professional examination (in virtue of which he has been placed on the Register), an examination in Arts, he shall be required to pass an examination in Classics and Mathematics.* 6. If the candidate shall have passed, previously to his professional examination (in virtue of which he has been placed on the Register), a preliminary examination, he shall be required to translate into English a passage from some Latin author, such as Virgil, Cæsar, or Celsus, and shall have an opportunity of showing proficiency in Greek, Moral Philosophy, or some modern language. 7. He shall be required to pass an examination in the following subjects:—i. Principles and Practice of Medicine, including Psychological Medicine, and Hygiene; ii. Principles and Practice of Surgery; iii. Midwifery and Diseases peculiar to Women and Children; iv. Pathology—Medical and Surgical; v. Anatomy—Medical and Surgical; vi. Medical Jurisprudence and Toxicology; vii. Therapeutics. 8. The fee shall be Fifty Guineas, to be forwarded to the Registrar of the University of Durham College of Medicine, Newcastle-upon-Tyne, when the candidate enters his name for the examination. 9. If the candidate shall fail to satisfy the Examiners, Twenty Guineas shall be retained; but if he shall again offer himself for the examination, Forty Guineas only shall then be required.

An examination in accordance with the above regulations will be held on December 7th, 8th, 9th, and 11th, 1876, and on June 10th, 11th, 12th, and 13th, 1877. Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, Registrar of the University of Durham College of Medicine, Newcastle-on-Tyne. For the December Examination, on or before November 1st, 1876; for the June Examination, on or before May 1st, 1877, together with the fee and the before-mentioned certificates.

* The subjects for this examination shall be as follow. 1. An English Essay. (A short Essay on some subject to be specified at the time of the examination.) 2. Arithmetic. 3. Euclid, Books I and II. 4. Latin, Translation from Virgil, *Æneid*, Lib. I and II, together with Grammatical Questions. 5. One of the following subjects—i. Greek, Translation from Xenophon's *Memorabilia*, Books I and II, with Grammatical Questions. ii. French, Translation from Voltaire's *Charles XII*, with Grammatical Questions. iii. German, Translation from Goethe's *Dichtung und Wahrheit*, Book I, with Grammatical Questions. iv. Elements of Mechanics, Pneumatics, and Hydrostatics. v. Some Treatise on Moral, Political, or Metaphysical Philosophy.

* Registration Examinations will be held at Durham, commencing on September 19th, 1876, and on April 17th and September 18th, 1877. Application must be made at least one month before the day of examination to Arthur Branlands, Esq., Durham, to whom candidates must, at the same time, send the examination fee, £1, and certificates of age and character, and specify the optional subject in which they wish to be examined. The following are the subjects for the Registration Examinations: Necessary subjects—The History contained in the Acts of the Apostles; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I and II; Latin Grammar, with—In September, 1876 and 1877, Virgil, *Æneid*, Lib. I and II; in April, 1877, Cæsar, *De Bello Gallico*, Lib. I and II. In addition to the above, all candidates are required to satisfy the Examiners in one (at least) of the following optional subjects—Greek Grammar, with Xenophon's *Memorabilia*, Books I and II; French Grammar, with Voltaire's *Charles XII*; German Grammar, with Goethe's *Dichtung und Wahrheit*, Book I; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics. In addition to the foregoing examinations, the Warden has authority, in case of urgency, to appoint an Extraordinary Examination at any time. The fee for such examination is £2.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

No one can obtain the Licence of the College under the age of twenty-one years. Every applicant must produce satisfactory evidence of having been engaged in the study of Medicine during at least four years subsequently to registration as a student, and of having attended the following courses at an University, or at a medical school recognised by the College: Anatomy, Practical Anatomy, Chemistry, Practice of Medicine, Clinical Medicine, and Principles and Practice of Surgery, each a six months' course; Practical Chemistry, Materia Medica and Pharmacy, Physiology or Institutes of Medicine, Clinical Surgery, Midwifery, Medical Jurisprudence, General Pathology or Pathological Anatomy, and Practical Pharmacy, each a three months' course. He must have attended the practice of a Public Hospital (containing not fewer than eighty beds) during not less than twenty-four months, twelve of which must have been spent in attendance on the medical wards. He must also have attended for six months the practice of a public dispensary, or have acted for six months as clinical clerk or dresser in a hospital; or have been engaged during six months as visiting assistant to a registered practitioner. He must also have attended at least six cases of labour under the superintendence of a qualified medical practitioner, and have studied vaccination under a competent and recognised teacher. He must have passed the Preliminary Examination in Literature and Science,* and had his name inscribed in the General Medical Council's Register of Medical Students, previously to the commencement of his Medical Studies. Masters and Bachelors of Arts of any British or Foreign University, whose course of study may be approved of by the College, will be exempted from the preliminary examination; also those who have passed the examination of the national educational bodies, or any of the licensing boards recognised by the Medical Act.

The Professional Examination will be divided into two parts: 1. Anatomy, Physiology, Chemistry; 2. Materia Medica and Pharmacy, Pathology and Pathological Anatomy, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine. No candidate will be admitted to the first examination until he has completed two, or to the second until he has completed four, years of professional study. The preliminary examinations will be held on October 17th and 18th, 1876; April 17th and 18th, and July 21st and 23rd, 1877. The first professional examinations on Wednesdays, October 11th, 1876; January 17th, April 18th, July 25th, and October 10th, 1877. The second professional examinations will be held on Thursdays and Fridays following the first professional examination.

Candidates who already possess a qualification from a recognised Licensing Body, or who have passed the first professional examination before a qualifying body (provided it be as extensive as that required by this College), will be at once admitted to the second examination.

No candidate is admissible to examination who has been rejected by any other licensing board within the previous three months.

The Fee for the Licence is £15 : 15. Candidates who pass the first professional examination before the 31st of December, 1876, pay £10 : 10, provided they pass the second examination before the 1st of January, 1879. A candidate for the first professional examination pays £6 : 6; and for the second or final, £9 : 9; but, if exempted from the first professional examination, he shall, before appearing for the final, pay the whole fee of £15 : 15. If a candidate be unsuccessful at the first professional examination, £3 : 3; and at the second or final, £4 : 4 will be retained. This regulation will also apply to cases in which the candidate may have been previously rejected.

Candidates may be admitted to special examination on bringing forward satisfactory reasons and paying an extra fee of £5 : 5. Should the candidate be unsuccessful, the sum of £11 : 11 will be returned to him.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS FOR CANDIDATES FOR THE DIPLOMA.

THE regulations regarding schools of medicine, preliminary examination, and professional study and examination, are similar to those for the double qualification (see below), except that the third course of Medicine and the course of Pathological Anatomy are not required. The first professional examinations will be held on October 24th, 1876; January 30th, April 3rd and 24th, and July 24th, 1877. The second examination takes place immediately after the conclusion of the first.

At the second examination, the student, in furnishing the statement of his professional study, must, if he have been an apprentice, insert

the name of his master, the date of his indenture, and the length of time for which he was bound. If he have been apprentice to a Fellow of the College, he must also produce his discharged indenture.

Recent Dissections, Anatomical Specimens, and articles of the Materia Medica, are employed in the examinations; and all candidates are required to write out formulæ of prescriptions, and are subjected to a practical examination in the Surgical Hospital.

No candidate can be admitted to examination who has been rejected by any other Licensing Board within three months preceding his application to be examined.

The Fees are: for the first examination, £6 6s.; for the second, £9 9s. At the first examination, £3 3s., and at the second £5 5s., will be returned to unsuccessful candidates. Candidates who passed the first Professional Examination before December 31st, 1876, will be required to pay, as under the old regulation, a fee of £6 for the second examination, provided they appear for that examination prior to January 1st, 1879; and, in the event of being unsuccessful, £2 will be retained.

Candidates who have passed the first examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second Professional Examination on producing certificates of the whole course of study, of having passed their Preliminary and first Professional Examinations, and of having been registered. If any of the three subjects of the first Professional Examination have been omitted, such candidates will have to undergo the first examination on the omitted subjects; and none of the subjects of the second examination will be omitted. The fee will be £15 15s. Unsuccessful candidates under this regulation will receive back £11 11s.

Candidates desirous of special examinations on other days than those fixed must prepare a case to be submitted to the consideration of the authorities of the College, with evidence to show why it was and is impossible for them to avail themselves of the ordinary examinations. They must produce certificates of the whole of the prescribed course of study, and of having passed the preliminary examination, and must state the earliest and the latest days within which they can present themselves. All such candidates, especially those who are at a distance from Edinburgh, should present their applications as long beforehand as possible. The fees, which must be lodged by 10 A.M. of the day preceding the examination-day, are as follows; viz.:—£20 for first and second examinations, of which £12 will be returned to candidates remitted on the first examination; but no part of the money will be repaid to candidates who, having passed the first, are unsuccessful in the second examination; £17 for second examination. Of this, no part will be returned to candidate if unsuccessful.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

THE Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh, while they still give their Diplomas separately, have made arrangements by which, after one series of examinations, the student may obtain the Diplomas of both Colleges. This joint examination is conducted by a Board, in which each body is represented for examination in the branches common to both Medicine and Surgery; but the College of Physicians takes exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. Students passing that examination are enabled to register two qualifications—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

Every candidate must have followed his course of study in an University, or in an established School of Medicine, or in a Provincial School specially recognised by the College of Physicians and Surgeons of that division of the United Kingdom in which it is situate. Under the title of *Established School of Medicine* are comprehended the medical schools of those cities of Great Britain and Ireland in which Diplomas in Medicine or Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

Preliminary Examination in General Education.—All candidates for the Diplomas of the Colleges must have passed the examination in General Education,* and have had their names inscribed in the General

* For the subjects, see note to regulations for double qualification.

* The examination will embrace the following subjects:—1. English language, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: Cæsar, *De Bello Gallico*, Book IV; Virgil, *Æneid*, Book

Medical Council's Register of Medical Students at the commencement of their Medical studies. Certificates of having passed the examinations in General Education, conducted by other bodies (viz., those recognised by the General Medical Council), will be accepted as equivalent. Each candidate who intends to undergo the preliminary examination must give in his name to the officer of either College not less than two days before the day of examination. He must pay a fee of Ten Shillings. If unsuccessful, he is allowed to appear once again for examination with paying a fee; but, for any number of times after two, he must pay Five Shillings on each occasion.

Professional Education.—1. Candidates must have been engaged, during four years after the preliminary examination, in not less than four winter sessions*, or three winter and two summer sessions*, attendance at a recognised medical school. 2. The candidate must have attended the following courses of lectures: Anatomy, two courses* of six months each, and Practical Anatomy, twelve months; or Anatomy, one course of six months, and Practical Anatomy, eighteen months; Physiology, not less than fifty lectures; Chemistry, Practice of Medicine, Clinical Medicine,† Medicine (a third course, either Practice or Clinical, at option),‡ Principles and Practice of Surgery, Clinical Surgery,‡ Surgery (a third course, either Principles and Practice or Clinical Surgery, at option),‡ each six months; Practical or Analytical Chemistry, Materia Medica, Midwifery, and Diseases of Women and Children, Medical Jurisprudence, and Pathological Anatomy,‡ each three months.§ 3. He must also produce certificates:—*a.* Of having attended at least six cases of labour under the superintendence of a registered medical practitioner. *b.* Of having attended, for three months, instruction in Practical Pharmacy. The teacher signing the certificate must be a Member of the Pharmaceutical Society of Great Britain, or a chemist or druggist recognised by either College on special application, or the superintendent of the laboratory of a Public Hospital or Dispensary, or a registered practitioner who dispenses medicine to his own patients. *c.* Of having attended, for twenty-four months, a public General Hospital containing, on an average, at least eighty patients. *d.* Of having attended, for six months, the practice of a public Dispensary specially recognised by either College; or of having been engaged for six months as assistant to a registered practitioner. *e.* Of having been instructed in vaccination; the certificate to be signed by the teacher, who must be a registered practitioner.

It is strongly recommended to students to avail themselves of opportunities of attending lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope.

Professional Examination.—1. Candidates for the double qualification are subjected to two professional examinations. 2. Opportunities for both examinations will be presented six times in each year. On each occasion, the candidates write answers to the questions proposed; and are examined orally on the days immediately succeeding. 3. Unsuccessful candidates are remitted to their studies for not less than three months. 4. The first examination embraces Anatomy, Physiology, and Chemistry; and takes place not sooner than the end of the second winter season. 5. Candidates must apply to the Inspector of Certificates on or before the Saturday preceding the day of examination; and must produce certificates of attendance on those courses of lectures which have reference to the subjects of the examination, and evidence of having passed the preliminary examination. 6. The sum of £8 8s. must be paid to the Inspector of Certificates for this examination not later than 10 A.M. of the day preceding it. This sum will be considered as paid to account for the entire Fee of £21 payable for the two Diplomas. 7. In the case of a candidate being unsuccessful at this examination, £5 5s. will be returned to him. 8. The second examination embraces Medicine, Surgery, and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and takes place after the termination of the winter

session of the last year of study, four years after the examination in general education. 9. Application for examination must be made to the Inspector of Certificates not later than the Tuesday previous to the day of examination. 10. Every candidate must produce—*a.* Satisfactory evidence of having attained the age of twenty-one years; *b.* A certificate of having passed the preliminary examination, unless this certificate have been already seen by the Inspector; *c.* A certificate of registration in the books of the General Medical Council; *d.* A certificate of having passed the first professional examination; *e.* The certificates of his classes, etc.; *f.* A tabular statement (for which a printed form will be furnished), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session. 11. The fee for this examination is £12 12s., which must be lodged with the Inspector not later than 10 A.M. of the day preceding the examination-day. 12. On the production of the above documents, and after receiving the fees, the Inspector gives the candidate a letter authorising the examiners to take him on trial. 13. In case of a candidate being unsuccessful at this examination, £8 8s. will be returned to him. 14. Candidates who have passed the first professional examination before December 31st, 1876, will pay, as before, £10 for the second examination if they appear for that examination before January 1st, 1879. If unsuccessful, £2 will be retained. 15. Candidates who have passed the first professional examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second professional examination on producing certificates of the whole course of study prescribed, of having passed their preliminary and first professional examinations, and of having been registered as students. If any of the three subjects of the first examination have been omitted, the candidate will have to undergo an examination on the omitted subjects; and none of the subjects set down in § 8 will be omitted at the second examination. The fee payable by such candidates is £21, and unsuccessful candidates will receive back £16 16s. 16. In addition to the written and oral examinations, all candidates are subjected to practical Clinical Examinations in Medicine and Surgery. 17. No candidate is admissible to examination who has been rejected by any other Licensing Board within the three preceding months.

Communications from candidates to be addressed to Dr. J. G. McKENDRICK, 2, Chester Street, Edinburgh.

The following will be the periods of examinations for the Double Qualification of the Royal College of Physicians and Surgeons of Edinburgh, for the year 1876-77. *Preliminary Examination in General Education*, October 17th and 18th, 1876; April 17th and 18th, and July 21st and 23rd, 1877. *First Professional Examinations*.—Tuesdays, October 31st, 1876; February 6th, April 10th, May 1st, July 17th, and July 31st, 1877. *Second Professional Examinations*.—These will take place immediately after the conclusion of the first professional examinations. In no case will they be begun on an earlier day than the Thursday of any period.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

REGULATIONS FOR THE DIPLOMA.

THE Regulations respecting the Curriculum of Professional Study, and the Fees, are similar to those of the Royal College of Surgeons of Edinburgh.

Preliminary Examinations in General Literature will be held on October 20th, 1876, and April 20th, July 20th, September 14th, and October 19th, 1877.* The Fee is Ten Shillings. Candidates will be furnished, on application to the Secretary, with a form of application, which they must fill up and transmit to him at least four days before the examination.

The *First Professional Examinations* take place on January 9th, April 5th, July 10th, and October 9th: the *Second Professional Exa-*

VIII; also a passage from an unprinted author. 5. One of the following subjects at the option of the candidate: 1. Greek: Herodotus, *History*, Book I; and Homer, *Iliad*, Book II. 2. French: Molière, *Le Malade Imaginaire*. 3. German: Schiller's *Wilhelm Tell*. 4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. In Latin, Greek, French, and German, parsing of words from the passages given to be translated will be required; also, translation of short sentences from English into the respective languages.

* The two courses must not be attended in the same session. † Two courses of Clinical Medicine or of Clinical Surgery of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the attendance at the Hospital where they are delivered.

‡ A certificate of attendance at the *Post Mortem* Examinations at a General Hospital will be accepted in lieu of this course.

§ The six months' courses delivered in Scotland must consist of not fewer than one hundred lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' courses must consist of not fewer than fifty lectures.

* The examination will embrace the following subjects:—1. English Language, including writing to dictation, Grammar, and Composition. 2. Latin: Translation from Cæsar, *De Bello Gallico*, Books III and IV; an Exercise in rendering English correctly into Latin, the Latin words being supplied. 3. Arithmetic, to Vulgar and Decimal Fractions inclusive; Algebra, including Simple Equations. 4. Geometry: First two Books of Euclid (questions will be given on the third Book of Euclid, but the answering of them will be optional). 5. One of the following subjects at the option of the candidate. *a.* Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. *b.* Greek: Homer's *Iliad*, Book III. *c.* French: La Fontaine's *Fables*, first six books. *d.* German: Schiller's *Wilhelm Tell*. In the English, Latin, Greek, French, and German papers, special stress will be laid on accurate grammatical knowledge. Translations of English into Greek, French, and German, will be required from candidates examined in these languages.

minations on January 16th, April 10th, July 24th, and October 23rd. Applications for admission to the first examination must be made four days, and to the second examination a week, before the respective examinations.

The examinations are conducted partly in writing and partly orally. Recent Dissections, Anatomical Specimens, the Microscope, Chemical Tests, Articles of the *Materia Medica*, the Microscope, Surgical and Obstetrical Instruments and Apparatus, Pathological Specimens and Toxicological Tests and Specimens, may be employed. Candidates are also subjected, at the second examination, to a Practical Clinical Examination at the Hospital.

Candidates who have passed the examination in Anatomy, Physiology, and Chemistry, before any of the Licensing Bodies enumerated in Schedule (A) of the Medical Act, on complying with the regulations in other respects, are admitted to the second professional examination. Graduates and Licentiates in Medicine of other bodies are exempt from examination in Medicine and *Materia Medica*.

A candidate, on showing a sufficient reason, may be admitted to examination on a day specially arranged, on paying an extra fee of £5 5s.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

The Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, conjointly grant their Diplomas after one series of examinations before a Board of Examiners in which each body is represented. The regulations as to the curriculum of study, and the fees, are the same as those for the conjoined examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh. The first examinations will be held, in 1877, on January 9th, April 5th, July 10th, and October 9th; the second examinations on January 23rd, April 17th, July 17th, and October 16th.

UNIVERSITIES OF EDINBURGH, GLASGOW, ABERDEEN, AND ST. ANDREWS.

REGULATIONS RESPECTING DEGREES IN MEDICINE.

[The Regulations of these Universities are nearly similar. We, therefore, give but one statement, noticing points of difference when necessary.]

Three Medical Degrees are conferred by each University; viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.) The Degree of C.M. is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

Preliminary Education.—The preliminary branches of extraprofessional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and candidates must also pass a satisfactory examination in at least two of the following subjects: Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy.* The examinations on both classes of subjects take place† before the candidate has entered on his medical curriculum.‡

* The Universities of Glasgow, Aberdeen, and St. Andrew's, include Natural History.

† As far as possible.—*Aberdeen.*—At Glasgow, the examination in the second class must take place previously to the first professional examination.

‡ In Edinburgh, examinations on these subjects will be held on October 10th, 11th, 12th, and 13th, 1876, and March 13th, 14th, 15th, and 16th, 1877. 1. *English*—Writing a passage from dictation; composition, with correction of sentences of bad English; Grammar, with analysis of sentences and derivation and definition of some common English words; History and Geography. 2. *Latin*—Livy, Book viii; an easy passage (Latin) from a Prose Author, and a single passage of English (translated from a Latin Author) to be re-translated into Latin, the more difficult Latin words being given. 3. *Arithmetic*—The Common Rules, including Vulgar and Decimal Fractions. 4. *Elements of Mathematics*—Euclid, Books I, II, and III; and the Rudiments of Algebra, including Simple Equations. A knowledge of Euclid alone will not be sufficient. 5. *Elements of Mechanics*—Elementary Mechanics and Hydrostatics; Wormell's *Natural Philosophy*, excluding optics. At least two of the following subjects. 1. *Greek*—Xenophon, *Hellenica*, Book II, 2. *French*—Molière, *L'Avare*. 3. *German*—Schiller, *Maid of Orleans*. 4. *Higher Mathematics*—Euclid, Books I to VI; Algebra, Trigonometry, and Conic Sections. 5. *Natural Philosophy*—Balfour Stewart's *Elementary Physics*. 6. *Logic*—Jevons' *Elementary Lessons in Logic*, or Fraser's *Selections from Berkeley*. 7. *Moral Philosophy*—Calderwood's *Handbook*, or (when the candidate is a Bachelor of Medicine) Laycock's *Mind and Brain*. In Latin, Greek, French, and German, questions in Grammar will be set, and passages to be translated from English.

In Glasgow, examinations will take place as follows. *First or Elementary Part:* English—Writing correctly a passage to dictation; Composition of a short Essay

A Degree in Arts (not honorary) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University specially recognised by the University Courts, exempts from all preliminary education. The Universities also recognise examination in Arts by any corporate body, whose examination has been recognised by the General Medical Council, and also approved by the University Court, so far as regards the preliminary examination in Arts on all subjects comprised in the examination of the said corporate body.

DEGREE OF BACHELOR IN MEDICINE AND MASTER IN SURGERY.

Candidates for the Degree of Bachelor in Medicine or Master in Surgery must have been engaged in medical and surgical study for four years—each *Annus Medicus* being constituted by at least two courses of not less than 100 lectures each, or by one such course, and two courses of not less than 50 lectures each; with the exception of the clinical courses, in which lectures are to be given at least twice a week.

Every candidate for the degree of M.B. and C.M. must give sufficient evidence by certificates—1. That he has studied Anatomy, Chemistry, *Materia Medica*, Institutes of Medicine or Physiology, Practice of Medicine and of Surgery, Midwifery and the Diseases of Women and Children,* General Pathology,† during courses including not less than 100 lectures; Practical Anatomy, a course of the same duration as the preceding; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or attendance on six cases under a registered medical practitioner; Clinical Medicine and Clinical Surgery, each course of not less than 100 lectures, or two courses of three months; Medical Jurisprudence, Botany, Natural History, including Zoology, courses of not less than 50 lectures. 2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital with not fewer than 80 patients. 3. That he has been engaged for at least three months in compounding and dispensing drugs at the Laboratory of a Hospital or Dispensary, of a Member of a Surgical College or Faculty, Licentiate of the London or Dublin Societies of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.‡ 4. That he has attended, for at least six

on a given theme; Questions in Grammar. *Latin*—Virgil, *Æneid*, Book IV; Sallust, *De Bello Jugurthino*, chap. 1–1. Translations of passages from authors not prescribed, and of English passages into Latin, the principal Latin words being supplied; Questions in Grammar and Construction. *Arithmetic*—The Common Rules, including Vulgar and Decimal Fractions. *Elements of Mathematics*—Euclid, Books I, II, and III; Algebra, as far as Simple Equations. *Elements of Mechanics*—Questions, for which such works as Tomlinson's *Rudimentary Mechanics* may serve as text-books. *Second Part*, Exercises in two of the subjects of which, to be selected by the candidate, are required. *Greek*—*Cyropædia* of Xenophon, Book II, and the Gospel according to St. John; Translations of passages from Greek authors not prescribed, and of English passages into Greek—the principal Greek words supplied; Questions in Grammar. *French*—Corneille's *Le Cid*; Translations and exercises as in Latin and Greek. *German*—Lessing's *Laocoon*; Translations and exercises as in the other languages. *Mathematics*—Euclid, Books I to VI; Algebra, including Quadratic Equations, and the Rudiments of Trigonometry. *Natural Philosophy*—Such a knowledge of the principles as may be obtained from the Text-books of Golding Bird and Brooke, and Ganot—*Natural History*—Geology or Zoology. Text-books—Jukes, Lyell, Dana, R. Jones, Nicholson. *Logic*—Whately's *Logic*, Books II and III. *Moral Philosophy*—The General Principles, as stated in Dugald Stewart on the Active Powers, or Dr. Fleming's Manual.

At St. Andrew's, every Student in Medicine must be registered; but no one can be registered unless he has passed the Registration Examination, or an equivalent examination. The Registration Examination takes place during the first week of the session. The following are the subjects: *English*—The qualifications of candidates will be tested by the style and general character of their written translations and answers, and by their knowledge of the derivations of words employed in Medicine. *Latin*—Cicero, *De Officiis*, Book I; Virgil, *Æneid*, Book II. *Mathematics*—Elementary Rules of Arithmetic, including Vulgar and Decimal Fractions. Euclid, Books I and II; Algebra as far as Simple Equations and Proportion. *Elements of Mechanics*—Composition and Resolution of Forces; the Lever, the Wheel and Axle, the Pulley, and the Inclined Plane; and the Centre of Gravity. Candidates will find the necessary information in Snowball's *Cambridge Elementary Course of Natural Philosophy*, or in Newth's *First Book of Natural Philosophy*. *Greek*—Xenophon, *Anabasis*, Books I and II; or any one book of Herodotus, or two books of Homer. *French*—Voltaire, *Charles XII*. *German*—Schiller's *Thirty Years' War*, or any one of his dramas. *Higher Mathematics*—Euclid, Books I, II, III, IV, and V. Algebra, Plane Trigonometry, and the Elementary Propositions on the Straight Line, Circle, and Conic Sections, treated analytically. The Examiners recommend Potts's *Elements of Euclid*; Wood's or Todhunter's *Algebra*; Snowball's, Todhunter's, or Beasley's *Trigonometry*; and Todhunter's *Plane Co-ordinate Geometry*, with the omission of chapters iv, vii, xiv, xv, xvi. *Natural Philosophy*—Elementary Mechanics, Hydrostatics, and Optics. (A thorough knowledge of the manuals on these subjects by Galbraith and Haughton will enable candidates to pass this portion of the examination.) *Natural History*—Nicholson's *Advanced Text-Book of Zoology*. *Logic*—Whately's *Logic*, or his *Easy Lessons on Reasoning*. *Moral Philosophy*—Paley's *Moral Philosophy*, or Macintosh's *Dissertation on the Progress of Ethical Philosophy*.

* Two courses of Midwifery, of three months each, are reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses.

† Or a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine or Clinical Medicine.

‡ In the Laboratory of an Hospital or Dispensary, of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society of Great Britain.—Glasgow.

months, the out-practice of a hospital or the practice of a dispensary, or of a registered practitioner. Evidence of a practical knowledge of vaccination is also required.

One of the four years of medical and surgical study must be in the University granting the degree sought. Another year must be either in the same University, or in some other University entitled to give the Degree of Doctor of Medicine.* [At St. Andrew's, no one can be received as a candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following Universities and Colleges; viz., the Universities of St. Andrew's, Glasgow, Aberdeen, Edinburgh, Oxford, or Cambridge; Trinity College, Dublin; and Queen's College, Belfast, Cork, or Galway.] Attendance during at least six winter months on the medical or surgical practice of a General Hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the Edinburgh University Court, may be reckoned as one of the four years.† All candidates not students of the University of Edinburgh attending the lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation Fee.

Every candidate must deliver, at such time of the year as may be fixed by the Senatus Academicus—1. A declaration, in his own handwriting, that he is twenty-one years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of apprenticeship. 2. A statement of his studies, general and professional, accompanied with proper certificates.‡

In the University of Edinburgh, there are four professional examinations. Candidates are examined in writing and *viva voce*—1, on Chemistry, Botany, and Natural History; 2, on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; 3, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4, Clinically on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects. Students may be admitted to examination on the first division of these subjects at the end of their second year, and on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*. Candidates may be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of the fourth year. If any candidate be found unqualified, he cannot be again admitted to examination unless he has studied during another year two of the prescribed subjects, either in the University or in some other school of medicine.

In the other three Universities, every candidate for the Degree of Bachelor of Medicine and Master in Surgery must undergo three professional examinations, conducted in writing and *viva voce*. The first examination (not to be taken before the end of the second year of study) includes Chemistry, Elementary Anatomy, Botany, and Materia Medica.§ The second examination (not to be taken before the end of the third year) includes advanced Anatomy, Physiology, Zoology with Comparative Anatomy and Surgery.|| The third examination (not to be taken before the end of the fourth year) includes General Pathology, Surgery, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine, and Clinical Surgery.¶ The examinations in Anatomy, Chemistry, Physiology, Botany, Zoology, and Materia Medica are conducted, as far as possible, by demonstrations of objects; and those on Medicine and Surgery, in part, by clinical demonstrations. Candidates may be admitted to examination on the first two at the end of the third year, or to the three examinations at the end of the fourth year. If any candidate be found unqualified, he is not again admitted

to examination unless he shall have completed another year of medical study, or such portion of another year as may be prescribed by the examiners.

DEGREE OF DOCTOR OF MEDICINE.

The Degree of Doctor of Medicine may be conferred on any candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to having received the Degree of Bachelor of Medicine, for at least two years in attendance on a Hospital, or in the Military or Naval Medical Service, or in Medical and Surgical Practice. The candidate must be a Graduate in Arts, or must, before or at the time of his obtaining his degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory examination in Greek and in Logic, or Moral Philosophy, and in one at least of the following subjects—viz., French, German, Higher Mathematics, and Natural Philosophy.* He must submit to the Medical Faculty a Thesis composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree.†

Candidates who commenced their medical studies in Edinburgh before February 4th, 1861, and in Aberdeen before November 1861, are entitled to be examined for the degree of Doctor of Medicine, under the regulations then in force in each University respectively. At Edinburgh, candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

The Degree of Doctor of Medicine may be conferred by the University of St. Andrew's on any Registered Medical Practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiner of the sufficiency of his professional knowledge, provided always that such degrees shall not be conferred on more than ten in any one year.

The *Graduation Fees* in each of the Universities are—for the Degree of M.B., three examinations, each £5 5s.=£15 15s.; for the Degree of C.M., £5 5s. additional; for the Degree of M.D., £5 5s. additional to that for M.B., together with Government stamp duty (£10).

The fee for graduating under the old Regulations in Edinburgh is £25; at St. Andrew's, the fee for the Degree of M.D. under the section relative to Registered Medical Practitioners is 50 Guineas. Stamp duty is included in both cases.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RELATIVE TO THE LICENCE OF MEDICINE.

EXAMINATIONS for the Licence are held on the second Tuesday and following day in each month (except August and September).

A candidate who has not previously obtained any medical or surgical qualification recognised by the College must produce certificates—1. Of having been engaged in the study of Medicine for four years. 2. Of having passed the preliminary examination of one of the recognised Licensing Corporations before the termination of the second year of medical study. 3. Of having studied at a school or schools recognised by the College the following subjects: Practical Anatomy; Anatomy and Physiology, or Institutes of Medicine; Botany; Chemistry; Practical Chemistry; Materia Medica; Practice of Medicine and Pathology; Surgery; Midwifery; Medical Jurisprudence. 4. Of having attended a Medico-Chirurgical Hospital in which regular courses of Clinical Lectures are delivered, together with clinical instruction, for twenty-seven months, or such hospital for eighteen months, with other nine months at a medical hospital. 5. Of having attended Practical Midwifery for six months at a recognised Lying-in Hospital, or evidence satisfactory to the College of having attended Practical Midwifery. 6. Of character, from two registered physicians or surgeons. A candidate who has already obtained a recognised medical or surgical qualification must fill

* Entitled to grant Degrees in Medicine.—Glasgow.

† The other two years may be constituted by attendance upon courses in the great Hospital Medical Schools of London or Dublin; and, in default of such attendance, one of the four years may be constituted by attendance on any general Hospital containing not less than eighty beds, provided attendance has been given at the same time on a course of Practical Anatomy.—Glasgow.

‡ The Universities of Aberdeen and St. Andrew's require an Inaugural Dissertation to be presented previously to the final examination for M.B. In Edinburgh and Glasgow, no Thesis is required until the candidate seeks the Degree of M.D.

§ Materia Medica in third examination at Glasgow.

¶ Surgery is deferred to the third examination at Glasgow.

¶ Materia Medica and Surgery.—Glasgow.

* In Greek and in Logic or Moral Philosophy, and in any one of the other optional subjects in the examination in General Education.—Glasgow. Natural History added in optional subjects.—Aberdeen and St. Andrew's.

† No thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical medicine, surgery, midwifery, or some of the sciences embraced in the curriculum for the Bachelor's degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.—Edinburgh.

up a schedule which will be supplied on application, and produce his diploma or certificate of registration, and the certificate of Practical Midwifery, and testimonials as to character.

The examination is conducted by printed questions and *viva voce*, and consists of two parts:—1. Anatomy, Physiology, Botany, Chemistry; 2. Materia Medica, Practice of Medicine, Medical Jurisprudence, Midwifery. Candidates will also be examined at the bedside.

Candidates who have already obtained a qualification from an University or other licensing body, or who have passed the first examination after a complete curriculum, are required to undergo the second part of the professional examination only. Physicians or surgeons of five years' standing are exempted from the written portion of the final examination. Fee for Licence in Medicine, £15 15s, of which £3 3s are retained if the candidate be unsuccessful.

LICENCE IN MIDWIFERY.

Examinations for a diploma in Midwifery are held monthly, except August and September. A candidate who is already a Licentiate of the College may present himself at any of the examinations, on giving a week's notice. Candidates not Licentiates of the College must have a degree or licence in Medicine or Surgery from any University or College in the United Kingdom, and must have attended Lectures in Midwifery for six months, and also Practical Midwifery. They must also produce certificates of character. The fee is £3 3s, of which £1 1s is retained in case of rejection.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LETTERS TESTIMONIAL.

EVERY person requiring to be registered as a pupil on the College books shall, if the Council think fit, be so registered on the payment of five guineas. All registered pupils are admitted to the Preliminary Examination of the College without further fee, and are permitted to study each week day in the Museum, to read in the Library; also to attend the Lectures on Comparative Anatomy; and to obtain a certificate for such attendance, without payment of any fee. No student can be admitted as a candidate to any of the stated examinations, or to the special examinations for the Letters Testimonial, until he has been enrolled as a registered pupil, and also passed a preliminary examination.

Registered pupils may present themselves, without payment of any further fee, for the Preliminary Examination at any period previous to their first professional examination; but are expected to do so before the commencement of professional studies. Students who are not registered pupils are admitted to the Preliminary Examination upon payment of ten shillings.*

Students who have passed any of the Preliminary Examinations recognised by the General Medical Council, in which the Greek language is compulsory, are exempt from any further preliminary examination, and are entitled to become registered pupils.

Candidates for Letters Testimonial may present themselves either at a special or at a stated examination.

Special Examinations.—Every registered pupil shall be admitted, upon payment of a special fee of £5 5s, in addition to the ordinary fee of £21, to a special examination for Letters Testimonial; as producing evidence that he has passed a Preliminary Examination; that he has been engaged in the study of his profession for not less than four years; that he has attended during three years on a recognised hospital where Clinical Instruction is given; that he has attended three courses each of Lectures on Anatomy and Physiology, and on the Theory and Practice of Surgery and of Dissections, accompanied by demonstrations; two courses of Lectures on Chemistry, or one course of Lectures on General and one on Practical Chemistry; one course each of Lectures on Materia Medica, Practice of Medicine, Midwifery, Medical Jurisprudence, and Botany.

The subjects for examination are the same as for the Stated Examinations. A rejected candidate will only be entitled to receive back £15 15s.

Stated Examinations are held in April, July, and November. Candidates must be registered pupils, and are divided into two classes—Junior and Senior.

The Junior Class must produce certificates of having passed a Preliminary Examination, and of having attended three courses each of Lectures on Anatomy and Physiology, and on Practical Anatomy with Dissections; two courses of Lectures on Chemistry; one course each of Lectures on Materia Medica, Botany, and Forensic Medicine. This class is examined in Anatomy, Histology, Physiology, Materia Medica, and Chemistry.

The fee for this examination is £5 5s, in addition to the registration fee; not to be returned in case of rejection, but to be allowed the candidate in case he presents himself a second time for examination.

The Senior Class must produce certificates of having attended three courses of Lectures on the Theory and Practice of Surgery, one course each of Lectures on the Practice of Medicine, and on Midwifery; also of attendance on a recognised Hospital for three Winter and three Summer Sessions. This class is examined in Surgery, Operative Surgery and Surgical Appliances, Practice of Medicine, Medical Jurisprudence, and Prescriptions.

The fee for the Senior Class Examination is £15 15s, returnable to the candidate in case of rejection.

The examinations are partly written and partly oral.

In addition to the foregoing fees, a fee of £1 1s is to be paid to the Registrar. Every candidate rejected at a Stated Examination, on applying for re-examination, must pay £2 2s, in addition to the regular fees.

FELLOWSHIP.

Every registered pupil or licentiate may be admitted to examination for the Fellowship on producing a certificate that he is twenty-five years of age, and that he is a Bachelor of Arts, or has been examined with a view to ascertain that he has obtained a liberal preliminary education; also a certificate, signed by two or more Fellows of the College, of general good conduct. He must have been engaged in the acquisition of professional knowledge not less than six years (five years being required in the case of Bachelor of Arts), during three of which he must have studied in one or more of the schools and hospitals recognised by the Council. The other three years may have been passed in any approved school. He must also have acted as House-Surgeon or Dresser in a recognised hospital; and must have attended the lectures required of candidates for Letters Testimonial, together with one course of lectures on Comparative Anatomy, and one on Natural Philosophy. He must present a thesis on some medical subject, or clinical reports, with observations of six or more medical or surgical cases taken by himself.

Licentiates of the College, who cannot show that they have followed the course of study specified, may, at the expiration of ten years from the date of their diploma, be admitted to the examination for the Fellowship, on producing satisfactory evidence that they have conducted themselves honourably in the practice of their profession.

Each candidate for the Fellowship is examined on two days. The subjects of the first examination are Anatomy and Physiology (Human and Comparative); those of the second—Pathology, Therapeutics, the Theory and Practice of Medicine and Surgery, and such other branch of medical science as the Council may direct. The examinations are both oral and written. The candidates must perform Dissections and Operations on the dead bodies. Rejected candidates cannot present themselves a second time until after one year.

The fee payable is £21 if the candidate be a Licentiate, or £36 15s, if he be a registered pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the candidate intend to reside in Dublin, or within ten miles thereof, he pays, if a Licentiate, £31 10s; if a registered pupil, £47 5s. Fellows entering on the country list, who may subsequently settle as practitioners in Dublin, or within ten miles thereof, must pay £10 10s. to the College.

DIPLOMA IN MIDWIFERY.

Midwifery Examination.—Any Fellow or Licentiate of the College is admissible to the examination for a Diploma in Midwifery on producing certificates of having attended a course of Lectures on Midwifery and Diseases of Women and Children, the Practice (for six months) of a Lying-in Hospital, or of a Dispensary for Lying-in Women and Children, and that he has attended at least thirty labours.

Candidates are examined on the Organisation of the Female; the Growth and Peculiarities of the Fetus; the Practice of Midwifery, and the Diseases of Women and Children; and, if approved, receive a license or diploma.

A rejected candidate is not again admitted to examination within three months, nor unless he produces satisfactory evidence of having been engaged in the study of midwifery subsequently to his rejection.

The fee is £1 6s, if the Midwifery Diploma be taken out within one month from the date of the Letters Testimonial; afterwards it is £2 2s.

* The following are the subjects of the Preliminary Examination. The English Language, including Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, first two Books of Euclid; Greek and Latin, including Translation and Grammar. Greek—The Gospel of St. John, or the First Book of Xenophon's *Anabasis*, or the Dialogue of Lucian, entitled *Menippus* or the *Necromancy*. Latin—The First and Second Books of the *Aeneid* of Virgil, or the *Jugurthine War* of Sallust, or the Third Book of Livy. These examinations are held on the third Wednesday in January, April, July, and October in each year.

APOTHECARIES' HALL OF IRELAND.

REGULATIONS REGARDING THE LICENCE TO PRACTISE.

EVERY candidate for the Licence to Practise is required to undergo a Preliminary and a Professional Education and Examination.* The Arts Examination will be held on the third Thursday in January, April, July, and October, at 12 noon. Answers in writing must be given to printed questions. Unsuccessful candidates will be remitted to their studies for six months.

Professional Education and Examination.—Every candidate for the Licence must produce certificates: 1. Of having passed an examination in Arts previously to entering on professional study. 2. Of registration as a medical student. 3. Of being at least twenty-one years of age, and of good moral character. 4. Of apprenticeship to a qualified apothecary, or of having been engaged at practical pharmacy with an apothecary for three years subsequently to having passed the examination in Arts. 5. Of having spent four years in professional study. 6. Of having attended the following courses, viz: Chemistry, Principles and Practice of Medicine and Surgery, each during one winter session; Anatomy and Physiology, Demonstrations and Dissections, each during two winter sessions; Botany and Natural History, and Forensic Medicine, each during one summer session; Practical Chemistry (in a recognised Laboratory) and Materia Medica, each during three months; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (twenty cases); instruction in Vaccination. 7. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session. 8. Of having performed vaccination successfully under a recognised vaccinator.

The examination for the Licence to Practise is divided into parts. The first part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy. The second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene. The first part may be undergone at the close of the second winter session; and the second at the termination of the fourth winter session.†

The examinations will be held on the first and second Mondays in January, April, July, and October.

Unsuccessful candidates at the first professional examination will be remitted to their studies for three months; and at the pass examination, for six months.

Doctors of Medicine of any of the Universities of the United Kingdom, and Licentiates of a Royal College of Physicians, or Surgeons of any of the Royal Colleges of Surgeons, whose qualifications as such appear in the *Medical Register*, and who, having first passed an Examination in Arts, have also served an apprenticeship, or the required term at practical Pharmacy to a qualified Apothecary, may obtain the Licence of the Hall by undergoing an examination—the former in Pharmacy, and the latter in Medicine and Pharmacy. Licentiates of the London Society of Apothecaries are admitted *ad eundem*, on presenting the certificate of their registration.

Candidates for the Professional Examinations must lodge their testimonials and enrol their names and addresses with the Clerk at the Hall, in Dublin, a clear week prior to the day of examination.

UNIVERSITY OF DUBLIN.

THE degrees in Medicine and Surgery granted by the University are: 1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery. It also grants Licences in Medicine and Surgery.

BACHELOR IN MEDICINE.

A candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at

* The following are the subjects of Preliminary Examination:—*Compulsory.* 1. *English:* Grammar, Composition, writing from Dictation, and History. 2. *Arithmetic and Algebra:* Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. *Geometry:* First Two Books of Euclid. 4. *Latin:* the Twenty-first Book of Livy, or the First Three Books of the *Æneid* of Virgil, and Latin Prose Composition. 5. *Greek:* the First Two Books of the *Anabasis* of Xenophon, or the Ninth Book of the *Iliad* of Homer. 6. *French:* *Charles XII.*, *Histoire de Voltaire*, or *Voyage en Orient* of Lamartine. 7. *German:* *Wilhelm Tell* of Schiller. Candidates will be examined in either French or German, as they may select.—*Optional.* 1. *Natural Philosophy:* Mechanics, Hydrostatics, and Pneumatics. 2. *Natural History:* The Classification, Elementary Structure, and General Physiology of Vegetables and Animals.

† Candidates at the Examination on Anatomy are liable to be called on to perform dissections, and, at the Examinations on Surgery, to perform one or more operations on the dead body.

the same commencement as that at which he receives his Degree of B.A., or at any subsequent commencement, provided the requisite medical education shall have been completed. The medical education is of four years' duration, and comprises attendance on a course of each of the following lectures: *Winter*—Anatomy; Practical Anatomy; Theoretical and Operative Surgery; Chemistry; Practical Course of Institutes of Medicine; Practice of Medicine; Midwifery. *Summer*—Botany; Institutes of Medicine; Comparative Anatomy; Materia Medica and Pharmacy; Medical Jurisprudence. *Term Courses*—Heat (Michaelmas); Electricity and Magnetism (Hilary). Six months' dissection, and three months' laboratory instruction in Chemistry. Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board. A certificate of personal attendance on fever cases, with names and dates of cases. Six months' instruction in Practical Midwifery, including clinical lectures. Any of the winter or summer courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows.† Students who shall have diligently attended the Practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies, are allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital.

Candidates for the Degree of M.B. must pass two examinations; the Previous Medical Examination, and the Bachelor of Medicine Examination.

The *Previous Examination* comprises Descriptive Anatomy; Botany; Materia Medica and Pharmacy; Chemistry; and Physics. The Examination in Descriptive Anatomy includes Examination on the dead subject. It is not necessary that the student should pass in all these subjects at the same examination; he may present himself for examination in as many, or as few of them, as he pleases.

There are three Previous Medical Examinations held each year, immediately before each M.B. Examination, together with a Supplemental Examination in Botany, Chemistry, and Materia Medica, at the close of the summer session.

Bachelor of Medicine Examination.—The candidate for the M.B. Examination must have previously passed the Previous Medical Examination in all the subjects; and have lodged with the Medical Registrar, on a certain day to be duly advertised, Certificates of Attendance upon all the Courses of Study above prescribed.

Candidates must pass a final examination in the following subjects: Physiological Anatomy; Practice of Medicine; Surgery; Midwifery; Medical Jurisprudence; Institutes of Medicine. The Fee for the Licence *ad Examinandum* is £5; for the Degree of M.B., £11.

Members of the Royal Colleges of Physicians or Surgeons of Dublin, London, or Edinburgh, who are Graduates in Arts of Oxford, Cambridge, or Dublin, are admissible to the Examination for M.B. They must first take the B.A. Degree *ad eundem*.

DOCTOR IN MEDICINE.

A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the Degree of Bachelor in Medicine for three years. He must also read two Theses publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic, according to Regulations to be approved by the Provost and Senior Fellows. The total amount of Fees for this Degree is £13.

BACHELOR IN SURGERY.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also pass a public examination, having previously completed the prescribed Curriculum of study. The Curriculum comprises the following, in addition to the complete Course for the Degree of Bachelor in Medicine: Theoretical and Operative Surgery and Ophthalmic Surgery, each one course; Dissections, two courses. Candidates are required to perform surgical operations on the dead subject. Candidates for the Degree of Bachelor in Surgery, who have already passed the examination for the

* The following Hospitals are recognised:—1. Sir Patrick Dup's Hospital; 2. Meath Hospital; 3. House of Industry Hospitals; 4. Dr. Steevens' Hospital; 5. Jervis Street Infirmary; 6. City of Dublin Hospitals; 7. Mercer's Hospital; 8. St. Vincent's Hospital; 9. Adelaide Hospital; 10. Mater Misericordie Hospital.

† Certificates of Practical Midwifery are received from 1. The Rotunda Hospital; 2. The Coombe Hospital; 3. Sir P. Dun's Hospital Maternity; 4. Dr. Steevens' Hospital Maternity.

‡ The following schools, in addition to the School of Physic of Trinity College, are recognised:—1. The School of the Royal College of Surgeons in Ireland; 2. The Carmichael School; 3. The School of Dr. Steevens' Hospital; 4. The St. Peter Street School; 5. The School of the Catholic University. The recognition is conditional on the students being furnished with *books*, *side* certificates of regular attendance equivalent to that required by the University; i.e., three-fourths of the entire Lectures in each course.

Degree of Bachelor in Medicine, will be examined in Anatomy and Surgery only. Fee for the *Licent ad Examinandum*, £5; for the Degree of Bachelor in Surgery, £5.

MASTER IN SURGERY.

A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the Degree of Bachelor in Surgery for three years; and must read two Theses publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor, according to Regulations to be approved by the Provost and Senior Fellows. Fee for the Degree of Master in Surgery, £11.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed two years in Arts and four years in Medical Studies.

Licentiate in Medicine.—The Medical Course and Examination necessary for the Licence in Medicine are the same as for the Degree of M.B. A Licentiate in Medicine, on completing his Course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine, on paying the Degree fees, without further examination in Medicine.

Licentiate in Surgery.—The Surgical Course and Examination necessary for the Licence in Surgery is the same as for the Degree of Bachelor in Surgery.

Fee in each case for the *Licent ad Examinandum*, £5; for the Licence, £5.

QUEEN'S UNIVERSITY IN IRELAND.

DEGREES IN MEDICINE AND SURGERY.

THIS University grants the Degrees of Doctor in Medicine and Master in Surgery, and a Diploma in Midwifery. It includes three Colleges—the Queen's Colleges of Belfast, Cork, and Galway—each of which possesses a Faculty of Medicine. The curriculum of medical study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Botany, Anatomy and Physiology, Practical Anatomy, *Materia Medica* and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above courses of lectures must be attended in some one of the Queen's Colleges; the remainder may be taken, at the option of the candidate, in any University, College, or School, recognised by the Senate of the Queen's University. Candidates are required, before graduating, to have also attended, in one of the Colleges of the Queen's University, Lectures on Experimental Physics and one Modern Continental Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the practice during six months of a recognised Medico-Chirurgical Hospital containing at least sixty beds, together with clinical lectures delivered therein; and, during the second period, a recognised Midwifery Hospital, with clinical lectures therein delivered, for three months; or a Midwifery Dispensary for the same period; or ten cases of labour, under the superintendence of the medical officer of any hospital or dispensary where cases of labour are treated; and eighteen months' practice of a recognised Medico-Chirurgical Hospital containing at least sixty beds, with clinical instruction.

Candidates must pass three Examinations—the First University Examination, the Second University Examination, and the Degree Examination.

The First University Examination may be passed either in June or September. It comprises a Modern Language, Experimental Physics, Zoology, and Botany. Students may present themselves for examination at any time after the close of the first Winter Session. Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the prescribed course of study in the subjects of examination.

The Second University Examination may be passed either in June or September. It comprises Anatomy, Physiology, *Materia Medica*, and Chemistry; to which will be added Zoology and Botany in the examination of candidates who have not previously passed the First University Examination. Candidates who are in this position may either undergo their examination in Modern Languages and Experimental Physics as a part of the Second Examination, or may present themselves for examination in these subjects at any time between the Second University Examination and the Degree Examination. Students may present themselves for the Second University Examination at the termination of the first period of the curriculum, or at any subsequent

period; but no student can postpone his Second University Examination until he presents himself for his Degree Examination, unless the Senate shall have passed a grace permitting him to do so. Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the first period.

Examinations for the Degree of M.D., M.Ch., and the Diploma in Midwifery, will be held in June and September. The Fee for each Degree is Five Pounds, and the Fee for the Diploma in Midwifery is Two Pounds. Each Fee must be lodged with the Secretary before the corresponding examination begins.

Degrees in Surgery and Diplomas in Midwifery will only be conferred on candidates who hold the Degree of Doctor in Medicine of the University. The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of medical education. The Examination for the Degree of M.Ch. comprises an examination in the Theory and Practice of Surgery, including Operative and Clinical Surgery.* The Examination for the Diploma in Midwifery comprises an examination in the Theory and Practice of Midwifery and the use of obstetrical instruments and appliances.†

Candidates who graduated with honours will be arranged in two classes. Candidates who take a First Class will receive a Medal and Prize; candidates who take a Second Class will receive a Prize. Both Honour and Pass Examinations are held in September. The Examination held in June is a Pass Examination.

Two Exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be awarded annually at the First University Examination in Medicine. The regulations concerning these Exhibitions, and all other information, will be found in the *Queen's University Calendar*, or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

In addition to the Tables of the Classes, hours of attendance, and fees, given at pages 342-345, we subjoin extracts from the Programmes issued by the several Medical Schools. We have extracted those points of information which are of most interest to the student, in addition to those given in the tables.

ST. BARTHOLOMEW'S HOSPITAL.—The *Clinical Practice of the Hospital* now comprises a service of 710 beds: of these 227 are allotted to the medical cases, 322 to the surgical cases, 26 to diseases of the eye, 20 to the diseases of women, and 81 to syphilitic cases; while 34 are at the Convalescent Hospital at Highgate. Children are admitted into both the medical and surgical wards; those under five years of age being received into the female wards.

Museums, etc.—The Anatomical Museum, and the Museum of *Materia Medica* and of Botany, are open to students daily from 10 A.M. to 4 P.M. The Reading Room is open every day; during winter from 10 to 5; summer, 9 to 5; vacations, 10 to 2.30.

College.—Students are admitted to residence on the recommendation of a medical officer of the hospital, which may be obtained by adducing satisfactory evidence of good moral character. The entrance-fee is £2 2s.; and a deposit of £3 3s. is required, which will be returned to the student on leaving the College, subject to deduction of whole or part for wilful damage to furniture. Information regarding the College may be obtained on application to the Warden, Dr. Norman Moore.

Examinations.—Students preparing for their examinations are arranged in classes, and examined by the lecturers and demonstrators. An examination of all students of the first year is held at the close of the first winter and first summer sessions.

Appointments.—Four House-Physicians and four House-Surgeons (who must be qualified to practise) are appointed annually. Fee, £26 5s. Each of these officers receives a salary of £25. A resident Midwifery Assistant is appointed every six months. An Ophthalmic House-Surgeon is appointed for six months. An Assistant-Chloroformist is appointed annually; he has a salary of £25. (The preced-

* Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before the 1st of January, 1865, will be exempted from the examination in Surgery. Candidates for the Degree in Surgery, who graduated in Medicine at a later period, will be required to undergo a paper and oral examination in the Theory and Practice of Surgery, and an examination in Operative and Clinical Surgery.

† Candidates for the Diploma in Midwifery who obtained the Degree of M.D. in the University before the 1st of January, 1872, will be exempted from this further examination.

ing are provided with rooms.) The Clinical Clerks to the medical in-patients, and the Clerks to the Physician-Accoucheurs, are chosen from the most diligent students. Sixteen dressers to the surgical in-patients and the surgical casualty department are selected each year from the students of the second year. Other in-patient dresserships may be obtained by payment of the usual fees. There are also clerks and dressers to the Assistant-Physicians and the Assistant-Surgeons in the general and special departments.

Exhibitions, Scholarships, and Prizes.—Open Scholarship in Science, value £100 for one year, to be competed for on September 27th, by candidates under twenty-five years of age, who have not entered to the medical or surgical practice of any metropolitan medical school. The subjects are Physics, Chemistry (theoretical and practical), Botany, and Zoology. *First Year.*—Jeaffreson's Exhibition: £20 yearly, tenable for two years. Confined to students of less than six months' standing. Examination on October 19th. Subjects, those of Preliminary Education appointed by the General Medical Council. Preliminary Scientific Exhibition, on October 23rd; subjects, Physics, Chemistry (theoretical and practical), Botany, and Zoology; value £50, for one year; confined to students of less than six months' standing. The holder of the Open Scholarship is not eligible. Three Junior Scholarships, of the value of £50, £30, and £20, after the general examination in first year's subjects at the end of the winter and summer sessions. Treasurer's Prize for Practical Anatomy, junior. *Second Year.*—Foster Prize for Practical Anatomy, senior. *Second or Third Year.*—Senior Scholarship, value £50, in Anatomy, Physiology, and Chemistry. Wix Prize: subject, "The Physician in Chaucer's *Canterbury Tales*." Hichens Prize: subject of examination, Bishop Butler's *Analogy*. *Third or Fourth Year.*—Lawrence Scholarship and Gold Medal, value about £42: subjects, Anatomy and Physiology, Medicine and Surgery in all their Branches. Two Brackenbury Scholarships in Medicine and Surgery. Candidates for the Lawrence and Brackenbury Scholarships may not compete before the end of the third winter session, nor later than the beginning of the fifth winter session in the hospital. Bentley Prize, for the best report of not less than twelve surgical cases occurring in the wards of the hospital during the previous year. The Kirkes Gold Medal for Clinical Medicine. The conditions under which the exhibitions, scholarships, and prizes are awarded, will be found in the prospectus of the College.

The *Abernethian Society*, composed of the teachers and students of the hospital, meets in the library on every Thursday evening at 8 P.M. during the winter session.

Communications regarding the Hospital and Medical College must be addressed to the Warden of the College, St. Bartholomew's Hospital.

CHARING CROSS HOSPITAL.—Besides the Clinical Instruction in the Hospital, matriculated students are admitted to the practice of the Royal Westminster Ophthalmic Hospital (36 beds).

Appointments.—A Medical Registrar and a Surgical Registrar, each with a salary of £40 a year, are appointed. Resident Medical, Surgical, and Obstetrical Officers, Assistant Medical and Surgical Officers, Clinical Clerks, Surgeons' Dressers, and a Pathological Assistant, are appointed from among the matriculated students, without additional fee.

Scholarships, Medals, and Prizes.—Two Entrance Scholarships, value £30 and £20, tenable for one year, awarded after examination in English, Latin, French or German, and Mathematics, with (optional) either Chemistry, Mechanics, German, or French. The Llewellyn Scholarship of £25, open to all matriculated students who have just completed their second year. Examination at the end of the second summer session, in Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery. The Golding Scholarship, £15 a year, open to all matriculated students who have just completed their first year. Examination at the end of the first summer session, in Descriptive Anatomy, Physiology, Materia Medica, and Chemistry. The Pereira Prize of £5, to matriculated students who have completed their third year, for the best clinical reports of cases in the hospital (medical and surgical in alternate years). The Governors' Clinical Gold Medal, Silver and Bronze Class Medals and Certificates of Honour in all the classes.

Further information may be had of the Librarian, who attends at the office of the School, Chandos Street, Charing Cross, between the hours of 10 and 4; or of the Dean, Mr. Francis Hird.

ST. GEORGE'S HOSPITAL.—The Aggregate and Perpetual Fees do not include Practical Chemistry.* Gentlemen who have commenced

their professional studies at an English University will be admitted as Perpetual Pupils on payment of a reduced fee.

The Hospital contains 353 beds, of which 205 are devoted to surgical, and 148 to medical, cases. Wards are especially set apart for the reception of cases of diseases of the eye, and diseases of Women. In the women's wards, cribs are placed for the reception of children.

The Library and Reading Room and the Museum are open daily.

Clinical Instruction.—The pupils of the hospital are divided into classes under the superintendence of the physicians and surgeons in rotation, and are placed in charge of cases as Clerks and Dressers.

Hospital Appointments.—House-Physicians, House-Surgeons, an Assistant House-Physician, and an Assistant House-Surgeon, half-yearly, from among the perpetual pupils. The House-Physicians and House-Surgeons hold office for twelve months, and reside and board in the hospital free of expense. They must each deposit 50 guineas with the Treasurer of the hospital, which will be returned to them on the expiration of their term of office, if they have satisfactorily performed their respective duties.—An Obstetric Assistant is appointed annually. He resides and boards in the hospital, and receives a yearly salary of £100.—A Curator of the Pathological Museum, a Medical and a Surgical Registrar, and a Demonstrator of Anatomy, are appointed annually from among the senior pupils, each with a salary of £50. Every student is required to assist the Curator for one month in performing *post mortem* examinations.—Two Assistant Medical Registrars are appointed every six months by competition. This office must be held before competing for that of House-Physician.—An Assistant-Surgical Registrar is also appointed; this office must be held, alternately with that of Ophthalmic Assistant, before competing for the office of Assistant House-Surgeon.

Exhibitions and Prizes.—The William Brown Exhibitions: 1. £100 per annum for two years to a perpetual pupil of the hospital under the age of 25, who has become entitled to be registered as a medical practitioner within two years previously; examination in July. 2. £40 per annum for three years to students of the third and fourth winter sessions.—Brackenbury Prizes in Medicine and in Surgery, each interest of £1,000 three per cent. consols, open to all pupils who have not completed the fourth year; examinations in May.—Sir Charles Clarke's Prize, interest of £200 annually, for good conduct; awarded at end of summer session.—The Thompson Silver Medal, and the Treasurer's Prize, at close of winter session, for proficiency in clinical examinations in three Medical and three Surgical cases.—Sir Benjamin Brodie's Clinical Prize in Surgery, for the best report (with notes) of not more than twelve surgical cases in the hospital during the preceding twelve months.—Dr. Acland's Clinical Prize in Medicine, for the best record of not more than twelve cases of disease treated in the preceding twelve months. (The Clinical Prizes are open to fourth year's students. Reports must be sent in on or before May 1st).—The Henry Charles Johnson Memorial Prize, for Practical Anatomy.—General Proficiency Prizes, £10 10s., for students of each year: subjects for first year, Anatomy, Physiology, Chemistry, and Botany; for second year, Anatomy, Physiology, Chemistry, and Materia Medica; for third year, Medicine, Surgery, Pathology, and Midwifery.

The Medical Society meets once a week at the hospital during the winter session. All former and present pupils of St. George's Hospital are eligible as members.

Further information may be obtained from Dr. Barclay, the Treasurer of the School; from Dr. Wadham, the Dean of the School; and from the Resident Medical Officer of the Hospital.

GUY'S HOSPITAL.—The hospital contains 690 beds. Of these, 220 are for medical cases, 260 for surgical cases, 26 for diseases of women, 48 for syphilitic, and 50 for ophthalmic cases; there are also 30 children's cots, and 60 reserve beds, with 8 in private rooms.

Museums, etc.—The Museums of Human Anatomy, Comparative Anatomy, Pathological Anatomy, and Materia Medica are open to the students. The Library contains upwards of 5,000 volumes, and is open to the students daily from 10 A.M. to 4 P.M.

Clinical Instruction.—Two wards, containing together 40 beds, are especially devoted to clinical teaching in Medicine. The Surgeons lecture upon selected cases during the winter, and the Assistant-Surgeons in the summer. The Obstetric Physicians, and the Ophthalmic, Dental, and Aural Surgeons, also give clinical and practical instruction. Special demonstrations and instructions are also given in Cutaneous Diseases.

[Continued on page 346.]

* Perpetual Pupils are entitled to admission to the practice of the Physicians and Surgeons, to all the Lectures (except Practical Chemistry), to compete for all Prizes

and Exhibitions, to hold the appointments of House-Physician, House-Surgeon, and Assistant House-Surgeon, and to become Clinical Clerks for two periods of three months each, and Dressers for two similar periods. This payment must in all cases be made at the time of entry.

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1876-7.

For further particulars regarding each Hospital and Medical School, see p. 340 et seq.

LECTURES, ETC.	ST. BARTHOLOMEW'S HOSPITAL.	CHARING CROSS HOSPITAL.	ST. GEORGE'S HOSPITAL.	GUY'S HOSPITAL.	KING'S COLLEGE AND HOSPITAL.
WINTER SESSION.					
PHYSIOLOGY	Mr. Baker. M. Tu. Th. 2.30	Dr. Silver. M. Tu. W. F. 3	Dr. Cavafy. Tu. Th. 8; F. 11	Dr. Pavy & Dr. Pye-Smith. M. W. F. 4.15	Dr. G. F. Yeo. M. W. Th. F. 4
ANATOMY, DESCRIPTIVE AND SURGICAL	Mr. T. Smith & Mr. Langton. Tu. W. Th. F. 9	Mr. Bellamy. M. W. F. 9; Th. 3	Mr. Pick. M. W. F. 3	Mr. Howse & Mr. Davies-Colley. Tu. W. Th. F. 9	Dr. Curnow daily, exc. M. 9
ANATOMICAL DEMONSTRATIONS	Mr. Cumberbatch. Mr. Walsbam. Mr. Cripps. Mr. Keetley. 10.15 to 4	Mr. R. Godlee. daily, 10 to 4; S. 10 to 1	Mr. Turner and Mr. Wadham. daily, 9 to 4	Mr. Lucas. Mr. Golding Bird, & Mr. Jacobson. daily, 9 to 4	Dr. Curnow
CHEMISTRY	Dr. Russell. M. W. F. 10	Mr. Heaton. M. W. F. 11	Dr. Noad. Tu. Th. S. 11.30	Dr. Debus & Dr. Stevenson. Tu. Th. S. 11	Mr. Bloxam. M. W. Th. 10.15
MEDICINE	Dr. Black & Dr. Andrew. M. Tu. Th. F. 3.30	Dr. Pollock. M. W. F. 4	Dr. Barclay. Tu. Th. S. 2	Dr. Habershon and Dr. Wilks. M. W. F. 3	Dr. Beale. Tu. 4 P.M.; W. F. 5
SURGERY	Mr. Savory & Mr. Callender. W. F. 2.30; S. 9.30	Mr. Canton. Tu. Th. S. 9	Mr. Holmes. M. W. F. 9	Mr. Bryant & Mr. Durham. Tu. Th. 3.30; S. 10.30	Mr. J. Wood. M. Tu. Th. 5
HOSPITAL PRACTICE: Physicians	Dr. Black. M. Tu. Th. 1 Dr. Andrew. daily, exc. W. 1.30 Dr. Southey. M. W. Th. S. 1.30 Dr. Church. Tu. Th. S. 1.30 Dr. Greenhalgh (in-p.). M. Th. S. 2	Dr. Pollock. M. W. F. Dr. Silver. Tu. Th. F. Dr. Green. M. W. S.	Dr. Barclay. M. F. 1 Dr. J. Ogle. M. F. 1 Dr. Wadham. Tu. S. 1 Dr. Dickinson. Tu. S. 1	Dr. Habershon. M. Th. 1.30 Dr. Wilks. M. Th. S. 1.30 Dr. Pavy. M. W. F. 1.30 Dr. Moxon. M. Th. F. 1.30	Dr. Johnson. M. Th. 2 Dr. Beale. Tu. S. 2 Dr. Duffin. W. F. 2
Obstetric Physicians	Dr. Gee. W. S. 11 Dr. Duckworth. Tu. F. 11 Dr. Hensley. M. Th. 11 Dr. Brunton	Dr. J. W. Black. Tu. F. 1	Dr. Barnes in-p. Tu. S. 1; out-p. Th. 12 Dr. Whipple. Tu. S. 12 Dr. Cavafy. M. F. 12	Dr. Braxton Hicks. Tu. F. 1.30 Dr. Fagge. F. 12 Dr. Pye-Smith. W. 12 Dr. E. Taylor. M. 12 Dr. Galabin. (lect.) M. F. 1.30; (out-p.) Th. S. 1.30 Mr. C. Foster. M. Th. 1.30 Mr. Bryant. M. Th. 1.30 Mr. Durham. M. Th. F. 1.30	Dr. Playfair. Tu. Th. S. 1.30 Dr. I. B. Yeo. Tu. F. 1 Dr. Ferrier. M. Th. 1 Dr. Baxter. W. S. 1 Dr. Curnow. W. S. 1 Dr. Hayes. Tu. Th. S. 12.30 Sir. W. Fergusson. Bart. Tu. Th. S. 1.30 Mr. Wood. M. W. F. 1.30 Mr. H. Smith. M. W. F. 1
Assistant-Physicians	Dr. Godson (obst.) W. S. 9 Mr. Holden. Tu. F. S. 1.30 Mr. Savory. M. 1; Tu. W. Th. F. S. 1.30 Mr. Callender. daily, 1.30 Mr. T. Smith. daily, 1.30 Mr. Willett. W. S. 12.30 Mr. Langton. Tu. F. 12.30 Mr. M. Baker. M. Th. 12.30 Mr. Marsh	Mr. Canton. Tu. F. 1 Mr. Hird. M. Th. 1 Mr. Barwell. W. S. 1	Mr. Pollock. M. F. 1 Mr. H. Lee. M. F. 1 Mr. Holmes. Tu. S. 1 Mr. Rouse. Tu. S. 1	Mr. Howse. W. S. 1.30 Mr. Davies-Colley. W. 12 Mr. E. C. Lucas. Th. 12 Mr. Golding Bird. M. 12 Mr. Jacobson. S. 12 The Physicians (Win.). S. 1.30; the Assistant-Physicians (Sum.). W. 3.30 The Surgeons (Win.). W. 1.30; the Assistant-Surgeons (Sum.). F. 1.30 Dr. Hicks (Win.). W. 1.30; Dr. Galabin (Sum.). Tu. 3	Mr. H. B. Bell. Tu. Th. S. 1 Mr. Rose
Surgeons	Mr. Callender. daily, 1.30 Mr. T. Smith. daily, 1.30 Mr. Willett. W. S. 12.30 Mr. Langton. Tu. F. 12.30 Mr. M. Baker. M. Th. 12.30 Mr. Marsh	Mr. Canton. Tu. F. 1 Mr. Hird. M. Th. 1 Mr. Barwell. W. S. 1	Mr. Pollock. M. F. 1 Mr. H. Lee. M. F. 1 Mr. Holmes. Tu. S. 1 Mr. Rouse. Tu. S. 1	Mr. Howse. W. S. 1.30 Mr. Davies-Colley. W. 12 Mr. E. C. Lucas. Th. 12 Mr. Golding Bird. M. 12 Mr. Jacobson. S. 12 The Physicians (Win.). S. 1.30; the Assistant-Physicians (Sum.). W. 3.30 The Surgeons (Win.). W. 1.30; the Assistant-Surgeons (Sum.). F. 1.30 Dr. Hicks (Win.). W. 1.30; Dr. Galabin (Sum.). Tu. 3	Mr. H. B. Bell. Tu. Th. S. 1 Mr. Rose
Assistant-Surgeons	Mr. Callender. daily, 1.30 Mr. T. Smith. daily, 1.30 Mr. Willett. W. S. 12.30 Mr. Langton. Tu. F. 12.30 Mr. M. Baker. M. Th. 12.30 Mr. Marsh	Mr. Canton. Tu. F. 1 Mr. Hird. M. Th. 1 Mr. Barwell. W. S. 1	Mr. Pollock. M. F. 1 Mr. H. Lee. M. F. 1 Mr. Holmes. Tu. S. 1 Mr. Rouse. Tu. S. 1	Mr. Howse. W. S. 1.30 Mr. Davies-Colley. W. 12 Mr. E. C. Lucas. Th. 12 Mr. Golding Bird. M. 12 Mr. Jacobson. S. 12 The Physicians (Win.). S. 1.30; the Assistant-Physicians (Sum.). W. 3.30 The Surgeons (Win.). W. 1.30; the Assistant-Surgeons (Sum.). F. 1.30 Dr. Hicks (Win.). W. 1.30; Dr. Galabin (Sum.). Tu. 3	Mr. H. B. Bell. Tu. Th. S. 1 Mr. Rose
CLINICAL MEDICINE	The Physicians. weekly	The Physicians	The Physicians (Win.). M. F. 2; (Sum.). M. 2	The Physicians (Win.). S. 1.30; the Assistant-Physicians (Sum.). W. 3.30 The Surgeons (Win.). W. 1.30; the Assistant-Surgeons (Sum.). F. 1.30 Dr. Hicks (Win.). W. 1.30; Dr. Galabin (Sum.). Tu. 3	Mr. Johnson. alt. M. 3 Dr. Peale. alt. F. 3 Dr. Duffin. alt. Tu. 3 Sir W. Fergusson. alt. Th. 3
CLINICAL SURGERY	The Surgeons. weekly	The Surgeons	The Surgeons. Tu. 2	The Surgeons (Win.). W. 1.30; the Assistant-Surgeons (Sum.). F. 1.30 Dr. Hicks (Win.). W. 1.30; Dr. Galabin (Sum.). Tu. 3	Mr. Wood. alt. F. 3 Dr. Playfair. alt. Th. 3
CLINICAL MIDWIFERY AND DISEASES OF WOMEN	Dr. Greenhalgh. weekly	Dr. J. W. Black. Twice a week	Dr. Barnes	Tuesday and Friday, 1.30; on Eye, M. F. 1.30	Wednesday, 2; Saturday, 1.30
OPERATIONS	Wed. and Sat. 1.30; on Eye, Tu. 1.30	Saturday, 2	Thursday, 1; Eye, F. 1.15	Tuesday and Friday, 1.30; on Eye, M. F. 1.30	Wednesday, 2; Saturday, 1.30
SUMMER SESSION.					
MATERIA MEDICA	Dr. Lauder Brunton. Tu. Th. S. 10; W. 11.30	Dr. Powell. Tu. Th. S. 10	Dr. Dickinson. M. W. F. 3	Dr. Moxon. Tu. Th. F. 3	Dr. Baxter. Tu. W. Th. F. 8 A.M.
BOTANY	Rev. G. Henslow. M. W. F. 10	Mr. Saunders. Tu. Th. S. 9	Dr. Whipple. W. Th. F. 12	Dr. Stokoe. Tu. Th. S. 11.30	Mr. Bentley. M. Tu. Th. F. 12.15
MIDWIFERY	Dr. Greenhalgh. Tu. W. F. S. 8.30 A.M.	Dr. J. W. Black. M. 4; Tu. W. F. 3	Dr. Barnes. M. W. F. 2	Dr. Braxton Hicks. Tu. W. Th. F. 9	Dr. Playfair. Tu. W. Th. F. 9
FORENSIC MEDICINE	Dr. R. Southey. Tu. Th. S. 9	Dr. Irvine. M. W. F. 2	Dr. Wadham. Tu. Th. S. 9	Dr. A. S. Taylor. Tu. Th. S. 10	Dr. Ferrier. M. Tu. W. Th. F. 12.15
PRACTICAL CHEMISTRY	Dr. Russell. M. Tu. F. 11	Mr. Heaton. M. F. 10	Dr. Noad. M. W. Th. F. 10	Dr. Debus. M. W. F. 10 to 1	Mr. Bloxam. M. W. Th. 10.15
COMPARATIVE ANATOMY	Dr. N. Moore (Winter). M. Th. 11	Mr. J. F. Blake (Summer)	Dr. Brailley (Sum.). M. F. 4.30	Mr. Jacobson (Sum.). M. W. 1.30	Mr. Garrod (Sum.). Tu. F. 10.15
PRACTICAL PHYSIOLOGY AND HISTOLOGY	Dr. Shuter. (Practical Phys.) Dr. Klein (Hist.). M. 2.30 (Win.)	Dr. Bruce	Mr. Watney. Tu. Th. S. 10	Dr. Pye-Smith (Win.). M. Th. F. 1.30	Demonstrator (Winter). Tu. 11.15; (Summer). M. W. F. 4
PATHOLOGY AND MORBID ANATOMY	Dr. Gee (lect.). W. 9.30; (demon.). Medical, 12; Surgical, 2.30	Dr. T. H. Green (Sum.). M. Th. 3; W. 4; Mr. Bloxam. W. 10 (Sum.)	Dr. Dickinson (Winter). Th. 3; Dr. R. J. Lee (demon.). W. 12	Dr. Fagge & Dr. Goodhart (demon.). daily, 2.30; (lect.). Sum. S. 9	Dr. Duffin. (Summer). Tu. Th. 4
PSYCHOLOGICAL MEDICINE	Dr. Clays Shaw (Sum.). Th. 12	Dr. L. F. Winslow. M. 12 (Summer)	Dr. Blandford	Dr. Savage. (Sum.). Tu. F. 11.30	Dr. Sheppard (Summer)
PUBLIC HEALTH	Dr. Southey (Jan. Feb.). F. 3.30	Mr. Heaton. Dr. Irvine, and Mr. Eassie	With Medicine	Dr. F. Taylor (Sum.). F. 12	Dr. Guy
PRACTICAL AND OPERATIVE SURGERY	Mr. Willett. M. W. F. 2.30; Mr. Langton and Mr. Marsh	Mr. Bellamy. Tu. Th. S. 9 (Sum.); Mr. Godlee. Th. 4; Mr. Bloxam	Mr. Howard (Sum.). M. W. F. 3	Mr. Davies-Colley	
OPHTHALMIC MEDICINE AND SURGERY	Mr. Power (vis.). Tu. Th. 1.30; (lect.) Tu. W. 12.45; Mr. Vernon (vis.). Th. S. 1.30; (demon.). W. S. 2	Mr. Fairbank. (vis.) M. W. F. 9.30; (lect.) in Sum. Mr. Bloxam. (vis.) weekly; demon. in Summer	Mr. R. B. Carter (vis.). W. S. 2; (Win.) (lect.) F. 3	Mr. Bader (vis.). Tu. S. 1.30; (lect.). Sum. Th. 2; Mr. Higgens (out-p.). Tu. F. 12	Mr. Soelberg Wells (vis.). Tu. Th. S. 1; (clin. lect.) (Win.). alt. M. 3
DENTAL SURGERY	Mr. Coleman (vis.). F. 9; (lect.) F. 10.30 (Oct.-Dec.)	Mr. Fairbank. (vis.) M. W. F. 9.30; (lect.) in Sum. Mr. Bloxam. (vis.) weekly; demon. in Summer	Mr. Vasey (vis.). Tu. S. 9; Th. 1; (lect.) Sum. Tu. 10	Mr. J. Salter. Th. 12; Mr. Moon. Tu. F. 12	Mr. Cartwright. Tu. F. 10; clin. lect. Tu. 10.30
AURAL SURGERY	Mr. Langton. F. 2.30	Dr. Sangster. (vis.). M. Th. 1; (lect.) M. 2.30, Sum.	Dr. Whipple (vis.). Th. 1; (lect.) Sum. Th. 1	Dr. F. Taylor. Tu. 12; (demon.). Tu. 1	Dr. U. Pritchard
DISEASES OF SKIN	Mr. M. Baker. F. 1.30				Dr. Duffin. Tu.
VACCINATION		Mr. B. W. Dunn	Obstetric Assistant, Th. 10		Mr. R. W. Dunn
MISCELLANEOUS	Diseases of Larynx: Dr. Brunton. W. 11.30 Orthopedic Surgery: Mr. Willett. E. 12.30	Auscultation: Dr. Irvine. F. 1 Diseases of Children: Dr. Barlow, twice weekly Morbid Histology: Dr. Bruce. (Summer). Laryngoscopes: Dr. Irvine. Feb. March	Orthopedic Surgery: Mr. Howard. W. 2 Physiological Chemistry: Dr. Halse. (Win.). M. W. F. 10 Osteology: Mr. Turner. daily, exc. M. 10	Morbid Histology: Mr. Howse. W. S. 1 (Sum.) Experimental Philosophy: Mr. Reinold. M. 11; (Win.). Th. S. 9 (Sum.)	Diseases of Throat and Laryngoscope: Dr. Ferrier. Th. 3 Tutor's Class (Win.). M. W. F. 5; (Sum.) daily, exc. S. 9

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1876-7.

For further particulars regarding each Hospital and Medical School, see p. 340 et seq.

LONDON HOSPITAL.	ST. MARY'S HOSPITAL.	MIDDLESEX HOSPITAL.	ST. THOMAS'S HOSPITAL.	UNIVERSITY COLLEGE AND HOSPITAL.	WESTMINSTER HOSPITAL.
Mr. McCarthy...Tu. Th. F. S., 10 Mr. Rivington...M. Tu. Th. F., 3 Dr. Wilson...to 4, excepting S. aft. Dr. Tidy...M. Tu. W. Th., 11 Dr. H. Davies...W., 9.15; Dr. Fenwick...Tu. F., 4 Mr. Couper...M. Th. S., 9 Dr. A. Clark...M. Th., 2 Dr. Ramskill...W. F., 2 Dr. Down...Tu. F., 2 Dr. H. Jackson...M. Th., 2 Dr. Sutton...M. Th., 2 Dr. Fenwick...Tu. F., 1.30 Dr. Palfrey...M. Th., 1.30 Dr. Woodman...Tu. F., 1.30 Dr. S. Mackenzie...W. S. 1.30 Dr. Sansom...M. Th., 1.30 Dr. Turner...M. Th., 1.30 Dr. Herman...obst. W. S. 1.30 Mr. Hutchinson...M. Th., 2 Mr. Maunder...Tu. F., 2 Mr. Couper...W. S., 1.30 Mr. Rivington...M. Th., 1.30 Mr. J. Adams...Tu. F., 1.30 Mr. Tay...M. Th., 1.30 Mr. McCarthy...M. Th., 1.30 Mr. Reeves...Tu. S., 1.30 Physicians (Win.) Assist- ant Physicians (Sum.) in rotation twice weekly The Surgeons Dr. Palfrey (Win.)...2nd F. in mor.; demons. W., 1.30; (Sum.) alt. Tu., 2.30 Wednesday, 2 Dr. Prosser James...Tu. Th. F., 1 Mr. Baker...M. W. F., 11 Dr. Palfrey...daily, exc. S., 9 A.M. Mr. Rodgers and Dr. Tidy... daily, exc. S., 10 Dr. Tidy...Tu. W. Th. F., 8.30 A.M. Dr. E. B. Aveling...M. W., 1 Mr. McCarthy... (Win.) M. Th., 10; (Sum.) Tu. Th., 11 Dr. Sutton, lect. (Win.) Tu. F., 9; (Sum.) Th. S.; dem., daily, 3.30 With Forensic Medicine Mr. Maunder (Sum.) Mr. Couper, lect. (Sum.) Mr. J. Adams and Mr. Tay, W. S., 9 Mr. Barrett (vis.)...Tu., 9; lect. Mr. Rivington...S., 9.30 Mr. McCarthy...W., 9 (Win.); Dr. S. Mac- kenzie, W., 9 (Sum.) Assist. Obst. Phys. and Resident Accoucheur Diseases of Throat: Dr. M. Mackenzie (Sum.)	Dr. Lawson...M. W. S., 12 Mr. Owen...M. Tu. Th. F., 2.45 Daily, 9 to 5, exc. S., 9 to 1 Dr. Wright...M. Tu. Th. F., 9 Dr. Chambers and Dr. Broadbent...M. W. Th., 4 Mr. J. R. Lane and Mr. Norton...Tu. F., 4; W., 3 Dr. H. Jones...M. Th., 1.15 Dr. Sieveking...Tu. F., 1.15 Dr. Broadbent...W. S., 1.15 Dr. Meadows...Tu. F., 9.30 Dr. Cheadle...Tu. F., 1 Dr. Lawson...W. S., 1 Dr. Shepherd...M. Th., 1 Dr. Wiltshire (obst.)...Tu. F., 1.30 Mr. S. Smith...M. Th., 1.15 Mr. Walton, W. S., 1.15 Mr. J. R. Lane...Tu. F., 1.15 Mr. A. T. Norton...M. Th., 1 Mr. E. Owen...Tu. F., 1 Mr. H. Page...W. S., 1 Dr. H. Jones...Th. Dr. Sieveking...alt. F. Dr. Broadbent...alt. S. Mr. S. Smith...M. Mr. H. Walton...alt. S. Mr. J. R. Lane...alt. Tu. Dr. A. Meadows...alt. Tu. Wednesday, 1.30 Dr. Farquharson...Tu. W. F. S., 12 Mr. Hemsley...M. Tu. F., 12 Dr. A. Meadows and Dr. Wiltshire...Tu. W. Th. F., 9 Dr. Randall...M. W. Th., 10 Dr. Wright...Morg. Tu. F., S., 9; Organ. Tu. F., 10 Mr. St. G. Mivart... (Sum.) W. Th., 10 Dr. Shepherd... (Win.) M. Th., 10 Dr. Cheadle... (Win.) M. Th., 3 With Forensic Medicine Mr. Page...W. S., 10 Mr. Walton... (vis.) M. Th., 1.30; lect. (Sum.) M., 2.45 Mr. H. Hayward...W. S., 9.30 Mr. Field (lect.) F., 3; (vis.) Tu. F., 2 Dr. Jones & Dr. Cheadle... Tu. Th., 1.30; Dr. Cheadle (lect.) Th., 8 (Sum.) Mr. Sumner Diseases of Throat: Mr. Norton...W. S., 12.30	Mr. Lowne...Tu. Th. S., 9 Mr. Morris...M. Tu. Th. F., 4 Mr. Hensman and Mr. Hartley...daily, 9 to 4 Mr. Foster...M. W. Th. F., 9 Dr. Greenhow...M. W. F., 9 Mr. Hulke...M. W. Th., 3 Dr. H. King...Th., 8.30; S., 9 Dr. H. Thompson...Tu. Th. S., 1 Dr. Greenhow...Tu. Th. S., 1 Dr. Cayley...M. W. F., 1 Dr. H. Davis...Tu. F., 1.30 Dr. E. King...Th., 8.30; S., 9.30 Dr. G. H. Evans...M. W. S., 9.30 Dr. Coupland...Tu., 3.30; F., 8.30 Dr. Edie (obst.)...W. S., 1.30 Mr. Nunn...Tu. F., 1 Mr. Hulke...M. Th., 1 Mr. Lawson...M. Th., 1 Mr. Morris...M. F., 1 (can- cer); Th., 1.30 Mr. A. Clark...Th. S., 1 The Physicians...F., 3 The Surgeons...Tu., 3 Dr. Hall Davis...Tu., 10 Wednesday, 1 Dr. Thorowgood...M. W. F., 4 Mr. Hensman...M. W. F., 10 Dr. Hall Davis...Tu. Th., S., 9 Dr. R. King...M. W. F., 9 Mr. Foster...M. W. F., 3 Mr. Hensman (Sum.)...Tu. Th., 4 Mr. Lowne (Sum.)...M. W. Th., 9 Dr. Cayley (Win.)...M. Th., 4 Dr. H. Rayner (Sum.) Dr. G. H. Evans (Sum.)... M. Th., 10 Mr. Lawson and Mr. Morris Mr. Critchett...Tu. F., 8.30 (o. p.); 1.30 (i. p.) Mr. Turner...daily, 9 Mr. A. Clark...Tu., 9 Dr. Evans, F., 4 Dr. W. Pearce Diseases of Throat: Mr. A. Clark...Tu., 9	Dr. Ord and Dr. J. Harley... M. W. F., 4 Mr. Mason and Mr. Wagstaffe... M. Tu. Th. F., 3; W., 12.30 Mr. Mason, Mr. Wagstaffe, Mr. Rainey, and Mr. Reid... daily, 9 to 3; S., 9 to 2 Dr. Barnays...Tu. Th. F., 12 Dr. Bristowe and Dr. Mur- chison...W., 5; or F., 2 Mr. S. Jones and Mr. Mac- Cormac...M. Tu. Th. F., 5 Dr. Peacock...8 to Dr. Bristowe...9.30 A.M. Dr. Murchison...daily. Dr. Stone Dr. Gervis... Dr. Ord... Dr. J. Harley... Dr. Payne... Dr. C. (obst.)... Mr. Simon...8 to Mr. S. Jones...9.30 A.M. Mr. Croft...daily. Mr. MacCormac... Mr. F. Mason... Mr. Wagstaffe... Mr. McKellar... The Physicians, after or during visits The Surgeons, after or during visits Dr. Gervis...Tu., 4 Wednesday and Saturday, 1.30; S., 9.30; Eye, Th., 3 M. W. F., 8 Mr. A. W. Bennett...Tu. Th. S., 8 A.M. Dr. Gervis...M. T. Th. F., 3 Dr. Stone...M. Th. S., 12 Dr. Barnays...Tu. Th. S., 10 Mr. Stewart (Sum.)...M. Th., 11.30 Dr. Ord and Dr. Harley... (Sum.)...daily, exc. S., 1.30 Dr. Payne...Th., 4 Dr. Greenfield...M., 3 to 5 Dr. W. R. Williams (Sum.)... F., 12 Dr. A. Carpenter... Mr. Croft and Mr. McKel- lar (Win.)...M. or Tu., 6; (Sum.) Tu. F., 4 Mr. Liebreich (vis.)...M. Th., 8; lect. (Sum.) M., 4 Mr. Elliott and Mr. Ranger... Tu. F., 10 Dr. Payne (out-p.)...M., 12.30 Dr. Gervis Physics and Natural Phi- losophy: Dr. Stone (Win.)...S., 12 Demonstrations in Physio- logy: Dr. Charles (Win. & Sum.)	Dr. Sanderson and Mr. Schaefer...daily, exc. S., 10 Mr. Ellis...daily, 12 Mr. Ellis, Mr. Thane, Mr. Maclean, & Mr. Jameson Dr. Williamson...daily exc. S. 11; (exere.) Tu. W. Th. F., 9 Dr. Reynolds...Tu. W. Th. F., 9 Mr. Marshall...Tu. W. F., 4 Sir W. Jenner, Bart. Dr. Reynolds Dr. Wilson Fox Dr. Ringer Dr. C. Bastian Dr. Graily Hewitt...Twice weekly Dr. F. T. Roberts Dr. Gowers Dr. Poore Dr. J. Williams (obstet.) Mr. Erichsen Mr. Marshall Mr. Berkeley Hill Mr. C. Heath Mr. Marcus Beck Mr. A. Barker Sir W. Jenner, Dr. Rey- nolds, Dr. Ringer, and Dr. W. Fox (Holme prof.) Mr. Erichsen (occu.), Mr. Marshall, Mr. B. Hill, & Mr. Heath (Holme prof.) Dr. G. Hewitt, fortnightly Dr. Ringer...M., 9; Tu. W. Th. F., 10 Mr. Oliver...daily, exc. S., 8 A.M. Dr. Graily Hewitt...Tu. W. Th. F., 9 Dr. Maudeley...Tu. W. Th. F., 10 Dr. Williamson and Dr. C. Graham Mr. Lankester...W. Th. F., M. Th., 4; and in Sum., 11 Dr. Sanderson...Oct. Nov. Dec. Jan., daily, 11; Feb. Mar., M. W. F. S., 9 Dr. Bastian (Sum.) M. Th., 9; F., 4; Mr. Barker (Surg.) Jan. Feb. Mar., M. Th., 4 Dr. Sankey... (Sum.)...M. Tu. W., 4; (clin.) Tu., 2 Dr. Corfield (Sum.)...Tu. Th., 1 Mr. Hill (Oct. Nov. Dec.)... M. Th., 4; and in Sum., 3 to 5 Mr. Beck (Win.)... Mr. W. Jones & Mr. Streat- field (vis.)...M. W. F., 2; lect. (Sum.) Tu., 3 Mr. Hbbetson... (lect.) M. Th., 4; (vis.) W., 10 Mr. Barker...W., 3 Dr. Tilbury Fox (vis.)... Tu., 1.30; F., 9; (clin. lect. alt. weeks) Mr. W. Pearce Diseases of Throat: Dr. Poore...Th., 2.30	Dr. Maclure...M. W. F., 4 Mr. Davy...Tu. W. Th. F. S., 9.30 Mr. Davy and Demon- strators...daily, 10.30 to 1 Dr. Dupré...W. Th. F., 3 Dr. Fincham and Dr. Sturges...M. W. Th., 3 Mr. Cowell...Tu. Th., 4; F., 3 Dr. Basham...M. Th., 1.30 Dr. Fincham...W. S., 1.30 Dr. Sturges...Tu. F., 1.30 Dr. Potter...Tu. F., 3 Dr. Alchin...M. Th., 1 Dr. Donkin...W. S., 1 Dr. Hall...Tu. F., 1 Dr. Grigg (obst.)...Tu. F., 1 Mr. Cowell...M. Th., 1.30 Mr. Davy...Tu. F., 1.30 Mr. Macnamara...W. S., 1.30 Mr. T. Cooke...M. Th., 1 Mr. Bond...Tu. F., 1 Mr. Keene...W. S., 1 Dr. Basham...1st & 3rd Th. Dr. Fincham...2nd & 4th W. Dr. Sturges...2nd & 4th F. Mr. Cowell...2nd & 4th Th. Mr. Davy...1st & 3rd F. Mr. Macnamara...1st & 3rd W. Dr. Potter...2nd & last F. Dr. Phillips...Tu. Th. S., 9 Mr. Holmes...M. W. F., 9 Dr. Potter...Tu. W. F., 4 Dr. Dupré and Mr. Bond... M. Th. F., 3 Dr. Dupré...M. W. F., 10 Dr. Carter Blake (Sum.)... W. S., 11 Dr. W. H. Alchin (Win.)... W. F., 1 Dr. Alchin (lect.) (Sum.) M. Th., 4; W., 3; Dr. Al- chin & Mr. Cheyne (dem.) 2 Dr. Sutherland With Forensic Medicine Mr. Cheyne (bandaging etc.) (Sum.)...W. F., 12 Mr. Cowell (vis.)...M. Th., 2.30; (lect.) (Sum.) M., 3 Mr. J. Walker (vis.)...W. S., 9.15; (lect.) W., 9.30 Mr. Keene (vis.)...W., 1; (lect.) in June Mr. Bond (vis.)...Th., 1; (lect.) (Feb. Mar.) Th., 2.30 Mr. W. Pearce Auscultation: Dr. Sturges & Dr. Donkin Natural Philosophy: Mr. Brooke (Sum.) Tu., 10 Dental Anatomy: Dr. Alchin...W., 9 (Sum.) Dental Metallurgy: Dr. Dukes...Th., 4

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p" perpetual or unlimited attendance.)

	ST. BARTHOLOMEW'S.	CHARGING CROSS.	ST. GEORGE'S.	GUY'S.	KING'S COLLEGE.	LONDON.	ST. MARY'S.	MIDDLESEX.
AGGREGATE FEE FOR LECTURES AND HOSPITAL PRACTICE REQUIRED BY LICENSING BOARDS	£105; or £38 15s. in first winter, first summer, & second winter	1st yr. £36 15s.; 2nd yr. £33 12s.; 3rd yr. £14 14s.	1st year, £42; 2nd year, £42; each subs. year, £10 10s.	£105; or £52 10s. at begin. of 1st win. & 1st sum.; or 1st year, £40; 2nd, £40; 3rd, £30; each subsequent yr., £10 10s.	£100; or £52 10s. on entrance; £42 at 2nd winter, and £10 10s. at 3rd winter; each subsequent year, £10 10s.	£91 10s.; or £42, £36 17s., and £26 5s. at begin. of first, second, & third years	£39 5s. in instalments, or £34 in one sum. for lectures alone, £52 10s.	£90; or £35 at beg. of 1st and 2nd winter sessions; £20 at beg. of 3rd; each subsequent year, £10
HOSPITAL PRACTICE.....	<i>Medical</i> 3 mos. £8 9s. 6 mos. £12 12s. 2 yrs. £18 18s. Perp. £26 5s. <i>Surgical</i> 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Perp. £23 5s.	Total, full period, £31 10s. <i>Med. or Surg.</i> 3 mos. £6 6s. 6 mos. £10 10s. 12 mos. £15 15s. Full p. £21 <i>Med. and Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Full p. £31 10s.	<i>Medical</i> 6 mos. £8 9s. 3 yrs. £16 16s. Perp. £25 4s. <i>Surgical</i> 6 mos. £15 15s. 3 yrs. £21 Perp. £42	<i>Med. or Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. Perp. £26 5s.	Perp. £42 3 yrs. £31 10s. <i>Medical</i> 3 mos. £6 6s. 6 mos. £10 10s. 12 mos. £15 15s. Perp. £26 5s. <i>Surgical</i> 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Perp. £31 10s.	Perp. £52 10s. <i>Medical</i> 6 mos. £6 6s. Per. req. by Hall, £12 12s. Perp. £21 <i>Surgical</i> 6 mos. £8 8s. 12 mos. £12 12s. 18 mos. £18 18s. 3 yrs. £26 5s. Ditto, £31 10s.	Full p. £36 15s. <i>Medical</i> 3 mos. £5 5s. 6 mos. £7 7s. 12 mos. £12 12s. 18 mos. £15 15s. Perp. £21 <i>Surgical</i> 3 mos. £6 6s. 6 mos. £9 9s. 12 mos. £21 Perp. £31 10s.	<i>Med. or Surg.</i> Perp. £15 15s. One yr. £8 8s. 6 mos. £5 5s. <i>Med. and Surg.</i> Perp. £26 5s. 6 mos. £7 7s.
ANATOMY	s. £7 7s. p. £10 10s.	1st yr. £4 4s. 2nd yr. £2 3s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. £7 7s. p. £10 10s.	s. £5 5s. p. £8 8s.	s. £6 6s. p. £8 8s.	s. £8 8s. p. £12 12s.
DEMONSTRATIONS AND DISSECTIONS.....	1st c. £3 3s. sess. £5 5s.	1st yr. £3 3s. 2nd yr. £2 2s.	s. £3 3s.	s. £5 5s.	—	s. £5 5s. p. £8 8s.	s. £1 15s.	s. £6 6s. p. £8 8s.
PHYSIOLOGY	s. £7 7s. p. £10 10s.	1st yr. £4 4s. 2nd yr. £2 2s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. £7 7s. p. £10 10s.	s. £4 4s. p. £6 6s.	s. £3 3s. p. £1 4s.	s. £6 6s. p. £8 8s.
PRACTICAL PHYSIOLOGY.....	s. £5 5s. p. £7 7s.	—	—	s. £4 4s.	s. £3 3s. p. £5 5s.	s. £3 3s. p. £1 4s.	s. £3 3s. p. £1 4s.	s. £1 1s.
CHEMISTRY	s. £5 5s. p. £7 7s.	s. £5 5s.	s. £6 6s. p. £8 8s.	s. £5 5s.	s. £7 7s. p. £10 10s.	s. £7 7s. p. £7 7s.	s. £5 5s. p. £7 7s.	s. £6 6s. p. £8 8s.
PRACTICAL CHEMISTRY	s. £2 2s.	s. £3 3s.	s. £4 4s.	s. £4 4s.	s. £4 4s. p. £7 7s.	£2 2s.	s. £3 3s.	s. £3 3s.
MEDICINE	s. £5 5s. p. £7 7s.	1st c. £1 4s. 2nd c. £2 2s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. or p. £7 7s.	s. £5 5s. p. £6 6s.	s. £1 4s. p. £6 6s.	s. £6 6s. p. £8 8s.
SURGERY	s. £5 5s. p. £7 7s.	1st c. £3 3s. 2nd c. £2 2s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. or p. £7 7s.	s. £5 5s. p. £6 6s.	s. £1 4s. p. £6 6s.	s. £6 6s. p. £8 8s.
PRACTICAL SURGERY	s. £5 5s. p. £7 7s.	—	s. £2 2s.	s. £5 5s.	—	—	—	s. £6 6s.
MIDWIFERY.....	s. £5 5s. p. £6 6s.	s. £3 3s.	s. £5 5s. p. £6 6s.	s. £5 5s.	s. £4 4s. p. £5 5s.	s. £4 4s. p. £6 6s.	s. £4 4s. p. £6 6s.	s. £4 4s. p. £5 5s.
PATHOLOGICAL ANATOMY	s. £2 2s. p. £3 3s.	s. £3 3s.	s. £3 3s.	s. £5 5s.	s. £2 2s. p. £3 3s.	s. £3 3s. p. £6 6s.	s. £3 3s.	s. £1 4s. p. £5 5s.
MATERIA MEDICA	s. £5 5s. p. £6 6s.	s. £3 3s.	s. £4 4s. p. £5 5s.	s. £4 4s.	s. £4 4s. p. £5 5s.	s. £3 3s. p. £4 4s.	s. £4 4s. p. £6 6s.	s. £4 4s. p. £5 5s.
FORENSIC MEDICINE	s. £3 3s. p. £4 4s.	s. £3 3s.	s. £4 4s. p. £5 5s.	s. £4 4s.	s. £4 4s. p. £5 5s.	s. £3 3s. p. £4 4s.	s. £3 3s. p. £4 4s.	s. £4 4s. p. £5 5s.
BOTANY	s. £3 3s. p. £4 4s.	s. £3 3s.	s. £3 3s. p. £4 4s.	s. £4 4s.	s. £4 4s. p. £5 5s.	s. £3 3s. p. £4 4s.	s. £3 3s. p. £4 4s.	s. £4 4s. p. £5 5s.
COMPARATIVE ANATOMY	s. £2 2s. p. £3 3s.	s. £3 3s.	£4 4s.	s. £4 4s.	s. £3 3s. p. £4 4s.	s. £3 3s. p. £4 4s.	s. £2 2s. p. £3 3s.	s. £3 3s.
OPHTHALMIC SURGERY	s. £2 2s. p. £3 3s.	—	—	—	—	£2 2s. p. £3 3s.	£2 2s.	—
DENTAL SURGERY.....	s. £2 2s. p. £3 3s.	—	—	—	—	£2 2s.	s. £2 2s.	—
AURAL SURGERY	—	—	—	—	—	—	£2 2s.	—
PSYCHOLOGY	s. £2 2s. p. £3 3s.	—	—	—	—	—	—	s. £3 3s.
PUBLIC HEALTH	—	£1 1s.	—	£4 4s.	—	—	—	s. £3 3s.
LIBRARY	1 year, £1 1s. 4 years, £2 2s.	—	Each w. 10s. 6d. Perp. £2	—	£1 1s.	£1 1s.	£1 1s.	£1 1s.

MISCELLANEOUS.

ST. BARTHOLOMEW'S HOSPITAL.—House-Physicianships and House-Surgeonships, 12 months, £26 5s. Dresserships: 3 months, £12 12s.; 6 months, £18 18s.; 12 months, £26 5s. Demonstrations on Histology, £2 2s.

CHARGING CROSS HOSPITAL.—Hospital Practice after third year, £5 5s. for each additional winter, and £3 3s. for each summer. Matriculated Students receive a deduction of 8 per cent., making the total aggregate (including matriculation fee of £2 2s.), £60 8s., which may be paid in five instalments. Non-matriculated Students pay £4 4s. for Comparative Anatomy. The Lectures on Physiology, and on Normal Histology and Operative Surgery, are free to matriculated students; non-matriculated students pay £1 1s. for the former, and £2 2s. for each of the two latter. Morbid Histology: matriculated, £1 1s.; non-matriculated, £2 2s. Private class of Operative Surgery, whole body, £8 8s.; half body, £5 5s.

ST. GEORGE'S HOSPITAL.—Perpetual Fee, £105; or pupils paying aggregate fee by instalments may become perpetual at any time by making up the payments to £115 10s.

GUY'S HOSPITAL.—Natural Philosophy, £4 4s.

KING'S COLLEGE.—Perpetual Fee to Hospital Practice and all classes, £130 on entrance; or £60 on entrance, £40 at second winter, and £30 at third winter.

Non-matriculated students pay £42 for the three years' course of hospital practice, and £52 10s. for perpetual admission. Tutor, £3 3s.; for preparation for Preliminary Scientific Examination of University of London, £5 5s. Practical Physiology in summer, s. £2 2s.; p. £3 3s. Students of Practical Physiology pay £1 1s. for use of microscope. Practical Zoology, Mechanical Philosophy, and Natural Philosophy, each £3 3s. Analytical and Experimental Chemistry (exclusive of materials), 1 month, £4 4s.; 3 months, £10 10s.; 6 months, £14 14s. Practical Botany, £1 1s.

LONDON HOSPITAL.—The fees for surgical hospital practice, including dresserships for 3, 6, 12, and 18 months, and 2 years. Twelve months' Dressership after three years, £8 8s. Perpetual Fee for Lectures and Hospital Practice and two years' Practical Anatomy, £105; for lectures or hospital practice alone, £52 10s. Composition fee for students entering at or before second winter, £7 7s. Practical Chemistry, for apparatus and materials, to students of schools, £2 2s.; to others, £5 5s. Practical Pharmacy, £4 4s. Use of microscope in Practical Physiology (unless possessing one), 10s. 6d. Diseases of Throat, s. £2 2s.; p. £3 3s.

ST. MARY'S HOSPITAL.—Unlimited attendance, £105 in instalments, or £99 15s. in one sum. Use of microscope (unless possessing one), £1 1s. Inorganic Practical Chemistry is included in the General Fee. Practical Pharmacy, 3 months, £3 3s.; 6 months, £6 6s.; 12 months, £10 10s. Instruction in Vaccination, £1 1s.

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p", perpetual or unlimited attendance.)

ST. THOMAS'S.	UNIVERSITY COLLEGE.	WESTMINSTER.	QUEEN'S COLL. BIRMINGHAM.	BRISTOL.	LEEDS.	LIVERPOOL.	OWENS COLL. MANCHESTER.	SHEFFIELD.	NEWCASTLE.
£40 each 1st & 2nd years; £20 3rd yr.; after-wards, £10 a year	£105 15s.; or 1st yr. £47 16s.; 2nd yr. £39 8s.; 3rd yr. £14 7s.; 4th yr. £4 4s.	£80; or, 1st win., £29 8s.; 1st summer, £14 14s.; 2nd win., £26 5s.; 2nd summer, £13 13s.; Or 1st win. £42; 2nd win. £40	Lects. £52 10s. in two equal instalments at 1st and 2nd winters	Lects. (ex. comparative anat.) £57 15s.	Lect. £46 4s.; or, £24 3s. at entrance, & in 12 months.	Lectures, £47 5s. Half at entrance, and half within twelve months.	Lect. £48; or £25 at beginning of 1st and 2nd yrs.	Lectures, £42	Lectures: one payt. £52 10s.; two payments, each £25 7s.; three payments each £21.
<i>Med. or Surg.</i> 3 mos. £5 5s. 6 mos. £9 9s. 9 mos. £12 12s. 12 mos. £15 15s. Perp. £26 5s. <i>Med. and Surg.</i> 3 mos. £4 8s. 6 mos. £14 14s. 9 mos. £19 9s. 12 mos. £25 4s. Perp. £42	<i>Med. and Surg.</i> Perp. £27 One yr. £10	<i>Med. or Surgical</i> 3 mos. £5 5s. 6 mos. £8 8s. 12 mos. £12 12s. 18 mos. £15 15s. Perp. £21 <i>Med. and Surg.</i> 3 mos. £7 7s. 6 mos. £12 12s. 12 mos. £13 13s. 18 mos. £23 12s. 6d. Perp. £31 10s.	<i>General and Queen's Hospital.</i> 4 yrs. £31 10s. or in two equal sums. 1 yr. £15 15s. 6 mos. £10 10s.	<i>Royal Infirmary Medical.</i> 6 mos. £8 1 year, £15 18 mos. £20 Perp. £25 <i>Surgical.</i> 1 yr. £12 12s. 2 yrs. £21 3 yrs. £26 5s. <i>Gen. Hosp. Med. or Surg.</i> 6 mos. £6 12 mos. £40 Perp. £20	<i>Infirmary.</i> <i>Med. or Surg.</i> 1 win. £7 7s. 1 sum. £6 6s. 12 mos. £12 12s. 18 mos. £15 15s. 3 years, £21	<i>Royal Infirmary.</i> Perp. £33 12s. <i>Medical.</i> 6 mos. £5 5s. 12 mos. £8 8s. <i>Surgical.</i> 6 mos. £6 6s. 12 mos. £8 8s.	<i>Royal Infirmary.</i> Full per. £42; or 2 instalments, £22 <i>Medical.</i> 3 mos. £6 6s. 6 mos. £9 9s. 12 mos. £12 12s. Full per. £18 18s. <i>Surgical.</i> 3 mos. £9 9s. 6 mos. £12 12s. 12 mos. £16 16s. Full per. £31 10s.	<i>Gen. Infirmary, or Public Hospital.</i> Perp. Med. £15 15s.; Perp. Sur., £21 <i>Med. or Surg.</i> 6 mos. £6 6s. 12 mos. £10 10s.	<i>Infirmary.</i> 3 mos. £4 4s. 6 mos. £5 5s. 12 mos. £7 7s. Perp. £17 17s. or 1st year, £7 7s.; 2nd year, £8 8s.; 3rd year, £5 5s.
s. £5 5s. p. £8 8s.	s. £9 9s. p. with 3 yrs. pract. anatomy, £11 11s.	1 c. £7 7s. 2 c. £10 10s.	s. £5 5s.	s. £5 5s. p. £8 8s.	1st c. £6 6s. 2nd c. £5 5s.	1st & 2nd c. ea. £4 4s.; 3rd c. £2 2s. s. £3 3s.	s. £5 5s.	1st c. £4 4s. 2nd c. £2 2s.	s. £4 4s.
s. £5 5s. p. £8 8s.	s. £7 7s. p. £9 9s.	1 c. £5 5s. 2 c. £7 7s.	s. £5 5s.	s. £5 5s. p. £8 8s.	1st c. £6 6s. 2nd c. £5 5s.	1st & 2nd c. ea. £4 4s.; 3rd, £2 2s.	6 mos. £3 3s. 3 mos. £2 2s. s. £5 5s.	In above	—
s. £5 5s. p. £8 8s.	s. £7 7s. p. £9 9s.	1 c. £5 5s. 2 c. £7 7s.	s. £5 5s.	s. £5 5s. p. £8 8s.	1st c. £6 6s. 2nd c. £5 5s.	1st & 2nd c. ea. £4 4s.; 3rd, £2 2s.	s. £1 1s. 6d.	1st c. £3 3s. 2nd c. £2 2s.	s. £4 4s.
s. £5 5s. p. £8 8s.	s. £7 7s. p. £9 9s.	1 c. £5 5s. 2 c. £7 7s.	s. £4 4s.	s. £5 5s. p. £8 8s.	s. £4 4s.	1st c. £5 5s.; 2nd and 3rd, ea. £2 12s. 6d.	s. £3 3s.	s. £4 4s.	s. £5 5s.
s. £3 3s.	s. £1 1s. p. £7 7s.	1 c. £3 3s.	s. £3 3s.	s. £3 3s. p. £5 5s.	s. £3 3s.	s. £3 3s.	s. £4 4s.	s. £3 3s.	—
s. £5 5s. p. £8 8s.	s. £6 6s. p. £9 9s.	1 c. £5 5s. 2 c. £7 7s.	s. £5 5s.	s. £5 5s. p. £8 8s.	1st c. £5 5s. 2nd c. £4 4s.	1st & 2nd c. ea. £4 4s.; 3rd, £2 2s.	s. £5 5s.	1st c. £4 4s. 2nd c. £2 2s.	s. £4 4s.
s. £5 5s. p. £8 8s.	s. £5 5s. p. £6 6s.	1 c. £5 5s. 2 c. £7 7s.	s. £5 5s.	s. £5 5s. p. £8 8s.	1st c. £5 5s. 2nd c. £4 4s.	1st c. ea. £4 4s.; 2d, £4 4s.; 3d, £2 2s.	s. £5 5s.	s. £4 4s.	s. £4 4s.
s. £4 4s.	s. £4 4s.	2 c. £7 7s.	—	—	—	—	—	s. £3 3s.	—
s. £4 4s.	s. £4 4s.	1 c. £4 4s.	s. £4 4s.	s. £4 4s. p. £6 6s.	s. £4 4s.	1st c. £4 4s.; 2nd & 3rd, ea. £2 2s.	s. £4 4s.	s. £3 3s.	s. £4 4s.
s. £4 4s.	s. £4 4s.	2 c. £5 5s.	—	s. £3 3s.	s. £3 3s.	1st c. £3 3s.; 2nd & 3rd, ea. £1 1s. 6d.	s. £4 4s.	—	s. £4 4s.
s. £3 3s.	s. £4 4s.	1 c. £3 3s.	s. £3 3s.	s. £1 1s. p. £6 6s.	s. £4 4s.	1st c. £4 4s.; 2nd & 3rd, ea. £2 2s.	s. £4 4s.	s. £3 3s.	s. £4 4s.
s. £3 3s.	s. £3 3s.	1 c. £3 3s.	s. £3 3s.	s. £3 3s. p. £5 5s.	s. £4 4s.	1st c. £3 3s.; 2nd and 3rd, ea. £1 1s. 6d.	s. £4 4s.	s. £3 3s.	s. £4 4s.
s. £3 3s.	s. £3 3s.	2 c. £4 4s.	—	—	—	1st c. £3 3s.; 2nd and 3rd, ea. £1 1s. 6d.	s. £4 4s.	—	—
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The Registrars and the Demonstrators of Anatomy and Chemistry assist the pupils in their studies.

Pupils attending the practical courses are charged for the materials used.

Pupils' Appointments.—All these appointments are given according to the respective merits of the candidates, and without payment. The numbers appointed annually are as follows: 6 House-Physicians, term of office, six months; 6 House-Surgeons, four months; 12 Obstetric Residents, two months; 24 Surgeons' Dressers, six months; 18 Clinical Assistants, three months; 12 Dressers in the Eye Wards, four months; 24 *Post Mortem* Clerks, two months; 24 Obstetric Out-Patient Clerks, six weeks; 32 Assistant Physicians' Clerks, three months; 12 Dental Surgeons' Dressers, two months; 12 Aural Surgeons' Dressers, two months; 64 Medical Clinical Clerks, three months; 72 or more Assistant Surgeons' Dressers, and a similar number of Dressers in the Surgery, three months; 80 Surgical Clinical Clerks, three months; 32 Assistant Surgeons' Clerks, three months; 72 Obstetric Attendants, one month; also Clerks in the Room for applying Electricity. A special honorary certificate is given to every gentleman who has diligently performed the duties of the various offices.

Prizes.—*First Year:* 1. At entrance, in Classics, Mathematics, Modern Languages, Chemistry, Physics, and Botany.* The first two of the successful candidates receive £60 and £30. Examination on October 9th, 10th, 11th, and 12th. 2. At end of first summer session, in the subjects of the year. Three prizes of £50, £25, and £10 10s. *Second Year:* 3. At end of second summer session, in Anatomy, Physiology, and Practical Physiology. Two prizes of £25 and £10. 4. Sands Cox Scholarship, £15 for three years; subjects, Physiology (including Practical Physiology, Histology, and Physiological Chemistry), and Elementary Physics. 5. At end of winter session, the Michael Harris Prize of £10, for Human Anatomy, including Minute Anatomy. *Third Year:* 6. At end of third summer session, in Medicine, Surgery, Midwifery and Diseases of Women, and Medical Jurisprudence. Two prizes of £35 and £20. *Third and Fourth Years:* 7. Treasurer's Gold Medals, in Medicine and Surgery. *Fourth and Fifth Years:* 8. Gurney Hoare Prize of £25, for best reports of six Medical and six Surgical cases, with Commentaries. Honorary certificates are given to those candidates who pass creditable examinations. Special certificates are given to gentlemen who have attended 100 cases of Midwifery.

The Pupils' Physical Society meets on alternate Saturdays, at 7.30 P.M. A prize of £5 from the funds of the Society is given at the end of the session to the member who sends in the best essay and report of cases. Two other prizes of £5 and £10 are given to the members who are judged to have read the best essays before the Society. A fourth prize of £5 is given to the member who has most distinguished himself in the debates.

Further information may be obtained from the Dean, Dr. F. Taylor; or from Mr. Stocker, Secretary to the School.

KING'S COLLEGE AND HOSPITAL.—Matriculated students are those who (with certain exceptions named in the *Calendar*) receive their entire medical education at King's College. They have the privilege of filling the offices of clinical clerks, dressers, dentists' assistant, physicians' assistant, physician accoucheur's assistant, assistant house-accoucheur, assistant house-physician, house-surgeon, and assistant house-surgeon, to the hospital; of becoming candidates for the Daniel, Inglis, Warneford, and Medical Scholarships, for the Sambrooke Registrarships, and for the Warneford, Leathes, Todd, Tanner, Jelf, and other endowed prizes. They are also admitted to the practice of the hospital at a reduced fee.

Attendance on the Medical Tutor is compulsory on residents during their first year. The Principal requests each student, on entering his second term, to contribute £1 1s. towards the expenses of the restoration of the College Chapel.

The Hospital contains 170 beds in use.

The Museums of Anatomy, Materia Medica, Natural History, etc., are open daily from 10 till 4. The Medical Library is open daily.

Clinical Instruction is given in the wards and by lectures in the medical and surgical departments; also in the Diseases of Women and Children, in Dental Surgery, in Diseases of the Eye, in Throat-Diseases,

and in Skin-Diseases.—Demonstration and practical instruction in Morbid Anatomy are given in the *Post Mortem* Theatre.—Special Instruction is given in Medical Chemistry and the Microscope by the Physicians.

The Medical Tutor assists, by instruction and examination, all students in the subjects of the first winter and summer sessions, as well as those preparing for the Preliminary Scientific Examination of the University of London.

Resident Medical Officers, Clinical Clerks and Dressers, are chosen by examination from matriculated students who are pupils at the Hospital.

Scholarships and Prizes.—Three Warneford Scholarships, each £25 per annum, two for three years, and one for two years, for the encouragement of previous education; and one Warneford Scholarship of £25 per annum, for two years, for resident medical students.—College Scholarships given yearly to matriculated students—one of £40 for two years, open to students of the third and fourth year; one of £30 for one year, open to students of the second and third year; three of £20 for one year, open to students of the first year.—The Daniell Scholarship, open to students who have worked in the laboratory six months, £20 per annum for two years.—Sambrooke Registrarships.—Science Exhibitions given by the Clothworkers' Company—one, annually, of £50 per annum for two years, for proficiency in four of the following subjects: Mathematics, Mechanics, Physics, Chemistry, Botany, and Zoology.—Leathes' Prizes: Interest of £300, applied in purchase of a Bible and Prayer-Book, as annual prizes to two matriculated students.—Warneford Prizes: £40 in medals and books, to two matriculated students.—Class Prizes: Books of the value of £3, and certificates of honour, are awarded annually for proficiency in each of the several subjects taught in the classes.—Two Medical Clinical Prizes, one of £3 for the winter session, and the other of £2 for the summer session; and two Surgical Clinical Prizes of the same value.—Todd Medical Clinical Prize: Bronze Medal and Books, to the value of £4 4s.—Jelf Medal, to the candidate at the senior scholarship examination who is second in order of merit.—Tanner Prize, value £10, for proficiency in Diseases of Women and Children, and in Obstetrics.

Associates of King's College.—At the end of each winter session, the professors recommend to the Council the names of medical students to be elected associates.

Residence.—Rooms are provided within the College for a limited number of matriculated students. The cost of the academical year varies from £50 to £60. Some of the professors, etc., receive pupils into their houses. There is a dining-hall in the College.

The Medical Society meets on Thursdays, at 8.30 P.M.

The Dean of the Medical Department or the Subdean attends daily, Saturday excepted, at King's College, from 11 A.M. to 1 P.M., for the purpose of seeing students and their friends. Any letter addressed to the Dean on the subject of this department will receive early attention.

LONDON HOSPITAL.—Students in Arts of Universities where residence is required, who may have attended Lectures in Anatomy, Physiology, Chemistry, Botany, or Comparative Anatomy, may become pupils of the Hospital, eligible for Hospital Prizes and Appointments, on payment of £52 10s. for Practice (perpetual) at the Hospital. Entrance can be made to separate Courses of Lectures. Graduates of Canadian or American Universities or Medical Colleges are admitted, on showing their diplomas, to six months' dressership and perpetual hospital practice for £10 10s.

* Candidates for these three scholarships must be matriculated students of the Medical Department, and also perpetual pupils of the Hospital. Their first Winter Session must commence in October 1876. The examination will be in the following subjects. 1. Divinity: The First and Second Books of Kings, and the Book of Psalms; The Gospel according to St. Matthew, and the Epistle of St. James. The Prayer Book, its general history and structure; (Proctor on the Book of Common Prayer recommended). 2. English Language and Literature: Shakespeare, *Macbeth*; English History—History of England during the Reign of Henry VIII. 3. Latin: Horace, *Odes*, Books I and II. 4. Mathematics: Arithmetic; the ordinary rules, with vulgar and decimal fractions; Algebra, as far as and including Quadratic Equations; Euclid, Book I, Book II (except props. 8, 9, 10), Book III. 5. Greek: Xenophon's *Anabasis*, Book II. 6. French: *De la Grandeur et de la Décadence des Romains*, par Montesquieu. 7. German: Lessing's *Minna von Barnhelm* (Clarendon Press Series). 8. Chemistry: Miller's *Inorganic Chemistry* in Longman's Series of Text Books on Science. 9. Natural Philosophy: Descartes' *Natural Philosophy*, translated by Professor Everett, Part I and Part IV. 10. Botany: Bentley's *Manual of Botany*, 3rd edition, to page 203, together with chapters on the General Principles of Classification, and Diagnosis of the following natural orders: Ranunculaceæ, Rosaceæ, Compositæ, Labiatæ, Scrofulariaceæ, and Liliaceæ. Subjects 1, 2, 3, 4, are compulsory; candidates will also be allowed to select one subject out of 5, 6, 7, and another either out of 5, 6, 7, or out of 8, 9, 10.—The days of examination are fixed as follows: Friday, September 29th, Divinity; Saturday, September 30th, Mathematics and Latin; Monday, October 2nd, History and English Literature. The other subjects will be arranged as most convenient.

* Mathematics includes Arithmetic; Algebra to Quadratic Equations; Euclid. Books I, II, III, and IV; and Plane Trigonometry. The classical subjects are, for 1876: Greek: Homer, *Iliad*, Book III; Xenophon, *Memorabilia*, Books I and II; Latin: Virgil, *Æneid*, Book I; Cæsar, *De Bello Gallico*, Books I and II; German: Goethe, *Herermann und Dorothea*; French: Molière, *Le Misanthrope*. Candidates may substitute French and German for Greek. For 1877: Greek: Homer, *Iliad*, Book I; Herodotus, Book I. Latin: Horace, *Odes*, Book I; Cicero, *Catiline Orations*. German: Fouqué, *Die Vier Jahreszeiten*. French: Corneille, *Le Cid*.

The Hospital, when the new wing is occupied, will contain about 800 beds, thus allotted: Accidents and surgical cases, 334; medical cases, 300; diseases of women, 26; children under seven years of age, 68; ophthalmic cases, 12; out-door wards, 60.

Museums, etc.—The Anatomical and Pathological Museum, the *Materia Medica* Museum, and the Library, are open daily.

Clinical Instruction.—Two medical wards, containing together thirty beds, have been set apart for clinical teaching. The Clinical Professor will meet his class twice a week. Bedside instruction will also be given by the physicians not on special clinical duty. Students requiring signatures for medical practice must attend the Clinical Professor. In the out-patient department, the Physicians and Assistant-Physicians impart instruction at each visit. The surgeons make clinical observations on their cases, and a clinical lecture is given once a week.

Special Departments.—There are departments for instruction in Obstetric Medicine and Surgery, Vaccination, Diseases of the Eye, Ear, Skin, and Throat, Mental Diseases, Dentistry, and Practical Pharmacy. Students desirous of obtaining a practical knowledge of Mental Diseases can attend, without additional fee, the practice of Dr. Millar, at the Bethnal House Asylum, every Wednesday, from 10 to 12. Dr. Hughlings Jackson intends to give a short course of lectures on Mental Diseases.

Appointments.—A Senior House-Physician, qualified to practise Medicine, who receives £75, is appointed for twelve months. He is eligible for re-election, and then receives £100. Four House-Physicians are appointed every six months. Ten Medical Assistants are appointed every three or six months. Every student is expected to act as Clinical Clerk for six weeks in the Medical and as Dresser for three months in the Surgical out-patient department. A Resident Accoucheur is appointed for six months. All students who have attended a course of instruction in Midwifery can place their name on the list of Maternity Pupils, and have cases. Four House-Surgeons are elected, usually for six months. Any student, who has passed the primary examination at the College of Surgeons, may enter his name on the list as a Dresser. Two Dressers reside and board in the hospital every week. One Clinical Assistant is appointed every three months for the Medical out-patients, and is eligible for re-election. He receives a salary at the rate of £100 per annum. A Medical Registrar and a Surgical Registrar are appointed annually; each receives £100. A Dental Assistant, *Post Mortem* Clerks, and Projectors of Anatomy, are also appointed. Full pupils, and those who, having commenced elsewhere, pay the general fee to the hospital and college, at or before the beginning of the second winter, are eligible for all scholarships, prizes, and appointments. Students who have commenced elsewhere, but who, at or before the beginning of the second winter session, become pupils of the hospital and college by paying the composition fee, will be eligible for the Dresserships, for three months, as House-Surgeon, and for the offices of Ward Clerk, *Post Mortem* Clerk, Maternity Pupil, Clinical Assistant, and Registrar. All the appointments are open to students without fee. The holders of resident appointments are provided with rooms and board.

Scholarships and Prizes.—Nine scholarships will be offered for competition. 1 and 2. Two Entrance scholarships, value £60 and £40; examination on September 25th, 26th, and 27th; subjects the same as those of the Preliminary Scientific Examination of the University of London. 3 and 4. Two Buxton scholarships, value £30 and £20; examination on September 28th, 29th, and 30th, in the subjects of preliminary education.* These scholarships are open to full students of less than six months' standing. 5. A scholarship at the end of the winter session, value £20, to a first year's student: subject, Human Anatomy. 6. A scholarship, value £25, to a first or second year's student, at the end of the winter session: subjects, Anatomy, Physiology, and Chemistry. 7, 8, 9. Hospital scholarships, value each £20, for proficiency and zeal in Clinical Medicine, Surgery, and Obstetrics; also a second prize, value £5, with certificate, for attendance on the largest number of Obstetric cases.—The Duckworth Nelson Prize, value £10, at the end of the winter session, 1875-6, open to all students who have not completed their education: subjects, Practical Medicine and Surgery.—Money prizes to the value of £60 per annum to the most meritorious of the dressers in the out-patient rooms. Special certif-

icates to those gentlemen who have faithfully performed their duties in the hospital, and to those who have distinguished themselves at the examinations.

The Medical Society meets for the reading and discussion of papers at 7.30 P.M. on alternate Wednesdays during the winter session.

Information may be obtained from Mr. Waren Tay, Vice-Dean; from any Member of the Hospital Staff; or from the Lecturers at the College.

ST. MARY'S HOSPITAL.—Students who have kept the two years' course of medical study at the University of Cambridge are admitted as perpetual pupils on payment of a composition fee of £57 15s.; and students who have kept a portion of the course there or elsewhere, at a proportionate reduction.

The Hospital contains 165 beds—76 medical and 89 surgical. Two wards are appropriated to Diseases of Children and one to those of Women; there are also beds for ophthalmic cases.

The Reading Room and Library are open daily. The *Museum* is open daily to students. It contains about 3,000 specimens of healthy and morbid anatomy. There are also a *Materia Medica* Department, and a collection of specimens illustrative of Comparative Anatomy.

Clinical Lectures twice a week by the Physicians and Surgeons. Clinical demonstrations on Diseases of the Skin and of the Throat are also given. The students are carefully trained to the use of the Microscope. A *Histological Room* is open daily.

The Medical Tutor assists the students in the wards of the hospital, and gives elementary practical instruction on medical cases. He also examines practically students who are preparing for their final examination.

Hospital Appointments are open to the pupils without additional fee, after competition. Three Resident Medical Officers are appointed for twelve months, and an Obstetric Officer for six months; all live free of expense in the hospital.—A Demonstrator of Anatomy, a Medical Tutor, and a Resident Registrar, with salaries of £100, are appointed annually, and may be re-elected.—All students must act as clinical clerks and dressers for six months after passing the Primary Examination. Students of the third year are appointed to assist the Physicians and Surgeons in charge of the out-patients for three months each. Two Prosectors are appointed annually, each of whom receives a certificate and £5.

Scholarships and Prizes.—Three Scholarships in Natural Science, tenable for three years; value £60 the first year, £40 the second year, and £20 the third year; awarded by competitive examination at commencement of winter session every year. An exhibition of £20 for one year to the second candidate in order of merit. A Scholarship in Natural Science, tenable for three years; value £60 the first year, £25 the second year, and £15 the third year; restricted to students educated at Epsom College. An Open Scholarship in Classics and Mathematics, value £35, for one year.* The successful candidates for scholarships and exhibitions must enter as perpetual pupils of the hospital.—*Third and Fourth Year:* At end of the winter session, Prizes of £3 3s. each to the Clinical Clerk, and to the In-Patients' Dresser, who have discharged their duties in the most satisfactory manner, for the usual term, during the previous twelve months.

The Medical Society meets on alternate Wednesday evenings during the winter session, at 8 P.M.

Further information may be obtained from Dr. Shepherd, Dean of the School; from any of the Lecturers; or from the Resident Registrar, at the Hospital.

MIDDLESEX HOSPITAL.—The aggregate fee admits to the Library, to one course of Practical Chemistry and two courses of Dissections, to all the lectures, and to the instruction of the Tutor; it includes also all charges for Clinical Clerkships and Dresserships. Members of English Universities who have completed one year of medical study in University are admitted to all lectures and hospital practice required (except Practical Chemistry) for £55; this may be paid in instalments of £35 and £20; but in the latter case, £10 must be paid for each additional year.

The Hospital contains upwards of 300 beds, of which 185 are devoted to surgical and 120 to medical cases. There are 33 beds for cases of cancer; also wards for cases of uterine disease and of syphilis, and beds for cases of diseases of the eye.

The Museum is open to students daily from 9 to 5. It contains above 5,000 specimens.—*The Library and Reading Room* are open to all general students.

* The subjects are:—1. The English Language and Literature. The Examination will include Writing from Dictation, *provis* Writing, and the Composition of a Short Essay or Letter on a given theme. Questions on the History and Development of the Language and its Literature will form an integral part of the examination. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including Quadratic Equations. 4. Geometry—first Four Books of Euclid. 5. Latin: Virgil, *Eclues*, the first six. 6. One of the following subjects at the discretion of the candidate: (a) Greek—Herodotus, Book I; (b) French—Molière, *Les Femmes Savantes*, and *Le Malade Imaginaire*; (c) German—Schiller's *Wilhelm Tell*; (d) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

* The subjects are: Horace, *Odes*, Book I and II; Xenophon, *Anabasis*, Book II; first Four Books of Euclid, with Algebra as far as Quadratic Equations.

Clinical Lectures are delivered regularly by the Physicians and Surgeons, and by the Physician-Accoucheur and the Ophthalmic Surgeon. —Special instruction in Diseases of the Skin, and of the Larynx and Ear, is given.

The College Tutors assist all general students of the hospital, especially those who are preparing for examination.

Appointments, etc.—Two House-Surgeons are appointed for six months, after competitive examination, in April and October. The Junior House-Surgeon succeeds to the office of Senior House-Surgeon only if he have performed his duties satisfactorily. Each House-Surgeon pays a fee of £21 on appointment; if he have not been a surgical pupil of the hospital, he pays £31 10s. Three Resident Physicians'-Assistants are appointed from time to time for six months, after competitive examination. They must have a legal qualification. Each Resident Physician's Assistant pays £10 10s. on appointment; and, if he have been a medical pupil of the hospital for a limited time, a sum sufficient to make him a perpetual student of the medical practice; if he have been neither a general nor an occasional pupil of the hospital, he pays £21. A Resident Obstetric Assistant is appointed for six months. He pays £10 10s. Clinical Clerks and Dressers are appointed for six months. The appointments are so arranged that every student may take both a clerkship and a dressership at some period. Each student must be an out-patient clerk and out-patient dresser for six months respectively before being eligible to an in-patient clerkship or dressership.

Scholarships and Prizes.—Two Broderip Scholarships, value £30 and £20, tenable for two years, to students who have completed the third year, for reports or comments on selected medical and surgical cases.—Two Entrance Scholarships, value £25 and £20, tenable for two years,* open to all gentlemen commencing their medical studies at the hospital in October, 1875.—The John Murray Scholarship and Gold Medal, founded in connection with the University of Aberdeen, will be awarded in May 1877.—The Governors' Prize, value £21, to the student who, at the end of the third winter session, shall have been most diligent in the wards, and have attained the highest proficiency in the periodical examinations.—A Clinical Prize of £10 10s., to the candidate who stands third in the competition for the Broderip Scholarships.—Class Prizes are given in each subject.

The Students' Medical Society meets in the Board Room of the Hospital once a fortnight during the winter session.

Information may be obtained from Mr. Andrew Clark, the Dean; from Dr. Greenhow, Treasurer of the College; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

ST. THOMAS'S HOSPITAL.—The Hospital contains 569 beds; distributed as follows: Medical, 180; Surgical, 230; Ophthalmic, 20; Diseases of Women, 20; Venereal (Women), 30; Infectious Diseases, 59; Children under six years of age, 30.

Clinical Instruction in the wards and Clinical Lectures are given by the Physicians, Obstetric Physician, Surgeons, and Ophthalmic Surgeon. There are special departments for the diseases of women and children; diseases of the eye, with ophthalmoscopic demonstrations; diseases of the skin; diseases of the teeth; and for vaccination.

Museum, etc.—Students have access to the Library and to the Museums of Human Anatomy, of Comparative Anatomy, of Materia Medica, and of Chemistry and Mineralogy, and to the Laboratories of Practical Physiology and Practical Chemistry.

Scholarships and Prizes.—Two Entrance Scholarships in Natural Science, value £60 and £40, in first week in October; subjects, Physics, Chemistry, Botany, and Zoology. The William Tite Scholarship, £30, to the student highest on the first class list at the examination at the end of the winter session.—The Musgrave Scholarship, value £42 per annum, biennially to the student highest in the first class list at the end of the second winter session.—A College Scholarship of same value, alternately with the Musgrave Scholarship.—College Prizes each winter, for second and third-years' students, of £20 and £10 each year; and for third year's students, of £20, £15, and £10; and £15, £10, and £5 each of two summers.—The Cheselden Medal, annually,

* The Examination will take place on September 27th and following days. The following are the subjects for Examination. *Latin.*—Passages for translation into English, short passages for translation from English into Latin, and questions in Grammar and Ancient Geography.—*Greek.*—Easy passages for translation into English; questions in Grammar and Ancient Geography.—*French or German.*—Passages for translation into English; short passages for translation from English into French or German, and questions in Grammar.—*Mathematics.*—Arithmetic, Algebra up to and including Quadratic Equations, and Euclid, books i, ii, iii.—*Natural Philosophy.*—Chemistry.—*Botany.*—Zoology.—Huxley's Classification of the Animal Kingdom.— *Rudiments of Animal Physiology.* Candidates will be examined in any three, and not more, of the above subjects which they may select; but only one Modern Language and two out of the last three subjects are permitted.

to a fourth year's student, for Surgery and Surgical Anatomy.—The Mead Medal, annually, to a fourth year's student, for practical examination in Medicine.—The Treasurer's Gold Medal, annually, to a fourth year's student, for general proficiency.—The Grainger Testimonial Prize, value £20, biennially, to third or fourth year's students, for a Physiological Essay.—The Solly Medal, with a Prize of £10 10s., every two years, for Reports of Surgical Cases, to a third, fourth, fifth, or sixth year's student.

Appointments.—All students have the opportunity afforded them of being engaged in the performance of practical duties in connection with the Medical, Surgical, Obstetrical, Ophthalmic, and Pathological Departments of the Hospital. House-Physicians, House-Surgeons, and Resident-Accoucheurs are selected according to merit from gentlemen who have obtained their diplomas, and, together with the Dressers and Clinical Clerks, are provided with rooms and commons. Medical and Surgical Registrars are appointed. Each Registrar, on completing his Annual Report to the satisfaction of the Physicians or Surgeons, receives £40.

Further information may be obtained from Mr. R. G. Whitfield, the Medical Secretary, at the Hospital.

UNIVERSITY COLLEGE AND HOSPITAL.—The General and Medical Libraries, the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica and Chemistry, of Geology, and of Natural Philosophy, are open daily. There are also a Chemical and a Physiological Laboratory, where instruction is given under the superintendence of the Professors of Chemistry and of Physiology.

Clinical Instruction is given by the physicians and surgeons in the wards and in the out-patient department, and by lectures and examinations. The Wilson Fox, the Holme Professor of Clinical Medicine, delivers Clinical Lectures, and trains the pupils in the practical study of disease. Dr. Roberts and Dr. Gowers, Assistant Teachers of Clinical Medicine, give special instructions in Physical Diagnosis and Clinical Observation. Lectures are given once a week by Mr. Christopher Heath, the Holme Professor of Clinical Surgery; once a fortnight or oftener by Mr. Marshall, Mr. Berkeley Hill, and occasionally by Mr. Erichsen. Sir Henry Thompson, Emeritus Professor of Clinical Surgery, will deliver a short course during the session. Mr. Marcus Beck and Mr. Barker, the Assistant-Teachers of Clinical Surgery, will also hold examinations and instruct students in the observation and examination of patients. Clinical Lectures on Midwifery and the Diseases of Women are delivered once a fortnight; also on Ophthalmic Surgery, and on Diseases of the Skin. Arrangements are made for practical instruction in Vaccination.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

Offices.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, Ophthalmic Surgeons' Assistants, and Ward Clerks, are selected from among the pupils without additional fee. The Physicians' Assistants, the Obstetric Assistant, and the House-Surgeons reside in the hospital, paying for their board.

Scholarships, etc.—Three Entrance Exhibitions, value £30, £20, and £10 per annum, tenable for two years, to gentlemen who are about to commence their first winter's attendance.*—The Atkinson-Morley Surgical Scholarship, £45, tenable for three years, for proficiency in Surgery.—The Sharpey Physiological Scholarship, annual value about £70.—The Filliter Exhibition of £30, annually in July, for proficiency in Pathological Anatomy.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, with Certificates of Honour, at the end of each winter and each summer session.—The Liston Gold Medal, with Certificates of Honour, at the end of the session, for reports and observations on the Surgical Cases in the Hospital.—The Alexander Bruce Gold Medal, for proficiency in Pathology and Surgery.—The Cluff Memorial Prize, every second year, to the most proficient in Anatomy, Physiology, and Chemistry; next award in 1877.—Gold and Silver Medals or other Prizes, as well as Certificates of Honour, after competitive examinations in the classes.—Prizes to the value of £10 in the class of Hygiene.

The Medical Society meets to read and discuss papers on alternate Wednesdays throughout the session, at 7 P.M.

Residence of Students.—Several gentlemen connected with the Col-

* The subjects of examination are the following. *Latin* and *Greek*.—Translation into English of passages from Caesar and Xenophon; Translation of short English sentences into Latin. *French* or *German*.—Translation into English of passages from Bossuet's *Discours sur l'Histoire Universelle*, or of passages from Schiller's *Geschichte des dreissigjährigen Krieges*. *Mathematics* and *Natural Philosophy*.—The subjects required for the Matriculation Examination of the University of London, with the addition of Acoustics (Nature of Sound). The next examination will take place at the College on September 28th and 29th, 1876.

lege receive students to reside with them; and in the office of the College there is kept a register of persons who receive boarders.

Information respecting the College may be obtained from the Dean, Dr. Graily Hewitt; the Vice-Dean, Mr. Christopher Heath; or the Secretary, Mr. Talfourd Ely.

WESTMINSTER HOSPITAL.—The aggregate and perpetual fees include only one course of Practical Chemistry and Practical Physiology.* Gentlemen who do not enter as perpetual students before the end of their second year will be charged a fee of £4 4s. for every session after the completion of their third year, in addition to any special fees which may be payable. Members of the Universities of Oxford or Cambridge, who have completed one year of medical study at the University, will be admitted to the Hospital Practice and Lectures (except Practical Chemistry and Comparative Anatomy) required by those Universities, and by the Colleges of Physicians and Surgeons, on payment of £52 10s. in one sum.

The Hospital contains 191 beds.

Museums, &c.—The Anatomical Museum is constantly open to the Students. There are also a Pathological Museum and a Materia Medica Museum. The Reading Room is open daily.

Instruction.—There are separate departments for Diseases of the Eye, Ear, Skin, and Teeth, and for Diseases of Women.

Appointments.—All these are made without fee.—A Medical and a Surgical Registrar are appointed annually, each with a salary of £40.—A House-Physician, a House-Surgeon, and a Resident Obstetric Assistant are appointed by competition, and are provided with rooms and commons.—An Assistant House-Surgeon is appointed from among the senior students. He is provided with commons at the hospital table.—A Physician's Assistant, Surgeon's Assistant, and Ophthalmic Assistant are appointed from students of the fourth year.—Clinical Clerks and Dressers for in-patients are appointed for six months from general students of the hospital who have passed their first Examination.—Out-patients' Clerkships and Dresserships are conferred on all students in rotation for three months.

Scholarships and Prizes.—The Fence Scholarship, £50 a year for two years; the Houldsworth Scholarship, £50 for one year; and Two Entrance Scholarships, value £10, tenable for two years.†—Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year for first year's men.—A prize of £2 2s. by Mr. Davy, to the first year's student who is most regular and diligent in the Dissecting Room.—Scholarship in Anatomy and Physiology, value £21, to student of second year (to be styled Assistant Demonstrator).—Prize by Dr. Allchin, in class of Histology; by Dr. Potter, in class of Midwifery.—At the end of third summer, prizes of £5 each (books or instruments), in Clinical Medicine and Clinical Surgery.—Frederic Bird Medal and Prize, value £15, to perpetual students who have completed their fourth winter; subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology.—Chadwick Prize for General Proficiency, £21, to the most meritorious student or students of any year not exceeding the fifth.—Certificates of Honour in each Class.

Communications respecting the Medical School should be addressed to Mr. Cowell, the Dean of the School, from whom all particulars may be obtained. Information may also be obtained from any of the Lecturers, or from the Secretary at the Hospital.

* The following additional classes are free to general students. Psychological Medicine (in connection with the Forensic Medicine course), Ophthalmic Surgery, Minor Surgery and Bandaging, Diseases of the Skin, Aural Surgery, Dental Surgery, Natural Philosophy, and Comparative Anatomy. The fees for these courses must, however, be paid, should a special certificate be required.

† The next Examination will be held at the Hospital on October 4th and 5th. The following are the subjects:—*Latin*—Horace, Odes, Books I and II. The paper will contain passages for translation, questions in Grammar, and easy English sentences for translation into Latin. *French, German, and Greek*—The papers will contain passages for translation into English, and questions in Grammar on subjects furnished by those passages. *Xenophon, Anabasis*, Book II. Two only of these three languages can be selected by the Candidate. For the smaller Scholarships, one of three will be sufficient. *Mathematics: Arithmetic*—including Vulgar and Decimal Fractions, and extraction of Square Root. *Algebra*—Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations. *Geometry*—First four Books of Euclid, or the subjects thereof. The Examination is by written papers. Notice of intention to compete, with a statement of the languages in which the Candidate wishes to be examined, and a certificate of moral character, must be sent to the Dean not later than September 26th.

NOTES CONCERNING THE PROVINCIAL AND SCOTCH HOSPITALS AND MEDICAL SCHOOLS.

UNIVERSITY OF OXFORD.—The instruction in Natural Science is carried on at the Museum, where there is practical instruction in Physics, Chemistry, and Anatomy and Physiology, together with courses of lectures by the several professors, viz.: Regius Professor of Medicine and Professor of Clinical Medicine—H. W. Acland, M.D., D.C.L., F.R.S.; Geometry—H. J. S. Smith, M.A., F.R.S.; Natural Philosophy—Rev. B. Price, M.A., F.R.S.; Experimental Philosophy—R. B. Clifton, M.A., F.R.S.; Geology—J. Prestinch, F.R.S.; Chemistry—W. Odling, M.B., F.R.S.; Physiology—G. Rolleston, M.D., F.R.S.; Zoology—J. O. Westwood, M.A., F.L.S.; Botany—M. A. Lawson, M.A.; Mineralogy—M. H. N. Story-Maskelyne, M.A., F.R.S.; Lee's Reader in Anatomy—J. B. Thompson, M.A.

Large collections illustrate the several subjects; there is a pathological series, including the collection of Schroeder van der Kolk, in the medical department, and a medical laboratory. The Radcliffe Library, containing nearly 20,000 scientific volumes, is open to all students daily from ten to four, and on certain evenings during term. There are also lectures and practical instruction in Botany at the Botanical Gardens; and clinical instruction at the Infirmary.

UNIVERSITY OF CAMBRIDGE.—The following Courses of Lectures will be delivered during the ensuing Academical Year. *Michaelmas Term, 1876.*—Physics: Heat and Constitution of Bodies, by Professor Maxwell, Tu., Th., S., 12.15; Electricity, by Mr. Trotter (at Trinity College), M., W., F., 10 A.M. Chemistry: General Course, by Professor Liveing, M., W., F., 12; Spectroscopic Analysis, by Professor Liveing, M., W., F., 1; Qualitative Analysis, by Professor Liveing and the Demonstrator, daily: Physical Chemistry, by Mr. Dewar (Jacksonian Professor), Th., S., 12; Principles of Qualitative Analysis, by Mr. Main (at St. John's College), Tu., Th., S., 11; Volumetric Analysis, by Mr. Apjohn (at Caius Laboratory), M., W., F., 10. Botany: Elementary Course of Vegetable Morphology, by Mr. Hicks (at Sidney College), Tu., Th., S., 11. Anatomy and Physiology: Zoology and Comparative Anatomy, by Professor Newton, M., W., F., 1; Practical Course of Comparative Anatomy, by the Demonstrator of Comparative Anatomy, daily, Sundays excepted: Elementary Course of Practical Morphology, by Mr. Balfour and Mr. Bullar (at the New Museum), M., W., 9 A.M.: Anatomy and Physiology, by Professor Humphry, Tu., Th., S., 1; Practical Anatomy, by Professor Humphry and Demonstrator, daily, 9 A.M.: Practical Physiology and Histology, by Dr. M. Foster (Trinity Prælector), Elementary, Tu., S., 10; Advanced, Th., 10: Materia Medica and Pharmacy, by Dr. Latham (Downing Professor of Medicine), Tu., Th., S., 9 A.M. Medicine: General Therapeutics, by Dr. Latham (Downing Professor), M., W., F., 7.30 P.M.: Clinical Medicine, by Dr. Paget (Regius Professor), Tu., Th., F., 10 A.M., and by Dr. Bradbury, M., W., F., 10: Clinical Surgery, by Mr. Lestourgeon, Tu., Th., 11.

Lent Term, 1877.—Physics: Electricity and Magnetism, by Professor Maxwell, Tu., Th., S., 12.15; Electricity (continued), by Mr. Trotter (at Trinity College), M., W., F., 10: Elementary Physics, by Mr. Trotter (at Trinity College), M., W., F., 9. Chemistry: General Course (continued), by Professor Liveing, M., W., F., 12; Analysis, by the Professor or Demonstrator of Chemistry, daily: Organic Chemistry, by Mr. Dewar (Jacksonian Professor), Tu., Th., S., 12: Elementary Course, by Mr. Main (at St. John's Laboratory), Tu., Th., S., 11: Non-metallic Elements, by Mr. Apjohn (at Caius Laboratory), M., W., F., 10. Botany: Vegetable Histology and Physiology, by Mr. Hicks (at Sidney College), Tu., Th., S., 11. Anatomy and Physiology: Zoology and Comparative Anatomy, by Professor Newton, M., W., F., 1; Practical Comparative Anatomy, by the Demonstrator, daily: Elementary Practical Course of Morphology, by Mr. Balfour and Mr. Bullar (at the New Museum), M., W., 9 A.M.: Anatomy and Physiology, by Professor Humphry, Tu., Th., S., 1; Practical Anatomy, by Professor Humphry and the Demonstrator, 9 A.M., daily until January 30, afterwards Tu., W., Th., and S.: Practical Physiology and Histology, by Dr. M. Foster (Trinity Prælector), continued, Tu., Th., S., 10 A.M.: Anatomy and Physiology, by Dr. Bradbury (at Caius College), Tu., Th., S., 12. Medicine: Principles and Practice, Dr. Paget (Regius Professor), M., F., 9 A.M. Medical Diagnosis, by Dr. Latham (Downing Professor), Tu., 9 A.M. Pathological Anatomy, by Dr. Bradbury (Linacre Lecturer), Th., 9 A.M. Clinical Medicine, by Dr. Paget (Regius Professor), Tu., Th., 10; and Dr. Latham (Downing Professor), M., W., F., 10 A.M. Clinical Surgery, by Mr. Carver, Tu., Th., F., S., 11.

GUIDE TO HOSPITALS AND MEDICAL SCHOOLS IN THE PROVINCES: 1876-7.

For further particulars regarding each Hospital and Medical School, see pp. 349 and 352.

Lectures, etc.	BIRMINGHAM QUEEN'S COLLEGE (a).	BRISTOL MEDICAL SCHOOL.	LEEDS SCHOOL OF MEDICINE (f).	LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE (h).	OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE (i).	SHEFFIELD MEDICAL SCHOOL (m).	UNIVERSITY OF DUKHAM COLLEGE OF MEDICINE, NEWCASTLE (p).
WINTER SESSION ANATOMY AND PHYSIOLOGY.	Dr. Norris, Mr. Bartlett, and Dr. Richards. Mr. Thomas & Dr. Jolly. M. Tu. Th. F., 1.	Mr. Atchley and Dr. R. S. Smith. M. W. F., 9.30.	Mr. Wright & Mr. Horsfall. M. W. Th., 3.	Dr. Caton. Tu. Th. S., 9.15.	Dr. A. Gangee. Daily, exc. S., 11.30.	Dr. O'Keefe. M. W., 4.	Dr. G. H. Hume. Three days weekly, 3.
ANATOMY, DESCRIPTIVE & SURGICAL.	Mr. Dobson and Dr. Waldo. M. W. F. S., 10.30.	Mr. Dobson and Dr. Waldo. M. W. F. S., 10.30.	Dr. Land, Mr. Nunneley, Mr. Robinson, Mr. McGill, and Mr. Robinson. Daily.	Mr. W. M. Banks. M. Tu. W. Th. F., 3.	Dr. M. Watson. Daily, exc. S., 1.	Mr. Skinner and Mr. E. Skinner. M. W. F., 6. Tu. Th., 5.	Dr. L. Armstrong and Mr. Russell. Four days, 8.45 A.M.
DEMONSTRATIONS AND DISSECTIONS.	Dr. Lawrence, Mr. Elliott, Mr. Waldo, Mr. Stevens, Mr. Coomber. M. W. F., 10.30.	Dr. Lawrence, Mr. Elliott, Mr. Waldo, Mr. Stevens, Mr. Coomber. M. W. F., 10.30.	Dr. Robinson, Mr. McGill, and Mr. Robinson. Daily.	Mr. Ashby. Daily, 9 to 5; exc. S., 9 to 2.	Mr. Young. Daily, 9.30 to 4.30; S., 9.30 to 12.	Dr. Thomas, Mr. O'Barber, & Mr. Snell. Daily, exc. S., 10 to 2.	Dr. McDiarmid.
CHEMISTRY.	Mr. Bruce. M. W. F., 12.30.	Dr. Spencer. M. W. F., 4.30.	Dr. Thorpe. M. Tu. W. Th., 4.	Dr. J. C. Brown. M. Tu. W. Th., 10.30.	Dr. Roscoe. Daily, 9.30 to 4.30; S., 9.30 to 12.	Mr. Allen. M. W. F., 11.30.	Mr. Freire-Marreco. Three days a week, 11.30.
MEDICINE.	Dr. Foster. Tu. W. F., 3.	Mr. Coe and Mr. Tibbits. Tu. Th. S., 8.30 A.M.	Dr. Heaton & Dr. Allbutt. M. Tu. W. Th., 5.	Dr. Waters. M. W. F., 9.15.	Dr. Morgan. M. W. F., 3.	Dr. De Bartolome & Dr. J. C. Hall. M. W. F., 5.	Dr. Philipson. M. W. F., 5.
SURGERY.	Mr. Pemberton and Mr. F. Jordan. Tu. W. F., 4.	ROYAL INFIRMARY GENERAL HOSPITAL (c). Daily, 12.30 to 3.	Mr. Jessop & Mr. Atkinson. M. Tu. W. Th., 5.	Mr. R. Harrison. M. W. F., 4.	Dr. Lund. M. Tu. Th., 3.	Mr. Fawell and Mr. A. Jackson. M. W. F., 8 A.M.	Dr. Heath. M. W. F., 6.
HOSPITAL PRACTICE.	GENERAL HOSPITAL (b). Daily, 9.	ROYAL INFIRMARY GENERAL HOSPITAL (c). Daily, 12.30 to 3.	LEEDS GENERAL INFIRMARY (g).	LIVERPOOL ROYAL INFIRMARY (h).	MANCHESTER ROYAL INFIRMARY (i).	SHEFFIELD INFIRMARY (n).	NEWCASTLE INFIRMARY (q).
CLINICAL MEDICINE.	Physicians of Hospitals (b) 10 A.M., (c) 9 A.M.	Royal Infirmary: Three days weekly General Hospital: Royal Infirmary: F., 12.30 to 3. General Hospital: W., 12.30 to 3.	Physicians of Infirmary: Dr. Allbutt, Th. 10.30.	Physicians, Royal Infirmary. Weekly.	Dr. Roberts (Win.). Tu. Th. F., 9.30; (Sum.). Dr. Simpson, Tu. F., 9.30.	Physicians of Infirmary and Hospital. Tu., 8 P.M.	Physicians of Infirmary
CLINICAL SURGERY.	Surgeons of Hospitals (b) 10 A.M.; (c) 9 A.M.	ROYAL INFIRMARY GENERAL HOSPITAL (c). Daily, 12.30 to 3.	Surgeons of Infirmary: F., 9.	Surgeons, Royal Infirmary. Weekly.	Mr. Lund (Win.). Mr. Heath and Mr. Bowring (Sum.). M., 11.	Surgeons of Infirmary & Hospital. W. Th., 8 P.M.	Surgeons of Infirmary
MATERIA MEDICA.	Dr. Mackey. M. W. F., 4.	Dr. Burder. M. Tu. Th. F., 9.	Dr. Eddison. M. Tu. Th. F., 11.	Dr. J. B. Nevins. Tu. Th. S., 8.30 A.M.	Mr. Somers & Dr. Leech. M. Tu. W. Th., 1.	Dr. Young. M. W. F., 8 A.M.	— Daily, exc. S., 4.45.
MIDWIFERY, ETC.	Mr. Clay and Dr. Bassett. M. Tu. Th. F., 1.	Dr. Swayne. Daily, exc. S., 8 A.M.	Mr. Price and Dr. J. Braithwaite. M. Tu. Th. F., 4.	Dr. Steele. M. W. F., 9 A.M.	Dr. Thorburn. M. Tu. Th. F., 1; clin. W. S., 10.	Dr. Hime. M. W. F., 8 P.M.	Dr. Gibson and Dr. Nesham. Daily, 8.30 A.M.
BOTANY.	Dr. W. Hinds. M. W. F., 3.	Mr. Leipner. Daily, exc. S., 7 A.M.	Mr. Greenwood. Tu. Th. F., 12.	Dr. W. Carter. M. W. F., 3.	Mr. W. C. Williamson. M. Tu. W. Th. F., 2.30.	Mr. Birks. Tu. Th., 8 A.M.	Mr. H. E. Armstrong & Mr. McBean. M. W. Th. F., 3.45.
FORENSIC MEDICINE.	Mr. Wilders. M. Tu. Th. F., 12.30 and 3.	Mr. Keall. M. W. Th. F., 9.	Mr. Scattergood. M. Tu. Th. F., 10.	Dr. E. White and Dr. J. C. Brown. M. W. F., 3.	Dr. Ransome. Tu. W. Th. F., 2.30.	Mr. Baker and Mr. Harrison. Tu. Th., 5.	Dr. F. Page. Tu. Th. F., 3.
PRACTICAL CHEMISTRY.	Mr. Bruce. Tu. Th., 2.	Mr. Coomber. M. W. F., 8 A.M.	Dr. Thorpe. M. W. F., 10.30.	Dr. J. C. Brown. M. Tu. Th. F., 4.	Dr. Roscoe & Mr. Schorlemmer. M. W. F., 12.30.	Mr. Allen.	Mr. Freire-Marreco. Daily, 10 to 1 and 2 to 5.
COMPARATIVE ANATOMY.	Dr. Savage. Th., 4.	Mr. Atchley & Dr. Smith. Tu. Th. S., 8 A.M.	Dr. Albutt and Mr. E. Atkinson. M. W. F., 12.	Dr. Dickinson (twice weekly). Mr. Parker.	Mr. Williamson. M. Tu. W. Th. F., 2.30.	Mr. W. Jackson. F., 5.	Dr. McDiarmid.
PRACTICAL PHYSIOLOGY.	Dr. Atchley & Dr. Smith. Tu. Th. S., 8 A.M.	Mr. Spencer (Sum.). Tu. F., 9.	Mr. Walker. W. Th. F., 12.	Dr. Davidson (Win.). Tu. Th., 4.	Dr. A. Gangee.	Dr. Thomas. W. Th., 4.	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
PATHOLOGY.	Dr. Spencer (Sum.). Tu. F., 9.	Mr. Coe and Mr. Tibbits (see above).	Mr. McGill. M. Th., 3.	Mr. Harrison (see above).	Mr. Bradley. Tu. Th., 12.	Mr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Heath (Sum.).
OPERATIVE SURGERY.	Mr. Coe and Mr. Tibbits (see above).	Mr. Jessop and Mr. Atkinson. M. Tu. W. Th., 12.	Mr. J. J. Holmes.	Mr. T. S. Walker. Th., 4.	Mr. Windsor (Sum.). Clin. Dem., M., 11.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. McDiarmid.
OPHTHALMIC SURGERY AND THE OPHTHALMOSCOPE.	Mr. Solomon (Summer).	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
VACCINATION.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(a) ADDITIONAL.—Diseases of Women, etc.: Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	W., 3. Dental Surgery: Mr. Howkins (Sum.).	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(b) Physicians: Dr. Bell Fletcher, Dr. Russell, Dr. Wade, Dr. Foster, Dr. Rickards. Surgeons: Mr. A. Baker, Mr. O. Pemberton, Mr. T. H. Bartlett, Mr. R. Jolly.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(c) Physicians: Dr. Heslop, Dr. Johnston, Dr. Sawyer, Dr. Mackey. Surgeons: Mr. West, Mr. Gamgee, Mr. F. Jordan, Mr. J. St. S. Widders. Obstetric Surgeon: Mr. J. Clay. Ophthalmic Surgeon: Mr. F. Smith. Dental Surgeon: Mr. C. Sims. Operations: S., 11.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(d) Physicians: Dr. E. L. Fox, Dr. Spencer, Dr. R. S. Smith, Dr. Waldo. Surgeons: Mr. C. Leonard, Mr. Tibbits, Mr. Steele, Mr. Board, Mr. Dowson. Assistant-Physicians: Dr. Shaw. Assistant-Surgeons: Mr. A. W. Pritchard. Operations: Tu. F., 1.30.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(e) Physicians: Dr. Burder, Dr. Skerritt, Dr. Lawrence. Surgeons: Mr. Keall. Physician-Accoucher: Dr. Lawrence.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(f) ADDITIONAL.—Aural Diseases: Mr. Nunneley, S., 12. Mental Diseases: Dr. Major (Sum.). F., 3; S., 4.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(g) Physicians: Dr. Heaton, Dr. Clifford Allbutt, Dr. Edmondson. Surgeons: Mr. Wheelhouse, Mr. T. P. Teate, Mr. R. R. Jessop, Mr. E. Atkinson. Surgeons to the Eye and Ear Department: Mr. J. A. Nunneley, Dr. R. T. Land, Mr. Ogilby. Operations: Th., 1. Eye, Tu, 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.
(h) ADDITIONAL.—Diseases of Children: Dr. Gee, M., W., F., 9. Dental Surgery and Mechanics: Mr. Snape and Mr. Stewart (Sum.).	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Mr. Berry and Dr. R. C. R. Jordan (Sum.), M., 12.	Dr. Steele.	Mr. E. Guest.	Dr. Laver (Sum.). Tu. Th., 11; Mr. Favell (Sum.).	Dr. Gibbs & Dr. Bramwell (Sum.). W., 5.45.

Easter Term, 1876.—Physics: Electro-magnetism, by Professor Maxwell, Tu., Th., S., 12: Electricity (continued), by Mr. Trotter (at Trinity College), M., W., F., 10: Elementary Physics (continued), by Mr. Trotter (at Trinity College), M., W., F., 9. Chemistry: Some Special Department, by Professor Liveing, M., W., F., 12: Analysis, by Professor Liveing, or the Demonstrator, daily: Laboratory Instruction in Chemical research, by Mr. Dewar (Jacksonian Professor): Elementary Inorganic Chemistry, by the Demonstrator, Tu., Th., S., 12: Elementary Course (concluded), by Mr. Main, Tu., Th., S., 12: Organic Analysis and Elementary Organic Chemistry, by Mr. Apjohn (at Caius Laboratory), M., W., F., 12. Botany: by Professor Babington, M., Tu., Th., F., 1. Anatomy and Physiology: Practical Comparative Anatomy, by the Demonstrator of Comparative Anatomy, daily, Sundays excepted: The Muscular Systems of Man and other Vertebrates, by Professor Humphry, W., S., 1: Anatomy and Physiology, for preparation for the second examination for M.B., by Professor Humphry, twice a week, 10 A.M.: Practical Elementary Biology, by Dr. M. Foster (Trinity Prælector), Tu., Th., S., 10 A.M.: Anatomy and Physiology, by Dr. Bradbury (at Caius College), Tu., Th., S., 12. Medicine: Principles and Practice, by Dr. Paget (Regius Professor), M., W., F., 9 A.M.: Medical Diagnosis, by Dr. Latham (Downing Professor), Tu., 9: Pathological Anatomy, by Dr. Bradbury (Linacre Lecturer), Th., 9: Clinical Medicine, by Dr. Latham (Downing Professor), M., W., Th., F., 10 A.M.; and by Dr. Bradbury, Tu., Th., 10: Clinical Surgery, by Dr. Humphry, Tu., Th., F., 11.

Long Vacation.—Practical Chemistry in the University Laboratory; Courses of Instruction in Practical Anatomy, in Human and Comparative Osteology, and in Practical Histology; Clinical Instruction at the Hospital. The Chemical Laboratory of the University will be open daily for the use of the students. The Demonstrator attends daily to give instruction. The Dissecting Rooms and Museums of Anatomy are open daily during the vacations, as well as in the terms, and the Professor and Demonstrator of Anatomy are in attendance to assist and direct the students.

Opportunities for Clinical Instruction in Mental Diseases will be afforded at the County Asylum, Fulbourn, by Dr. Bacon, during the Michaelmas and Lent Terms.

Commencing Students of Medicine must be registered according to the Regulations of the General Council of Medical Education and Registration. Forms for registration, abstract of regulations, schedules, and other papers, may be obtained from the attendant at the Anatomical Schools, Pembroke Street.

Attendance on the Lectures on Chemistry, Botany, Materia Medica, Anatomy, Physiology, Dissections, and Medicine, is recognised by the Royal College of Surgeons, England. Hence all the Courses required for admission to the first Professional Examination at that College may be attended in Cambridge.

BIRMINGHAM.—QUEEN'S COLLEGE.—Clinical Lectures and Lectures in special departments are given in the General Hospital and the Queen's Hospital, which have a total of upwards of 400 beds. Special instruction is given in the use of the microscope, laryngoscope, and ophthalmoscope, and surgical appliances, also in case-taking and bandaging, with minor surgery and prescribing. Students must attend for six months alternately at each hospital, except those who enter for six months only.

Appointments.—*General Hospital:* Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable six months. *Queen's Hospital:* Resident Obstetric Assistant, tenable six months; Resident Dresser, tenable three months.

Prizes.—The Sands Cox Prize, value £20 annually, to students who have completed their curriculum, after examination in Medicine, Surgery, and Midwifery.—Warden's Prize, £3 3s., to the most proficient student of the first year.—The Percy Prize, books of the value of £5 5s., for the best examination in German.—Medals and Certificates of Honour, annually, in each class after examination.

Clinical Prizes.—Two Senior Medical and Two Senior Surgical Prizes (third and fourth years), value in each department £5 5s. and £3 3s.; two Junior Medical and two Junior Surgical Prizes (second year), values £3 3s. and £2 2s.; Midwifery Prize, £4 4s.

Further particulars may be obtained by application to the Rev. the Warden, at the College; to Dr. Jolly, 83, Newhall Street; to Mr. Priestley Smith, 21, Easy Row; or to Dr. Hinds, 10, Easy Row.

BRISTOL MEDICAL SCHOOL.—This School will henceforth be conducted as a department of the newly established University College, Bristol. Clinical Lectures are delivered at the Royal Infirmary and the General Hospital. The Royal Infirmary contains 250 beds. The

General Hospital contains 154 beds. The Infirmary and the Hospital each contain a Library and a Museum.

Appointments.—*Royal Infirmary:* Each Physician can appoint a Clinical Clerk from among the most diligent of his pupils. Dressers reside in the house in weekly rotation when qualified. A Pathological Clerk is appointed every three months, and receives £3 3s. if his duties have been performed satisfactorily.—*General Hospital:* Clinical Clerks, Dressers, and Obstetric Clerks are appointed. The dressers reside in the hospital in rotation, free of expense. Resident pupils are received at both institutions.

Prizes.—Prizes and Certificates of Honour will be distributed at the end of the winter session, after examination in all the subjects of each year.—Prize and Certificates of Honour for Practical Anatomy.—*Royal Infirmary:* Supple's Medical Prize, and Supple's Surgical Prize, each a gold medal value £5 5s. and about £7 7s. in money, awarded after examinations in Medicine and in Surgery respectively. Clark's Prize (interest of £500) to the prizeman of the third year in the Medical School, if he has attended the Royal Infirmary.—*General Hospital:* Lady Habberfield's Prize (interest of £1,000) for general proficiency.—Clarke Surgical Scholarship, £15 annually. Sanders Scholarship (interest of £500) for Proficiency in Medicine and Surgery.

Further particulars respecting the infirmary may be known on application to the House-Surgeon; respecting the hospital, on application to Dr. Skeritt, at the hospital. Information regarding the Medical School will be afforded by the Honorary Secretary, Dr. G. F. Burder.

LEEDS SCHOOL OF MEDICINE.—There are Anatomical, Pathological, Chemical, Botanical, and Materia Medica Museums. The course of Chemistry is conducted at the Yorkshire College of Science.

Clinical Instruction, &c.—Clinical Lectures are delivered by the Physicians and Surgeons of the Infirmary.—Courses of Practical Physiology and Practical Surgery are held.—Demonstrations of Aural Diseases, and Ophthalmoscopic Demonstrations, are given. The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases, and a course of lectures will be given during the summer.—Students can also attend the practice of the Leeds Public Dispensary and the Fever Hospital. There are several resident appointments at these institutions.—Courses of lectures on several branches of science are delivered at the Yorkshire College of Science. Students of Medicine are advised to attend the course of lectures on Biology. This course is adapted to the requirements of the First B. Sc. and Preliminary Scientific Examinations of the University of London.

Hospital Appointments.—Every Student in turn must hold the offices of Clinical Clerk and Dresser. There are four Resident Assistants in the Infirmary; two are elected every three months and are re-eligible. They are selected from the senior students.

Prizes.—At the close of each session, Silver and Bronze Medals, Books, and Certificates of Honour, are awarded according to merit.—The Hardwick Clinical Prize, value £10, is given annually for the best reports of medical cases, and the Surgeons' Clinical Prizes of £8, £5, and £3, for the best reports of surgical cases, during the winter session.—The Thorp Scholarship in Forensic Medicine (£10) at the close of each summer session.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—There are a Museum containing specimens of Morbid and Comparative Anatomy, a collection of Wax Models, and a collection of Materia Medica, a Library, and a Reading Room.

Clinical Instruction, &c.—Clinical lectures are given weekly at the Royal Infirmary, which contains nearly 300 beds; the Lock Hospital adjoining contains 80 beds. The Northern Hospital contains 146 beds. For the study of Mental Diseases, a class will be formed to attend the practice of the Rainhill Asylum, where instruction will be given by Dr. Rogers once a week during the summer.

Appointments: Royal Infirmary.—Two House Physicians and Three House-Surgeons are appointed for six months after (if there be more applicants than vacancies) competitive examination. Candidates must have a legal qualification. Three Dressers for each Surgeon and three Clinical Clerks for each Physician are elected quarterly. Two *Post mortem* Clerks are appointed for six weeks. All students must perform this duty before the final certificate is signed.

Exhibitions and Prizes.—The sum of £2,000 has been left by the late Mr. Roger Lyon Jones for the purpose of founding a scholarship; but the bequest is not yet actually possessed.—Gold Medal for Anatomy and Physiology, presented by Mr. Torr, M.P., for second year's students; and one, also for Anatomy and Physiology, presented by Dr. J. Bligh, for students of first year.—Medals and Certificates of Honour for groups of subjects in each year.—Clinical Prizes to be awarded by the Physicians and Surgeons of the Infirmary in May,

1877, value of each £5, for the best report of twelve medical and twelve surgical cases.

Communications should be addressed to the Registrar, Mr. W. Mitchell Banks.

LIVERPOOL NORTHERN HOSPITAL.—The winter session will commence on Monday, October 2nd. *Physicians:* Dr. Davidson, Dr. Dickinson. *Surgeons:* Mr. Manifold, Mr. Lowndes, Mr. Puzey, Dr. Campbell. The hospital contains 144 beds.

Fees.—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to the medical or surgical practice separately on payment of half the above fees. The hospital receives one resident pupil, fee £63 *per annum* (for whom there will be a vacancy on October 1st). Attendance on the practice of this hospital qualifies for all the examining boards. For further particulars apply to the House-Surgeon, Mr. Farnell.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—*Physicians:* Dr. Cameron, Dr. Carter. *Surgeons:* Dr. Nottingham, Mr. Hamilton, Dr. Wollaston. The hospital contains 200 beds. Clinical Lectures are given by the Physicians and Surgeons during the winter and summer sessions. Clinical Clerkships and Dresserships are open to all students. There is a special ward for diseases and accidents of children. Fees for Hospital Practice and Clinical Lectures, perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. The practice of the hospital is recognised by all the examining bodies. A limited number of students can be accommodated with rooms in the hospital. For further particulars, application must be made to the House-Surgeon.

OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.—Museums of Human and Comparative Anatomy and of Materia Medica, and Physiological and Chemical Laboratories, are connected with the College.

The Royal Infirmary contains 100 medical and 170 surgical beds. In addition to the practice of the infirmary, the Monsall Fever Hospital (130 beds) and the Barnes Convalescent Home (140 beds) will be open, under certain regulations, for the purposes of instruction. The Royal Lunatic Asylum at Cheadle is also connected with the Infirmary, and accommodates 150 patients.

Clinical Instruction is given by the Physicians and Surgeons of the Infirmary. Mr. S. M. Bradley gives instruction in Practical Surgery. Pathological Demonstrations are given by Dr. Dreschfeld.

Appointments.—Dressers and Clinical Clerks in the Royal Infirmary are appointed for periods of three months. A Senior House-Surgeon, two junior House-Surgeons, a House-Physician, and four Physicians' Assistants, are appointed annually. The senior House-Surgeon and House-Physician are appointed for twelve months, the others for six months; they all receive board, residence, and salary.

Prizes.—Turner Scholarship of £25 for third years' students, one of £15 for second years' students, and one of £10 for first year's students—all for perpetual students; also £15 and £10 prizes for General Proficiency. Two Platt Physiological Scholarships, value £50 each, tenable for two years, to students who have attended Physiology in the College Laboratory during one session, for best original investigation and the result of a written examination. Dumville Surgical Prize, value £20, at end of winter session, to students of two years, who have attended four courses, including at least one in Surgery. A Gilchrist Scholarship of £50 *per annum*, tenable for three years in the College, to the candidate standing highest in the Matriculation Examination of the University of London in June, if in the Honours Division; or two of £25 each to the first two candidates in the First Division. Medical and Surgical Clinical Prizes are given for reports of cases.

Prospectuses may be obtained from the Registrar, Mr. J. H. Nicholson.

SHEFFIELD MEDICAL SCHOOL.—The General Infirmary contains 200 beds. Opportunities for clinical study may be obtained at the Sheffield Hospital and Dispensary (99 beds), and at the Sheffield Hospital for Diseases of Women.

The Infirmary contains a Museum of Pathology, a Library, and a *Post mortem* Theatre, with Microscopes and all the appliances for clinical research.—The Library of the Medical School is open to students.

Prizes and certificates of honour are given annually.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Chemistry and Practical Physiology are excepted from the courses which may be attended in perpetuity by composition students.

A course of Practical Physiology will be given during the summer

by the Professors of Physiology and Biology. Fee for use of microscopes, 10s. 6d.

The Laboratories, Libraries, and Museums of Anatomy, Pathology, and Materia Medica are open daily.

The Newcastle Infirmary contains 230 beds. Four Resident Dressers are elected half-yearly. They are provided with board and apartments on payment of £10 10s. for the six months. Two Assistants in the Pathological Department are appointed in May and in December. Midwifery can be attended at the Newcastle Lying-in Hospital, and Diseases of the Eye in the Eye-Ward of the Infirmary.

Prizes.—Four Medical Scholarships, annual value £25 each, tenable for four years, by students residing in Durham or Newcastle. One will be awarded in October. The Dickinson Memorial Scholarship, value £15 annually, for general proficiency. The Tulloch Scholarship, proceeds of £400, to the second year's student most distinguished in Anatomy, Physiology, and Chemistry. The Charlton Memorial Scholarship, proceeds of £700, open to perpetual students entered for class on Principles and Practice of Medicine. A silver medal and certificates of honour in each class.

Further information may be obtained from the Secretary, Dr. Byrom Bramwell, Newcastle-on-Tyne.

UNIVERSITY OF ABERDEEN.—Fee to each class, £3 3s., except Anatomical Demonstrations, £2 2s. Matriculation fee, both sessions, £1; summer session alone, 10s. A three months' course of Practical Ophthalmology is given in summer.

ROYAL INFIRMARY, ABERDEEN.—Perpetual fee, £6; or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s. The General Dispensary and the Lying-in and Vaccine Institutions are open daily, and the Eye Institution three days in the week. Clinical Instruction is given in the Royal Lunatic Asylum for three months in the year.

UNIVERSITY OF EDINBURGH.—Minimum expenses for Lectures and Hospital Practice (including also £21 for degrees of M.B. and C.M.), £104 18s.; Annual Fee for Materia Medica, Chemistry, Surgery, Institutes of Medicine, Midwifery, Clinical Surgery, Clinical Medicine, Anatomy, Practice of Physic, General Pathology, Botany, Natural History, Medical Jurisprudence, and Medical Psychology, with Practical Instruction, each £4 4s.; Practical Chemistry, Clinical Surgery (summer), Clinical Medicine (summer), Practical Physiology, Medical Psychology, each £3 3s.; Anatomical Demonstrations, Practical Botany, Practical Natural History, Obstetrical and Gynaecological Operations, Operative Surgery, and Practical Morbid Anatomy and Pathology, each £2 2s.—Every student, before entering with any Professor, must produce a matriculation ticket for the ensuing session, for which a fee of £1 is paid at the beginning of each winter session. Students first entering in the summer session pay a fee of 10s. for that session.—The Library is open every lawful day during the winter session, from 10 A.M. till 4 P.M.; on Saturdays, till 1 o'clock.

The following means are afforded for Practical Instruction in winter and summer: Practical Anatomy, under the superintendence of Professor Turner; Anatomical Demonstrations, by Professor Turner; Practical Chemistry, under the superintendence of Professor Crum Brown; Practical Physiology, including Histology, Chemical Physiology, and Experimental Physiology, under the superintendence of Professor Rutherford; Morbid Anatomy and Practical Pathology, under the superintendence of Professor Sanders; Tutorial Class of Clinical Medicine, in the wards of the Royal Infirmary, by the Clinical Tutor; Operative Surgery, by Professor Spence; Bandaging and Surgical Appliances, under the superintendence of Professor Spence; Obstetric Operations, under the superintendence of Professor Simpson; Chemical Laboratory, under the superintendence of Professor Crum Brown; Medical Jurisprudence Laboratory, under the superintendence of Professor MacLagan; Royal Botanic Garden Herbarium and Museum, under the superintendence of Professor Balfour; Materia Medica Museum and Laboratory, under the superintendence of Sir R. Christison, Bart.; and in the summer, Practical Botany and Vegetable Histology, by Professor Balfour; Practical Instruction in Mental Diseases at an Asylum, by Professor Laycock; and Practical Natural History, by Sir Wyville Thomson.

Fellowships, etc.—Falconer Memorial Fellowship, for the encouragement of the study of Palaeontology and Geology, value £100, tenable for two years, open to Graduates in Science or Medicine of the University of not more than three years' standing. In October 1877, Syme Surgical Fellowship, value about £100, tenable for two years, open to Bachelors of Medicine of not more than three years' standing, who shall present the best Thesis on a Surgical subject, giving evi-

TABLE OF THE MEDICAL OFFICERS, PROFESSORS, AND LECTURERS IN MEDICAL SCHOOLS OF SCOTLAND.

For further particulars regarding each Hospital and Medical School, see pp. 352 & 354. The letters (W.) and (S.) in this Table denote respectively Winter and Summer Courses.

LECTURES, ETC.	ABERDEEN UNIVERSITY.	EDINBURGH UNIVERSITY. (d.)	SCHOOL OF MEDICINE, EDINBURGH. (e)	GLASGOW UNIVERSITY. (4.)	GLASGOW, ANDERSON'S UNIVERSITY. (u.)	GLASGOW ROYAL INFIRMARY SCHOOL.
ANATOMY	Dr. Struthers, 11 (W.)	Mr. Turner, 1 (W.)	Dr. Handyside, 1 (W.)	Dr. Allen Thompson and Demonstrator, jun. 11; sen. 2 (W.); Lect. and Demon., 11 (S.); Elem. Anatomy, M. W. F., 1 S.	Dr. A. M. Buchanan, jun. 10; sen., 3 (W.); Surgical Anatomy, 12; Osteology, daily (S.)	Mr. H. E. Clark (W. & S.)
ANATOMICAL DEMONSTRATIONS ..	Dr. Struthers, 9 (W.); 2 (S.)	Mr. Turner, 4	Dr. Handyside, 4 (W.); 11 (S.)			
DISSECTIONS	9 to 4 (W. and S.)	Daily (W. and S.)	9 to 4 (W. and S.)	9 to 4 (W.); 7 to 2 (S.)	Daily (W. and S.)	
PHYSIOLOGY OR INSTITUTES OF MEDICINE	Dr. Ogilvie-Forbes, 4 (W.)	Dr. Rutherford, 11 (W.)	Dr. McKendrick, 11 (W.)	Dr. A. Buchanan, 3 (W.)	Dr. E. Watson, 5 (W.)	Dr. W. J. Fleming (W.)
CHEMISTRY	Mr. Brazier, 3 (W.)	Dr. Crum Brown, 10 (W.)	Dr. S. Macadam, 10 (W.)	Mr. Ferguson, 10 (W.)	Mr. Dittmar, 10 (W.)	Dr. John Clark (W.)
PRACTICAL CHEMISTRY	Mr. Brazier, 10 A.M. (S.)	Dr. Crum Brown (W. and S.)	Dr. Macadam and Mr. King, 9 to 5 (W. & S.)	Mr. Ferguson, 10, W.; Tu. W. Th., 10 (S.) ⁱ	Mr. Dittmar, 10 to 4 (S.) ^o	Dr. J. Clark (S.)
MATERIA MEDICA ..	Dr. Harvey, 3 & 4 (S.)	Sir R. Christison, 9 (W.)	Dr. Moinet, 9 (W. & S.)	Dr. Cowan, 11 (W.)	Dr. Morton, 4 (W.)	Dr. John Dougall (W.)
BOTANY	Dr. Dickie, 9 (S.)	Dr. Balfour (S.)	Dr. W. Craig, 9 (S.)	Dr. Dickson, 12 (S.) ^k	Mr. Hennedy, 10 (S.)	....
NATURAL HISTORY.	Mr. Nicol, 2 (W.); 11 (S.) ^a	Sir C. W. Thomson (S.)	Dr. A. Wilson, 3 (W.); 2 (S.)	Dr. Young, Zoology, 8 A.M. (S.)		
MEDICINE	Dr. Smith-Shand, 3 (W.)	Dr. Laycock, 3 (W.)	Dr. Haldane, Dr. Muirhead, and Dr. G. Stewart, 3 (W.)	Dr. Gairdner, 12 (W.) ^o	Dr. Wood Smith, 5 (W.)	Dr. A. W. Smith (W.)
SURGERY	Dr. Pirrie, 10 (W.)	Mr. Spence, 10 (W.) Operative in Summer	Dr. P. H. Watson, Mr. J. Bell, Mr. Chiene, and Dr. John Duncan, 10 (W.) ^f	Dr. G. H. B. Macleod, 1 (W.) Operative in Summer	Dr. Dunlop, 11 (W.)	Dr. H. C. Cameron (W.) Oper. in Sum.
MIDWIFERY	Dr. Stephenson, 4 (W.)	Dr. A. Simpson, 11 (W.)	Dr. M. Duncan, 11 (W.); Dr. Keiller, Dr. A. Macdonald, & Dr. Underhill, 10 (S.)	Dr. Leishman, 5 (W.)	Dr. J. G. Wilson, 3 (S.)	Dr. James Stirton (S.)
FORENSIC MEDICINE	Dr. Ogston, 9 (W.) ^b	Dr. D. MacLagan (S.)	Dr. Littlejohn, 2 (W.); 11 (S.)	Dr. P. A. Simpson, 4 (W.); 11 (S.)	Dr. A. Lindsay, 4 (S.)	Dr. McEwen (S.)
PRACTICAL PHYSIOLOGY AND HISTOLOGY .....	....	Dr. Rutherford (W. & S.)	Dr. McKendrick, 3 (S.) F., 12	Dr. A. Buchanan and Mr. Fleming (three days weekly) (S.)	Dr. E. Watson, 12 (S.)	Dr. W. J. Fleming (S.)
PATHOLOGY	Dr. Rodger (W.)	Dr. Sanders, 2 (W.); and in Summer	Dr. J. Wyllie, 4 (W.); 2 (S.)	Dr. J. Coats, 2 (W.)	....	Dr. D. Foulis (S.)
HOSPITAL PRACTICE	Royal Infirmary, c Daily, 12	Royal Infirmary, g	Royal Infirmary g	Royal Infirmary, 1; Western Inf., m., 9 A.M.	Royal Infirmary, 9 A.M.	Royal Infirmary
CLINICAL MEDICINE	Dr. Smith-Shand, Dr. Beveridge, and Dr. A. Fraser	Drs. Laycock, MacLagan, Sanders, & Simpson (Dis. of Women), Tu. F., 12 to 2	Drs. Haldane, G. W. Balfour, G. Stewart, and J. M. Duncan (Obst.), Tu. F., 12	Dr. McCall Anderson & Dr. Gairdner, 9 A.M.	Physicians of Royal Infirmary, twice weekly, 9 (W. and S.)	Physicians of Royal Infirmary (W.)
CLINICAL SURGERY.	Dr. Pirrie, Dr. Ogston, and Dr. Will	Mr. Lister, M. Th., 12 (W.); also in Sum.	Dr. P. H. Watson and Mr. Annandale, M. Th., 12 (W. and S.)	Dr. G. Buchanan and Dr. Macleod, 9 A.M.	Surgeons of Infirmary, twice weekly, 9 (W. and S.)	Surgeons of Royal Infirmary (W.)

a. Zoology with Comparative Anatomy.

b. With Medical Logic.

c. ABERDEEN ROYAL INFIRMARY: Physicians—Dr. J. W. F. Smith-Shand, Dr. Beveridge, Dr. A. Fraser; Surgeons—Dr. Pirrie, Dr. D. Kerr, Dr. A. Ogston; Junior Surgeon—Dr. Will; Ophthalmic Surgeon—Dr. Davidson; Dental Surgeon—Mr. Williamson.

d. Medical Psychology and Mental Diseases, Dr. Laycock (S.)

e. Vaccination, six weeks' courses in Winter and Summer, Dr. Husband. Diseases of Children, Dr. R. P. Ritchie, daily at Children's Hospital (W. and S.); Lect. Tu. and F., 3 (S.); Diseases of the Ear, Dr. Kirk Duncannon (S.); Diseases of the Eye, Dr. A. Robertson (S.), Tu. and Th., 3. Insanity, Dr. Batty Tuke (S.), M. and Th., 3. Syphilology, Dr. Cadell, M. Th., 3 (S.) State Medicine and Hygiene, Dr. A. Smart, (S.) 4.

f. Operative Surgery and Surgical Appliances, Mr. J. Bell (S.), 4: Operative Surgery and Surgical Anatomy, Mr. Chiene (S.), 4: Practical Surgery, Dr. J. Duncan (S.), 4.

g. EDINBURGH ROYAL INFIRMARY: Physicians—Dr. Laycock, Dr. MacLagan, Dr. Sanders, Dr. R. Haldane, Dr. G. W. Balfour, Dr. T. Grainger Stewart, Dr. J. M. Duncan, and Dr. A. R. Simpson; Assistant-Physicians—Dr. C. Muirhead and

Dr. D. J. Brakenridge; Consulting Surgeons—Dr. J. Dunsmure and Dr. J. D. Gillespie; Surgeons—Mr. J. Spence, Dr. P. H. Watson, Mr. J. Lister, Mr. Annandale, and Dr. J. Bell; Ophthalmic Surgeons—Mr. Walker and Dr. D. A. Robertson; Surgeon for Ovarian Diseases—Dr. T. Keith; Assistant-Surgeons—Dr. John Duncan and Mr. J. Chiene; Dental Surgeon—Dr. J. Smith.

h. Operative Surgery, Dr. Macleod, M. W. F., 1 (S.); Lectures on Eye, Dr. T. Reid, Tu. Th., 1 (S.); Practical Pharmacy, Dr. Tennent, M. W. Th., 12 (S.)

i. Chemical Laboratory from 10 A.M. to 4 P.M. (W. and S.)

k. Demonstrations in the Botanical Garden, 6.30 P.M.

l. GLASGOW ROYAL INFIRMARY: Physicians—Dr. Scott Orr, Dr. Perry, Dr. MacLaren, Dr. Wood Smith, and Dr. Charteris. Surgeons—Dr. E. Watson, Dr. Dewar, Dr. Dunlop, Dr. Cameron, and Dr. Morton.

m. GLASGOW WESTERN INFIRMARY: Physicians—Dr. Gairdner, Dr. McCall Anderson, Dr. Finlayson; Physician for Diseases of Women—Dr. Leishman; Surgeons—Dr. Macleod, Dr. G. Buchanan, Dr. A. Patterson; Dispensary Physicians—Dr. Tennant, Dr. Coats, and Mr. McVail; Dispensary Surgeons—Dr. J. G. Lyon, Mr. Fleming, and Dr. Knox; Pathologist—Dr. Coats.

n. Ophthalmic Medicine and Surgery, Dr. Wolfe, daily, 1 (W. and S.)

o. Practical Medical Chemistry—Mr. Dittmar, 1 (S.)

dence of original research. Abercromby Bursary of £20, for four years, to students who have been brought up in Heriot's Hospital. Sibbald Bursary, £30; Grierson Bursary, £20 *per annum* for three years; Tyndall-Bruce Bursary, £25. Competitors for the above three bursaries must have studied the subject of examination at the University of Edinburgh. Ettles Medical Prize, value about £40, to the most distinguished Graduate in Medicine of the year. Hope Chemistry Prize, value £100, open to all students of the University not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory. Hope Scholarship, value about £30. Neil Arnott Prize, about £40, to the candidate who, having been a medical student of the University during either a summer or a winter session, shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. The successful candidate must continue a medical student of this University during the winter session.—Gold medals are given on graduation to Doctors of Medicine whose theses are deemed worthy.

EDINBURGH ROYAL INFIRMARY.—Fees: 6 months, £3 3s.; 1 year, £5 5s.; perpetual, £10. Clinical Medicine and Clinical Surgery, each £4 4s. for the course.—No fees for any medical or surgical appointment. Four Resident Physicians and four Resident Surgeons are appointed; they live in the house for six months free of charge. Candidates must be registered as legally qualified practitioners. Non-resident Clinical Clerks are appointed. Each Surgeon appoints from four to nine Dressers for six months. Assistants in the Pathological Department are appointed by the Pathologist.—Instruction is given in special departments.

SCHOOL OF MEDICINE, EDINBURGH.—The courses qualify for examination for various diplomas and licences, and for degrees in those years in which University residence is not required.

Fees.—For the first of each course of lectures, £3 5s.; second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee is £2 4s. Practical Chemistry and Practical Anatomy (six months) each, £3 3s. Anatomical Demonstrations, £2 2s.; with Practical Anatomy, £1 1s.; perpetual, £4 4s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Vaccination and Syphilology, each £1 1s. State Medicine and Hygiene, £2 2s. Summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Demonstrations, Operative Surgery, Diseases of the Eye, Insanity, and Diseases of Children, each £2 2s. The minimum education costs in this school for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons of Edinburgh, including the examination fee, is £90 4s., payable by yearly instalments; for the single diploma of either Physician or Surgeon, including the examination fee, £80.

Practical instruction in various subjects may also be obtained on payment of moderate fees at the Sick Children's Hospital, Royal Public Dispensary and New Town Dispensary, Royal Maternity Hospital, and the Edinburgh Eye Infirmary.

UNIVERSITY OF GLASGOW.—Fees, each course, £3 3s.; except Lectures on the Eye, £1 1s.

GLASGOW ROYAL INFIRMARY.—This Infirmary contains 570 beds. Of these, 240 are for medical, and 330 for surgical cases, with a special ward for the treatment of Venereal Disease in Males. Diseases of the Eye, Ear, and Throat are specially treated at the out-door department.

Appointments.—There are five Physicians' and five Surgeons' Assistants who are boarded and lodged in the Hospital at the rate of £25 *per annum*, and who perform all the duties of House-Physicians and House-Surgeons. These appointments are held for twelve months, six in the medical and six in the surgical wards, and are open to those students of the Infirmary who have passed all their examinations except the last, or who have a qualification in Medicine or Surgery. Clinical assistants, dressers, and dispensary clerks, are selected from the students without any additional fee; and, from the large number of accident cases, and cases of acute disease received into the wards, these appointments are numerous and invaluable to the student. Attendance at the Dispensary for the treatment of out-patients, and admission to the Pathological Museum, are also free.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—The winter session commences on November 1st, and the summer session on May 1st. Lectures are delivered on all subjects necessary for qualifying, and extra courses are given on practical subjects now required by examining boards. During summer, Lectures on Insanity will be given by Dr. A. Robertson, and the City Parochial Asylum under his charge is free to students of this school.

Fees.—For each course of lectures, first session, £2 2s.; second session and perpetual, £1 1s. The Anatomy Class fees are: first session, £4 4s.; second session, £4 4s.; afterwards, £1 1s. *per annum* for Practical Anatomy. *Hospital Fee.*—The fee for unlimited attendance on the Practice of the Infirmary, and on the courses of clinical instruction, does not exceed £21.

GLASGOW WESTERN INFIRMARY.—Fees, 1st and 2nd years, each £3 3s.; 3rd year, £1 1s. The fees for clinical lectures, are the same as for the courses in the University.

GLASGOW EYE INFIRMARY.—Fee, 6 months, £2 2s.; to students who are attending or have attended the Lectures on the Eye in the University, £1 1s.

Instruction may also be obtained at the Glasgow University Lying-in Hospital and Dispensary for Diseases of Women and Children; and at the Dispensaries for Diseases of the Skin and Ear; and the Royal Lunatic Asylum, Gartnavel, is open to students on payment of a small fee.

GLASGOW.—ANDERSON'S UNIVERSITY.—Fees for all the Lectures required for the Diplomas of Physician and Surgeon, £50. Class Fees for each course of Lectures: 1st session, £2 2s.; 2nd session, £1 1s.; afterwards free. Anatomy Class Fees, for Lectures and Demonstrations: 1st session, £4 4s.; 2nd session, £4 4s.; summer session, with Dissection, £1 1s. The Dissecting-room is free for two sessions to those who attend both courses of Anatomy; after the second year, £1 1s. per session. There is a Matriculation Fee of £1 1s. at the beginning of each winter session.

ASSOCIATION INTELLIGENCE.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

An ordinary meeting of this District will be held at the Bear Hotel, Havant, on Tuesday, September 12th, 1876, at 4 P.M.

1. Inspector-General Smart, M.D., C.B., will read Remarks on Severe Scalds and Burns.

2. A discussion will take place on the Treatment of Syphilis.

Dinner will be provided at 6.15. Charge, 6s., exclusive of wine.

Members intending to be present are requested to communicate with Mr. St. Quintin Bond, Havant, on or before September 10th.

J. WARD COUSINS, M.D., *Honorary Secretary*.

Southsea, August 29th, 1876.

NORTH OF ENGLAND BRANCH.

The autumnal meeting of this Branch will be held at Coatham, on Thursday, September 21st.

Gentlemen who are desirous of reading papers or making other communications, are requested to give notice to the Secretary.

G. H. PHILIPSON, M.D., *Honorary Secretary*.

Newcastle-upon-Tyne, August 19th, 1876.

SHROPSHIRE AND MID-WALES BRANCH.

The annual meeting of this Branch will be held at the Lion Hotel, Shrewsbury, on Tuesday, September 26th, 1876, at 1.30 P.M.: S. TAYLEUR GWYNN, M.D., President, in the Chair.

Dinner at 4.30 P.M. Charge, 7s. 6d., exclusive of wine.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate at once with the Honorary Secretary.

HENRY NELSON EDWARDS, *Honorary Secretary*.

Shrewsbury, September 5th, 1876.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The next meeting of this Branch will be held at Caerphilly, on Thursday, September 28th, 1876.

Further particulars will appear in the circulars.

ANDREW DAVIES, M.D. } *Honorary Secretaries*.

ALFRED SHEEN, M.D. }

September 6th, 1876.

TESTIMONIAL.—The inhabitants of Inkberrow, with the surrounding villages, have presented Mr. J. Martin, L.R.C.P., with a testimonial, on the occasion of his removal to Alcester. It consists of an illuminated address, a silver tea and coffee service, and a china breakfast and tea service.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 9TH, 1876.

THE STUDY OF THE HISTORY OF MEDICINE.

To anyone who attempts to take a scientific view of the present position of medicine, or who tries to discover from what it has come or whither it is tending, the increased interest which has recently been manifested in its history must be very gratifying. Without making invidious comparisons, and without derogating from the enlightened way in which this aspect of our science has been studied by other men, we would point to the very scholarly address which was delivered in Edinburgh, by the late lamented Dr. Warburton Begbie, on the writings of Hippocrates; and to the utterances of Dr. Sieveking at the late annual meeting of the Association in Sheffield. An address, lately published in the form of a pamphlet, which was last year delivered at the Liverpool School of Medicine, on the Medicine of the Ancients, by Dr. Dickinson, deals with the same subject. All of these are indicative of the spread of a feeling which is gradually permeating the medical profession, that the historical aspect of medicine is one which has been too much neglected, while the conviction is equally strong and decided that much advantage to the progress of medicine may arise from a careful study of what it has been in the past. Not that medicine is alone in this. To the advancement of all the inductive sciences, a knowledge has been necessary as well of the position of the particular science at the moment of investigation, as of the steps by which that position had been obtained; this, in turn, tending to throw light on the direction in which future progress might be expected. General science—the science of which we hear so much at the present time, from men who assert that medicine has no claim to be ranked among her sisters—would seem to have for her object at present the formulation of some physical law which shall be supreme and shall contain all others; and there are indications that such a law may shortly be enounced. Already a direct proportion to quantity and an inverse proportion to the quadratic of the distances of acting bodies is a law which is seen to cover the phenomena of radiant forces, heat, light, electricity, gravitation, etc. Whether, by the elimination of some accidental and variable factor, a still higher formula may yet be stated as covering all phenomena whatever, remains to be seen. But, if this should ever be done, it will assuredly not be by a man who persistently ignores what science has done in the past. So in medicine it must also be. Indeed, this statement seems to be more true of medicine than of other departments of science, since it would not be difficult to show that very many of the errors that have been from time to time made in medicine have had for their cause ignorance of previous controversies in the history of physic. At least, in the writings of the older authors there are to be found suggestions and accurate descriptions of the facts of disease, which it would be well if many newer men would attempt to read in the light of the new physiology.

There is one point in this discussion of the present position of medicine, which its history has gradually evolved, to which we think special attention ought to be given. Even those who deny to medicine any claim to be considered a science, do not deny that physiology is one. What strikes an observer on this view of the question is, that medicine might at once partake of the scientific character if she thoroughly realised her position as applied physiology—the material application of that series of physiological facts which the immortal Haller, by accumulation and study, raised to the rank of abstract science. But this, again, is not possible to one who is not acquainted with the work which Haller did, and the mode in which he did it. His relation to a successor who has not yet appeared might be illustrated by the relation

which subsists in philosophy between Sir William Hamilton or Kant and John Stuart Mill. Haller is the medical Hamilton, so to say; the Mill has not appeared. It would certainly be both interesting and instructive to inquire how far Cullen, who is the only medical writer with grasp of intellect of the first order, who has appeared between mediævalism and the present time, himself supplied the desideratum. We do not, of course, propose to go into that question here, being rather interested in pressing into prominence the historical study of medicine than in attempting to say what that study may teach. And, at least, any man who feels the burden of the reproach of the continual assertion by critics of the unscientific condition of medicine at the present time, and who is anxious to remove that reproach, will, we feel sure, be more likely to succeed in his endeavour, and even to understand what his task is, if he be informed of the labours of his predecessors than if he be not. It would not be more absurd to expect a foreign secretary successfully to give instructions to his country's representatives abroad, if he were ignorant of previous relations with the powers to which they were accredited, than to expect a man to make any real advance in medicine if he had not acquainted himself with her position and labours in the past.

These remarks we would specially press on the attention of those who are about to take up the pursuit of medicine as the occupation of their lives. Now is their opportunity, when leisure and youth are on their side. By and by, the constant demands made upon their time and strength by practice and society will make it almost impossible for them to do what they will constantly regret they have not done when opportunity offered. It is to be regretted, indeed, that the books which treat of this portion of the science of medicine are few, and in particular that we are still in want of a connected account of the labours of that very numerous body of men who have worked in the present century. This is, of course, the less to be regretted that the present teaching at medical schools is mainly the result of those men's labours, but it would still be an advantage if that teaching paid more attention to its own history. In any case, we cannot help advising medical students who may find it impossible to master the larger treatises on ancient medicine, at least, to make opportunity to become acquainted with the life and labours of representative men. No method of study is so instructive or so thoroughly human as this; and often in anxiety, or difficulty, or misfortune, fresh courage and hope will be found, not to speak of instruction, in a knowledge of the life and work of men who have preceded. Medicine is rich in the names of such. Men of the very first rank are, of course, rare in all departments, but medicine has an inheritance even of these, while the names of her second- and third-rate workers are far too numerous even for mention. Medical men in practice, if they cannot have made themselves acquainted with all of these, may at least be familiar with the writings of Hippocrates and Galen or Celsus among the ancients; with those of Harvey and Sydenham as representatives of the heaving period of the revival of letters and of revolution in all things; and with those of Cullen and Haller as representatives of the age which has preceded our own.

CHANGES IN THE MEDICAL SCHOOLS.

THE following changes have been made since the publication of the Education Number of this JOURNAL in 1875.

At St. Bartholomew's Hospital, Dr. Lauder Brunton lectures alone on *Materia Medica*, Dr. Farre having retired. Dr. Shuter teaches *Practical Physiology* in place of Mr. Symons.

At the Charing Cross Hospital, Dr. Barlow has been appointed Assistant-Physician; and Mr. Rickman Godlee Assistant-Surgeon and Teacher of *Practical Surgery*, on the retirement of Dr. Fairlie Clarke. In the Medical School, Mr. Saunders lectures on *Botany* in place of

Dr. Irvine, who has been appointed to the Lectureship on Forensic Medicine and a Lecturer on Public Health. Dr. Lyttleton Forbes Winslow lectures on Forensic Medicine in place of the late Dr. W. J. Hunt. Dr. Sangster takes the department of Diseases of the Skin, and Dr. Irvine demonstrates the use of the Laryngoscope, both in place of Dr. Sparks. Dr. Barlow lectures on Diseases of Children in place of Dr. Irvine.

At St. George's Hospital, Mr. Turner teaches Osteology in place of Mr. Dunbar, whose office as one of the Demonstrators of Anatomy has been filled by the appointment of Mr. Wadham.

At Guy's Hospital, Mr. Jacobson has been appointed an Assistant-Surgeon.

At King's College, Dr. George Johnson has retired from the Professorship of Medicine, and has been appointed Professor of Clinical Medicine. The Chair of Medicine is filled by the appointment of Dr. Beale, who is succeeded as Professor of Pathology by Dr. Duffin; Mr. W. Rose has been appointed an Assistant-Surgeon to the Hospital; Dr. Urban Pritchard teaches Aural Surgery; and Dr. Ferrier gives demonstrations on Diseases of the Throat and the use of the Laryngoscope in place of Dr. I. B. Yeo.

At the London Hospital, Dr. Fenwick has become full Physician, and Mr. J. Adams, Mr. Waren Tay, and Mr. McCarthy full Surgeons, having respectively filled the offices of Assistant-Physician and Assistant-Surgeon for seven years. Dr. Turner has been appointed an Assistant-Physician, and Dr. Herman Assistant Obstetric Physician. By the death of Dr. Letheby, Dr. C. M. Tidy has become the sole teacher of Chemistry and Practical Chemistry.

At St. Mary's Hospital, Mr. H. Page has been appointed an Assistant-Surgeon and Teacher of Practical Surgery, to fill the vacancy occasioned by the death of Mr. G. G. Gascoven. Mr. A. T. Norton succeeds Mr. Gascoven as Mr. J. R. Lane's colleague in the Lectureship on Surgery, and his place as Lecturer on Anatomy is taken by Mr. E. B. Owen. Mr. Hemsley lectures on Botany in place of Dr. Trimen.

At the Middlesex Hospital, Dr. R. Liveing having retired, Dr. Cayley has become full Physician, and the consequent vacancy among the Assistant-Physicians has been filled by the appointment of Dr. S. Coupland. Mr. Foster has been appointed Lecturer on Chemistry; and Mr. Critchett Lecturer on Diseases of the Eye, and Surgeon to the Eye Department of the Hospital, in place of Mr. Hulke, who has retired from this duty, retaining his office as Surgeon to the Hospital. Dr. G. H. Evans lectures on Diseases of the Skin in place of Dr. Liveing.

At St. Thomas's Hospital, Mr. McKellar has been appointed Assistant-Surgeon, to fill the vacancy caused by the resignation of Mr. Henry Arnott. Dr. Bristowe lectures on Medicine (with Dr. Murchison) in place of Dr. Peacock; and Dr. A. Carpenter has been appointed to give a course of lectures on Public Medicine. Dr. Charles will give Demonstrations on Physiology.

At University College Hospital, Mr. Barker teaches Aural Surgery, and Dr. Poore gives Demonstrations of Diseases of the Throat and the Use of the Laryngoscope.

At the Westminster Hospital, Dr. Sturges has become full Physician, and the vacancy caused in the office of Assistant-Physician has been filled by the appointment of Dr. De Havilland Hall. Mr. Holt-house has retired from the office of Surgeon, and is succeeded by Mr. C. Macnamara.

In Queen's College, Birmingham, Mr. Bruce is Professor of Chemistry, and joint Professor of Medical Jurisprudence, in place of Dr. A. Hill. Mr. G. H. Evans succeeds Mr. Pope as Demonstrator of Anatomy.

The Bristol Medical School has been affiliated to the newly instituted University College in that city. Dr. Waldo succeeds Mr. Board as one of the Lecturers on Anatomy; and Dr. Spencer lectures alone on Medicine. In the General Hospital, Dr. Fairbrother has retired from the office of Physician, and the vacancy has been filled by the promo-

tion of Dr. Waldo, who is succeeded as Assistant-Physician by Dr. Shaw. Mr. A. W. Prichard takes the place of Mr. D. E. Bernard as Assistant-Surgeon. In the Royal Infirmary, the number of Physicians has been reduced by the lamented death of Dr. Samuel Martyn.

At the Leeds School of Medicine, Mr. Greenwood has been appointed Lecturer on Botany, Mr. Walker teaches Practical Physiology, and is succeeded as Demonstrator of Pathology by Mr. McGill. Dr. Major lectures on Mental Diseases in place of Dr. Crichton Browne.

In the Liverpool Royal Infirmary School of Medicine there are no changes.

In the Medical School of Owens College, Manchester, Mr. Young is Demonstrator of Anatomy in place of Mr. Beswick Perrin. Mr. Lund lectures alone on Surgery. Dr. Ransome lectures on Medical Jurisprudence (with Public Health) in place of Mr. G. M. Harrison. Mr. S. Messenger Bradley has been appointed Teacher of Practical Surgery.

In the Sheffield Medical School, Mr. S. Snell has been appointed Demonstrator of Anatomy in place of Dr. Morton, and Dr. O'Keefe lectures alone on Physiology, Mr. Morton having retired.

In the University of Durham College of Medicine at Newcastle-upon-Tyne, Dr. G. H. Hume is Professor of Physiology in place of Dr. Reoch; and Mr. McDiarmid is Demonstrator of Anatomy and Teacher of Practical Physiology. There is a vacancy in the Professorship of Materia Medica and Therapeutics. Dr. Gibson has been appointed a Physician to the Infirmary.

In the Edinburgh School of Medicine, Dr. Pettigrew has ceased to lecture on Physiology, and Dr. Coghill on Pathology, both having left the city.

In Glasgow, a new School of Medicine has been established in connection with the Royal Infirmary.

In the University of St. Andrew's, Dr. J. B. Pettigrew has been appointed Professor of Physiology and Medicine in place of the late Dr. Bell.

OPENING OF THE MEDICAL SCHOOLS.

THE subjoined is a list of the Medical Schools in England and Scotland, with the date of their opening, and the names of the gentlemen appointed to deliver introductory addresses. Where no name is inserted, there is no special introductory lecture.

St. Bartholomew's Hospital—October 2nd, 4 P.M.

Charing Cross Hospital—Dr. J. M. Bruce—October 2nd, 4 P.M.

St. George's Hospital—Dr. Blandford—October 2nd, 4 P.M.

Guy's Hospital—October 2nd.

King's College—Dr. Baxter—October 2nd, 4 P.M.

London Hospital—Dr. Andrew Clark—October 2nd, 3 P.M.

St. Mary's Hospital—Dr. Wiltshire—October 2nd, 3.30 P.M.

Middlesex Hospital—Dr. Evans—October 2nd, 3 P.M.

St. Thomas's Hospital—Mr. F. Mason—October 2nd, 4 P.M.

University College—Dr. Maudsley—October 2nd, 3 P.M.

Westminster Hospital—Dr. Allchin—October 2nd, 8 P.M.

Birmingham (Queen's College)—Mr. Solomon—October 2nd, 3 P.M.

Birmingham (General and Queen's Hospitals)—Introductory Clinical Address at the General Hospital—October 8th, 3.30 P.M.

Bristol Medical School—October 2nd.

Leeds School of Medicine—Dr. Land—October 2nd, 3.30 P.M.

Liverpool Royal Infirmary School of Medicine—Dr. Glynn—October 2nd, 3 P.M.

Owens College (Manchester Royal) School of Medicine—Dr. Morgan—October 2nd, 4 P.M.

Newcastle College of Medicine—Dr. G. H. Hume—October 2nd, 2 P.M.

Sheffield School of Medicine—Dr. Thomas—October 2nd, 4 P.M.

Aberdeen University—November 1st.

Edinburgh University—The Principal—October 31st, 2 P.M.

Edinburgh School of Medicine—Dr. Wyllie—October 31st, 11 A.M.

Glasgow University—Dr. McCall Anderson—October 31st, 12 noon.

Glasgow, Anderson's University.

Glasgow Royal Infirmary Medical School—November 1st.

SMALL-POX has become prevalent in Blackburn, and has spread to some of the best-drained and best-ventilated localities of the town.

THE contributions to the London Hospital Saturday Fund at the collection on Saturday last have amounted to £1,400.

THE Keighley Guardians, at a meeting on Wednesday last, passed a resolution authorising the vaccination officer to institute legal proceedings against persons not complying with the Vaccination Acts. The Guardians who are imprisoned in York Castle are, it is reported, to be admitted to bail.

THE annual meeting of the British Association for the Advancement of Science, held this year in Glasgow, commenced on Wednesday last. The President, Professor Andrews of Belfast, delivered an address, in which he reviewed the progress made during recent years in various branches of science, and advocated the cultivation of the physical and natural sciences in the Universities. It will be remembered that Sir Robert Christison was originally appointed President of the Glasgow meeting. Dr. Andrews, in the commencement of his address, remarked that "he had undertaken, not without anxiety, the duty of filling an office at first accepted by one whom Scotland and the Association would alike have rejoiced to see in this Chair, not only as a tribute to his own scientific services, but also as recognising in him the worthy representative of that long line of able men who have upheld the pre-eminent position attained by the Scottish schools of medicine in the middle of the last century, when the mantle of Boerhaave fell upon Monro and Cullen".

DR. DEVILLE AND THE HARROGATE IMPROVEMENT COMMISSIONERS.

THE dismissal of Dr. Deville from the post of Medical Officer of Health for Harrogate having been reported to the Local Government Board, that body requested the Improvement Commissioners of the town to reconsider their decision. The Commissioners replied that they could not alter their determination, and advertised the vacancy; and at their meeting on Monday last elected Mr. Short to the office in the place of Dr. Deville. The only other candidate was Dr. Loy. We have already commented on the injustice of the treatment which Dr. Deville has received; and must now express our regret that the Improvement Commissioners have not retracted their false step. We hope, however, that the Local Government Board will deal more vigorously than by the utterance of a polite recommendation.

AN ALLEGED FEVER-DEN.

SOME days ago, an inquest was held before Dr. Hardwicke on the body of a child, named Morley, who was alleged to have died of suppressed scarlet fever in Upper Fitzroy Place, St. Pancras. It was stated that other cases of the disease had occurred at the opposite house, and that all the houses were overcrowded, without back ventilation, and otherwise unfit for habitation. The verdict of the jury was in accordance with this statement; and to it was appended an expression of opinion that the condition of the houses should be immediately taken cognisance of by the sanitary authorities of St. Pancras. At a meeting of the St. Pancras Vestry, on Wednesday last, a report was presented by Mr. George Eastes, the deputy medical officer of health, who had inspected the locality. He stated that, while there had been four cases of scarlet fever in the opposite house, attention had been called to this fact some weeks ago, and that proper measures for the disinfection of the premises had been taken; that the houses were not overcrowded; that their sanitary condition was generally good; and that their back ventilation was ample. It was stated by a member of the Vestry that neither the Coroner nor jury had visited the place. It is certainly desirable that any opinion as to defects in the sanitary condition of a locality should be founded on the most accurate information. Hasty and ill-grounded remarks are calculated to do more harm than good to the progress of hygiene.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 31st, 1876.

Bayley, Reginald, Kingston Hill, Surrey
Keer, John Cordy, Wickham Market
Newton, Richard Arthur, Birmingham
Thomas, Hugh William, Birmingham
Williams, Alfred Glover, Carmarthen

The following gentlemen also on the same day passed their primary professional examination.

Blackmore, Alfred, Owens College, Birmingham
Butler, Samuel, Owens College, Birmingham
Dumbleton, Edgar Hunt, Queen's College, Birmingham
Wells, Alfred George, Guy's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

COTON HILL INSTITUTION—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, etc. Applications to Dr. Hewetson.
CROYDON UNION—Medical Officer for the Fifth District. Salary, £100 per annum.—Also, Medical Officer for the Tenth District. Salary, £50 per annum. Applications on or before September 13th.
HULME DISPENSARY—Assistant Medical Officer. Salary, £130 per annum, with furnished apartments. Applications on or before September 9th.
JARROW-ON-TYNE MEMORIAL HOSPITAL—Resident Surgeon. Salary, £100 per annum. Applications to the Committee.
KENT COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum, with board, lodging, and washing. Applications on or before September 26th.
LIVERPOOL—Resident Assistant Medical Officer for the Toxteth Park District. Salary, £100 per annum, with board and lodging. Applications on or before September 13th.
LOUTH UNION—Medical Officer for the Withern District.
METROPOLITAN FREE HOSPITAL—Assistant-Physician. Applications on or before September 18th.
ROSS UNION—Medical Officer. Salary, £80 per annum. Applications on or before September 11th.
ST. LEONARD'S, Shoreditch—Assistant Medical Officer. Salary, £120 per annum. Applications on or before September 18th.
SALISBURY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board, lodging, etc. Applications on or before September 21st.
SLEAFORD UNION—Medical Officer for the Blackney District.
TENDRING UNION—Medical Officer of Health. Salary, £100 per annum. Applications on or before September 12th.
TOXTETH PARK—Resident Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before September 13th.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—Assistant to the House-Surgeon. Lodgings and board will be provided. Applications to be made on or before September 18th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*BUZARD, Frank, M.D., appointed Surgeon to the Northampton General Infirmary, *vice* James Mash, F.R.C.S.Eng., resigned.
SCOTT, Robert, M.B., appointed House-Surgeon to the Halifax Infirmary, *vice* G. Hoyle, M.B., resigned.
SIMON, Arthur C., M.R.C.S.Eng., appointed Assistant House-Surgeon to the Halifax Infirmary, *vice* E. W. S. Wilkins, M.R.C.S.Eng., resigned.
WARTENBERG, Victor A., M.R.C.S.Eng., appointed Senior House-Surgeon to the Manchester Royal Infirmary.
WILLIAMSON, George E., M.R.C.S.Eng., appointed Senior House-Surgeon to the Newcastle-upon-Tyne Infirmary, *vice* G. T. Beatson, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

EDIS.—On September 3rd, at 22, Wimpole Street, Cavendish Square, the wife of *Arthur W. Edis, M.D., of a daughter.
REILLY.—On September 2nd, at Amesbury House, 68, Victoria Park Road, Hackney, the wife of *Frederick James Reilly, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

GRAY—ISLES.—On August 30th, at 6, St. Vincent Street, Edinburgh, by the Rev. Dr. Gray of Edinburgh, T. K. Gray, M.B., of Darlington, to Jessie, youngest daughter of the late Mr. Andrew Isles of Edinburgh.
HAYNES—JONES.—On Aug. 31st 1876, by the Rev. C. Musgrave Harvey, Rector, the Rev. A. B. Dickinson, Rector of Old Radnor, and the Rev. Alfred Scott, Horace Eyre Haynes, M.R.C.S.Eng., of Evesham, to Lucy Marion, second daughter of Frederick Jones, Esq., of The Friars, Acton. No cards.

DEATH.

*LAWRENCE, Joseph, M.R.C.S.Eng., at Queen Square, Bath, aged 51, on August 21st.

A NIGHT medical service has been established at Marseilles. Instead, however, of being paid by fees for work, each medical man is to receive 300 francs (£12) annually.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

It is particularly requested that, during the month of September, communications for "The Editor of the BRITISH MEDICAL JOURNAL" be so addressed, and not to any person by name.

A YOUNG PRACTITIONER (Huddersfield) would do well to communicate with Mr. Carsten Holthouse, 3, George Street, Hanover Square.

A WARNING.

SIR,—Please find space for a concernment of importance to the whole profession. A very stout woman, with two daughters, and a son suffering from consolidation of the lung and liability to hæmoptysis, is frequenting watering-places and other localities, giving her husband's address at the London Post Office. I lately attended the said son (reported to have become ill from running races in Canada) for nearly two months, to find in the end that the mother left the neighbourhood without ceremony, and without payment of doctor, grocer, baker, laundress, or news-vendor. As the woman is of characteristic size and type, I would put the profession, especially in the home counties, on the alert. She is certain to consult one or more of its members, and my admonition is, that all who may encounter her should insist that any services rendered be simultaneously required.—I am, etc., D. B. M.

D. S. K.—We would advise our correspondent not to use the vaccine lymph of which he speaks.

CHRONIC DIARRHŒA.

SIR,—A Young Practitioner, in the BRITISH MEDICAL JOURNAL of August 5th, asks the treatment for obstinate chronic diarrhœa. In similar cases, more of a constitutional treatment has been very successful. After two months' standing, some of the other secretions, and notably that of the skin, may have become in large part diverted to the bowels. Probably, a weekly sweat, by means of steam and the blanket-bath, to excite the skin, and at the same time astringent and cold enemata, to soothe and constrict the bowel, would be a safe and successful line of treatment. Diet, too, should be attended to. Boiled milk with rice or bread, with the avoidance of stimulating foods, would be advisable. More could hardly be advised without a fuller knowledge of the patient.—I am, etc., Bridge of Allan, August 25th, 1876. CHAS. D. HUNTER.

SIR,—Has a Young Practitioner tried liquor arsenicalis? If he have not, I would advise him to do so. Let him commence with two drops of Fowler's solution in one drachm of some syrup three times a day, gradually increasing the dose to five drops or even more. I have a case now under my care similar to that described by a Young Practitioner, and arsenic very soon gave relief.—Yours, etc., August 28th, 1876. W. EASBY, M.D.

SIR,—In answer to A Young Practitioner, I would advise him to try the following mixture, which in my hands has rarely, if ever, failed. The prescription is not an original one. R. Acidi nitrici dil. ʒiiss; tincture opii m. 80; infusi gentiane comp. ad ʒviij. Two tablespoonfuls to be taken after every loose motion.—I am, yours truly L. W. EVANS. Bawtry, Yorkshire, August 1876.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, twelve o'clock.

ERRATA.—In the JOURNAL for September 2nd, page 303, column 2, lines 18 and 19 from bottom, for "Let there be also a medical man in Parliament" read, "Let Government have a Minister of Medicine in the Cabinet." And at lines 9 and 10 from bottom, for "it was by no means always the best men who got such distinctions", read, "it is by no means the best man who craves for distinctions."

MR. F. J. HAWTHORN.—We do not know of the existence of any work on British Fungi to be obtained at the price which our correspondent mentions.

FICTITIOUS DUMRNESS.

SIR,—In reply to the letter of Staff-Surgeon Robert Nelson, allow me to say that he is mistaken in asserting that I "dogmatized" upon his errors. What I did say was, that, in the absence of further proof, I came to the conclusion that he had punished the boy undeservedly and cruelly. If, in his first report of the case, he had stated what he now states, viz., "that the lad confessed his crime", my comment would have been unnecessary. I will pass over the question how far the misconduct of the lad may with propriety be considered a crime, and how far a lad of weak intellect is best punished by flogging, and state that, having had under my own care a lad in whom emotional aphasia was deemed, as it afterwards proved erroneously, to have been fictitious, I was quite justified in raising the question upon Staff-Surgeon Nelson's case.—I am, sir, yours obediently, D. DE BAKOT HOVELL.

Five Houses, Clapton, Middlesex, August 28th, 1876.

AN OLD MEMBER.—The circumstance was an unprecedented one. Mr. Guthrie filled the office of President of the College of Surgeons three times; viz., in 1833, 1841, and 1854.

A MEMBER.—A medical man is not bound to report cases of fever or small-pox to the sanitary officer. This, however, is a duty for the performance of which provision should be made; and it is the general opinion, we believe, that it should devolve on the householder and not on the medical man.

M.D.—The publication in the daily papers of medical or surgical cases in connection with the name of the medical man concerned is not in accordance with professional morality, and is to be strongly condemned. But we feel convinced that the eminent surgeon, whose name is mentioned in the description of the case of aneurism quoted in the Cork paper, had nothing to do with its publication. Our correspondent will observe that the paragraph in question was quoted from a medical contemporary.

SIR,—In reply to Dr. Henry Fitzsimons, I have lately procured one of Spencer's smallest sized magnetic filters. Upon passing a weak infusion of gentian through it, both colour and taste are destroyed; the flow through is quick, and I am so far well satisfied.—I am, etc., W. L.

FRACTURE OF RIBS IN LUNATICS.

SIR,—Your correspondents will find some remarks worth their attention under the title of "Comments on a Case of Fractured Ribs", by the late Mr. Ley of Littlemore, in the first volume of the *Asylum Journal*, 1855, p. 169.—Your obedient servant, E. L. HUSSEY. Oxford, September 2nd, 1876.

OVUM-FORCEPS.

SIR,—In answer to inquiries, I beg to say that the ovum-forceps designed by me, exhibited at Sheffield, and described in the BRITISH MEDICAL JOURNAL August 26th, was made by Salt and Son of Birmingham. The original pair, which had done all the work, was made in 1872 by Wood of Manchester.—Yours truly, HERBERT M. MORGAN. Lichfield, August 21st, 1876.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Jabez Hogg, London; Dr. Henry Bennet, Weybridge; Enquirer; Dr. C. Fleming, Harthill; Our Edinburgh Correspondent; Our Dublin Correspondent; W. B. M.; Mr. F. Godrich, London; Mr. Martin, Alcester; Mr. Goodall, Lincoln; Dr. Kennedy, Fort William; Dr. Diver, Kenley; Dr. H. N. Edwards, Shrewsbury; Mr. Craigmille, Liverpool; A Young Practitioner (Huddersfield); Mr. Jacobson, London; Captain H. M. Elliot, Hull; Mr. Haynes, Evesham; Mr. Oliver, Preston; M.D., Cork; M.D., Sheffield; Dr. Atthill, Dublin; Our Constantinople Correspondent; Mr. H. M. Morgan, Lichfield; Mr. N. T. Martin, London; Mr. Hussey, Oxford; Dr. Mackey, Birmingham; Dr. Brookfield, Clayton West; Dr. E. Holland, London; Dr. Renton, Shotley Bridge; Dr. H. Major, Wakefield; D. Y., Glasgow; Dr. C. R. Drysdale, London; Dr. Foot, Rotherham; Mr. F. M. Wright, London; X. Y. Z.; Dr. Morgan, Manchester; M. B.; Mr. C. H. Taylor, Bradford; Mr. F. J. Reilly, London; A Lady Medical Student; Philalethes; Dr. T. H. Morton, Sheffield; Dr. Adams, Swansea; Dr. Sheen, Cardiff; L.R.C.S.I.; W. L.; Mr. H. Caddy, Liverpool; Never too Old to Learn; Mr. C. H. Taylor, Bradford; Dr. G. Johnson, London; M.D. (Cork); Dr. E. Holland, London; L. M. D.; Mr. J. Cochrane, Colmonell; Mr. Reginald Harrison, Liverpool; Dr. Gibson, Newcastle-on-Tyne; etc.

REMARKS

ON

CASES OF EFFUSION INTO THE PERITONEUM,
ANALOGOUS TO CASES OF LATENT
PLEURISY.*

By GEORGE JOHNSON, M.D., F.R.S.,

Professor of Clinical Medicine; Senior Physician to King's College Hospital; etc.

THERE is a class of cases of serous effusion into the cavity of the peritoneum which, so far as I know, have not been definitely recorded by writers on the practice of medicine. During the last nine months, the following four cases have come under my observation.

CASE I.—Mary D., aged 51, was admitted on October 28th, 1875. She was married, had had three children and five miscarriages. She menstruated regularly up to last July; she then caught cold whilst menstruating. This was followed by pain in the lower part of the abdomen, and soon by swelling, which rather rapidly increased. Her habits had been active and strictly temperate. She was in good health before the commencement of the present illness.

On admission, the abdomen was much distended, resonant on percussion at the upper and anterior part, dull in the flanks; fluctuation was very distinct. The breathing was impeded and difficult, especially in the recumbent posture. The cardiac and pulmonary sounds were normal; the liver, so far as could be ascertained, of normal size. She had lost flesh since her illness, but she had not a jaundiced or a cachectic appearance. The urine was normal; pulse 104; temperature 98. She was ordered, as a diuretic, half a drachm of acetate of potash and ten minims of tincture of digitalis three times a day. A fortnight after her admission, her condition remained unchanged; and, at my request, my colleague Mr. Royes Bell tapped her, and drew off two hundred and four ounces of dark straw-coloured serum. She expressed herself much relieved. There was no pain or tenderness after the operation. There was no return of the swelling, and she was discharged cured on November 30th.

CASE II.—Mr. G., aged about 50, a verger of St. Paul's Cathedral, was seen by me twice, on the 11th and 19th of November, 1875, in consultation with my friend Mr. Holding. The patient's habits had always been regular and strictly temperate. About six weeks before I saw him, he began to have some tenderness of the abdomen; and this was soon followed by an enlargement which had steadily increased. At the time of my first visit, the abdomen was much distended and fluctuating, not painful or tender. There was no evidence of cardiac, pulmonary, or hepatic disease. The urine was normal. We agreed to give the following diuretic.

R Potassii iodidi 3j; potassæ acetatis ʒiss; tinct. scillæ ʒij; syrupi zingiberis ʒi; aquæ ad ʒvi. M. A tablespoonful in water three times a day.

I afterwards learnt from Mr. Holding that, under the influence of the diuretic, which he continued to take until January 6th, the urine had increased in quantity, while the abdominal swelling had steadily decreased; and the recovery had been complete. I have since seen him in the active discharge of his duties in the cathedral, and apparently in good health, as, indeed, he assured me that he was.

CASE III.—Grace M., aged 32, was admitted into Twining Ward on June 22nd, 1876. She had been married three months. She was not pregnant. The catamenia had always been irregular, often with an interval of six weeks. On Tuesday, June 6th, she was alarmed by her husband being brought home with a wound on his scalp; and she believed that she caught cold by being up and about the house with only her night-dress on. About June 10th, she complained of pain in the right hypochondriac region; and this was soon followed by a rapidly increasing enlargement of the abdomen. She had been thirsty and had lost her appetite since the commencement of her illness.

On admission, she appeared to be well nourished, and to have rather an excess of subcutaneous fat. The abdomen was much distended, tympanitic in front, dull and fluctuating in the flanks; slight tenderness on pressure; liver-dulness and pulmonary and cardiac sounds normal; urine high coloured and turbid with urates, not albu-

minous. The pulse ranged from 90 to 100, and the temperature from 99 to 101 deg. The following draught was ordered to be taken three times a day.

R Potassæ acetatis 3ss; tinct. digitalis mxxv; aquæ ad ʒj.

On June 28th, six days after her admission, the abdomen was undiminished in size, the measurement round the umbilicus being 42½ inches; and, at my visit, the house-surgeon, Mr. Ground, performed paracentesis, and drew off one hundred and twenty-four ounces of clear serous fluid without flocculi. After the operation, the abdomen measured 37¼ inches. No pain or fever followed the operation, and she expressed herself much relieved.

After about a fortnight, there was some return of the swelling, and fluctuation was again felt in the lower part of the abdomen. On July 24th, the house-surgeon a second time performed paracentesis, and drew off one hundred and six ounces of clear serous fluid.

[Since this paper was read, there has been a return of the effusion into the abdomen, and the case has been further complicated by the occurrence of serous effusion into both pleuræ. The case is still (September 12th) under treatment, and its history will be completed in a future communication.]

CASE IV.—Edmund F., aged 20, was admitted into Craven Ward on March 25th. He is a wood-turner, with a good family history. About March 1st, he began to feel weak, so that he could scarcely walk home after his day's work. Soon he had a sensation as of something rolling about in his belly, which was beginning to enlarge, but was not painful. He is not aware of any exposure to cold.

On his admission, he had an anæmic appearance. The abdomen was enlarged, the measurement round the umbilicus being 30 inches. The anterior part of the abdomen was resonant; the flanks were dull, with distinct fluctuation. There was the normal extent of percussion-dulness over the liver; no tenderness on pressure over the abdomen. There was dulness on percussion, with feeble respiratory sound, as high as the angle of the left scapula. The cardiac sounds were normal. The urine was acid, specific gravity 1020, of normal colour, and free from albumen. Temperature 101 deg. He was ordered:

Potassii iodidi gr. iij; infusi quassæ ʒj; three times a day.

March 30th. There were dulness on percussion and feeble respiratory sounds over the right base, but not to the same extent as on the left side.

April 3rd. The measurement of the abdomen had increased to 31 inches, and there was slight tenderness on pressure. He was ordered a wet pack daily, and to add to each dose of the mixture half a drachm of acetate of potash.

April 6th. He sweated profusely at night. The temperature had ranged from 98.2 deg. in the morning to 104.2 deg. in the evening. He was ordered to discontinue the packing.

April 10th. The signs of effusion into the chest and abdomen remained the same. He was ordered two drachms of cod-liver oil three times a day, and the following draught twice daily.

R Quinæ sulphatis gr. ij; acidi sulphurici diluti m̄v; aquæ ʒj.

April 27th. The urine now contained a small amount of albumen (1 in 20).

May 1st. The albumen had increased to 1 in 4, and contained small hyaline casts, some of which contained leucocytes. He was ordered to have a diet of milk exclusively. The fluid gradually disappeared from the pleuræ and peritoneum. There was for some days a friction-sound near the angle of the left scapula, but ultimately the chest-sounds became quite normal. His general health improved. The albumen gradually diminished, but a slight trace remained when he left the hospital on July 14th. For about a month before he left the hospital he was allowed fish and mutton in addition to the milk-diet.

The cases of serous effusion into the peritoneum which I have here briefly recorded appear to me to be analogous to cases of so-called "latent pleurisy", in which a copious pleuritic effusion is often found unassociated with pain or febrile disturbance. Case IV is the only one in which there was elevation of temperature, and that case was complicated not only with a simultaneous effusion into the peritoneum and into both pleuræ, but also with the subsequent occurrence of albuminuria. It is probable that the serous effusions and the albuminuria were all results of some temporary blood-contamination, consequent, perhaps, on a partial suppression of the cutaneous secretion.

Obviously it is of importance, with reference both to prognosis and treatment, to distinguish these cases of subinflammatory effusion into the peritoneum, the result, apparently, of a chill, from the much more intractable cases of ascites consequent on cirrhosis of the liver.

* Read in the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

NOTES ON LONG SEA-VOYAGES FOR CHEST-DISEASE.

By R. SHINGLETON SMITH, M.D. Lond., B.Sc.,

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THE influence of climate in the treatment of chest-disease is a question of such world-wide interest, and on which such a diversity of opinion exists, that data from various sources are desirable, in order that general principles may be established. Dr. Theodore Williams, in his *Letsoman Lectures*, published in the early numbers of the *BRITISH MEDICAL JOURNAL* for this year, has summed up the whole question, and has given statistics showing the results of treatment by climate in various parts of the world, and of treatment by long sea-voyages. Personal experience of this latter method induces me to contribute a few notes on some points which have occurred to me whilst perusing the above-mentioned lectures.

The voyage to Australia or New Zealand and home, round Cape Horn, is now so well known that it is quite unnecessary for me to give any particulars regarding the course, the temperature, the hygrometric and other conditions attending it; but some misconceptions seem to exist as regards the objects and results of such voyages, and to them I wish to direct attention.

Most persons who take such a voyage seem to consider that one important element of treatment is a stay more or less prolonged in some port at the antipodes. The effects of such residence will vary with the time of the year, but there seems to be only one opinion as to the injurious effect of a prolonged stay in Melbourne during the summer months. Whatever opinion may be held as to the controverted question on which Dr. Bird, on the one hand, and Dr. Thompson, on the other (*vide Dobell's Reports on the Progress of Medicine*, 1870), have written, there cannot be two opinions as to the injurious effects of the hot dust-laden winds blowing from the north over heated land direct from the tropics, and the high temperatures (sometimes considerably over 100 deg.) which are not unusual during the hottest weeks of summer. Most delicate persons feel considerable exhaustion as a result of the high temperature, and cases of phthisis, if at all advanced, frequently get worse very rapidly. Many patients feel the heat of the tropics even at sea, and on the outward voyage when becalmed near the line, even if well to the westward, away from the hot African coast, the loss of appetite and the excessive perspiration produce a degree of exhaustion and loss of weight which are not recovered from for several weeks. Such patients should be cautioned against making a long stay in any port where a high temperature may be expected. Melbourne presents every advantage as regards facilities of locomotion: excursions can be arranged to New Zealand, to Tasmania, to Sydney, to Adelaide, etc., and thus the whole time which would otherwise be spent on shore in Melbourne may be passed at sea in travelling about from one port to another. The voyage to Australia should be considered as a method of treatment by long sea-voyage, and nothing more; it should be the object of the patient to spend all his time at sea, if possible, and this he can easily do in the way above suggested.

Too much is sometimes expected from the voyage out, whereas, in many cases, the homeward voyage seems to be much the more beneficial of the two. Outward bound, there are many disadvantages to be surmounted: soon after starting, sea-sickness may impair the strength (in ordinary cases, in sailing ships, this is not much to be dreaded); no sooner is this recovered from than the tropical heat tends to induce exhaustion and loss of weight. Further on, south of the Cape, cold and wet weather may cause bronchitis, and this is not likely to be recovered from till after arrival in port. Homeward bound, leaving Melbourne in January or February, fine and warm weather may be expected for the first three or four weeks, after which the dangers of cold weather whilst rounding Cape Horn are braved with impunity, and the remainder of the voyage tends to establish the cure which the commencement of the voyage has inaugurated. The risks of Cape Horn seem to have been somewhat exaggerated, but experience varies much in this respect. The time of the year and the character of the season will account for the discrepancies of different observers. The lowest temperature observed by myself on March 12th of this year, in latitude 59 deg. and longitude 69 deg. (nearly that of Cape Horn), was 41 deg.; whereas, on the outward voyage, a temperature of 39 deg. was observed off the Cape of Good Hope at the end of November last. If the time of starting from Melbourne be such that cold weather may be expected, and, therefore, danger be apprehended from rounding Cape Horn, the return voyage may be performed by some ship coming home *via* the Cape of Good Hope, sailing either from Melbourne or from Adelaide.

The evils of being "laid up" at sea are not sufficiently appreciated. Many patients are sent away to sea as a *dernier resort*, after most other methods of treatment have been previously tried and much time lost. It cannot be too strongly enforced that this kind of treatment should be adopted in the earliest stages of lung-disease; but, if any active disease exist, if the general health be much impaired, if pyrexia be present, it becomes a very grave question to decide on the advisability of a long voyage such as that to Australia is. The miseries of being confined to one's cabin, and the discomforts likely to arise from inability to take care of one's self, are such as no one would care to endure a second time. No one should undertake a voyage alone who is likely to become dependent on ship-servants and strangers; if there be the least probability of such an event, the patient would do well to stay at home. The uncertainty of the effect of the voyage should always be borne in mind, and allowance should be made for the exhausting effect of sea-sickness and tropical heat; it should also be remembered that the voyage is a long one, and, when once commenced, the experiment must be completed regardless of results, for there are no halting places. Acute disease of all kinds is a calamitous occurrence to passengers at sea: treatment is always more or less unsatisfactory; the hygienic conditions, and the difficulty of obtaining suitable diet for invalids (ship cooks have routine daily work, and extras are apt to be very indifferently prepared)—these circumstances, together with the absence of friends and the anxiety as to the patient's life being prolonged sufficiently for him to arrive in port, render it necessary that caution should be exercised in advising long voyages, so that all those cases may be carefully excluded in which there is any risk of the patient being invalidated. For such patients a shorter voyage may be advised, as, for instance, that to the Cape. Should the health improve, the patient can then, according to circumstances, continue his journey by sea, or else he can try the effect of mountain air by visiting the high lands of South Africa, which have of late been so strongly recommended. In this way is avoided the complete isolation of the invalid from all his friends, such as the three months' voyage necessitates, and in this way, too, treatment can be modified now and then, according to circumstances.

Dr. Theodore Williams's statistics speak very strongly in favour of the benefit to be derived from life at sea: any treatment which gives a percentage of 89 improved, and only 5½ stationary and 5½ worse, must be considered as eminently satisfactory as contrasted with all other methods. My own limited experience would lead me to the opinion that, in all cases where tuberculosis or destructive lung-disease is suspected, but where no active mischief yet exists, the sea-voyage should be resorted to at once: delay is superlatively dangerous.

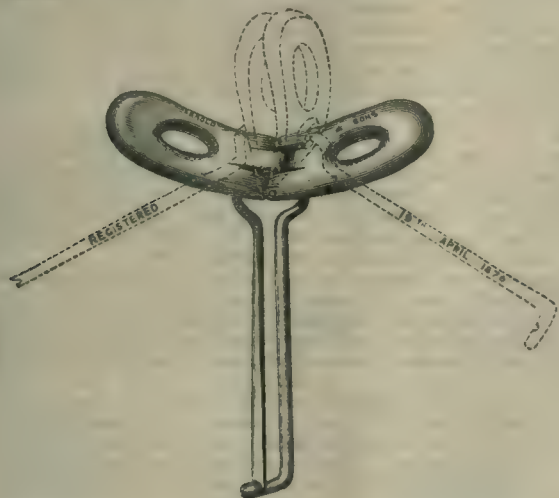
AN IMPROVED FORM OF PESSARY.

By CLEMENT GODSON, M.D.,

Assistant Physician-Accoucheur to St. Bartholomew's Hospital, etc.

IN the treatment of diseases of women among the poorer classes, we meet with a large number of cases, for the relief of which Zwanke's pessary is the best adapted. I allude to those in particular in which the uterus has been completely procident for a length of time, where there is an absence of support in the soft parts, no fat, and frequently but little or no perinæum. All the varieties of Hodge's pessary (especially Greenhalgh's improved form with bars) are tried; but directly any force is exerted upon them by straining or coughing, they are immediately expelled, and the only pessaries which are likely to be retained, are either the trumpet-shaped with braces attached, or Zwanke's. The former is, as a rule, strongly objected to by the patient on account of the braces; while the latter is almost always declared free from discomfort, and there is none more popular among this particular class of women. But every variety of Zwanke's pessary hitherto in use has its objection. Speaking of them as a body, it is said they are dangerous, as liable to give rise to pressure upon the soft parts, causing fistulous communication with the bladder and rectum. Such is certainly the case if they be left in for any length of time without removal, but such a complication is impossible if, as should always be directed, they be removed each night after retiring to bed, and replaced in the morning before rising. The real objections are, however, with regard to the material of which the pessaries are constructed, and the mode of fastening. First, there is that form which is kept together by means of elastic tubing. This is the most objectionable variety of all, though largely employed on account of the price. The India-rubber is sure to split sooner or later; and, under any circumstances, it becomes full of and sodden by the secretions, and, therefore, extremely fetid.

A better form is that made of vulcanite, which is fastened by means of a screw, but it is frequently broken by being overscrewed. The discharges get into the interstices of the screw, and it cannot be released, and often the adjacent hairs get entangled, giving rise to considerable pain; and so Zwanke's pessary with many has fallen into disuse. To obviate these objections, I have contrived a form of Zwanke's pessary, which has been manufactured for me, and registered by Messrs. Arnold and Sons of Smithfield, and it has already proved to be a very useful pessary. It is shown in the accompanying illustration.



The upper part is made of vulcanite, and is extremely cleanly, light, and durable. The lower portion or feet, employed for locking, is made of metal. Directly these feet come into contact, with the slightest pressure they lock, and they are as easily released by pressing with one finger upon the spring, and at the same time pushing the curved extremity down with the thumb. It may be suggested, that this portion will give pain by pressing externally, but this in practice will be found not to be the case. The patient walks about and sits down with perfect comfort. The expense—a very important item—is very little more than that of the cheapest form, while it will last out at least three or four of these. It is considerably cheaper than those varieties worked by means of a screw, whether made of vulcanite or metal.

NOTES OF A CASE OF EXTRA-UTERINE PREGNANCY: DISCHARGE OF FÆTUS *PER RECTUM*: STRICTURE OF RECTUM AND COLOTOMY.

By HENRY JAMES BENHAM, M.B., Ipswich.

THE following case is, I think, of interest for several reasons: first, on account of the extraordinary nature of the primary injury; secondly, on account of the extra-uterine foetation; did the weapon which inflicted the injury to the rectum at the same time directly impregnate the left ovary? And, thirdly, on account of the difficulty met with in performing the operation of colotomy.

Mrs. X., aged 36, states that she was strong and well till her marriage in 1866. Her husband had formerly had syphilis, but was then well, except some ulcers on the legs. A week after marriage, she received a severe injury to the rectum, by which the bowel was probably torn about two inches above the anus. She was awakened from sleep, whilst lying prone, by a sudden acute pain in the rectum, and "feeling something give way", apparently in the middle of the pelvis. This was immediately followed by excruciating agony and severe hemorrhage. She is certain that she could not have been more than a few days pregnant at the time.

During the next three months, she suffered much from pain in the neighbourhood of the injury; she was unable to turn in bed, and was very feverish; there was discharge of pus from the bowel and occasional bleeding. She then, after passing a sharp piece of bone *per anum*, gradually got better, and was able to leave her bed. About three and a half months after receiving the injury, while at stool, a large soft mass passed from the bowel with much blood.

Defecation, which since the injury had always been painful, now became difficult, till, in the summer of 1867, the obstruction became nearly complete. She was again confined to her room; three fistulae formed around the anus, and the constant discharge of pus and fluid faeces rendered the perineum so tender and excoriated, that she was unable to sit upright. She suffered also from constant wearing pain in the lower lumbar and sacral regions, and from such hyperæsthesia of the whole back, that she could not allow it to touch the pillows, but was obliged to lie on one or other side. Every ten days or so, her sufferings were greatly aggravated by a violent attack of straining, accompanied by incessant vomiting and sickening abdominal pain (? ovarian). Large quantities of purulent matter were then passed, together with solid much compressed faeces. Sometimes small pieces of necrosed bone were passed either through the anus or through the fistulae, and also several small bones (some of which are in my possession), which appeared to be those of a foetus of about three months.

In this miserable state, the patient continued for about seven years. In the intervals between the acute attacks, she was just able to do needlework. When first called to see her, I found her spare, but not emaciated; though her face bore evidence of severe suffering, there was no cachexia, and she had a fair appetite. She said she had never had any sore-throat or skin-affection. On examination, I found a stricture of the rectum an inch and a half above the anus, firm, smooth, and unyielding, not admitting the point of the finger. The rectum was freely movable laterally, and the coccyx and sacrum felt normal. There were no nodules in the vaginal wall, but the upper part was thickened and tender; the structured portion of the rectum could be felt through it as a thick mass extending upwards for about an inch and a half. The fistulae passed up by the side of the bowel.

As the stricture involved so much of the rectum, and appeared to be connected with abscess and necrosis above, I advised left lumbar colotomy, to which the patient and her mother readily consented. I accordingly operated in the usual way; but, on reaching the peritoneum, the colon did not come readily into view; it was unfortunately empty, and could not be injected. On opening the peritoneal cavity, however, a loop of colon slipped out, and the cause of the difficulty became apparent; the bowel was not fixed to the abdominal wall, but was floating freely, having a long meso-colon; it was quite healthy and firmly contracted. I opened it by a transverse incision, dividing at least half its circumference, and fastened the cut edges to the central part of the skin wound with four strong whipcord sutures and a few silk ones. I then brought the rest of the wound together before and behind with deep and superficial silver-wire sutures supported by broad strips of plaster.

During the first week after the operation, the patient made good progress; flatus passed from the artificial anus on the third day, and well formed solid faeces on the fifth. But, on the seventh day, her troubles began. The wound became tense, and, when the stitches were cut, it gaped widely posteriorly, and several large sloughs of areolar tissue came away. The patient acquired a suspiciously earthy look; was very prostrate, and her temperature ran up to 104 deg., but there were no rigors. She had for several days complete retention of urine, necessitating the use of the catheter; her urine was highly albuminous, and slightly tinged with blood. Her mouth became excessively tender, her tongue and gums being swollen and covered with thrush, which proved most rebellious to treatment, and, by preventing the patient from taking food, almost cost her her life; she was only saved by the free use of egg and brandy mixture. Suppuration and sloughing extended from the wound along the areolar planes of the back, and retarded her convalescence; but the extreme hyperæsthesia from which she had suffered before the operation ceased long before the abscess had healed. About six weeks after the operation, cystitis set in, with much mucopurulent discharge, and a few days afterwards the urethra was obstructed for a time by the impaction of a necrosed piece of membrane of the size of a shilling. The patient said she had felt something give way into the bladder; at all events, the purulent discharge was greatly increased after this passed, and there was a feeling of relief in the pelvis, as if an abscess had burst.

Notwithstanding these drawbacks, the wound granulated well. Two months after the operation, the patient was able to get out of bed without assistance, and thenceforward steadily gained flesh and strength; but it was not till nearly four months after the operation that she was able to walk out, wearing a mackintosh bag attached to a tin frame shaped to the side. The wound had then firmly cicatrised, and presented two apertures, one above the other, on a level with the skin, and separated by a thick septum, so that there was no tendency for faeces to pass into the lower bowel. Pus continued to pass by the anus and through the fistulae, and also passed up the colon to escape from the side. To obviate the straining, a recto-vaginal fistula was after-

wards established, through which the discharge now escapes freely. The patient has been ever since comparatively well, and quite free from the periodical attacks of ileus, as well as from the constant pain and soreness from which she suffered for so many years.

THE HEALTH OF ROME.

By LAUCHLAN AITKEN, M.D.

IN a paper read last year at the meeting of the Association in Edinburgh, I showed by incontrovertible data that the health of Rome was very much better than it is represented by the numerous correspondents, whose ludicrous mis-statements are constantly appearing in the *Times* and other English newspapers. An abstract of that paper was published in the *JOURNAL* for August 28th, 1875. I wish now to add a few facts to the data contained in it.

The establishment of a registration office at the Capitol after the entry of the Italians dates from February 1st, 1871. The census was taken on the last day of that year and the first of 1872, the previous one having been in 1853. Hence it is obvious that the estimates prior to 1872 must have been to some extent conjectural. The reports furnished by the statistical department at the Capitol seem now sufficiently trustworthy. From them, the death-rate in 1872 was found to be 37.1 per 1,000; in 1873, 29.1; in 1874, 26.2; in 1875, 30; and, in the first quarter of this year, 37.7 per 1,000; the mortality in 1872 and in the first quarter of this year being very high. On both occasions, the increased death-rate was due to the same cause, an epidemic of small-pox, combined this year with a fatal type of measles. In 1872, no fewer than 737 persons died from small-pox, while, from the middle of September last, when the two complaints mentioned may be said to have assumed epidemic proportions, up to the beginning of April in this year, 755 deaths had been entered under the heading "Eruptive Fevers". In the epidemics of 1871-72 and 1875-76, children under five years have formed more than two-thirds of the victims. This year, a few deaths have also been due to scarlet fever.

Apart from these epidemics, the zymotic mortality seems to diminish in Rome. In 1872, the seven chief preventable diseases—pernicious intermittents, enteric fever, diphtheria, croup, small-pox, measles, and scarlatina—caused 2,270 deaths, or more than one-fifth of the total mortality. In 1873, 1,218 persons died from these complaints; in 1874, 977; and in the first five months of 1875, that is, previously to the fresh outbreak of small-pox, 340. Malarial and enteric fever, two diseases to which strangers always give the generic name "Roman fever", show a distinct improvement, the deaths from the first having fallen from 506 in 1874 to 395 in 1875, and to 69 in the first quarter of this year; while enteric fever, which in 1873 caused 324 deaths, in 1874 only caused 247, in 1875, 235, and in the first quarter of this year 48 deaths, or 16 fewer than in the corresponding quarter of 1875, and that at a time when it was declared to be raging in our city. In proportion to population, there are at present fewer deaths from enteric fever in Rome than in any other large continental capital.

This, indeed, is only natural. The drainage of Rome is good, that of its English quarter excellent, it having been entirely renewed in 1872 and 1873, and modern Roman engineers retain much of their ancestors' ability in drain-building. The water-supply, too, is enormous; no less than 317 gallons per day to each inhabitant from the four aqueducts alone, and the drains are consequently thoroughly flushed. The Trevi water, which ought to be drunk by all, contains neither organic matter nor excess of earthy salts. As it runs night and day in the courtyards of every house in the English quarter, and is never kept in cisterns, there is no danger of its contamination.

Having shown that the preventable mortality was diminishing in Rome previous to the outbreak of eruptive fevers, which have confined their ravages very much to children, I will point out how English-speaking strangers, for whom alone I can answer, have been affected. Among them there have been sixteen deaths this season. Six are entered as from enteric fever. In four out of the six, the fever originated in Naples, in one in Rome, and in the sixth the place of origin is doubtful. Five of the victims were from the United States, one was a Canadian. The other ten deaths were from ordinary acute or chronic maladies. No death was due to malarial fever, small-pox, measles, scarlatina, or diphtheria. Indeed, it is certain that not more than two or three English and Americans took small-pox. Sixteen deaths out of more than 20,000 persons, the lowest estimate of the English-speaking visitors to Rome in a season, is no alarming mortality, especially as many are travelling to improve their health.

That the proportion of cases of enteric fever originating in Naples is not merely accidental this season, may be seen from the data of my own

practice. Within the last three years, I have treated nine cases of enteric fever. Seven of these originated in Naples or its neighbourhood, two in Rome, no case being attributed to Naples in which there were not symptoms already present on the arrival of the patient in Rome. I have found no difficulty in discriminating between enteric and remittent fevers. The symptoms are quite distinctive. Genuine enteric fever is very severe in this climate. I lost four out of the nine cases, whereas, out of thirty-six cases of remittent fever treated in the same three years, only one died—a lady who miscarried at the eighth month during the fever, and really died from flooding. Whether there is a typho-malarial fever, or whether remittents sometimes assume a typhoid type, is another question. Malarial fever usually takes the remittent form with strangers, and may be severe, as in the case published in the *JOURNAL* for April 1st. All I maintain is, that, under prompt and active treatment, anyone in ordinary health, who takes remittent fever at Rome during the winter months, recovers.

But, while there has occurred this season among English-speaking visitors in Rome one single death from a preventable complaint undoubtedly originating here, rumours of a large mortality in England from fevers contracted in Rome reach this city. These deaths do not seem to be ascribed to malarial fever, to which they might naturally be due, considering the want of treatment, in their early stages, the journey from Rome to England implies, but to enteric fever.

As enteric fever, however, has an incubation period extending occasionally even to twenty-one days, it must surely be a matter of some difficulty to trace clearly the germs of the disease to Rome, especially as the victims have been probably moving about from Naples to Rome, from Rome to Florence, Venice, Turin, etc. Instead of there being an epidemic, it is certain that the number of cases of enteric fever is steadily diminishing in Rome itself. Of course, if a case of enteric fever get into an hotel in Rome or elsewhere, and efficient measures of disinfection are not taken, the disease may spread to other visitors. One fact I may mention: I have never known nor heard of a case of enteric fever originating in a private apartment in the English quarter of Rome. To sum up:

1. The mortality in Rome from enteric fever has steadily diminished within the last fifteen months.
2. The deaths in the same period from malarial fevers have also been fewer.
3. English-speaking visitors have not suffered from the prevailing epidemics of small-pox and measles, which have raised the death-rate, but are now subsiding.

MODIFIED SMALL-POX AND CHICKEN-POX.

By CHARLES F. HUTCHINSON, M.D.

THERE is no class of cases in the whole range of medicine which presents greater difficulties to the medical man practising in small communities than these. The diagnosis between the two is acknowledged by all to be of the greatest difficulty, nay, almost of impossibility; and, in the face of all this, we are taught that the mildest case of modified small-pox may be the means of communicating the most formidable forms of true variola. Then, again, the public, in all matters medical, is, in the strictest sense, essentially conservative, and small-pox is still looked upon with the greatest dread; and horrible visions of loathsome disease ending in death, on the one hand, or of a long protracted illness, out of which the patient at length emerges with a pock-marked face, on the other, present themselves to the mind.

With these facts before him, the medical man is placed in a position of great delicacy; for, if he diagnose small-pox, all inmates must be cleared out of the house, a sick nurse must be telegraphed for, and every possible precaution taken; it becomes noised abroad that small-pox is in the town, and the small community is thus thrown into a state of great disquietude, to say the least of it. Now, if the case prove to be one of modified small-pox, which may last only a few days (Sir T. Watson mentions a case in which the patient was convalescent in four days), the public thinks it has been unnecessarily frightened; the patient's friends think they have been put to all this trouble and expense without a cause; it is reported that it is simply a case of chicken-pox, and great discredit is thrown upon the doctor.

To show that these difficulties are not merely imaginative, I will briefly refer to a few cases which have lately occurred in my own practice. On Monday, January 24th, I was sent for to see Mr. S., aged 18, who was said to be covered with spots. I found him with his face covered with a discrete pustular eruption, which was also on the scalp and on the mucous membrane of the lips. On the back and chest, there was also a copious eruption, which was papular and vesicular

and a few scattered papules were also observed on the legs. The history was, that he first noticed some little spots on the face on the Saturday before, previously to which he had been feeling out of sorts for a day or two. It was, therefore, on the third day of the eruption that I saw him. His temperature was 102.4 deg., and his pulse 110 to 120. He complained of no pain in the back; had no sickness or delirium; only a slight sore-throat. I had no hesitation in pronouncing this to be a case of small-pox, which opinion was confirmed by Mr. J. W. Teale, who saw the patient with me the same day. All necessary precautions were taken, and the patient was isolated. The feverish condition lasted till the Wednesday, and, on the Thursday, *i.e.*, the sixth day of the eruption, he was free from fever. The eruption was complete all over the body, and incrustation had begun on the face. There was no secondary fever, and the disappearance of the crusts went on in regular sequence from the face downwards without another symptom. On the sixteenth day, he was able to go out, and, in another week, was declared convalescent, and sent on a voyage to Gibraltar and back to complete his recovery.

Five days after the commencement of the above, I was sent for to see Miss E. S., aged 10, who was a cousin of his, and was living in the same house with him up to the time of his illness. Without going again into the details of the case, I may say that she went through an attack precisely similar to that of her cousin, except that it was slightly more severe; her temperature rose to 103.5 deg.; she was slightly delirious at times, and the eruption was more copious; the face also was swollen up about the eyelids. This case lasted slightly longer than the former one, and, excepting a slight acceleration of the pulse on the eighth and ninth days, there was no secondary fever-pain in the back or other symptom. This patient was able to go out in three weeks.

Now, these two cases may, I venture to think, be looked upon as almost typical of ordinary modified small-pox. They had both been vaccinated, and had perfectly formed cicatrices. The absence of pain in the back and other severe symptoms at the commencement, and of the secondary fever at a later period, distinguish them from ordinary variola, while the appearance and behaviour of the eruption print upon them indelibly and unmistakably the true nature of the disease. I may here add that the pustules, with their depressed centres, were very characteristic.

While attending these two cases, I was asked to see two children who were suffering from hyperpyrexia, with an eruption. I found them with an eruption more or less copious all over the body, which had come out in successive crops; the face and mucous membrane of the mouth were affected in both cases, and on the face and chest were several large isolated pustules with depressed centres. Except for about three or four days, these children did not seem at all ill. Now, these were very doubtful cases, the succession of crops pointing to chicken-pox, and the large isolated pustules being very suspicious of small-pox. These children were kept up in a top room by themselves, and well looked after, and were well in a fortnight.

I am strongly inclined myself to look upon these also as cases of modified small-pox, simply on account of the appearance of the pustules; for, as regards diagnosis, I do not see what we have to go upon, if not the actual appearance of the eruption. The general symptoms are of no use whatever, for they may be the same in both. The day on which the eruption shows itself is of no use, as this is, of course, modified like the general symptoms by the vaccination; hence we have to fall back upon the actual appearance of the eruption, if we can admit that chicken-pox, when uninitiated and left to itself, is as likely as not to go on to the formation of pustules such as I have described. Then these two latter cases were undoubtedly chicken-pox; if, however, chicken-pox is to be looked upon as an essentially vesicular eruption which dries up without proceeding to pustulation, then I maintain that these cases must be looked upon as modified small-pox, and precautions taken accordingly. If this question could be more thoroughly gone into, and some more definite ideas upon the subject made public, it would be a great boon to the world in general, and to medical practitioners in particular.

SURGICAL MEMORANDA.

FRACTURE OF UPPER THIRD OF THE ULNA, FROM A FALL ON THE PALM OF THE HAND.

IN consultation with Dr. Wright of Finchley, I saw a case in which this very rare accident occurred, and I think it worth putting on record from its extreme rarity; moreover, I am unable to find any such case reported. The patient was six years of age, very intelligent, and the

accident was seen to happen by those who explained the matter to us. The exact mechanism of the fracture is not quite so evident, and I feel hardly prepared to account for it; but that it occurred in the manner stated, there seems to be little doubt. She fell on the ulnar aspect of the wrist. It will be noticed that fractures of the radius almost invariably occur from falls in the radial aspect, as naturally, in the effort for safety, *pronation* is almost always the rule. As the seat of fracture was at or near to the point of entrance of the nutrient artery, the products of nature's attempts at repair were unusually free, and so much so that, at first sight, the real nature of the injury might have been overlooked. Such an accident, if effected by direct violence, must have given some external evidence, as of bruise, since it occurred at the strongest portion of the bone. I need hardly say that this is one of those instances in which, unless care were taken to place the bones in the greatest antagonism, especially as the fracture occurred at this point, there might be a fear of union between the radius and ulna, so as to cause a restriction of movement between these bones.

EDWARD BELLAMY.

A CASE OF WOUND OF THE KNEE-JOINT.

AS I see two cases of wound of the knee-joint reported in the JOURNAL of July 29th, one with a favourable and the other with an unfavourable result, and a contrast has been pointed between the irrigation with iced antiseptic solution in the former case and with only plain water in the latter, I wish to report a similar case, in which, I believe, the good result was chiefly due to the use of the antiseptic treatment with irrigation. Six weeks ago, a lad, aged 17, employed in felling timber, opened his left knee-joint with the axe; the wound was about three inches long, and along the inner side of the patella. The cartilage of the head of the femur was distinctly visible. Having passed my finger into the joint to remove a small clot, I poured in a watery solution of carbolic acid (1 to 50), and having closed the wound with three silver sutures, completed Lister's method of antiseptic dressing. The limb was then laid on a back splint, and irrigation with plain water employed. No pain, swelling, or increased heat over the joint followed, nor, in fact, any constitutional disturbance at all. On the seventh day, the sutures were removed; and on the ninth day the wound was healed. The leg was still kept on the splint for ten days, when quiet movement was permitted. At the end of a month from the time of his injury, the lad was able to walk again without any inconvenience.

MILES A. WOOD, JUN., F.R.C.S. Eng., Ledbury.

ON THE TREATMENT OF RANULA.

THE Paris correspondent of the BRITISH MEDICAL JOURNAL, in his last letter, draws attention to the treatment of ranula, and alludes to the success attending injection of chloride of zinc, as practised by M. Panas. I might observe, without entering into the morbid conditions leading to obstruction of a sublingual gland or duct, that, practically, the surgeon's intention is to make a permanent opening in the sac, one which will allow the saliva continuous and natural exit into the mouth. It occurred to me, some years ago, that the use of a metallic seton acting, to some extent, as a drainage-tube, would attain this object; and, as two cases (both children) came under my notice, I tried the following operation. An ordinary suture-needle, carrying medium-sized silver wire, having been passed directly through the sac-like tumour from one side to the other, the ends of the wire were brought forward, twisted together, and cut off, leaving a small ring of metal half within and half externally. The wire was allowed to remain three weeks, then cut and withdrawn. It caused no irritation or impediment, and a patent orifice remained after removal. Both cases were permanently cured. The ordinary seton, made of silk or hemp, necessarily sets up inflammation, and may induce subsequent closure or fistulous aperture. Injection of caustic fluids, as chloride of zinc, in ranula is open to objection, as destruction of tissue is not desirable, at least in simple cases of obstruction. The plan I suggest is worthy of extensive trial, as it promises to supersede those hitherto adopted.

THOMAS H. MORTON, M.D., C.M., Sheffield.

FRACTURE OF THE SPINE OF THE SCAPULA.

I WAS sent for on July 31st to see J. S., aged 47, an engine-driver. He complained of pain in the back of his shoulder, which was much worse when he tried to raise his arm. He said that on the previous day he was on his engine, when his foot slipped suddenly, and, in attempting to save himself by reaching one of the levers, he fell forward, striking his chest violently. At the same time, he heard a crack in his shoulder. On reaching home, his wife, finding the shoulder

swollen and painful, and thinking it was a sprain, rubbed it with some oil. On examination, I found a fracture of the spine of the scapula about one inch from the triangular surface over which the trapezius muscle passes. The piece of bone was quite movable, and drawn very much upwards and inwards by the trapezius. I fastened the arm to the side, and placed a bandage round the ribs. It is now firmly united, but there is a distinct ridge where the fracture was.

MALCOLM A. MORRIS, M.R.C.S.Eng., Goole.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

ST. THOMAS'S HOSPITAL.

STRANGULATED UMBILICAL HERNIA COMPLICATED WITH ACUTE BRONCHITIS: REMOVAL OF A LARGE PORTION OF OMENTUM WITH THE CLAMP AND CAUTERY: COMPLETE RECOVERY.

(Under the care of Mr. FRANCIS MASON.)

FOR the notes of this case, we are indebted to Mr. W. E. GOODRIDGE, the dresser.

The patient, a married woman, aged 43, was admitted into the hospital at 2.30 P.M. on April 15th, 1876. In the temporary absence of Mr. Croft, and with his sanction, Mr. Mason took charge of the patient. It appeared that she had had three children, the youngest being six years of age; and that for ten years she had suffered from umbilical hernia, for which she had worn a truss. She had never had any particular difficulty with the rupture, reduction being always readily effected, until five days previous to her admission, when the usual symptoms of strangulation set in. She vomited frequently, and had considerable constipation, but not complete obstruction of the bowels. The hernia protruded, and was so intensely painful to the touch, that she could not, as usual, return it into the abdomen.

On admission, the patient was found to be a very stout thick-set woman. For about a month, she had had a sharp attack of bronchitis, and was still suffering from this complaint. On examining the umbilicus, a large pendulous protrusion was observed. It was about six inches in length, and one inch and a half in diameter, taking a downward direction towards the pubes. The skin was brawny, and had a bright polished surface, and the part was so congested and cedematous as to permit only very slight, if any, movement of the protrusion. There was some tenderness on pressure of the abdominal cavity. The patient's expression of countenance was anxious, and she had a sallow, bilious aspect. There was considerable difficulty in breathing; and, after violent fits of coughing, she brought up a small quantity of frothy mucus. There was no marked stercoraceous vomiting. Her skin was hot; tongue dry; pulse 120; temperature 100.2; and she complained a good deal of thirst. An ice-bag was applied on admission; but, the case appearing to be one of extreme urgency, Mr. Mason decided to relieve the strangulated part by operation. The patient was accordingly removed to the theatre; and, chloroform having been administered, a slight attempt only at taxis was made, but with no success. An incision was then carried in the median line over the upper part of the protrusion, and a cautious dissection made down to the sac. An ineffectual attempt was next made to divide the constricted part without interfering with the sac, but it was eventually found necessary to open it, when, as was anticipated, a large piece of omentum, closely packed, and about the size of a man's fist, was exposed. This was very adherent, and some difficulty was experienced in passing the finger to the stricture. Great caution having been exercised in reaching the fibrous ring to avoid injuring the protruded intestine, several tight bands were divided with the hernia-knife. An attempt was made to reduce the hernia, but, owing to the adhesions, reduction could not be effected. The greater portion of the protruded omentum (about the size of a large orange) was then removed with the clamp and actual cautery, and the base left to form a plug to prevent the subsequent return of the hernia. It having been ascertained that the constricted part was freely divided, and that all strangulation was removed, the wound was closed with silver sutures. There were no bleeding vessels requiring a ligature.

It is unnecessary here to enter into the minor details of the progress of the case, excepting to say that the sickness continued at intervals for three days after the operation, and the persistent bronchitis was at-

tended with considerable prostration. There was also some tenderness in the abdomen, which was, to a great extent, relieved by the application of a preparation of equal parts of extract of belladonna and glycerine. The pulse ranged from 100 to 110; and the temperature kept at about 102.

On May 19th, *i.e.*, the fourth day after the operation, the bowels were relieved naturally, and the evacuation was quite healthy. On the following day, the bowels were again freely opened without medicine, and the pulse was noted at 96; and temperature 99.4. So far as the hernia and the abdominal symptoms were concerned, nothing could be more satisfactory, for the wound was healing nicely. The only drawback to the patient's comfort was the incessant cough from the bronchitis; and this in a few days was greatly improved by a mixture of carbonate of ammonia, tincture of squills, and decoction of senega. On May 1st, she was rapidly approaching convalescence, and, excepting that one or two abscesses formed in the region of the operation which required incision, there were no other points worthy of being recorded. She remained in a somewhat weak condition, but left the hospital quite well on June 1st; her only symptom of discomfort being an occasional dragging pain at the umbilicus.

Mr. Mason, in referring to this case, said it was one of more than ordinary interest, as it was very seldom that a successful issue followed the operation for strangulated umbilical hernia when the peritoneal sac was opened. The patient, too, was herself a most unfavourable subject for operative procedure. She was exceedingly stout, and, having acute bronchitis, suffered from a complication that greatly distressed her, and was likely to hinder her progress very materially. Mr. Mason also spoke of the importance of operating in such a case as that under notice; for, the constriction being chiefly fibrous, as in femoral hernia, there was less chance of effecting reduction by hot-baths, etc., than there was in the inguinal variety. It was, indeed, a case in which delay was dangerous. There was, in his opinion, no greater mistake than that of using violent manipulation to reduce an umbilical hernia—or even any hernia—and he could not help thinking that the repeated attempts at reduction were frequently the cause of death. The operation itself was simple, if performed with care; and, when undertaken early, placed the patient in the best position for ultimate recovery.

The method of dealing with the omentum by cutting it away after having secured the vessels, either by the application of the actual cautery or by the ligature, was one that Mr. Mason had adopted in various kinds of hernia; and he had been well satisfied with the result, for the stump left formed a kind of plug which prevented subsequent protrusion of the hernia. In this instance, it answered that purpose completely.

GUY'S HOSPITAL.

IVORY EXOSTOSIS OF ORBIT: EXCISION: RECOVERY.

(Under the care of Mr. CHARLES HIGGENS.)

ALFRED C., aged 17, was seen on December 30th, 1875. Two years previously, his father first noticed some protrusion of the right eyeball; and soon afterwards the patient began to suffer from diplopia after reading for some time. Three months later, he himself began to notice considerable protrusion of the eyeball. In December 1874, he first noticed a hard nodule projecting from the inner angle of the orbit, which gradually increased in size. The eyeball became more protruded and displaced outwards, and the tears began to run over the cheek. He suffered no pain, and never had any head symptoms.

On admission, the eyeball was displaced outwards, and considerably protruded; a large hard tumour projected from the inner angle of the orbit; the growth was nodulated, and appeared to grow from the nasal process of the superior maxilla; it had apparently a narrow base, and did not encroach upon the nasal fossa. The lids were stretched by the protruding eyeball; the tear puncta were displaced, and the tears ran over the face. There was diplopia, but only after using the eyes for some time. On near-work, the vision of the right eye = $\frac{1}{10}$; that of the left = $\frac{1}{8}$. The ophthalmoscope showed no change.

December 30th. An incision through the skin from the inner canthus to about the middle of the upper margin of the orbital growth thoroughly exposed it. It was found to consist of extremely dense bone, and had not a narrow base, but was attached to the roof and inner wall of the orbit nearly back to its apex. After an hour and a half's patient work with the mallet and chisel, the greater portion of the growth was removed. The eyeball then returned to nearly its natural position. The margins of the lids were pared and united by sutures. The edges of the wound were brought together, a piece of lint being pushed in at its inner extremity to prevent too early closure.

On examination, the growth proved to be made up entirely of dense hard bone; the portion removed weighed two drachms and a half.

January 3rd. There was some oedema of the upper lid, and loss of sensation in the parts supplied by the supra-orbital nerve. The wound was healed, except that at the inner angle it was kept open by the piece of lint. There was some discharge of pus, but no constitutional or cerebral disturbance.

The patient made an uninterrupted recovery. On February 25th, the union between the lids was divided; and the upper lid could be raised to the full extent. There was some impairment of movement of the globe upwards; other movements were perfect. The eyeball was nearly in its normal position; the opening near the inner canthus was discharging slightly. Plenty of bare bone could be felt.

March 2nd. The patient could read Snellen's 6½. The movement of the globe upwards was improved. The ophthalmoscope showed nothing to account for the impaired vision. Sensation in the parts supplied by the supra-orbital nerve had returned, but was not quite perfect. There was no discharge, and the opening was quite closed.

REMARKS.—The case was a typical example of ivory exostosis; the tumour was very much harder than normal bone. Its growth was slow, as is the case with such tumours; two years had elapsed since it first manifested itself, and it had very probably been growing for a considerably longer time. Great care was required in using the chisel, owing to the attachment of the growth to the roof of the orbit, fracture of which might easily have occurred. Consequently, the tumour had to be chipped away in very small pieces. Had it been attached to the inner or outer walls or floor of the orbital cavity, the operation would have been much less tedious, as a fracture in any of these situations would have been of only minor importance, and the chisel might have been more freely used. Mr. Higgins was rather surprised at finding nothing to account for the impairment of vision of the right eye. One would expect in such a case to find optic neuritis, or, at any rate, congested or choked disc; but the ophthalmoscope showed a perfectly normal fundus, neither was there any opacity of the media or any anomaly of refraction. Probably the eye had always been defective, and the impairment of vision had nothing to do with the tumour. It will be interesting to see what will be the final result of the case. Will the tumour grow again? will it remain stationary? or will the part remaining necrose and be thrown off? Mr. Higgins was of opinion that the tumour would grow again, as it was, in all probability, nourished by the dura mater at the base of the skull. It might remain stationary; should it be thrown off, many months would be occupied in the process. There was one point of practice adopted in this case which it might be well to bear in mind in the removal of orbital tumours, viz., insurance of protection to the globe by securing union of the margins of the lids. Mr. Higgins had seen an eyeball lost by suppurative exposure, which might have been entirely avoided had the margins of the lids been pared and sewn together. The supra-orbital nerve was injured during the operation, but almost entirely regained its function.

HOSPITAL NOTES.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

Intussusception: Section.—A child, aged nine months, was brought to the hospital with the intestine prolapsed and everted to so great an extent, that the ileo-caecal valve could be seen. There was a history of previous diarrhoea for about a month; nearly a week ago, this had suddenly almost ceased. A few drops of blood had been passed, and there had been some retching; no decided vomiting. The child was very prostrate, and Mr. Marsh, finding it impossible to return the intestine, performed abdominal section. It is noteworthy that the position of the upper portion of the intussuscepted bowel could not be verified; and, on making traction on a higher portion of intestine, no reduction whatever could be effected. Under these circumstances, a plan, suggested first, we believe, by Mr. Hutchinson, proved successful, the gentle pinching of the outer and lower part of the bowel from the rectum upwards, so as to *squeeze* out, rather than pull out, the included gut. This was done without difficulty. There was no adhesion, no strangulation, and no evidence of peritonitis. The child passed flatus afterwards, and seemed to go on well for a few hours, but then died in collapse. On examination, some adhesions were found, and some hæmorrhages in parts of the mesentery. There was no evidence of constriction. The affected portion was dark and congested, and about three feet in length; it lay in its natural position, and there seemed every probability that earlier treatment, and earlier section even, might have had a good result.

Talipes Equino-Varus: Jointed Splint.—The varus is first treated, according to Dr. Little's plan, by division of the tibialis anticus and posticus, and a flexible tin-padded splint worn for some days. After division of the tendo Achillis, the splint is applied along the leg and

foot; it is made of iron padded, and having a side-spring at the foot, a screw-joint at the heel, and a hinged side-piece along the leg, with proper tapes and buckles.

Treatment of Nævus.—We observed with Mr. Marsh a case of nævus of the lip, doing well after several applications of strong nitric acid. Another nævus (on a finger-joint) had been operated on by the knife, and subsequently by nitric acid, and had become only covered with a hard cicatrix, which Dr. W. Williams treated successfully by the application of caustic potash.

Necrosis: Sulphuric Acid.—In a case of necrosed tibia, Mr. Marsh, having removed a certain amount of dead bone (using Esmarch's bandage advantageously), packed the cavity with sulphuric acid (one in five), according to Mr. Pollock's plan (*Lancet*, May 28th, 1870). This acid has the advantage of acting more upon the diseased and but little on the healthy bone-structure, and has been used with very good effect at the Children's Hospital, as also has Mr. Haward's application of it to diseased joints.

SAMARITAN HOSPITAL.

Psoas Abscess: Value of Iodine.—We saw, with Dr. Wynn Williams, a lad with spinal caries, and an abscess opening in the groin, and four other openings along the course of the sinus. Equal parts of iodine and water were used as an injection, and a lotion of tincture of iodine (3ij to half a pint of water) used constantly. Dr. Williams says that iodine will destroy the infective properties of pus, and the above lotion has proved very valuable for strumous joints, spinal caries, and even in tubercular phthisis when applied to the chest. A strong solution of iodine is commonly used also by Dr. Williams locally within and without the cervix uteri in cases of endometritis.

Rachitis.—In the treatment of rickets, phosphate of iron, in doses of four grains twice daily, has given good results.

Lupus.—"The best local treatment is constant soaking with cod-liver oil." It was remarked by a German physician present that the best results were now obtained by Kaposi and others in Vienna from caustic potash.

Syphilitic Throat is treated, locally, by perchloride of mercury, twenty grains to the ounce of distilled water, with hydrochloric acid; internally, by the red iodide of mercury, with opium in pill.

Uterine Fibroids.—Calcium chloride in ten-grain doses twice daily had been freely tried, but without result.

KING'S COLLEGE HOSPITAL.

Paraffin Poisoning: Narcotic Effects.—A child, two years old, was brought to King's College Hospital within ten minutes after taking about a teaspoonful of paraffin. It was semi-comatose and pale, with contracted pupils. There was no vomiting or purging. Zinc sulphate was administered with due effect, but the child did not recover itself for twenty-four hours. Not much could be judged from this one case; but Dr. Playfair observed that another child was brought in some months ago, having taken a larger quantity of the same substance, and the comatose state lasted for two or three weeks, and even simulated a stage of tubercular meningitis. Paraffin is not mentioned as a poison, e.g., in the last edition of Guy's *Forensic Medicine*. In a case recorded in the daily papers of August 24th, 1876, where a sea-captain drank by mistake "a quantity of paraffin oil," he "became insensible, and died in a few hours".

HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.

Gouty Psoriasis.—We saw, with Mr. Nettleship, a stout flabby man, aged 50, a beer-seller for about five years, who has had purplish raised irregular patches on the left leg below the knee; and, about one month ago, similar patches have appeared on the right leg. They are not moist, nor do they show any scale whatever, but they are considered an unusual form of psoriasis. A local varicose condition, said to date from an injury, may have some relation to the congested patches; but what is more important is an attack of gout, which has not developed itself lately.

Palmar Psoriasis.—A case of psoriasis vulgaris illustrated the occasional occurrence of this form of eruption on the palms of the hand as well as on the body. Creasote ointment was the ordinary local treatment (containing about $\frac{1}{16}$ of the ounce of mercurial ointment); and arsenic was commonly prescribed in ten-minim doses of the liquor arsenicalis thrice daily for adults.

Potman's Eczema.—A case of "potman's eczema" required diagnosis from scabies. It resembled it in location, but there were no furrows, and no marked itching. A tar lotion (made with liquor carbonis detergens) was the usual local treatment of eczema, and the ointment of mercury and lead (lead acetate, cal mel, $\frac{3}{4}$ gr. x; zinc oxide, ointment of nitrate of mercury, $\frac{3}{4}$ gr. xx; lard, palm oil, $\frac{3}{4}$ ss.)

Rodent Ulcer: Value of Zinc Chloride.—A man, aged 76, had rodent ulcer affecting the tip of the nose for six or seven years. About twelve months ago, it partly healed after the actual cautery, but relapsed. In June, the arsenical powder (hospital form) was applied, and caused much pain and swelling, without curing. On June 29th, zinc chloride was freely used by Mr. Nettleship; and on July 6th, the slough separated. On the 17th, the sore was healed; and at the present date seems sound.

WESTMINSTER HOSPITAL.

Skin-Disease.—In Mr. Bond's practice in the skin department, lead lotion and dilute nitrate of mercury ointment formed the average local treatment for eczema. Arsenic was freely given internally; and the observation was made that this remedy was much better borne by adults and older persons, whilst mercury was better taken by the young. The following formulæ are used:—*For acne*: glycerine, one ounce, with lime-water one pint. *For pediculi*: lotio calcis cum sulphure. *For alopecia*: liquoris ammoniac fort., spiritus vini rect., aa ʒj; tinctura cantharidis, glycerine, aa ʒss; aquæ q. s. ad Oj. Fiat linimentum.

Gonorrhœal Rheumatism.—"You cannot cure this, unless you cure the discharge; the joint symptoms are evidences simply of absorption of unhealthy material into the blood, and the first point in treatment is to stay this absorption. Some amount of stricture is present in chronic cases." A man, aged about 40, who had rheumatic fever three years ago, who gives no clear history of gonorrhœa, but has had an urethral discharge for some time, has suffered for the last eight weeks with pains in the knees, ankles, and hand-joints, and looks pale and cachectic. He has had quinine and iodide of potassium, and injections of bismuth and zinc. He was now ordered a stronger injection of zinc sulphate (ten grains to eight ounces) with mucilage, and half a drachm of extract of belladonna; and the occasional passage of a bougie; a pill containing reduced iron and nux vomica thrice daily; and to the joints, poultices of linseed, with an equal part of sulphur. Under this treatment, the joint-effusions disappeared rapidly, and the urethral discharge stopped; and the patient went out cured in less than a month.

REVIEWS AND NOTICES.

THE STUDENT'S GUIDE TO THE PRACTICE OF MIDWIFERY. By D. LLOYD ROBERTS, M.D., Physician to St. Mary's Hospital, Manchester, etc. London: Churchill. 1876.

THIS manual is written mainly for the instruction of students, the author tells us in his preface, though he hopes it may sometimes be found of service to practitioners; a hope which we willingly endorse, for the work is eminently practical. If every general practitioner would read it, it would not only prove of service to him, but of considerable advantage to his patients as well.

The anatomy and physiology of the pelvis and generative organs are briefly but clearly given. The author follows Dalton in his description of the development of the ovum; a correct understanding of this being greatly facilitated by neatly executed engravings illustrating the various stages.

The explanation of the mechanism of parturition, both in normal and abnormal presentations, is such that the student cannot fail to follow it. We could have wished that less had been said on the subject of spontaneous evolution; for we regard it as a most unusual curiosity, and a condition occurring so seldom that the student's attention had far better be directed to the legitimate management of arm-presentations, than that he should be left to imagine that Nature will bountifully come to the rescue, and save the patient from the consequences of the inactivity he may be inclined to pursue.

In the management of placenta prævia, sufficient distinction is not made between partial separation of the placenta in gradually increasing zones, and complete detachment of it, as occasionally happens when the pains are very vigorous. We are glad to notice, that the author discountsenances puncturing the membranes as a means of arresting the hæmorrhage. Version he regards as the accepted treatment in the great majority of placental presentations.

The treatment of persistent vomiting in early pregnancy by dilating the os uteri with the finger, as suggested by Dr. Copeman, is briefly referred to. The various disorders of pregnancy are also mentioned. In describing reduction of the retroverted gravid uterus, the author does not insist upon guiding the fundus uteri to one or other side of the promontory of the sacrum, a point of no mean importance in difficult cases.

The influence of ergot in averting threatened abortion, as also the subcutaneous injection of morphia, are not mentioned.

In speaking of extra-uterine pregnancy, gastrotomy previous to the

rupture of the sac is not referred to. Removal of the placenta is recommended by the author; and even as much of the sac as can be readily detached in cases where gastrotomy is resorted to. This is certainly not in accordance with recent opinions, although the subject must still be considered *sub judice*.

The author very properly advises that, "during the expulsion of the child, the nurse should make firm pressure on the maternal abdomen and follow down the uterus in its final contraction". Expression of the placenta, as advocated by Credé, in place of traction on the cord, is also advised.

In speaking of accidental hæmorrhage, the author tells us that "the contents of the uterus should be evacuated as speedily as possible by rupturing the membranes". This must not be taken in too absolute a sense; in many instances, the application of a binder, the administration of ergot, and the dilatation of the os uteri by means of Barnes's bags may well precede the method suggested, provided the hæmorrhage be not severe and the constitutional symptoms urgent.

In cases of chronic inversion of the uterus, the author condemns the use of the *crasseur*, ligature, or knife.

We are glad to see an early resort to the application of the forceps in suitable cases recommended, instead of delaying a comparatively simple and harmless procedure until it becomes a difficult and dangerous operation. The subject is treated in an eminently practical manner, and is well worthy the perusal of students and practitioners alike.

Puerperal convulsions and fever are also treated of in the same practical way.

The work is one of great merit, and will supply a need long felt by students, containing, as it does, an excellently concise digest of the practice of midwifery. It is really a "manual" that can readily be carried in the pocket and appealed to with interest and advantage in the silent watchful hours.

LECTURES ON THE COMPARATIVE ANATOMY OF THE PLACENTA. (First Series.) By WILLIAM TURNER, M.B., Professor of Anatomy in the University of Edinburgh. With Illustrations in Chromolithography. Edinburgh: Adam and Charles Black. 1876.

IN this most interesting and valuable series of lectures, Professor TURNER has thrown much new light on the placentation in some of the higher mammals. The placenta of the pig, mare, and cetacea, as examples of the diffused variety of placenta, are most carefully described from the author's own investigations. As types of the second form of placenta, the polycotyledonary or multiple placenta, he has described the appearances seen in the later stages of gravid uteri in the sheep and cow. Thirdly, in the section on the zonary or annular placenta, the placenta of the carnivora, as the dog and cat, the pinnepeidia, and that much discussed animal the hyrax, are more particularly described. As regards the classification of placenta into deciduate or non-deciduate, Professor Turner is not agreed with those who would place the polycotyledonary placenta among the deciduate forms, inasmuch as, from some observations of the shed membranes of the sheep and cow, he has ascertained that quantities of epithelial cells of the pits and crypts of the maternal cotyledons were intermingled with the foetal cotyledons. He, therefore, believes this will be found to be the case in other ruminants. There are also sections on the structure of the chorion, the unimpregnated uterine mucous membrane, and the general morphology of the placenta. He concludes the lectures with some very suggestive remarks on the physiology of the nutritive and excretive processes which are carried on in the placenta. We think, with Professor Turner, that the problems of nutrition and respiration in the foetus cannot be regarded as satisfactorily solved until a further series of experiments, with the aid of the additional light which have been thrown on the subject by Ercolani, Milne-Edwards, himself, and others, have been made by the physiologist. The lectures are illustrated by some excellent coloured plates.

NOTES ON BOOKS.

LESCHER'S *Elements of Pharmacy* (Churchill, fifth edition) is one of those compendious practical books which deserve popularity. The less medical men dispense, the more the necessity for their starting with a good practical knowledge of pharmacy: a good workman must understand the mystery of his tools.

DR. ODLING'S *Practical Chemistry for Medical Students* is also an established favourite. Messrs. Longman and Co. have issued a fifth edition, revised by Mr. Watts and Dr. Stevenson, which quite maintains the old reputation of the book.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 7TH, 1876.

WILLIAM O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

Vaseline.—Dr. WILTSHIRE showed some specimens of vaseline, a new lubricant, to which various substances had been added, such as boracic and carbolic acids, thymöl, oil of cloves, oxychloride of bismuth, etc. The substance was not greasy. Some very convenient vulcanite jars were shown, in which vaseline could be carried about. It was prepared by Mr. Martindale of New Cavendish Street.—Dr. BARNES said he had used the material for the last month, and highly approved of it.—The PRESIDENT had used it and could testify to its cleanliness, but he doubted if it lubricated instruments as well as lard or oil.

New Anteversion Pessary.—Dr. GALABIN exhibited an instrument, which was an attempt to extend to the treatment of anteversion or flexion the action of simple leverage, which Hodge's pessary exerts in retroversion. It resembled a Hodge's pessary posteriorly, but the anterior arch was formed by a broad transverse arch, convex upward. This rested behind the pubes in front of the cervix, and pushed the fundus upward, while, at the same time, it stretched the anterior *cul-de-sac* upward, and so drew the cervix downward and forward. It offered less obstruction than an ordinary Hodge's pessary.—The PRESIDENT remarked that obstetricians would be grateful to anyone who would suggest anything that would support an anteverted fundus. He knew of no instrument at present excepting intrauterine stems.

Fibroid of Uterus.—Dr. CHAMBERS exhibited a specimen which he had watched through various phases. The patient, from whom it was removed *post mortem*, was 56 years old. She had suffered from severe and frequent losses of blood for seven years. The os and cervix had been divided, with relief to the hæmorrhage. The tumour extended above the umbilicus, the abdominal circumference being over forty inches, a profuse muco-purulent discharge had been a prominent symptom. Dr. Aveling's gynæcometer had been employed to demonstrate the alterations in the bulk of the tumour, which weighed two and a quarter pounds. On examination, *post mortem*, the broad ligaments were found to be quite free, but the tumour was very closely attached to the pelvic fascia.—The PRESIDENT remarked that the specimen illustrated a portion of the pathological history of hypertrophies of the unimpregnated uterus, which had received but little variation. No doubt some of the hypertrophies were so hard and dense that little variation was remarked, at short intervals, in their size. But there were also a large number of instances in which enlargements of the womb underwent considerable variation, and the structure seemed so spongy in character that there was a perceptible increase in bulk with the return of each catamenial period. About the climacteric period, the uterus was often so considerably increased in size as to give the impression of permanent fibroid growth, and yet the organ slowly and spontaneously returned to its normal size when the "change of life was completed". To some extent it was probable that this accounted for the success of the treatment by absorbent remedies and of Kreuznach waters.—Dr. SNOW BECK inquired as to the treatment, local and general, that had been employed, and what it was that the patient died of.—Dr. CHAMBERS explained that the patient died of uræmia. The treatment extended over six years, and was varied and complicated, the uterus being injected with carbolic acid, nitrate of silver, iodine, etc.—Dr. ROUTH remarked upon the plan of incising fibroid tumours; it very frequently determined a sort of absorption of that tumour; but, again, serious symptoms of pyæmia occurred, pelvic abscess was often set up, and life imperilled. The danger depended upon whether the os merely was incised, or the os and a part of the tumour, as in this latter instance partial necrosis of the tumour, with fetid discharge, and poisoning by absorption ensued. A plan he had adopted for years was to dilate the os uteri, and then stuff the uterus tightly with lint dipped in iodine, which was kept in for forty-eight hours, and the effect of softening, in some cases, was marvellous. He now employed nitric acid in this way. He thought the plan of incising large tumours was too dangerous as a rule.—Dr. HEYWOOD SMITH inquired whether Dr. Routh referred to division of the cervix uteri or of the capsule, and whether any attempt had been made to enucleate the tumour.—Dr. WYNN WILLIAMS referred to a similar case, where the patient nearly lost her life from the severe hæmorrhage. He divided the os on each side, and, after dilatation, made a very free incision into the substance of the tumour; the hæmorrhage entirely ceased, and the patient regained her health. He would like to hear any remarks as to the treatment of

fibroid tumours by means of the actual cautery.—Dr. GERVIS remarked that though, of course, it was easy to be wise after the event, he would like to ask what were the contraindications to enucleation. From examination of the tumour, it appeared to be a case of intra-uterine fibroid with the capsule adherent, but not to such an extent as to prevent separation of the adhesions, and subsequent removal of the tumour by successive sections.—Mr. SCOTT observed that the tumour was a large ordinary fibroid, inclosed in its own capsule. In many cases, he believed, enucleation might be practised with safety, but not in all.—Dr. CHAMBERS explained that the first division had been very free, part of the capsule being divided. On careful examination of the patient, whilst under chloroform, he came to the conclusion that, under the circumstances, the patient would not be benefited by its removal.—Dr. Murray, Dr. Gervis, and Dr. Hayes were requested to examine and report further upon the tumour.

Thermo-Cautery.—Dr. OSCAR PREVOT of Moscow exhibited a newly constructed instrument, invented by Dr. Paquelin of Paris. The vapour of petroleum being driven through the handle to the tip of the platina stem, which has been first gently heated, the bulb becomes incandescent, and may be kept so as long as the vapour is supplied by means of an India-rubber ball, similar to that used by Dr. Richardson's spray-producer. In place of the bulbous extremity, others shaped in the form of a bistoury, etc., could be employed. The instrument was both ingenious and valuable, being very portable, easily got ready for use, and produced very little radiation. It could be used in all cases where the actual, or gas, or galvanic cautery would be employed.—The PRESIDENT thought it would be very useful for destroying vascular tumours of the urethra, etc.—Dr. WILTSHIRE considered it most remarkable that the vapour should keep up the heat, even when buried in the tissues. The instrument was very inexpensive, the whole affair costing only a hundred and twenty francs. It was constructed by Messrs. Charrière of Paris.

Puerperal Septicæmia.—An abstract of Dr. Gervis's paper, which was read at the previous meeting, was given.—Dr. WILTSHIRE read notes of a case of puerperal septicæmia, with abscesses, disorganisation of the left wrist-joint, and phlegmasia dolens, in which recovery took place. The case was seen in consultation with Dr. Hammond. It was that of a primipara, aged 30, who had a perfectly normal labour, but on the third day vomited and perspired freely. Rigors ensued, and the temperature rose to 105 deg. F. The patient's condition varied very much, sometimes improving considerably, and then getting a sudden relapse with rapid elevation of temperature and other unfavourable symptoms; abscesses formed in the right leg, and were opened from time to time. Phlegmasia dolens of the left leg supervened at the end of a month. The left wrist-joint was utterly disorganised, the bones grating audibly on movement. There was profuse sweating and extreme prostration. In spite of relapses, she recovered and was able to be moved to the sea-side three months after delivery. A curious feature in the case was the coincidence of the relapses with the emptying of the dust-bin, generally of weekly occurrence; and, in fact, it was a question whether the illness was not originally started by poison derived from the same source. Quinine in this case was of much service, and seems to be peculiarly valuable where great elevation of temperature with diffuse suppuration exists. It is now sixteen months since her confinement and she has regained movement in the wrist-joint to a very gratifying degree.—The PRESIDENT remarked that, last session, a very exhaustive discussion on this subject took place before the Society. He would suggest, therefore, that it would be well, in the present instance, to limit the discussion to the symptomatology and treatment.—Dr. EDIS referred to a case occurring in a patient in consequence of a miscarriage about the fourth month where, owing to the uterus being retroflexed, there was considerable difficulty in removing the whole of the ovum. Abscesses formed in various parts of the body, contraction of the left hip took place, and the patient was reduced to a mere skeleton. Large doses of quinine, together with the hypodermic injection of morphia, proved of most value as regards treatment. After struggling on for over three months, the patient recovered sufficiently to be able to leave the country.—Dr. BRAXTON HICKS believed there was nothing like large doses of quinine, five to ten grains every four hours for three or four days. He had never tried the injection of carbolic acid. He thought the fact of there having been an offensive discharge in Dr. Gervis's case was not sufficient to account for the septicæmia, as many patients had the former without the latter. Other cases were also alluded to, arising from various causes, showing that septicæmia might depend upon numberless different exciting causes.—Dr. GERVIS wished to correct the impression that the discharge had caused the septicæmia. It was merely one of the factors.—Mr. REDMOND alluded to a case where quinine had been given in fifteen grain doses night and morning. As to puerperal fever following offensive discharges, we

seldom found it resulting from severe operations in midwifery.—Dr. CHALMERS agreed with Dr. Braxton Hicks, that a wider view must be taken of the causation of puerperal fever than that which was generally adopted. He instanced cases where sore throat in the nurse, a patient suffering from putrefying sores in the same house, infection conveyed by the attendant from other cases, etc., deemed to have been the exciting causes. The great difficulty to be contended with among the lower orders was the ignorance about the ordinary laws of health, disregard of cleanliness, and gross prejudice in favour of filthy conditions. The wonder was that so few died of puerperal diseases; where recovery ensued, it was chiefly due to good nursing.—Dr. BRUNTON remarked that, though he practised in the same neighbourhood, he had not met with any cases of puerperal fever in his own practice.—Dr. CHALMERS knew of several cases in the practice of other medical men in the neighbourhood.—Dr. HAYES would not go so far as to deny that puerperal fever, with a healthy lochial discharge, did not occur, but he thought such a thing to be extremely rare. It would not do to accept the nurse's statement as to all being right, we must satisfy ourselves by investigation, and see that no offensive discharges were pent up in the uterus. Cases in point were briefly referred to. Regarding treatment, he saw little to support the notion that quinine, turpentine, carbolic acid, etc., exerted a specific action. He regarded the intrauterine injection of disinfectants as most important where there was any fœtor of the lochia.—Dr. WYNN WILLIAMS agreed with Dr. Hayes, in fact they were the same views he (Dr. Williams) had expressed at the late discussion, as to the source of infection in cases of septicæmia, the putrid discharges from sore throats and abscesses, and the foetid discharges from erysipelas, he believed to be the origin of the septic poison; but cases also occurred from decomposing *alvris* in the uterus. A case in point being cited, as to the action of quinine in cases of septicæmia, he could not understand how it could have any specific effect.—Dr. GERVIS, in reply, stated that he had brought forward the case, not with any wish to introduce any further discussion on puerperal fever generally, but he thought the case a typical one, and worthy of permanent record. He had also wished to elicit the opinion of other Fellows on the treatment by carbolic acid, the exact significance of the enlarged condition of the uterus which existed in the early stages, and the relation of puerperal septicæmia to scarlatina.—Dr. WILTSHIRE thought that, in cases of hyperpyrexia, quinine was very valuable when it was due to purulent collections, but useless in ichoræmic cases. Therapeutics were too much neglected, to the disadvantage of the patient, and the discredit of the profession.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, MAY 3RD, 1876.

HENRY JACKSON, M.D., President, in the Chair.

Primary Cancer of the Pleura.—Dr. ALEXANDER OGSTON read a report by Dr. CAMPBELL of Cardiff Infirmary, on a case of the above disease. The patient, a man, aged 40, was admitted into Cardiff Infirmary on June 15th, 1875, suffering from constant pain in the lower part of the left side, weakness, and occasional shortness of breathing, but without cough. He stated that he had had a cough, and had been ill for four months. On admission, he appeared well. The left chest was absolutely dull over the whole front and back. There were no voice or breath-sounds, except in the intrascapular region, where bronchial sounds were heard. There was no bulging of the intercostal spaces. On the right side, percussion was clear, and the breath-sounds intensified. The heart beat under the sternum, and with normal sounds. Temperature 98.6 deg. Pulse 84. The appetite, bowels, and urine were natural. The patient continued with the same physical signs, etc., but becoming weaker, until August 20th, when it was remarked that he could not stand, and that urine and feces were passed in bed. At this time, a hard round tumour of the size of half an egg was observed under the free margin of the pectoralis major, at the anterior border of the armpit. It was tender, hard, dense, fixed to the chest-walls, and led by a hard cord an inch long to three or four glands in the axilla about the size of beans, hard and movable. On September 3rd, the pain had diminished; he was becoming thinner, but the appetite was fair. The axillary tumour was increasing, and the left supraclavicular and infraclavicular regions were depressed. On September 16th, the left side was found nearly three inches smaller than the right; and the tumour and glands were increasing rapidly in size. He died on September 18th.—*Post Mortem Examination.* There were fifty-six ounces of deep brown fluid in the left pleura, and the left lung, about the size of a flat hand, was carnified and pressed against the pericardium. The left pleura was from one-sixth to one-fourth of an inch thick; the upper half was smooth and covered with a thick layer of soft

lymph, the lower half rough and granular. The axillary tumour was found to start from the pleura, and to have corroded the fourth rib on its passage outwards, the growth being entirely outward. The tumour and pleura were whitish when cut into; the latter was hard, almost like cartilage. The other organs presented nothing unusual, except that the pericardium was thickened like the pleura. On microscopic examination, the pleura and axillary tumour had all the characters of well marked scirrhus. The author remarked that the case at first resembled hydrothorax; but that its true nature became clear on the appearances of the axillary tumour.

Therapeutics considered under certain of its Aspects.—A paper bearing this title was read by Dr. HARVEY of Aberdeen. He began by referring to the unsatisfactory condition of therapeutics in its scientific relations; or as a science; and the derogatory terms made use of by many in speaking of it—by homœopaths especially, as well as by many in the orthodox ranks of the profession. Dr. Harvey admitted the unsatisfactory condition of this great department of our science; and it was the main object of his paper to acknowledge this, and to point out how the science may be placed on a sounder and more satisfactory footing. But he combated the notion that the existing state of it is in any true sense a reproach to the profession; remarking that the men who had failed in this department had signally succeeded in every other; had brought anatomy, physiology, and pathology to their present advanced state. And he referred more particularly to chemistry, a branch which had been specially cultivated by medical men, and the products of which had actually revolutionised the world and contributed immensely to human civilisation and progress. It must, therefore, be owing to something in the inherent nature of therapeutics itself that it still continued in an unsatisfactory state. Admitting that its progress had been retarded in various ways, there were some which were fairly chargeable to the profession. Two of these he dwelt on in detail. One was the neglect of the science of therapeutics in the schools as a branch of medical education; or the teaching of it in most schools in the first year of medical study, when instruction must in great part be thrown away. The other was the idea very widely entertained of expecting to get from drugs what drugs never would or could yield. We never shall or can have a satisfactory system of therapeutics until we have as its foundation a complete and accurate exposition of the curative powers and provisions of the living organism; until we know the part actually played by the organism (*i.e.*, by Nature as contradistinguished from art) in the cure of injury and disease, and the modes and the ways in which, independently of human intervention, the organism works out the repair of injuries and the removal of disease. We do not realise as we ought what the curative power of the living organism is, or how great it is; nor have we that familiar knowledge which we might have, and ought to have, of the sundry and manifold processes of healing and of repairing continually in operation within the organism when suffering from injury or disease. And, until we learn this first lesson in therapeutics, and learn it well, we shall continue to go in quest of the philosopher's stone in therapeutics, seeking to find in this drug and that, and sometimes actually finding, as we think, a cure for ills that Nature is herself competent to cure. Along with what he advanced as the true foundation principle of a satisfactory system of therapeutics, Dr. Harvey described what he regarded as another, namely, the exposition of what Nature unaided is incapable of doing in the cure of disease, and of what, in default of her, art is capable of doing. Dr. Harvey dwelt chiefly on the importance in relation to therapeutics, of the study of the modes of dying, physiologically considered, and that of the modes of fatal termination of injuries and diseases; the practical object of that study being to enable us to give effect to Cullen's "memorable injunction" to "*obviate the tendency to death*". As to the relative powers of Nature and art in the cure of disease, it is certain that grave and serious misconception prevails not only among the laity, but among the profession. The habitual tendency of our mind is, to underrate the powers of Nature and to overrate those of art. And it is exceedingly difficult to set people right on this point. Many causes tend to blind us on this field of inquiry and research; and the moral causes above all. And anyone that strives to exhibit the truth in this department, and to contend for it, as Sir John Forbes did, must lay his account to be misunderstood, and above all to be derided as a *nihilist*. Dr. Harvey concluded his paper by setting before his hearers two aphorisms; one old Latin adage, "*Medicus curat, sed natura sanat morbos*"; the other, in keeping with this, in terms almost identical, recently propounded by M. Gubler, Professor of Therapeutics in the École de Médecine of Paris, "*L'Organisme se guérit lui-même: le médecin ne fait que placer l'organisme dans les conditions favorables au retour d'une mode de fonctionnement régulier*". Without discussing these affirmations, Dr. Harvey put them in the view of his hearers, as demanding their serious consideration. In con-

cluding, he said: Meanwhile, while striving after a better system, let us not be dissatisfied with the light we have. We may desire to have the noonday light to walk by in the daily exercise of our professional duties; at present we have only the light of the moon. Let us not, therefore, disquiet ourselves. With two factors at work in the cure of disease—the one often traversing the path of the other, the one working in secret, the other often working in the dark—it is certain that we never shall or can have a perfectly satisfactory system of therapeutics. But, labouring assiduously in the right path, we may yet attain to a greater measure of light than we now have, and come to understand better than we now do the respective provinces and the relative powers of Nature and art; while we may reasonably hope that the resources of the latter will be vastly augmented for the good of mankind—"it gives feliciter vivat!"—Dr. DYCE BROWN thought that no one would submit to no treatment, and, therefore, Dr. Harvey's ideas were Utopian. A good deal could be discovered under the eye of an experienced physician as to the value of remedies; some doing good, and others being of no service.—Dr. A. DYCE DAVIDSON thought the disease was more frequently treated than the patient both by the regular practitioner and by the homoeopath; but lately vast strides had been made in estimating the value of remedies.—Dr. DYCE BROWN said homoeopaths did not treat diseases, but patients.—Dr. CROMBIE said treatment as laid down in books was never strictly adhered to by any practical man.—Dr. STEPHENSON thought the state of therapeutics unsatisfactory in one sense and satisfactory in another. Much of the unsatisfactory condition arose from its being taught at the wrong time in the University. Again, people expected too much from therapeutics. The *vis medicatrix* was too much left out of sight, and, as had been well said, there was no work specially written on it; and, indeed, to write on this would be to write on the whole system of medicine. Old notions were got from old books, and it was difficult to get rid of them. The satisfactory part of therapeutics was that it was understood, to a great extent, what Nature can do. True treatment was by studying the nature of the disease, and so helping Nature to do more speedily and better what she was trying to do herself.—Dr. OGILVIE WILL thought the homoeopaths might assist in regard to natural therapeutics.—Dr. HARVEY replied. He said that the first consideration of every intelligent practitioner was to guard against the tendency to death. This he had already stated in his remarks. He had also stated that, incidentally, much might be culled from writers in different departments of medicine on natural therapeutics; and notably Dr. Flint, in his treatise on Medicine, had given valuable hints on this subject in his natural history of diseases. We had still much to learn, however, in the way of systematising our knowledge, and he did not think the difficulty of treating the subject so great as to prevent its being successfully attempted. Indeed, he had already in outline a treatise on Natural Therapeutics. As to its not being possible to have patients submitting to no treatment, Dr. Brown must be aware that fevers and many other diseases were so treated, the physician simply watching for indications of danger, that he might, if possible, obviate these. Acute rheumatism had been treated with mint-water, with as good results, even so far as the heart was concerned, as when alkaline treatment was used. Pneumonia was frequently well treated by mint-water, proper regimen, and expectation. Inflammations, too, are found to resolve themselves; not without danger, indeed, but this we tried to avert by assisting Nature simply in her efforts to obviate the tendency to death.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JUNE 7TH, 1876.

J. D. GILLESPIE, M.D., President, in the Chair.

Exhibition of Patients.—Mr. JOSEPH BELL showed—1. A boy, aged 12, who, about four weeks ago, while loading a small iron cannon, rammed down sixteen small bullets with an iron ramrod. The powder ignited, and bullets and ramrod were driven through the palm of his hand. The fourth and fifth metacarpals caused the bullets to deflect, and a long wound over the back of the hand was the result. He had made a good recovery.—2. A boy, aged 9, who had fallen from a height of twenty feet on pavement, on the vertex. A long scalp-wound; and a fissure of the skull, extending from the ethmoid cells in front to the occipital bone behind, was the result. There was depression of one edge of the fissure, but no symptoms of compression. The scalp-wound was brought together by sutures; drainage-tubes were inserted; and he made a good recovery.—3. A man, aged 30, on whose head a weight of one hundred and fifty pounds of iron had fallen from a height of thirty feet. One lacerated scalp-wound, and a most extensively depressed fracture, extend-

ing nearly the whole length of the vault of the calvarium, were the result. He was comatose. Mr. Bell had trepanned him, and with a powerful lever had got the bones back into position; after which, he encouraged bleeding from wounded vessels to the extent of from twenty to twenty-five ounces. The patient made a good recovery.—All the cases had been treated with the strictest antiseptic precautions. In the last case, there was an interesting condition of memory, as, after recovery of consciousness, it was found that the patient had forgotten not only all that had passed after the injury, but the events of the two previous days. Mr. Bell had frequently noticed this peculiar result of head injuries.

Exhibition of Specimens.—Dr. WYLLIE showed under the microscope two specimens: one of croupous pneumonia in the stage of red hepatization—it displayed a great number of large extravasated red corpuscles in the croupous exudation; the other, of cirrhosis of the liver, showed an abundant formation of leucocytes in the newly formed zone of connective tissue adjoining the periphery of the lobule, where growth seemed most active.

Dr. A. R. SIMPSON showed two large urinary calculi, which he had removed from the bladder of a woman; one, which weighed two ounces, he had extracted by abortion forceps after simple dilatation of the urethra. The second, weighing four ounces and a quarter, required incision of the urethra. The subsequent incontinence was remedied by a plastic operation.

Cases of Paraplegia.—Dr. GRAINGER STEWART read the first half of a paper entitled Cases of Paraplegia. He believed them to be somewhat rare, and not easily to be referred to any of the ordinary descriptions. He now proposed to bring under notice two such cases. The first case was that of a sailor, who suffered from paraplegia owing to pressure on the anterior column of the cord by debris of carious vertebrae. By means of cod-liver oil and a mechanical support, he was able to resume work. A return of the disease, however, was brought on by hard work, consequent on shipwreck. A like treatment again proved successful. In concluding this case, he wished to point out that it confirmed Brown-Séquard's well known discoveries as to the conduction and decussation in the cord of sensory, motor, muscular, etc., impressions. In his second case, he believed the paraplegia to be due to malarial influences, for the following reasons. 1. There was a history of exposure to malaria; 2. Ague existed before, during, and after the paraplegia; 3. Ague aggravated the paraplegia; and 4. The paraplegia was greatly benefited by quinine.—The President thought that in the treatment of the first of the cases Dr. Stewart had shown himself well fitted for the appointment of surgeon to a hospital, as by its diagnosis he had proved his right to be a physician; the second case he believed to be of malarious origin.—Dr. ARGYLL ROBERTSON, after alluding to the value of the cases as illustrating Brown-Séquard's experiments and researches on the cord, took the opportunity of pointing out the important diagnostic and therapeutic results obtained by these experiments, which those aiming at the abolition of vivisection would have entirely prevented.—Dr. JOHN WYLLIE said that Dr. Stewart had not informed the Society as to whether in these cases there were present any rheumatic symptoms. When house-surgeon in Birmingham, he had seen two cases in which paralysis depended on a rheumatic affection. The rheumatic poison might act so on the spinal cord as to produce paraplegia.—Dr. D. J. HAMILTON remarked that in some cases the degeneration of the spinal cord in Pott's disease of the vertebrae, especially when pressure was present, so far affected certain tracts as to render recovery hopeless. This degeneration was not mere sclerosis, but a trophic lesion. The hopes of recovery depended on the condition of the axis-cylinder. If it were degenerated, then there was no hope of any amendment. Bouchard had shown that in cases where there is much pressure, the degeneration of the sensory fibres takes place in a direction up the cord; those of the motor fibres downwards.—Dr. CLOUSTON alluded to remarkable instances of flattening of the cord due to pressure, yet without any worse pathological result than a slight stiffness. Dr. Stewart's second case resembled in many respects those cases of so-called hysterical paralysis. He described one in which the mental symptoms were most extravagant, and yet at first there were no special sensory or motor symptoms. In the end, reflex action, common sensation, and muscular sense were gradually impaired and abolished. The presence of bed-sores showed that the trophic fibres were also affected. After death, the upper part of the end was found crammed with military sclerosis.—Dr. SMART described two cases of paralysis he had lately had; one, a powerful man, was struck down suddenly with paralysis of motion only, due to pressure of diseased bone. Under quinine in fifteen-grain doses and belladonna, he was much improved. The other was a young lady with lateral curvature, who improved under the use of ergotin.—Dr. STEWART briefly replied.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, APRIL 11TH, 1876.

JOSEPH COATS, M.D., Vice-President, in the Chair.

Ovarian Tumour, with Fallopian Tube stretched over it.—Dr. D. N. KNOX read the report by a Committee appointed to investigate the true nature of this tumour, in view of the remarks recently made in connection with a parovarian tumour shown to this Society, which presented this peculiarity. The cysts were situated in the broad ligament of the left side, and consisted—1. Of the Fallopian tube distended with fluid; 2. An oval cyst, of the size of an orange, in the broad ligament, immediately below the Fallopian tube; and 3. A collection of small cysts between the above. The Fallopian tube measured nine inches in length, and it curved over the upper surface of the large cyst. On opening the tube along its upper surface, a yellow muddy serous fluid escaped; the large cyst was also emptied through this incision; a large free communication was found between the outer end of the cyst and the incurved extremity of the Fallopian tube. The small cysts, five or six in number, contained serous fluid; they were imbedded in a small mass of firm tissue, which could be felt between the finger and thumb introduced into the Fallopian tube and large cyst respectively. This mass the Committee believed to be the ovary. The so-called parovarium was seen in its usual situation. The Committee, therefore, concluded that this was a true multiple ovarian cyst, with the tube stretched over it.

Mutton-Bone in Bronchus causing Gangrene of Lung and simulating Phthisis.—Dr. JOSEPH COATS showed a piece of bone which had been impacted in the left bronchus for seventeen months, and had caused death by gangrene of the lung. The case was regarded at first as one of acute phthisis, cavities having rapidly formed in different parts of the left lung. Latterly, profuse and fetid expectoration became very marked; the right lung continued almost free, and doubts as to the case being one of ordinary phthisis ultimately arose. The lad himself dated his illness from some difficulty in swallowing a piece of bone which had stuck in his throat, since which time he had suffered from cough, but this view of the illness was not entertained (till near death) by his medical attendants, and, indeed, the story ceased to be brought forward; both here and in France the diagnosis of pulmonary phthisis was confidently made. The piece of bone measured three-quarters of an inch by half an inch. It was in the main bronchus of the left side, lying in an irregular, ulcerated cavity in the mucous membrane. The tissue of the left lung (which was adherent) was non-crepitant and leathery. There were cavities in every part; no large gangrenous portion was found. The right lung was fully inflated, and it extended across the mediastinum. Two small cavities were found in it, having the appearance of metastatic abscesses. No tubercles could be seen anywhere.

Perityphlitic Abscess.—Dr. G. H. B. MACLEOD presented the parts involved in a perityphlitic abscess. A woman, aged 37, was seized, a month before her death, with pain in the right inguinal region, followed by a swelling in the situation of the ascending colon. The pain was not very violent, and was not accompanied with fever. On vaginal examination, a tumour was found in Douglas's space, the os was tilted forward, and the cervix fixed. Constipation was present, but enemata brought away a considerable quantity of faeces; and, under regulated diet and opium, she seemed to be no worse till forty-eight hours before death, when feculent vomiting set in, and rapid exhaustion followed. During life, a quantity of matter, resembling that found in the cyst after death, had been passed by the bowel. The bowels were found firmly adherent, and were pushed aside by a large cyst adhering to the anterior wall of abdomen and to the neighbouring bowels. It was elongated, and confined to the right side of the abdomen; it contained pus and soft lymph in masses; behind it, the ascending colon was situated, and it communicated with the abscess.

Invagination of Bowel.—Dr. HUGH MILLER exhibited a portion of bowel removed from an infant aged six months. Two days before death, he became sick, vomiting much, and suffered, as the mother thought, from "colicky pains". Next day, the pain was less, and a loose motion was passed; in the evening, there was another motion, consisting of blood. Next morning, he seemed in a collapsed state; the abdomen appeared full, but no special hardness or tenderness could be made out. Enemata failed to bring away any faecal matter. On dissection, the lower part of the ileum was found invaginated into the caecum, and part of the ascending colon.

Stricture of Ascending Colon.—Dr. DAVID FOULIS showed a stricture

of the ascending colon six inches above the valve; the point of the finger could not be passed through the aperture; and between it and the caecum there was a mass of nutshells, eggshells, and seeds of oranges; similar *débris* existed likewise in the ileum. The stricture was quite localised, and was lined by soft thickened mucous membrane; nearer the caecum, there were several circular shallow ulcers. Dr. Foulis thought the stricture was the result of cicatrisation of a simple ulceration of the colon. There was no trace of tubercular complication, and there was no appearance of perityphlitis or of adhesions. [Examined subsequently, at the suggestion of a member, no trace of epithelioma was discoverable.] The history was that of cramps in the lower part of the abdomen of twelve months' duration, with occasional swelling of the abdomen. The action of the bowels was irregular; latterly, persistent diarrhoea supervened, and, just before death, total obstruction of the bowels.

Specimens shown.—Ovarian Tumour, by Dr. MACLEOD; Large Cerebral Tubercles, by Dr. ALEXANDER (Paisley); Peculiar Parasitic Disease of the Skin, sent by Dr. MAC GREGOR (Fiji), and shown by Dr. H. E. CLARKE—this was remitted to a Committee to report as to its nature.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, APRIL 1ST, 1876.

HENRY KENNEDY, M.B., President, in the Chair.

Pathological Appearances of Scarlatina: Hydrops Cystidis Felleae.—Dr. J. W. MOORE showed the thoracic and intestinal viscera of a boy, aged 10, who died in the Meath Hospital on March 29th, 1876, on the sixteenth day, of severe scarlatina. As regards the clinical history, the most striking points were: the persistently high temperature (on no occasion did the axillary temperature fall below 102 deg., the mean of twenty-seven observations extending over fourteen days was 103.4 deg., the maximum being 105 deg., and the minimum 102.2 deg.); a great enlargement of the deep-seated cervical glands; the occurrence of two attacks of diarrhoea—the latter attack being profuse and ushering in death; the absence of hæmaturia or of considerable albuminuria; and the freedom from delirium until the heart completely failed twelve hours before death. The mesenteric glands were all enlarged; in places *psorenterie* was slightly marked. There were evidences of commencing inflammation of all the serous membranes which were examined, i.e., the peritoneum, pleura, and pericardium. The spleen was large and soft; it weighed sixteen ounces and a half. There was desquamative nephritis in an early stage; the right kidney weighed nine ounces, and the left eight ounces and a half. The liver weighed three pounds seven ounces and a half, but was structurally healthy except for some perihepatitis. The gall-bladder was enormously large, and projected some two inches and a half below the lower border of the liver. It was diaphanous, and contained a somewhat viscid clear fluid, with remains of biliary colouring matter. The hepatic and cystic ducts were pervious, and so was the common duct so far as could be ascertained, for unfortunately it had been cut in removing the parts from the body. The condition of the gall-bladder (*hydrops cystidis felleae*) was clearly unconnected with the attack of scarlatina, and was probably congenital.

Extracapsular Fracture of Neck of Thigh-Bone.—Dr. E. H. BENNETT exhibited a specimen of this injury which had presented the exceptional condition of inversion of the limb. The trochanter major was so displaced as to assume the appearance of a dislocated head of the femur placed on the dorsum ilii. The lower fragment in this, as in the previously recorded cases of the injury, was placed in front of the cervix femoris.

DILATATION OF THE CERVIX UTERI FOR OBSTINATE VOMITING IN PREGNANCY.—At the Obstetrical Society of Boston, lately, *à propos* of the cases reported recently in the BRITISH MEDICAL JOURNAL, by Dr. Copeman of Norwich, Dr. Minot reported a case in which a sponge-tent stopped the symptoms completely, much to the indignation of the woman, who had hoped to abort. In another case, seen with Dr. Clarke, Dr. Minot had applied tincture of iodine. Dr. Putnam, in consultation with Dr. Clarke, proposed removing the contents of the uterus, and a sponge-tent was inserted for the purpose. The vomiting stopped. In a case seen with Dr. Buckingham, the dilatation had no effect whatever in stopping the vomiting, and the patient died. Dr. Sinclair said he imagined there was no great danger of producing abortion by the process of dilatation spoken of. In the cases reported, there was no mention of subsequent examination to see whether the os closed again.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 16TH, 1876.

PRACTICAL PHYSIOLOGY UNDER THE LAW.

Now that the vacation is drawing to a close, and the period is about to recur when activity will again prevail in the study and pursuit of medical knowledge, it will be necessary for those who more especially pursue experimental inquiries in physiology to remember that, for the future, such researches must be conducted under entirely altered conditions, in so far as they will be regulated and controlled by the State. The Cruelty to Animals Act is now the law of the land; and, inconvenient as it may be, it yet behoves all physiologists and experimenters implicitly to obey its enactments. It will be well, therefore, to analyse its contents carefully, and endeavour to learn what it requires of those who will come under its operation.

Firstly, under no conditions whatever may painful experiments upon living animals be performed for the purpose of attaining manual skill, or for exhibition to the general public.

Secondly, no person may now perform on a living vertebrate animal any experiment calculated to give pain, unless he first fulfil certain conditions. The penalty for a first offence against the Act is to be a fine not exceeding fifty pounds; whilst for a second or subsequent offences it may be a fine not exceeding one hundred pounds, or imprisonment for a period not exceeding three months.

The conditions to be fulfilled by any person desirous of performing an experiment calculated to give pain to a vertebrate animal are the following. He must apply to the Secretary of State for a licence to perform the experiment; and his application must be signed by one or more of several official personages named in the Act; viz., the President of either the Royal Society of London or of Edinburgh, or of the Royal Irish Academy, or of either of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin, or of the Faculty of Physicians and Surgeons of Glasgow; or (unless the applicant be a Professor in a British University or College) by a Professor of Physiology, Medicine, Anatomy, Medical Jurisprudence, Materia Medica, or Surgery, in a British University or College incorporated by Royal Charter. For certain experiments, the application to the Secretary of State must also be accompanied by copies of certificates. Thus (a), it is expressly enacted that experiments shall not be performed as an illustration of lectures in medical schools, hospitals, colleges, or elsewhere; but they may be so performed, the animal being properly anaesthetised, on a certificate being given that the proposed experiments are absolutely necessary for the *due* instruction of the class in physiological knowledge, or of knowledge which will be useful for saving or prolonging life or alleviating suffering. b. Anaesthetics must be used in all painful experiments *throughout* the experiment; but they may be dispensed with on a certificate being given that insensibility cannot be produced without necessarily frustrating the object of the experiment. c. Animals must be killed before recovering from the anaesthetic, if subsequent pain be anticipated, or if serious injury have been produced by the experiment; but this regulation may be set aside when a certificate is given that the so killing the animal would necessarily frustrate the object of the experiment. The animal, however, even in that case,

must be killed as soon as such object has been attained. d. All experiments must be performed with a view to the advancement by new discovery of physiological knowledge, or of knowledge which will be useful for saving or prolonging life or alleviating suffering; but they may be also made for the purpose of testing a particular former discovery alleged to have been made for the advancement of such knowledge, on a certificate being given that such testing is absolutely necessary for the effectual advancement of such knowledge. e. No painful experiment whatever shall be performed *without anaesthetics* on a dog or cat, except the certificate (which, as stated above, is to be given for any experiment without anaesthetics) states *in addition* that, for reasons which must be specified, the object of the experiment will necessarily be frustrated unless it be performed on an animal similar in constitution and habits to a cat or dog, and that no other animal is available for such experiment. f. No painful experiment whatever may be performed on any horse, mule, or ass, except on a certificate being given that the object of the experiment will be necessarily frustrated unless it is performed on a horse, ass, or mule; and that no other animal is available for such experiment. All such certificates must be signed for the experimenter by one or more of the persons named above as authorised to sign the application to the Secretary of State. No one of such persons may sign such a certificate for himself. The certificate, which will apparently be retained by the experimenter, may be given for such time or for such series of experiments as the person or persons signing it may think expedient; and it shall not be available until one week after a copy has been forwarded to the Secretary of State, and he may at any time disallow or suspend the certificate. In Ireland, the term "Secretary of State" shall be construed to mean the Chief Secretary to the Lord Lieutenant.

Experiments performed *for the purpose of instruction* must be conducted in a place approved by the Secretary of State, and such places shall be registered in such a manner as he may direct. It behoves, therefore, the authorities of the medical schools to obtain a register from the Secretary of State for any places in which experiments for the purpose of instructing students are likely to be conducted.

The Secretary of State may make it a condition of granting a licence to any person, that the place in which the experiments are to be performed shall be registered; he may license any person whom he thinks qualified to perform the experiments; he may grant the licence for such time as he may think fit; he may also revoke it, or, in granting it, impose any conditions consistent with the provisions of the Act; whilst he may also require from the licensee reports of the experiments. All registered places may be visited by inspectors. Lastly, it must be noted that curare shall not, for the purposes of the Act, be deemed to be an anaesthetic.

To sum up, therefore, any would-be experimenter upon vertebrate animals must procure a licence for himself, and must be prepared to have the place in which he works registered, if the Home Secretary should require it, and inspected by the inspectors to be appointed under the Act; whilst, in certain cases mentioned above, the experimenter must further arm himself with special certificates.

THE IRISH LUNATIC ASYLUM SERVICE.

WE announced lately, that an Order in Council has been issued permitting an increase of the salary of any consulting and visiting physician, who may have served in any district lunatic asylum in Ireland for a period of eight years to the satisfaction of the Board of Governors, such increase not to exceed one fourth of the actual annual salary. It would ill become us to receive ungraciously such an order which legalises, and indeed suggests, some acknowledgment of prolonged professional services; but, we must say, it seems that there are other matters connected with the position and pay of the medical officers of

Irish asylums of a far more pressing and important character than the remuneration of the consulting physicians. The medical superintendents of these establishments, upon whom their efficiency must practically depend, have grievances which have been laid before the Government, and which ought to have been removed, and have a programme also, which is very modest and reasonable, and which ought to have been conceded. It will scarcely be credited that these gentlemen, besides their anxious and onerous medical duties, in the performance of which in many Irish asylums they have no assistance, are charged with the responsibilities and drudgery, which in asylums in this country are devolved upon a clerk and steward. They have to make out voluminous returns—only a shade less dreary and uninspiring than those which it has entered into the hearts of the Scotch Lunacy Commissioners to conceive; they have to conduct the business correspondence, pay the wages of the servants, and regulate the rotation of crops and the sale of cattle. And with all these multifarious matters to attend to, they are not invested with that full authority which alone can support an official so heavily burdened. Some very derogatory regulations still press upon them, such as that which places them on exactly the same footing as the matron with regard to absence from the asylum. Matrons seem to be nearly as highly venerated in Ireland as in Middlesex; as it is specially provided that the presence of a matron in a lunatic hospital is sufficient to compensate for the absence of the medical superintendent. It is obvious that, in every Irish asylum, there should be an assistant medical officer to take the place of the medical superintendent when he is away from his post, to aid him in his work, and to relieve him of some of those routine observances which now occupy so much of his time, and prevent him from engaging in original research. Some of the ablest and most experienced asylum medical superintendents in Ireland have been the first to acknowledge that the members of the medico-psychological speciality in that island have not hitherto taken full advantage of the pathological opportunities that are open to them, and have not contributed their just share to the edifice of knowledge of mental and nervous disease that is being built up, and that is now assuming such fair proportions. That they have not done so is indubitably owing, not to lack of will and power, but to the undue absorption of time and energy in book-keeping, and the trivialities of domestic economy. The argument that science suffers because the medical superintendents of Irish asylums have no assistants, is not likely to touch the Government that introduced the Cruelty to Animals Bill; but the proposition, which is equally demonstrable, that the interests of the insane poor and the pockets of the ratepayers suffer on the same ground, is better calculated to secure their attention. And surely no principle in lunatic asylum polity is more firmly established than this, that incessant medical supervision is the first condition of successful management in such institutions, and that such supervision is impossible where there is only one resident medical man in an establishment containing three hundred or four hundred patients. A whole wilderness of matrons will not, in our opinion, make up for the want of an assistant medical officer. If the Irish asylums are to attain to a high standard of practical usefulness; if they are to confer the widest possible benefits upon the districts in which they are situated; if they are to give the best possible return for the money expended upon them, they must be put, as regards the number of their medical officers, upon a parity with kindred institutions in England and Scotland. No mere permissive power given to the governors of these asylums to appoint a resident pupil will meet the difficulty. It must be made incumbent on the governors of all asylums to appoint properly qualified medical officers.

Many of the anomalies and objectionable features that still exist in Irish asylums are the remains of the bad system of management that originally prevailed in them. They were at one time under the

control of lay-superintendents, and, while these officials—as paradoxical as horse-marines—have happily vanished from the scene, some of the traditions of their era still linger and obstruct progress. The medical superintendents who have succeeded them have not yet in every case secured proper recognition as men of science and position, and have not yet sufficiently vindicated the hospital character of the institutions confided to their care. The trail of the prison and work-house is over some of these institutions still, and not until this has been finally wiped away will they assume their proper rank in the public estimation, and will the services of their chief officers receive proper acknowledgment. Between proper acknowledgment, however, and freedom from gross injustice, there is a wide gap, and though the former may at the instant be unattainable, the latter ought to be within easy reach. And the chief officers of Irish asylums are not at present free from gross injustice, as they have to serve for forty years before they become entitled to a retiring allowance; whereas their confrères in England become eligible for a pension after a service of fifteen years. There is cruel irony in offering a retiring pension after forty years in a madhouse, as if any one were likely to live through such an experience to claim the guerdon. Dr. Gregory used to say, that a physician in Edinburgh did not make his crust of bread until he had no teeth left with which to eat it; and a medical superintendent in Ireland will certainly not earn his crutch until he has no strength left with which to hold it.

As if to heighten the mockery of the promise of a retiring pension to asylum medical officers in Ireland, it is stipulated that all the forty years required to earn it must be passed in one asylum. A medical superintendent who after, say twenty years of good service, accepts a promotion, or for any reason transfers the remnant of his strength to another field of usefulness, forfeits all claim towards a pension which these twenty years might have given him, and has to begin again his weary pilgrimage. A provision better calculated to damage the public service and to repress zeal could scarcely have been devised. No good reason can be advanced why all this should not be at once altered, why Irish medical superintendents should not be treated, as regards their pensions, in the same manner as English ones, or why their own very reasonable proposal that they should be made civil servants and so become entitled to the benefits of the Superannuation Act of 1859, should not be adopted. A capitation grant is contributed by the Government towards the support of the Irish asylums, and it is only necessary to make the salaries of the medical superintendents a first charge on that grant in order to give effect to their wishes. The medical superintendents, who are now appointed by the Government, would then be still more intimately connected with the central authority, and so would be more independent and useful officers.

The views and hopes of the medical superintendents of Irish asylums were represented to Sir Michael Hicks Beach, early in February last, by a deputation of their number, presided over by Dr. Lalor of the Richmond Asylum, Dublin, who then waited on the Irish Secretary. This suggestion was then made, that it would be well that the boards of governors of the various asylums should give their support to the scheme submitted to the Government. We trust that this hint has not been lost sight of, and that the Committee of Superintendents, of which Dr. Maziere Courtenay of Limerick is the able and indefatigable Secretary, will not relax its efforts to secure a favourable consideration of the just demands of the body that it represents.

There is one reform in the Irish lunacy system which we venture to recommend, which may be readily accomplished, and which cannot fail to raise the tone of Irish asylums; and that is, the exclusion of reporters from the meetings of the governors. When that step is taken, and when Irish asylums are in this respect also assimilated to English ones, the board rooms of these establishments will cease to be, what we fear they now in some instances are, arenas for the display of

political and polemical animosity, the real business of the asylum will receive closer attention, and discipline will not be jeopardised by a faction fight over the *corpus delicti* of a drunken attendant. The local papers may be somewhat scant of racy matter, but the pauper lunatics of the country will reap a substantial advantage.

THE Library of the Royal Medical and Chirurgical Society was reopened on Thursday, the 14th instant.

DR. SIMON, Professor of Surgery in the University of Heidelberg, died on August 27th, at the age of 52.

THE *London Gazette* of September 8th announces that the Queen has been pleased to direct letters patent to be issued recognising the degrees in Arts, Laws, Medicine, and Music, granted by the University of New Zealand.

THE jubilee of the graduation of five practitioners who obtained their degrees in the University of Landshut, in Bavaria, before its transference to Munich in 1826, was celebrated on July 17th.

WE learn from *L'Union Médicale* that the building of the new Hôtel-Dieu in Paris is being actively pushed on. The old Hôtel-Dieu is to be demolished before the opening of the Exhibition in 1878.

THE preparatory School of Medicine and Pharmacy which has existed at Lille has been replaced by a Faculty of Medicine and Pharmacy, with a complete staff of professors in all departments of medical science.

DR. ALLEN THOMSON, Professor of Anatomy in the University of Glasgow, has been unanimously appointed President-elect of the British Association for the Advancement of Science. The next meeting is to be held in Plymouth, in August 1877; and the meeting in 1878 in Dublin.

IT has been determined by the members of the National Society for the Relief of the Sick and Wounded, to establish a hospital of one hundred beds in Belgrade. The rank of major in the Servian army has been conferred on Mr. McKellar, who has also been decorated for bravery in the field of battle.

THE forty-ninth annual meeting of the German Association of Naturalists and Physicians will commence on Monday next, September 18th, in Hamburg. Among the papers to be read at the general meetings are the following: On Natural and Artificial Sleep, by Professor Preyer of Jena; On the Means of Extending Medical Education, by Professor Winkel of Dresden; On the Development of Animal Organisms, by Professor Waldeyer of Strasburg.

WE publish on another page an abstract of the address of the President of the Department of Anatomy and Physiology, in the Section of Biology, at the annual meeting in Glasgow of the British Association for the Advancement of Science. It will be noticed that Dr. McKendrick addressed the public rather than the scientific world. In taking this course, he acted judiciously. It is always important, and especially so at the present time, that the public should have correct ideas of the value of a knowledge of the structure and functions of man and animals; and such an address as that of Dr. McKendrick, coming as it will do, both in the form in which it has been published in the local papers and in the official reports of the Association, into the hands of a large number of intelligent non-medical readers, will tend to diffuse some wholesome information. His advocacy of the public teaching of biological science deserves attentive consideration.

THE question of experiments on animals naturally occupied a share of Dr. McKendrick's address. On this subject, he spoke of the agitation against vivisection with a moderation which contrasts strongly

with the fierce utterances of those who would have themselves regarded as the preservers of animals from cruelty. He would admit the right of the public to agitate in the matter, if they thought that needless cruelty was being practised, and would make every allowance for ignorance. Now that a practical solution of the controversy has been arrived at by the passing of the Cruelty to Animals Act, he regarded it as the duty of physiologists, as good citizens, to give it a fair trial, and would appeal to the opponents of vivisection to desist from further agitation. These are sound recommendations, which both parties would do well to carry out.

It is reported that an act of gross barbarity has been committed on an official of the Red Cross Society, M. Luca Popovitch, whom, it is said, the Turkish cavalry put to death by cutting off the arm on which he wore the badge, and then cutting off the cross on the arm itself. It would be charitable to suppose that this was done in the frenzy of fanatical ignorance; that, in fact, the perpetrators were in much the same state as a bull who sees a red rag before him. It is true that the Government of Turkey, as well as the other belligerent powers, has assented to the Geneva Convention; but this is no proof that its intention and badge are understood by all the tribes whom the Ottoman Government calls to its aid. The *Times* makes the very probable suggestion, that the red cross on the arm has too close a resemblance to a symbol which is, especially at the present time, highly obnoxious to the uncivilised Mahometan. If such be the case, it will be a matter for consideration whether the present badge of the Geneva Convention is one that can be used with due regard, not only to safety, but to the efficient performance of duty, under such circumstances as the present.

THE Vicar of Cheadle writes to the *Times* to communicate "an unostentatious act of heroism" on the part of a student of the Manchester Infirmary, who volunteered the supply from his own person of the blood necessary for the performance of an operation of transfusion; and he adds: "Need we wonder that the noble band of English doctors on the battle-fields of Turkey should reflect such credit on their country?" The profession will accept this generous testimony on the part of the reverend gentleman as cordially as it has been offered; but it must be remembered, and he would without doubt readily acknowledge, that the instances to which he refers are but a portion of the examples of heroism constantly displayed by members of the medical profession, not only in submitting to perilous operations and exposing themselves to the dangers of warfare, but in their daily combat with disease in all its most destructive forms.

TRUSTWORTHY VACCINATION STATISTICS.

THE Registrar-General has frequently, in his various reports, expressed regret for the incomplete information afforded by the death-register as to the vaccination of children and adults who die from small-pox. This is due to the omission on the part of medical practitioners to state in their medical certificate of the cause of death of persons dying from this disease, whether the deceased had or had not been vaccinated. In the present day of antivaccination agitation, it is essential that the statistics relating to small-pox and vaccination should be as trustworthy and as complete as they can be made. During the present epidemic prevalence of small-pox in Liverpool and in Manchester and Salford, the fact of vaccination or non-vaccination has been certified in but a small percentage of the fatal cases. It appears that the Registrar-General has recently requested from the local medical officers of health their assistance in obtaining, as far as possible, this important information for the death-register, by its insertion in the medical certificates of the cause of death. Once inserted in these certificates, the information becomes, by its transference to the death-register, available for the use of local sanitary authorities, medical officers of health, and the public generally. We are glad to notice that, at a recent meeting of the Liverpool Health Committee, this subject was under discussion. Dr. Taylor, the medical officer of health, stated

that, with a view to obtain this information, he had been in communication with the medical officers of the various public institutions, most of whom had promised him every possible assistance. Only a certain proportion of deaths from small-pox occur, however, in workhouses and hospitals; we hope, therefore, that all medical practitioners, in giving certificates relating to death from small-pox, will co-operate to render the publication of trustworthy statistics of small-pox and vaccination possible alike to the Registrar-General and to medical officers of health.

INFECTIOUS DISEASES IN WORKHOUSE INFIRMARIES.

At a recent meeting of the Croydon Board of Guardians, it was stated that the Union Infirmary contained one hundred and eighty-nine patients under medical treatment, including four suffering from typhoid fever, three from scarlet fever, and one from small-pox. Some discussion took place relative to the practice of admitting cases of infectious diseases into the Infirmary, more especially with reference to non-pauper cases. The admission of such cases is not only a source of danger to the rest of the patients, but serves seriously to reduce the available accommodation of the institution, as a single case of small-pox necessitates a whole ward being set apart for its treatment. The Chairman of the Board expressed his opinion that it was beyond the power of the Board to effect an alteration, and, indeed, avowed entire approval of the arrangement by which non-pauper cases of infectious diseases were admitted to the Workhouse Infirmary. The guardians were not, however, by any means unanimous on the point, some regretting that the district had no hospital accommodation for infectious diseases except in the Infirmary. It is somewhat remarkable that none of the guardians alluded to the responsibility which rests with them, as the Croydon Rural Sanitary Authority, to provide hospital accommodation for the isolation and treatment of non-pauper cases of infectious diseases. The Union of Croydon has a population which at the present time must be at least 100,000, of which about 70,000 persons live within the parish and Local Board District of Croydon. That the urban and rural sanitary authorities responsible for the sanitary organisation and health of this large population should have neglected to provide an infectious-disease hospital during the four years since the authorities were created by the Public Health Act of 1872, is an unwelcome commentary upon the system of permissive local sanitary government which was then called into existence. It is clearly the duty of the Croydon Urban and Rural Sanitary Authorities to provide such hospital accommodation; and there would be a manifest convenience and economy in the co-operation of the two authorities for such a purpose. Arrangements could then be made with the Board of Guardians for the reception even of pauper cases of infectious diseases, which would infinitely relieve the Workhouse Infirmary, and afford greater security to the patients under treatment for non-infectious diseases.

HABITUAL DRUNKARDS.

WE have received the preliminary prospectus of a Society, which is being formed with the view of supplementing the efforts of the British Medical and Social Science Associations to obtain legislation for the control and care of habitual drink-cravers. The experience of those who have taken an active interest in the matter has shown that the greatest impediment arises from the mistaken notions prevailing among the public respecting the object to be attained, and the jealousy of the public in regard to anything which appears likely to interfere with the "liberty of the subject". It is with the view of combating these prejudices that a Society is being formed, which is to include representatives of all classes. The first published list of members includes the names of Mr. Stephen Alford, Dr. Blandford, Mr. Cadge of Norwich, Dr. Carpenter of Croydon, Dr. Eastwood of Darlington, the Rev. H. J. Ellison, Mr. W. C. Garman of Wednesbury, Rev. Newman Hall, Mr. C. Holthouse, Rev. H. F. Mallet, Dr. Peddie of Edinburgh, Dr. B. W. Richardson, Dr. G. F. Bodington, Dr. Farqu-

harson, Dr. Hardwicke, Mr. Jonathan Hutchinson, Mr. Neison (Barrister), Captain Popplewell, and several other non-medical gentlemen. Dr. A. Carpenter of Croydon is Treasurer; and Mr. S. S. Alford, of 61, Haverstock Hill, is the Honorary Secretary. The formation of a Society, constituted as this is of representatives of all classes of society, is a highly judicious step on the part of those who are endeavouring to procure the legal power to carry out the treatment and cure of the victims of intemperance in drink. Indeed, the combination of the medical with the public element is not only desirable, but, we think, absolutely essential to success. We commend the Society to the favourable notice of our readers, whose assistance in increasing its numbers and making its objects known will be gladly received by the Honorary Secretary.

THE "STANDARD" ON LEGISLATION FOR INEBRIATES.

THE *Standard* of Wednesday last has a leading article on the joint petition of the British Medical and Social Science Associations in favour of legislation for habitual drunkards, in which it expresses views that are in the main in accordance with those that have been agreed to by our Association. Our contemporary, however, complains of a verbal inaccuracy on the part of the petitioners as to the destination which is desired for the petition, but admits that it is worthy of consideration by Parliament and by the press. He also objects to the use of the expression "reformatory institutions", as suggesting the idea of sentencing the inebriate as an offender. We would point out to our contemporary that the term "reformatory institution" has a wider application than that which he fears would be attached to it; and that the word "asylum", which he sanctions, is in some degree liable to the same kind of objection, from the tendency of the public to mentally prefix to the word the adjective "lunatic", and to regard the consignment of their friends to such institutions as bringing on the family the stigma of insanity. If the public can be brought to accept the word asylum in its original and non-restricted sense, any objection to its application to the case of inebriates will be at once removed. Another point raised by our contemporary is, that inebriate asylums would be liable to the same abuses on the part of designing relations and friends as are said to occur in lunatic asylums: and he proposes certain safeguards which may be very proper for the satisfaction of the public, but regarding which the greatest care would be required to be exercised lest the main object in view should be frustrated. In concluding the article, the *Standard* expresses the belief that, with precautions which it points out, "it might be possible to devise a measure under which medical control may be secured for inebriates while cure is yet possible, and protection obtained for the families who are exposed to danger by their growing insanity.....it being of course understood, that asylums for inebriates and those for lunatics must be entirely distinct". We are glad to see this attempt to enlighten the public on a matter on which there is a great deficiency of knowledge. The criticisms of our contemporary are of little more than words; as regards the principle, he is giving aid which we hope he will continue to give; and not only he, but the other members of the public press. It is the diffusion of a knowledge of the subject among the public that is most urgently wanted.

WATER-SUPPLY DIFFICULTIES IN RURAL DISTRICTS.

THE lord of the manor of Northolt, a village near Uxbridge, together with the churchwardens, overseers, and surveyors of highways for the parish, were recently summoned to show cause, at the Uxbridge Petty Sessions, why a public pump in the village of Northolt should not be reopened for certain purposes. It appears that this pump was erected some years ago by certain benevolent inhabitants of the parish, in order to provide better water for their poorer neighbours than could be obtained from ponds which were often in a stagnant condition during the summer. The well was sunk a tolerable depth, and the pump erected at considerable expense. The medical officer of health to the rural sanitary authority discovered, however, recently, that the well-water was impure; and an order was obtained for closing the well, the

result being, that the local residents had no resource but to resort to the ponds, which undoubtedly yielded far more dangerous water than the well. It was proved by a large farmer in the neighbourhood that the pond in question was used for washing sheep with arsenic, and was habitually fouled in a variety of other ways. The magistrates, in the face of this evidence, chose the lesser of two evils, and made an order that the pump should again be opened, but directed that the sanitary authority should affix a notice thereto stating that the water was impure—warning people that, if they drank it, it would be at their peril. Northolt is no worse off than a host of other rural districts; but it is not on that account less deserving of pity, both on account of its dearth of pure water and for the want of enterprise shown by the landowners and local authorities, who have been instrumental in getting an impure well reopened, instead of providing a new and wholesome source of supply. The fifty-first section of the Public Health Act enacts that “any rural authority *may* provide their district with a supply of water proper and sufficient for public and private purposes”. It appears, however, that the guardians of Uxbridge do not see their way to exercise this permissive power for the advantage of Northolt; and in the meantime its inhabitants will doubtlessly and almost of necessity resume the use of their impure pump-water.

THE WATER-SUPPLY OF CITIES.

THE following intelligence will be received with pleasure by all who recognise the intimate relationship existing between a pure water-supply and low death-rates. The condition of the water supplied last month to London contrasts most favourably with that of the same month in former years, especially with that of August 1875. The metropolitan water companies deserve all credit for their endeavours to supply pure water, which we trust they will pursue with ever-increasing vigour. Dr. Frankland, F.R.S., reports, as the result of his analysis of the waters supplied to the metropolis during August, that, taking unity to represent the amount of organic impurity (on this occasion) in a given volume of the Kent Company's water, the proportional amount in an equal volume of water supplied by each of the other metropolitan companies was: New River 0.9, Lambeth 1.7, East London 1.7, West Middlesex 1.9, Grand Junction 1.9, Chelsea 2.0, and Southwark 2.6. All the river waters were efficiently filtered, and contained a remarkably small quantity of organic matter; indeed, the New River was, in this respect, slightly superior to the Kent Company's deep well water. The Lambeth Company delivered the best Thames water. From the East Company's water, all evidence of “previous animal contamination” had disappeared through long storage. The temperature of the river water when drawn from the mains on August 12th ranged from 67.1 deg. to 70.7 deg. Fahr., whereas the temperature of the water delivered by the Kent Company from deep wells on August 11th did not exceed 57.2 deg. Fahr. Dr. Hill, the medical officer of health for Birmingham, reports that the water supplied to that town was clear, but contained “a few suspended particles” and too high a proportion of organic nitrogen; the Corporation, who recently purchased the water-works, are said to be carrying out improvements with a view to remedy these defects. The Loch Katrine water supplied to Glasgow is reported by Dr. Mills of the Andersonian University to have been of a very pale brown colour, and to have contained a few suspended particles and a very small proportion of dissolved vegetable matter.

PROFESSOR REDWOOD ON COUNTER-PRACTICE.

In his address as President of the Meeting of the British Pharmaceutical Conference, held last week in Glasgow, Professor Redwood made some remarks on the relations between medicine and pharmacy, which are worthy of attention. Defining first the duties of the physician and of the pharmacist, he said—

“The power of alleviating the sufferings of disease by the use of material remedies places the art of medicine in the highest rank among human occupations, and gives to the physician a claim to respect and gratitude which has ever been freely conceded by every class of every people throughout the world. It is our privilege to be humble ministers

in the work of healing the sick. We do not pretend to that high qualification which enables the physician to search out and determine the nature, the seat, and the cause of disease; nor do we profess to be able to indicate what are the agents best suited for the relief of those who suffer from its effects. Diagnosis and therapeutics are among the highest attainments in medical knowledge, and require for their successful exercise and application an intimate acquaintance with the mechanism, the physiology and pathology, of the animal body. We make no pretensions to such knowledge; but we have a province and sphere of action which is specially ours, and the fulfilment of its requirements is as essential to the successful practice of medicine as is the exercise of what we may concede to be, as compared with ours, the higher mental qualifications of the skilled physician. It belongs to our province to produce, to collect and prepare for administration, and supply to the public, the various remedies which medical men prescribe.”

He then commented on the mutual relations of the medical practitioner and the pharmacist; remarking that, fortunately, the most friendly relations exist between the medical profession and the body of pharmaceutical chemists. Touching, then, on the question of “counter-practice”, he said that it is inevitable there should be, or appear to be, a clashing of interests at the border line between the domains of the prescriber and dispenser, so long as the requirements of the public and the regulations relating to medical practice remain as they are. He saw a difficulty in determining where the pharmacist should cease to give advice, so long as the public, instead of resorting for every ailment to a skilled physician—a course which, he admitted, might no doubt contribute to the comfort and perhaps to the longevity of the individual—has recourse to popular remedies. That mistakes occasionally attend this system of home-treatment he allowed; but the amount of evil he regarded as being probably small, compared with the real or imaginary benefits. And if home-treatment be justified, he thought it not unreasonable that the public should seek information as to the use of medicines from the druggist. But, while he did not see how counter-practice is to be stopped altogether, he regards it as essential that—

“There should be some control exercised over the assumption of a duty which so strongly affects the interests of the public as does that of the treatment of diseases. There must be a limit to the extent to which unqualified pretenders may be allowed to claim the confidence and impose upon the credulity of those whose sufferings often make them easy victims to imposition. And then comes the question, where shall we draw the line and say, ‘Thus far, but no further’?”

“With reference to this question, I would venture to suggest that the responsibility of the pharmacist in prescribing for those who apply to him in cases of sickness is far greater than that of an individual unconnected with any department of medicine who may prescribe either for himself or for others. The pharmacist is supposed to possess—and, indeed, ought to possess—a certain amount and kind of medical knowledge—that is, a knowledge of medicines and their properties; but beyond this, the public, judging, perhaps, from the insignia by which he is surrounded and the atmosphere he lives in, often credit him with other knowledge than that to which he can justly lay claim. Founded, it may be, on credit thus acquired, they place confidence in his power to advise, not only with regard to the properties and doses of medicines, but also in the treatment of diseases, with regard to which he possesses no real qualification. In this direction, from simple questions and trivial cases, he may be led on step by step; and unless he has strength of mind and firmness enough to resist the temptation which a desire to satisfy customers, to retain and not discredit or weaken the favourable opinion previously formed of his knowledge, experience, and judgment, with other considerations natural to a man of business, he may be drawn almost imperceptibly into a habit of prescribing, for which no sound justification can be advanced.”

The remedy for the evil referred to, according to Professor Redwood, lies in raising and maintaining a high standard of ethics with regard to counter-practice, and in the improvement of the scientific education of the pharmacist.

“Those who have learnt to appreciate the importance in scientific pursuits of having a sufficient groundwork on which to base their theories and practice, and have acquired the habit of cautiously and logically connecting cause and effect, will be naturally disinclined to speculate in the empirical treatment of diseases of which they have no thorough fundamental knowledge.”

Dr. Redwood's remarks are worthy of consideration by the too numerous transgressors on the domain of the physician. It is evident that he regards a certain amount of counter-practice as unavoidable rather than as justifiable; and there is much force in this view. At the same time, he is desirous of limiting the evil as far as possible; and we have read with pleasure his expressions of disapproval of the conduct of those members of the pharmacists' calling who, from greed or vanity, undertake, though unqualified for its performance, one of the most responsible duties which can fall to the share of any man.

THE BRITISH ASSOCIATION.

At the meeting of the British Association for the Advancement of Science, held during the last and the present weeks in Glasgow, the following have been the Officers and Council of the Section of Biology. *President:* A. Russel Wallace, F.R.G.S., F.L.S. *Vice-Presidents:* Dr. G. J. M'Kendrick, F.R.S.E.; Professor A. Newton, M.A., F.R.S.; Dr. Hooker, Pres. R.S.; Dr. Allen Thomson, F.R.S.; Professor Dickson; Professor W. C. Williamson; Sir Wyville Thomson; Dr. Redfern; Professor Balfour, F.R.S.; Professor Cleland; Professor A. Buchanan; Rev. Canon Tristram; G. Bentham, F.R.S.; Professor Grube; Professor Haeckel; Professor Cohn; Professor Morren. *Secretaries:* E. R. Alston; Dr. Knox; Dr. Henry Muirhead; Professor W. R. M'Nab, M.D.; Mr. Hyde Clarke, Professor Morrison Watson. Of the three departments into which the Section is divided, the Presidents have been—*Anthropological Department:* Mr. A. Russel Wallace. *Department of Zoology and Botany:* Professor A. Newton, M.A. *Department of Anatomy and Physiology:* Dr. J. G. M'Kendrick.

SOUTH AFRICAN INTERNATIONAL EXHIBITION.

An international and intercolonial exhibition will be opened at Cape Town on February 15th, 1877. In the first class will be exhibited potted foods and foods preserved in other ways, extracts, soups, essences, milk, butter, cheese, hops, malt, wines, aerated waters, cocoa, biscuits, corn-flour, etc. In the next class are chemicals, perfumery, medicines, oils, soaps, candles, paints, inks, varnishes, glue, medicine-chests, surgical apparatus, artificial teeth, tanning materials, disinfectants.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The meeting of this Association at Clermont-Ferrand ended on August 25th with the nomination of a President-elect for 1878, when the Association will meet in Paris. The Presidents are chosen from the Sections in rotation, and this year it was the turn of the Section of Physical Science. M. Berthelot was first thought of; but he had been unable to attend the meeting, and could not, therefore, be nominated. The same was the case with M. Pasteur. M. Kuhlmann of Lille and M. Gavarret of Paris were put in nomination; and, after a sharp contest, M. Kuhlmann was elected by 119 votes, 117 being given to M. Gavarret.

THE EX-SULTAN MURAD V.

We have received the following from our correspondent in Constantinople, under date August 29th.

"Sultan Murad (*anglicè* Amurath) is affected with lypemania of the taciturn type. His Majesty neither speaks nor sleeps. He was in pretty good health, however, up to the time of the death of Abdul-Aziz; but the shock he experienced on that occasion, acting upon a hereditary predisposition to insanity, and a nervous system debilitated by drink, brought on the mental aberration from which he is at present suffering. The case is not one necessarily incurable; but Court etiquette and the unlimited freedom attendant on his exalted position render futile every attempt to control his actions and place him under advantageous moral restraint. The probability, therefore, is that Sultan Murad will not be cured. There is a vague talk of sending him to the Princes Islands, in the Sea of Marmora, for change of air and scenery; but I have no faith in the report. His going to mosque on Fridays is a mere farce which he is made to perform, in order to blind the imagination of the public; for His Majesty can neither say prayers,

nor is he aware of what he does. Besides the services of his own physician Dr. Capoleone, he has been attended by Drs. Mongeri, Akif Bey, and Leidesdorf, with no result."

It will be seen that the above was written before the deposition of Sultan Murad. He is reported in the public papers to have attempted suicide on the day preceding his deposition.

THE HEALTH OF PARIS.

RECENT weekly returns of mortality in Paris show that typhoid fever is remarkably fatal in that city. The deaths referred to this disease, which were 6 in the first week of July, steadily and rapidly increased to 87 in the seven days ending August 17th, and were 82 and 78 in the two following weeks. Thus, in the last twenty-one days of August, no fewer than 247 deaths from typhoid fever were recorded in Paris; whereas in London, with nearly double the population, only 58 deaths were referred to typhus, enteric, and simple fevers during the last three weeks of August. The history of this epidemic of typhoid fever in Paris will, it is to be hoped, be written. International exchange of experiences of this character is invaluable. During the three weeks under notice, the death-rate from all causes in Paris was equal to 32.4 per 1,000; whereas in London it did not exceed 24.7 in the same period. It is evident, therefore, that the excessive mortality is due to other causes as well as typhoid fever. Both measles and small-pox have been recently more fatal in Paris than in London. The Paris weekly returns do not, unfortunately, give any information as to the age at death, nor the localities in which the fatal cases of zymotic disease occur. Such information would be valuable to intending visitors, as well as to the inhabitants of Paris.

BOGUS DIPLOMAS.

At the Hammersmith Police Court lately, the Medical Defence Association summoned a man named Swallow, who resides at Kensal Green, for illegally assuming the title of Doctor of Medicine. Mr. Pridham, solicitor to the Association, prosecuted; and Mr. Keith Frith, counsel, defended. The facts of the case were not disputed; but the defendant's counsel stated that his client claimed to be entitled to practise medicine, in virtue of a diploma granted by the University of Philadelphia. Mr. Paget, the presiding magistrate, said that it did not matter how the diploma was obtained: the defendant's name was not on the *Medical Register*; and, according to the terms of the Act, he felt that he was bound to convict. As the Association did not press for a heavy penalty, Mr. Paget inflicted a fine of £5 and costs. We hear that "Dr." Swallow intends to appeal to a superior court.

A SCHEME OF MEDICAL EDUCATION.

THE following is extracted from an article in the *Edinburgh Medical Journal* for August by Inspector-General J. Macpherson, M.D., on "English Practitioners and Practice at the end of the Seventeenth and commencement of the Eighteenth Centuries". A scheme for the education of a physician, propounded in 1670, and afterwards acknowledged as his, by Gideon Harvey, is certainly complete enough, for it included the grand tour of Europe. The young student was to be grounded in Greek and Latin, in philosophy and in botany, at Oxford or Cambridge. He was next to proceed to Leyden to study anatomy. He should there attend the hospital twice a week and learn clinical medicine. After two years' study in Leyden, which Harvey considered to be far the first medical school in Europe, he was to journey to Paris. He was to visit the Hôtel Dieu and the Charité every day for a year, and follow the surgery of Janet and the chemistry of médecine by Barbet. Next he should go to the school of Montpellier, and have converse with all the first physicians of Europe. After this, he was to resort to Padua, and observe the Italian method of curing disease by alterative broths without purging or bleeding, that climate seldom allowing the existence of plethora in the dry bodies of the natives. After six months, he was to aspire to the degree of Doctor of Medicine in the Imperial University, to be obtained only after an exact, searching, and severe test. Next he should visit Bologna and Rome with its

three hospitals, remaining in Rome six months. Thence he was to go on to Naples, and see the wonders of Pozzuoli. Thence he was to return by felucca to Leghorn, see Pisa and Lucca, and again proceed by felucca to Genoa. He was to journey by Milan, St. Gothard, Lucerne, Baden in Switzerland, Strasbourg, and Heidelberg, studying men and manners, and visiting the universities. Then on to Mayence, visit Bacharach, the great entrepôt for Rhine wines; go down the river to Coblenz and Cologne, and thence by land *via* Brussels, Ostend, and Calais to Dover.

A PRETENDED APOTHECARY.

AT the Thames Police Court on Saturday week, the East London Medical Defence Association prosecuted a man named John William Foster under the Medical Act of 1858, for falsely taking the title of, and pretending to be, an apothecary. The defendant has, it appears, practised at Bromley for the last twelve years, and during the last two years he has called himself "John Foster, L.S.A." Under this description, he has had certificates of his patients' deaths registered, and has given evidence in the coroner's court, made *post mortem* examinations, and taken fees for the same. By some means, his name appears in this year's *Medical Directory* as having the qualification L.S.A., 1846; and the same name appears in the *Medical Register* for this year, but the residence is given as Farnsfield, Notta. Recently, the East London Medical Defence Association discovered that the real John Foster has been dead for upwards of two years, but no notice of the event had been sent to the Medical Council Office, and hence the name has remained on the *Register*. Mr. Pridham, on behalf of the Defence Association, proved that the defendant was practising as above, and that he was not legally qualified; and the magistrate inflicted the full penalty of £20 and costs.

RECENT URBAN MORTALITY.

DURING last week, 3,708 births and 3,222 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living: in Brighton the rate was 15; Nottingham, 16; Edinburgh and Bristol, 17; London, 18; Wolverhampton, 19; Dublin, Bradford, and Sunderland, 20; Glasgow, 21; Leicester and Sheffield, 23; Plymouth, Norwich, and Liverpool, 24; Leeds, Hull, Newcastle-upon-Tyne, 25; Birmingham, Manchester, and Oldham, 26; Portsmouth, 27; and the highest rate, 38, in Salford. The zymotic death-rate in the twenty English towns averaged 5.0 per 1,000, and ranged from 2.6 and 3.1 in Brighton and London, to 10.6 and 14.3 in Norwich and Salford. Scarlet fever is still fatally prevalent in Portsmouth. Small-pox caused 16 deaths in Manchester and Salford (including one in the Monsall Hospital), and six in Liverpool. The 398 fatal cases of diarrhoea in the twenty towns showed a further decline of 216 from those returned in recent weeks, and were equal to an average rate of 3.0 per 1,000. The diarrhoea rate was 1.5 per 1,000 in London, and averaged 4.5 in the nineteen provincial towns, among which it ranged from 1.8 in Oldham, to 8.3 and 9.4 in Salford and Norwich. In London, 2,384 births and 1,231 deaths were registered. The births exceeded by 143, whereas the deaths were 218 below, the average. The annual death-rate from all causes, which in the six preceding weeks had steadily declined from 29.5 to 19.3 per 1,000, further fell last week to 18.4, a lower rate than has prevailed in any week since the end of June. The 1,231 deaths included 5 from small-pox, 11 from measles, 50 from scarlet fever, 6 from diphtheria, 24 from whooping-cough, 15 from different forms of fever, and 99 from diarrhoea; altogether, 210 deaths, against numbers declining from 669 to 246 in the six preceding weeks. These 210 deaths were 168 below the corrected average, and were equal to an annual rate of 3.1 per 1,000. The deaths referred to each of those seven zymotic diseases were considerably below the corrected average. The fatal cases of diarrhoea, which in the six previous weeks had steadily declined from 522 to 134, further fell last week to 99, and were 87 below

the corrected average weekly number. In greater London, 2,908 births and 1,508 deaths were registered. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 18.1 and 5.0 per 1,000 respectively, against 18.4 and 3.1 in inner London. The mean temperature of the air at the Royal Observatory, Greenwich, on Monday, Tuesday, and Wednesday, was 61 degs. 4 mins., and exceeded the average for the corresponding period in sixty years by 2 degs. 8 min.; the mean on the three following days was only 54 degs. 2 mins., and showed a deficiency of 4 degs. 1 min. Rain was measured on each day of the week to the aggregate amount of 0.99 of an inch.

SCOTLAND.

IT was stated by the Lord Provost of Glasgow, at a recent meeting of the Town Council, that a meeting of all the local authorities in whose district the Clyde or its tributaries were polluted is to be held on September 27th, for the purpose of taking into consideration Sir John Hawkshaw's report, and of resolving upon any line of conduct that may be agreed on.

A PRELIMINARY meeting has been held in Aberdeen, of gentlemen interested in the formation of a School of Chemistry and Agriculture in that city. It was agreed to call a public meeting early in October, for the purpose of formally organising the association; and Mr. Jamieson, F.C.S., was instructed to secure a suitable hall for the classes.

THE extensive Edinburgh Road District of Galashiels has again had its water-supply cut off by the breakage of the main pipe. At one point it is carried across the face of a quarry; and the recent heavy rains had loosened a large quantity of rock, which came away, and carried the large water-pipe away with it. This is the second time the supply of water has been cut off through a fall of rock.

THE ancient village of Dalmellington, Ayrshire, has been hitherto most inadequately supplied with water, many of the inhabitants having to fetch their supply from long distances. Some time since, the lady of the manor, the honourable Mrs. Cathcart, gave instructions to her engineer to construct a reservoir, lay pipes through the streets, and erect a dozen wells at different parts of the village. These works were formally opened by the donor on August 30th. The supply of water, which is abundant and of excellent quality, is obtained from springs in the neighbouring high grounds.

EDINBURGH WATER-SUPPLY.

THE most important undertaking under the Edinburgh (Moorfoot's) Water Act of 1874—namely, the formation of the Gladhouse reservoir to impound the water of the South Esk—is approaching completion. When finished, there will be laid under water an area of 363 acres, and a reservoir formed of curiously irregular shape, with an extreme length of over 6,000, and an extreme width of about 5,000 feet. This has been accomplished by the raising of an embankment 1,000 feet in length, and 70 feet high from the bed of the stream. It is expected that the storage of water will commence at no distant date.

DEATH OF DR. R. WISEMAN.

DR. ROBERT WISEMAN of Cupar died suddenly on August 30th, presumably of heart-disease. Dr. Wiseman graduated at Edinburgh University in 1822. Subsequently, he became editor of the *Fife Herald*, which position he relinquished on the death of his brother, to whose practice he succeeded in 1838. He continued an extensive and successful practitioner until two years ago, when he met with an accident which obliged him almost entirely to relinquish active work. At one period, he was an active politician and an ardent liberal. Dr. Wiseman was seventy-seven years of age, and unmarried.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

At the first meeting of this Society for the session 1876-7, the following office-bearers were elected:—*President*, Dr. Eben Watson; *Vice-Presidents*, Dr. R. Perry and Dr. G. H. B. Macleod; *Council*, Dr. A. Patterson, Dr. H. Miller, Dr. D. Taylor (Paisley), Mr. A. Macfarlan, Dr. Thomas Reid, Dr. T. McC. Anderson, Dr. T. Graham (Paisley), Dr. W. McGill; *Secretaries*, Dr. Joseph Coats and Dr. G. P. Tennent; *Treasurer*, Dr. Hugh Thomson.

REGISTRAR-GENERAL'S QUARTERLY REPORT.

THE return of the births, deaths, and marriages registered in Scotland during the second quarter of the present year has just been issued. The total number of births registered during that period was 33,088; deaths, 19,270; and marriages, 6,459. The birth-rate has been far above the average of the second quarter of the last ten years, and has not been higher since 1868; the death-rate has been below the ten years' average, and has not been lower since 1870; while the marriage-rate has been a trifle above the ten years' average, but decidedly below the marriage-rate of the last four years. The births represent an average birth-rate of 37.5 per 1,000 of estimated population, or 3.75 per cent. The usual variations take place in the five groups into which, for statistical purposes, Scotland has been divided. Thus, in the large towns the rate is at its highest, 46.8 per 1,000; in the small towns, 39.3; and in the insular rural group, at its lowest, 23.8. Of the eight principal towns, Greenock has had the highest, and Edinburgh the lowest birth-rate. Of the total number of births, 8.2 per cent. were illegitimate. As has been uniformly observed in this series of reports, the rate of illegitimacy was highest in the mainland rural, and lowest in the insular rural districts; or, taking the country by counties, Banff heads the list with 16.7 per cent.; Dumfriesshire comes next, with 14.6; and Peebles is lowest, with only 2.6. Shetland and Orkney have rates respectively of 4.5 and 4.8 per cent. The deaths were at the rate of 21.8 for every 1,000 of estimated population. The average of the corresponding quarter in the ten preceding years was 22.3 per 1,000. It is satisfactory to note that the mortality during 1876 has been well within the average. The average mortality was highest in the large towns, being at the rate of 26.8 per 1,000; and lowest in the insular rural districts, in which it only reached 17.5. Of the eight principal towns, there died in Paisley 27.7 per 1,000; in Glasgow, 26.3; in Edinburgh, 21.6; in Aberdeen, 20.8; and in Greenock, 20.6. The daily average of deaths was lowest by a considerable number in June. As regards increase of population, if we deduct 3,058, being the number of Scotch emigrants, there remains 10,760, which is the computed increase in the population of Scotland during the second quarter of 1876. This computation is, however, of not much value, owing to the necessarily imperfect information obtainable as to emigration and immigration. With regard to special diseases, we observe that the mortality from zymotic diseases has been 16 per cent. of the total mortality. Diseases of the respiratory organs, exclusive of consumption, proved fatal to fully 20 per cent. of the total number. There were twenty-one cases of sudden death in which the cause was not precisely ascertained. There occurred during the quarter twenty deaths from intemperance, and four more from delirium tremens. The mean temperature of the quarter was 49.2 deg. Fahr., very slightly below that of the corresponding period in the ten years preceding. The mean temperature was 43.7 deg. in April, 48 deg. in May, and 55 deg. in June. The depth of rainfall was 3.11 inches in April, 0.91 in May, and 3.12 in June. The temperature varied in April from 69.3 deg., the highest point reached, to 15 deg., the lowest; in May, from 72.9 to 21 deg.; and in June, from 85 to 31.3 deg.

IRELAND.

WE understand that the additions to the salaries of the professors in the Queen's Colleges in Ireland will probably amount to about £4,000.

MR. DONNELLY, C.B., Registrar-General for Ireland, having resigned, the vacant post has been conferred by his Grace the Lord Lieutenant upon Dr. Burke, who has occupied the post of deputy-registrar for some time.

DR. HENRY JAMES SIBTHORPE died very suddenly at his residence in Hume Street, Dublin, last week, aged 72. Dr. Sibthorpe was an M.D. of Glasgow, and an ex-Assistant of the Rotunda Lying-in-Hospital.

VACCINATION IN DUNDALK.

A LARGE number of persons were lately summoned at the suit of the board of guardians for not having their children vaccinated within the specified period. The cases, however, were withdrawn, the parties paying all costs, and promising to have their children vaccinated within a week.

THE LATE DR. NICOLLS OF LONGFORD.

THIS gentleman was found dead in his bed on Sunday morning, the 27th ult.; and an inquest having been held by the coroner, a verdict of death from apoplexy was returned, and the following resolution unanimously adopted. "That the jury cannot separate without expressing their deep sympathy with the bereaved family and friends of the late Dr. Nicolls, who has for a great number of years been an useful member of the community, and was unanimously respected and esteemed, and we request the coroner to convey to Mrs. Nicolls this expression of our sympathy."

STEEVENS'S HOSPITAL, DUBLIN.

MR. SWANZY, Ophthalmic Surgeon to the Adelaide Hospital, and Surgeon to the National Eye and Ear Infirmary, has been appointed Ophthalmic Surgeon to Steevens's Hospital. We understand that the office of Ophthalmic Surgeon to the Adelaide Hospital will now become vacant, and the names of several candidates have been already mentioned.

CITY OF DUBLIN HOSPITAL.

At a recent meeting of the governors of this hospital, the attention of the Board was called to the statements contained in the advertisements and circulars of the National Orthopædic Hospital of Ireland recently established in Dublin, "that, in the absence of such a charity", those suffering from the deformities it professes to treat "must continue to languish through a painful existence without the hope of obtaining relief". The Board, while disapproving of these statements, consider it unnecessary for them to take any action in reference to the matter, believing that the large number of cases in which the deformities in question had been treated in the City of Dublin Hospital, and, as they believe, in many of the other established surgical hospitals of Dublin, afforded a sufficient proof that the charge against the existing charities of failing to relieve such deformities was without foundation.

TESTIMONIAL TO DR. ROUGHAN.

IT is intended to present an address and testimonial to Dr. George F. Roughan, Local Government Board Inspector, consequent upon his removal from Sligo to Belfast District. At a preliminary meeting held at Castlebar some time since, the following resolution was unanimously adopted: "That, bearing in mind the many excellent qualities which distinguished Dr. Roughan during his official charge of this extensive and laborious district for the last ten years, his untiring zeal, great efficiency, and high administrative ability, combined with unvarying courtesy in the discharge of his official duties, and his unselfish kindness, sincerity, and amiability towards all who had the privilege of knowing him, whether in public or private,—we now take steps to have an address and testimonial presented to him from his numerous friends and well-wishers, on the occasion of his being advanced to the charge of the Belfast District." A Committee has been appointed to receive subscriptions up to October 6th, when a general meeting will be held, and an address submitted for approval.

DEATH OF DR. SIBSON, F.R.S.

A SEVERE and unexpected loss has just befallen the medical profession in the death of Dr. Francis Sibson, which took place suddenly at Geneva on the 7th instant, when he was about to return home from his holiday excursion. Those who have been accustomed to take part in the management of the affairs of the Association, and to attend its meetings, are well aware of the zeal, steadfastness, and ability with which for many years Dr. Sibson took part in every proceeding calculated to promote the advancement of medical science and the welfare of the medical profession. In his position as a Fellow and officer of the Royal College of Physicians, and for many years a Physician and Lecturer at St. Mary's Hospital, Dr. Sibson displayed the same qualities. Combined with these were a courtesy and amiability of manner, a readiness to do acts of kindness, and a warmth of friendly feeling, which attached him to a large number of those with whom he came into contact professionally or socially. We hope to be able to give an account of his life in an early number.

THE SCIENTIFIC AND SOCIAL RELATIONS OF ANATOMY AND PHYSIOLOGY.

THE following is an abstract of an address delivered on Monday last, at the meeting of the British Association for the Advancement of Science in Glasgow, by Dr. J. G. McKendrick, President of the Department of Anatomy and Physiology in the Section of Biology.

Dr. McKendrick said he should confine himself to a few observations bearing on the scientific and social relations of anatomy and physiology, with a view to interesting the public in what the department had to do. He said that these sciences presented different views of the same great system of truth. Each could be conceived as existing independently of the other, while at the same time the one was the complement of the other. Anatomy was the science of organic form, and physiology that of organic function. The anatomist investigated structure, its form, arrangements, and laws, and might include the purposes or functions which the structure fulfils. Recently, an opinion had prevailed that anatomy was but a preparatory science for physiology. This opinion had probably arisen in consequence of the rapid growth of physiological science during the last twenty or thirty years. But there could be no doubt that anatomy had a rôle of her own by no means inferior to that of physiology. She had to educe the formal laws which determined the structure of organised bodies, and thus she established the basis for scientific classification and arrangement. Anatomy was the beginning of all medical and surgical education, but in a broader sense the science had to do with the structure of every animal, and from the facts obtained in the investigation we were able to recognise its position in the zoological scale.¹

The methods of anatomical science were dissection, description, and comparison; but in recent times these had been largely supplemented by the use of the microscope. Hence the historian of anatomical knowledge in this century would have to relate, as one of its chief features, the development of microscopical anatomy or histology. Such, indeed, was the activity displayed in this department of science, that scarce a month passed without adding to our knowledge in such a way as to make it impossible to keep abreast of modern histology, and, at the same time, devote due attention to other departments of anatomy or physiology. In Germany and France men devoted themselves entirely to histology, and occupied chairs apart from those of anatomy or physiology. In this country such a division of labour had not yet been made, but the time must come when it would necessarily be done. He did not wish it to be supposed from this that he regarded histology as lying entirely within the province of anatomy. It was, in fact, a neutral territory, where the two sciences overlapped. The physiologist must investigate minute structures in which the beginnings of physiological processes arose, otherwise his ideas as to the functions of organs or tissues would be superficial. In these examinations the morphological aspect was not the prominent idea in his mind; what he most regarded was the modes of function and action in the economy, and not the form, size, position, and relation of the cells. He wished to see the tissue or section of an organ working, or in conditions as nearly normal as possible; and this desire had led to new modes of research, such as the hot stage or plans for the observation of changes in cells

and fibres in parts inaccessible to the microscope, methods already fruitful of good results, and from which rich harvests were yet to be hoped.

The kindred science of physiology had for its object the elucidation of function, and employed, in addition to the methods of anatomy, those of pathological observation and experimentation. It was confessedly the science most difficult of all to prosecute. The subjects of investigation were intricate in structure, and formed of complex chemical materials in constant interaction with the surrounding world. Each animal was a machine, the intricacies of which were infinitely more involved than those of any human manufacture. To stop this machine, in the attempt to discover the action of one of its parts was a proceeding, in many instances, which interfered with the very part the action of which they wished to find out. As we descended in the scale of animal life, and the machine became less complex, this difficulty was not so obtrusive.

In the further prosecution of physiology as a physical science, experimental inquiry, aided by precise instruments, and the facts derived from the observation of disease, seemed to be the two lines of evidence which would in future weigh with them in coming to just conclusions. It was true that much of the minute anatomy of the human body, and of the bodies of the lower animals, was still unknown, and probably many details, visible only to the microscope, not yet discovered, might influence their opinions as to the exact functions of parts. This was especially true of the structure of the nerve-centres. There were at present only very general conceptions of the arrangements of the cells and fibres in these parts, and it was highly probable that future discoveries might change their views. Still, physiology would depend less on aid of this nature, and more on the facts obtained by methods of pathological observation and experiment.

He made these remarks regarding the value of the experimental method in physiology, because they could not forget the attempt recently made to restrict physiologists in the use of this important aid in prosecuting their science. He should not enter upon the controversy which had raged in this country regarding experiments upon animals, because by the passing of the Bill a practical solution of the question had been arrived at, and it now became physiologists as good citizens to do all in their power to carry out the provisions of the Act, and give it a fair trial. He might say, however, that he always recognised the right of the public to agitate on this question, if they considered that unnecessary cruelty was perpetrated. He hoped the day would never come when tales of suffering inflicted either on man or beast would be heard with calm indifference. It was not wise, therefore, to meet this agitation with contempt and scorn for the ignorance of those who carried it on; and it seemed to him that the appointment of a Royal Commission to investigate the facts was the best thing that could have been done by the Government. Having described the constitution and procedure of the Commission, Dr. McKendrick went on to say that no one could read the evidence or the report founded on it without coming to the conclusion that the case of those who raised the outcry completely broke down. As the Government Bill contained provisions which seemed oppressive to physiologists, and were calculated to impede the progress of science, the members of the medical profession were aroused, and they aided the physiologists in making representations to the Government, which were favourably received, and which led to important modifications in the Bill now passed into law, and he appealed to their opponents to desist from further agitation. For his part, he was all along opposed to legislation as unnecessary, but he had always such confidence in our legislators as to expect a Bill favourable to physiologists when the facts were stated. The only preventive for casual excitements of this kind was the diffusion of knowledge. All that the people required was knowledge, evidence, and representations strong enough to overcome the bias of prejudice; and he warned opponents that, if the agitation were continued, the physiologists would appeal to the bar of public opinion, they would educate the public through the press, on the platform, and by the pamphlet, and he had no fear as to the issue.

This led him to say a word as to the diffusion of biological knowledge among the people. He regarded this as one of the healthiest signs of the day. A general knowledge of the structure and functions of the human body and its necessities, of those agencies which act prejudicially upon it, and of those conditions which favour long life, the relief of pain, the prevention of sickness, and the transmission of healthy offspring, could not fail to be of high practical importance. Furthermore, the acquisition of knowledge of the general laws of life as seen in the various living things about us, in addition to being an intellectual training of great value, would probably engender a feeling of kindness for every living thing, and thus even animals would share the benefit. The effect would be that, within one or two generations,

many social questions would be viewed more from the physiological standpoint than at present; doctors would be able to give an intelligible explanation to their patients of their condition, when it was deemed judicious to do so: a feat not easy of performance at present; the management of the sick would be better attended to on more rational principles; quackery would waste away by degrees; because it would have no ignorance and credulity on which to feed; and legislation would be prompted in many instances, not by emotional agitations, but by enlightened views of the physical nature of man.

There was an impression in the minds of many that anatomy and physiology had no practical side, and consequently they did not take that interest in their prosecution which they otherwise would do. This state of mind was due to a want of power of appreciating the practical aspect of the work, and he held that till the man was better informed he was quite entitled to take this view. But he wished to point out that, although these sciences occupied their own place as abstract systems of truth, they still had a practical aspect. He would take one illustration. M. Pasteur proved that in the atmosphere there existed germs of particles of matter, which excited fermentation and putrefaction in certain fluids. These investigations referred to animal and vegetable organisms so small that, to prove their existence in the air, indirect and complicated methods of procedure had to be adopted. But Mr. Lister, who once occupied the Chair of Surgery in the University of Glasgow, and who now adorned the Chair of Clinical Surgery in Edinburgh, was attracted, whilst in Glasgow, by the doctrine of the eminent French chemist; he repeated experiments to satisfy himself of their truth, and he came to the conclusion that these particles in the air were the sources of disturbance in wounds; leading to supuration; putrefaction, and many grave constitutional symptoms. To remove the influence of these germs, he devised the antiseptic system of treating wounds, a system first put into operation in Glasgow, and attended with great success in the hands of those who practised it carefully. Slowly but surely this system was winning its way in this country, on the Continent, and in America. The practice of this system of treating wounds means, speaking generally, the banishment of pyæmia or surgical fever from hospitals; the possibility of performing many serious operations with comparative safety to the patient; the relief of pain in the dressing of wounds, and the saving of human lives.

He would now say a few words regarding the present position or attitude of physiological science. He was in the habit of thinking of physiology, not only as a physical science in itself, but as having a direct relation to two other sciences—medicine and psychology. With regard to medicine, there were many problems which physiology alone could solve. The origin of disease, the steps of the changes by which organs and tissues became so altered as to produce a diseased state; the effects of one diseased organ upon others which were healthy; the actions of remedial substances, were all physiological processes; many of which could not, in the present condition of society, be thoroughly investigated by a practitioner, who was often too busy to engage in this kind of work. Such labour must be handed over, to a large extent, to a special class of men: They must investigate, experiment, and work up the subject, and announce the results, which must be checked by experience by the men who came into daily contact with patients, and their verdict must be regarded as final. In the present state of science, they had not reached that subdivision of labour, nor need it be ever absolutely complete. Many of the best contributions to physiological and pathological science during the past twenty years had been from men busy in practice; but, in future, much scientific work, as a basis of the practical treatment of disease, must be done by men specially devoted to the laboratory, the pathological theatre, and the clinical ward. The origin and progress of those diseased processes which caused cancer, tubercle, rheumatism, and gout, the discovery of the poisons which produced fever, the modes of counteracting these poisons, and the investigation of diseases which destroyed thousands of domestic animals, were all subjects which must be investigated more systematically than had yet been done. Such stupendous work could scarcely be left to individual effort. To carry it on required men, time, and money; and these could only be supplied by the aid of Governments or municipalities. He hoped to see the day when Government would equip and thoroughly furnish a body of men for the investigation on a large scale of the genesis of such diseases as tubercle or of typhus fever—both of which killed in Great Britain alone thousands of people annually—just as they had sent out a *Challenger* expedition to explore the depths of the sea, or have at present a number of brave men engaged in the attempt to discover the North Pole.

He had said physiology was intimately connected with psychology, or the science of mind. Psychology might be divided into two parts—first, phenomena included under the term mind properly so called, such

as feeling, volition, and intellectual processes; and second, the phenomena associated with, and indicating the alliance between, mind and matter. It was the business of physiology to supply psychology with information regarding those physical processes occurring in the nervous system; and it was one of the special features of the physiology of the present day to direct attention to the physical side of mental phenomena. A new inductive and experimental department of science had arisen, the nature of which was indicated by the term physiological psychology, and which was being diligently cultivated by numerous workers at home and abroad. In our own country, the writings and researches of Herbert Spencer, Bain, Laycock, Lewes, Maudsley, Carpenter, Alfred Barratt, and James Sully; and on the Continent, those of Fechner, Helmholtz, Wundt, Hermann Lotze, Taine, Donders, Plateau, etc., had excited much interest, and had led to the formation of a new school of thought. Physiology had encroached on psychology, and was attempting to supply from the objective side, an explanation of the simpler mental phenomena. A certain class of thinkers were alarmed by work of this kind. They were afraid of the tendency "to represent the mental fact as a physical fact", and were inclined to shut their eyes to the physical facts connected, undoubtedly, with psychological processes, and to be contented with the study of subjective phenomena. But as all admitted there were two aspects in which mental phenomena might be viewed, why should not both be looked at carefully? In giving an indication of the lines of inquiry in the domain of physiology, along which progress had been made in the attempt to solve psychological phenomena, Dr. McKendrick said it was evident that all researches on the general physiology of the great nerve-centres were of importance. Such researches as those of Hitzig, Fritsch, and Ferrier, on the excitability of the cerebral hemispheres, supplying new ideas regarding the mechanism of the brain as a compound organ; of Wundt on central innervation, in which he discussed in a manner never before attempted the phenomena of reflex excitation; of William Stirling on the summation of excitations in reflex mechanism, and of many others, were all recent important contributions to this department of science. Here, however, they had to confess that they had little accurate information regarding the minute structure of the parts involved, and consequently no anatomical basis on which to found their views. They were unacquainted with any peculiarity in structure by which even an accomplished histologist could identify three microscopical sections as respectively portions of the brain of a man, of a monkey, and of a sheep. All this had still to be worked out; and, supposing this were done in the case of the human brain, and of the brains of the higher animals, the same must be attempted with the brains of animals lower in the scale. He could then conceive a grand collection of facts which might throw light on the intricate working of different kinds of brains, and perhaps afford a rational explanation of certain psychological characters. No one who had kept an aviary of small birds could have failed to observe marked differences of character and habits among different members of the same genus, or even the same species. One manifested cunning, another combativeness, a third kindness to smaller brethren, a fourth bullied all about him, a fifth might usually be quiet and peaceable, but occasionally gave way to uncontrollable rage. The question arose, Had these psychological peculiarities any organic basis, any explanation in the structure of the brain? or were they to rest satisfied by asserting that these peculiarities were due to the action of some psychical principle, regarding which they knew nothing? He had little doubt that these psychical peculiarities depended on brain-structure and blood-supply. If so, they had an opportunity of examining the microscopical structure of small brains, with the view of ascertaining whether there were any structural differences which would account for these differences in psychical character.

Again, researches into the physiology of the senses afforded another series of data for the psychologist. These researches were of three kinds—(1) inquiries into the anatomical and physiological mechanism of the sense organ itself, such as, in the case of vision, the general structure of the eye as an optical instrument, and its movements by the action of muscles, so as to secure the conditions of minocular or binocular vision; (2) inquiries into the nature of the specific action of the external stimulus upon the terminal organ of sense, and the transmission of the effect to the brain; as, for example, the action of light on the retina, and transmission along the optic nerve; and (3) experiments in which various stimuli were permitted to act under certain conditions on the terminal apparatus, the result being observed and recorded by the consciousness of the experimentalist himself, as in researches on colour, duration of impressions on the retina, positive and negative after images, etc. By these three methods of inquiry a large number of facts relating chiefly to the senses of hearing and vision had been collected; and most of these facts, inasmuch as they assisted

him in understanding the conditions of sensory impressions and sensational effects, were of importance to the psychologist. Dr. M'Kendrick dwelt upon this topic at some length, treating of the measurement of time or duration of sensational effects, and the relationship between the strength of the sensation and the magnitude of the stimulus, and concluded by remarking that it would save not a little heart-burning, and might remove some acidity from scientific and social controversies, could we remember it was not probable that we had yet arrived at the final solution of problems that had puzzled wise men in earlier times. We might be nearer the truth, but it was presumptuous to suppose we had reached the ultimate truth. Many hypotheses now in favour might turn out inadequate; still, if they served as stepping stones to more rational conceptions of the phenomena about us, they would have done good service. Meantime, it was the duty of physiologists to prosecute research in all departments, pushing ahead fearlessly and with that enthusiasm which was the prime mover in all great deeds; so that they might be able to transmit their knowledge to posterity, not only less burdened with error, but with many additions of truth.

DEATHS DURING SURGICAL ANÆSTHESIA.

DURING last week, the following two deaths occurred in London. That at St. Thomas's Hospital appears to have been due purely and entirely to the anæsthetic agent selected, viz., chloroform; since the mode of death, which was from stoppage of the heart's action, has been only too often recorded in these pages as an occurrence in similar cases. And it is the one fatal event of which even the most careful administrators of chloroform stand in constant dread. Had ether, or even perhaps the A.C.E. mixture, been used, death in all probability would not have happened. Certain it is, that one would have to search far and wide for the record of a death from failure of the heart's action during the administration of ether. It should, in fact, never be forgotten by anæsthetists that, whilst chloroform, in ordinary language, acts as a cardiac depressant, ether, on the contrary, is a most efficient cardiac stimulant. The mode of giving chloroform upon lint is perhaps, too, not quite above suspicion; it necessitates a prodigal wastefulness of chloroform, and renders it almost impossible for the administrator to keep up a steady percentage of chloroform-vapour in the inspired air. The death at Guy's Hospital was not apparently due to the anæsthetic agent employed, but might have happened with any or all of those agents which are likely to produce vomiting. It should enforce upon anæsthetists generally the necessity of seeing that the patient's head and chest are so turned during the occurrence of vomiting, by elevation of the right shoulder, if possible, that all ejecta from the stomach and pharynx may tend to fall forwards, and thus pass harmlessly away between the lips. The performance of tracheotomy and the other procedures adopted by the surgeon in this case deserved greater success.

In the first case, the patient was a labourer, a healthy looking man, aged 45. He was admitted into St. Thomas's Hospital for some sinuses about the trochanter of the right femur, which had been discharging for some months. For the purpose of making a thorough examination of the case, and with the intention of laying the sinuses open, chloroform was administered on lint. But, after inhalation had proceeded about three minutes, and before the patient appeared to be thoroughly under the influence of chloroform, his pulse suddenly stopped. Shortly before this, he had struggled more violently than is usual, and during that time the chloroform had been removed. The man continued to breathe for two or three minutes after the cessation of the pulse, at first rapidly, then at long intervals. The usual methods were had recourse to for his recovery, but without effect. The *post mortem* examination revealed advanced fatty degeneration of the heart. All the other organs were healthy.

Henry Mead, aged 28, was admitted into Guy's Hospital, under the care of Mr. Howse, on Tuesday, September 5th, having sustained a compound fracture of the right leg whilst working on the Brighton Railway. Amputation above the knee was decided on, and chloroform was administered by Mr. Amphlett, house-surgeon. The patient was intensely collapsed, a very few whiffs proving sufficient to induce complete insensibility. Ether was substituted with good effect so far as the pulse was concerned, and the patient was kept under its influence till towards the close of the operation. He was then allowed to come to, when some ineffectual retching took place, and shortly afterwards the house-surgeon, perceiving that the pulse was becoming rapidly weaker, administered a little brandy. The man did not, however, seem to swallow very well, so that the attempt was not repeated. Violent vomiting suddenly took place, and the patient was promptly turned

over on to his face. He almost immediately became intensely blue, and made some slight but ineffectual efforts to breathe. Mr. Amphlett passed his finger to the back of the throat, and pulled out a piece of undigested meat about four square inches in size. As no improvement resulted, a second attempt was made to explore the entrance to the larynx, but was frustrated by the jaws becoming rigidly closed. A gag was sent for, and Mr. Wilkinson (dresser) assisted the house-surgeon to remove some more large pieces of meat. Still no air entered; and, as the patient's condition was now most alarming, Mr. Howse performed tracheotomy, and artificial respiration was attempted, but with bad success. It was evident that there was an obstruction below the tracheal wound. Mr. Howse endeavoured, but unsuccessfully, to remove the plug by forceps; a tube was then passed into the trachea, and attempts made to suck out the obstructing matter, and; that failing, to inflate the lung. All attempts were unfortunately alike unsuccessful. A *post mortem* examination was made the next day, when a mass of semi-digested food was seen filling up the whole of the trachea; and extending into the bronchi. The larynx also was stuffed with a similar material.

It was observed by some of the spectators that a strong inspiration immediately followed the vomiting, and by this inspiration the food was probably drawn into the trachea. Doubtless, the insensibility of the glottis necessary to permit this was due partly to the anæsthetics, and partly to the collapsed condition of the patient. Mr. Amphlett, however, stated that no anæsthetic whatever was administered during the last fifteen or twenty minutes, and that the patient had as much recovered from its influence as his collapsed state would allow. The vomiting was, of course, due to the anæsthetic, and it was a particularly unfortunate, though unavoidable, coincidence that it should be administered upon a full stomach, thus rendering the danger from this source so much greater. The anæsthetic was, therefore, the *indirect* cause only of death, and in no way can this case be classed with those due to an over-dose.

An inquest was held, a verdict in accordance with the medical evidence being returned.

CORRESPONDENCE.

MR. HUTCHINSON'S ADDRESS.

SIR,—As I am convinced that Mr. Jonathan Hutchinson desires to see the question of female medical study fully discussed, I need make no apology for criticising his remarks on that subject in his presidential address.

As the sequence of his arguments is not very clear, it will be best to disentangle them, for they appear to divide themselves into two distinct lines of reasoning. The first and least vital objection is, that the admission of ladies to practice will promote celibacy; the other is the usual plea, that medicine is above the powers of women, and destructive to their moral nature.

Mr. Hutchinson seems not a little proud of his celibacy argument. "What is wanted," he says, "is to increase the number of young doctors, etc., who can afford to marry." If you allow ladies to intercept their incomes, the number of marriages will be reduced. This ingenious theory, however, is simply an arithmetical mistake, which Mr. Hutchinson will recognise if he reflect that it is as easy for Mr. A. with £200 a year to marry Miss B. with £200, as for Mr. A. with £400 to marry Miss B. with nothing. Provided the requisite income is made, it is unimportant by whom it is made. The relation of income to marriage may, in fact, be stated in a simple formula as follows. From the aggregate income of all marriageable men and women deduct the incomes of all voluntary celibates and the surplus revenues of the exceptionally rich: the remainder will be the nett aggregate income of all possible marriages. Divide this sum by the amount necessary to support an average family, and the quotient will be the average number of marriages. It follows, therefore, that female incomes make no change whatever in the marriage-rate. But it is equally clear that the attempt to keep a large number of women poor tends directly to increase the number of "hasty and unhappy" marriages; for the immediate effect of this policy is to cause many women to marry anyone who will ask them, simply because they cannot earn their own living in comfort and respectability. Mr. Hutchinson tells us, with amusing naïveté, that "the sexes have hitherto worked together in mutual dependence and by mutual help". To most of us it seems as if the dependence had been curiously one-sided. Our proposal is to realise this idea of mutual help by making it again possible for women to obtain remunerative employment. Mr. Hutchinson's argument, in fine, proves too much; for, if it were correct, it would follow that women should be prevented

from earning anything at all. Why should women be dressmakers? If the absurdity of this conclusion do not suffice to convince Mr. Hutchinson that his theory is unsound, perhaps he will let us refer him to the experience of the working classes, among whom it is not thought either a harmful or an indifferent circumstance if the wife also can bring grist to the mill.

Coming next to the great argument of female "unsuitability", it is probably useless to stop to argue the question of the female intellect and the female brain. The answer now and always is, that no fair judgment can be pronounced till women have had many generations of intellectual fair play. If the learned speaker were a Chinaman, he would probably report, after a careful examination, that the female foot was different from the male, and was "deficient in those qualities which are necessary for the pursuit" of walking.

The whole question of female capacity must be left to the decision of time; and, indeed, in any case, we must confess that *not all* the male practitioners are so earnest in study or so profound in intellectual power as to be far above the petty standard of the female brain. Will not Mr. Hutchinson at least confess that medical science will hardly suffer, if a few women like Mrs. Garrett-Anderson be substituted for a few of the most incompetent males who manage to scramble through a pass examination?

Of the moral questions involved, one is by this time weary. In his seven-headed monster, the petition of 1870, Mr. Hutchinson boldly declares that at present there is "not a single inconvenience in reference to sex". Surely the sentence was penned in the heat of a partisan debate. That it is amazingly incorrect is patent to all, and is admitted by the speaker himself on the next page, in the important case of the tens of millions of Hindoo women in our Indian empire.

To refer back to the case of our female dressmakers: some years ago, the salesmen who attended ladies in most large linen-draper's shops were replaced by women, on the ground that, as the public believed, "it was an indelicacy to which custom alone had made us blind". Would Mr. Hutchinson have scouted this feeling also as a piece of popular childishness?

If Mr. Hutchinson, in fine, insist on casting a slur on the moral character of the ladies at present studying medicine with a single-minded patience which others call heroic, none, I suppose, can prevent him; but, when he says that medical knowledge is in itself a moral temptation, he courts a rough rebuke. He courts the reply that to the pure all things are pure; that the works of God are not unclean; and that there can be nothing purer than knowledge gained for knowledge's sake and in the still nobler hope of using it for the world's good.—I am, sir, yours obediently,

PHILALETHES.

SIR,—It is with some sense of satisfaction that we see ranking himself as our avowed opponent so conscientious and so honoured a member of the profession as Mr. Jonathan Hutchinson. Purging his mind of all prejudice (as he supposes), he argues solely from honest conviction: such a man, from being a determined enemy, may become a staunch friend. Considering that 1,000 members of the Association have already declared themselves in favour of admitting lady doctors into its membership, I trust you will find space in the JOURNAL for a short reply to Mr. Hutchinson's speech from a lady medical student. First, he considers it an incontestable fact, "too obvious to need illustration", that, if women enter upon remunerative occupations, celibacy will be increased. From what does he draw his data? Is it not the rule rather than the exception that the women of the lower middle and working classes are engaged in remunerative occupation, and is it not, at the same time, a fact that celibates are less frequent amongst them than in the upper and wealthier classes? Why should the fact of women entering on the medical careers be more conducive to celibacy than their becoming shopkeepers or mill-workers? Mr. Hutchinson does not explain why the medical profession should be peculiarly antagonistic to marriage; and the fact that the three best known lady physicians in the world are married women is rather opposed to his theory. Unless Mr. Hutchinson is prepared to go the whole length of Comtism, and advocate the support by the males of the community of the three millions of women in Great Britain who are at present compelled by circumstances to support themselves and others dependent on them; unless he is prepared to declare that idleness is better than work, and ignorance than culture, there is no other just alternative than to open all schools of learning and all remunerative occupations to the women who wish and are obliged to use them.

Medicine is the profession to which women are more particularly drawn, and for which they feel themselves peculiarly fitted; but the view of their position in the profession which Mr. Hutchinson supposes to be that of the public, and which he describes with much detail, is decidedly not that of the medical ladies themselves. They desire and

intend to study the whole of medicine. The inferior degree offered them a short time since by the College of Surgeons, supposing only a partial knowledge of medicine, did in no way satisfy, and they saw clearly that a knowledge of the part necessitates a knowledge of the whole. They would, nevertheless, have accepted this degree, in order to obtain registration, qualifying themselves at the same time for the full diploma, and going abroad for higher degrees; but, though completely educated in all departments of medicine, it is more than probable that they would eventually become specialists in exactly the same way as their male brethren do, and would practise in the diseases of women and children. But, for many women who are studying medicine, the difficulties of practice need not be apprehended; they are working with the object of obtaining a complete scientific education, and of applying their knowledge in physiological teaching or in biological research.

Mr. Hutchinson may ridicule the reluctance that many women have in bringing certain diseases to be treated by men, but such reluctance is a fact which cannot be altogether ignored. In my own experience, which is very small, I have known not a few cases which would have remained untreated had not Mrs. Anderson's Hospital existed. As to the objection on the ground of female delicacy, it is plausible, but not real. Worse than reading Mr. Acton's books might seem an intimate knowledge of the facts Mr. Acton discusses; and yet we know of women of spotless purity of mind who have voluntarily descended into the abyss, and learnt all the saddest secrets of vice, so that they might help and save: surely, then, the sting is not in knowledge.

To all human beings work is necessary and dignifying, preserving the mind from petty cares and frivolous pursuits; learning gives strength, enthusiasm, and high ideas to life; but Mr. Hutchinson need not fear that, with all these superadded, marriage, with its tender ties and sacred duties, will ever cease to be attractive to women. In studying medicine, we desire to be not in one single instance less womanly; we would not lose one iota of the purity of mind, the delicacy of thought, and the gentleness of manner essential to the ideal of womanhood, and we hold ourselves capable, supported by a "clear motive of duty", and, in many instances, by a strong enthusiasm, of passing through the dissecting-room, the clinical lecture, and the pathological laboratory, not only untainted, but strengthened, ready to face the difficult questions of life and to take our share in solving them. We broadly adopt Mazzini's doctrine, "that our earthly life is not the right of happiness, but the duty of development", and we deny anyone's right to dictate to us that we shall develop in this direction and not in that. We claim for ourselves, and we are ready to work for, the highest development, intellectual and moral, that is possible, and to us can safely be left the guardianship of our own womanhood.

I have the honour to be your obedient servant,

A LADY MEDICAL STUDENT.

UNIVERSITY DEGREES FOR MEDICAL MEN.

SIR,—I feel certain that years ago, when preliminary examinations were first instituted, that had men known then what Professor Humphry has just told us now in your JOURNAL and in the Times newspaper, many men then preparing for preliminary examinations could and would with a trifle more work have passed into Cambridge. Now the plan I wish to see adopted at Cambridge is the following. Let the University institute an entrance examination of the same standard as the matriculation at London, to include chemistry, botany, and zoology. These subjects are now well taught in most public schools, and men would come up well prepared. Having passed, the student might enter his name at some College or Hall. Four years should be the time of study for M.B. and C.M., and three months in each year should be the minimum residence required. The first examination at the end of the second year should include materia medica and practical pharmacy, with pharmaceutical chemistry, physiology, and anatomy. The second examination, at the end of the third year, should include surgery, surgical anatomy and clinical surgery, operations, etc. The third examination, at the end of the fourth year, should include medicine, medical anatomy and clinical medicine, medical jurisprudence, and midwifery and diseases of women and children.

Any person whose name is on the Medical Register, and who has attended the necessary number of lectures required for M.B. and M.C., and has passed the entrance examination in Arts, and shall reside in Cambridge during one Easter term (from April 21st to June 23rd), should be admitted to the examinations. Candidates on the Register should not be required to pass in chemistry, botany, and materia medica, provided they hold a double qualification in medicine and surgery, from boards whose examinations on the excluded subjects may be deemed to have been sufficient. The University should be

prepared to acknowledge residence at a London hospital where many of the lecturers and physicians are graduates of Cambridge, Oxford, London, or Edinburgh. (Probably the graduates of the two latter Universities might not be acknowledged.) If the University has thrown open her examination in one branch of medicine, why not in all? In opening her arms to receive candidates in State Medicine, does she not really acknowledge as satisfactory the former residence of candidates at the great medical schools of London and elsewhere?

I would in conclusion remark, that I consider it would be greatly to the advantage of the profession generally if the various licensing boards would at once and for ever give up their preliminary examinations, and depend entirely on the Universities for the Arts examination. Until this is done, I cannot see that at present much chance exists for raising the real educational standard of the profession. English, Scotch, and Irish Universities should be compelled to adopt a minimum and maximum standard.—I am, etc.,

M.R.C.P. EDIN.

THE REPRESENTATION OF THE UNIVERSITIES OF GLASGOW AND ABERDEEN.

SIR,—On the last day of the meeting of Parliament, and just before the sitting came to a close, the Lord Advocate, Mr. Gordon, on presenting a petition from the Council of the Poor-Law Medical Officers' Association in favour of the Scotch Poor Bill, stated that, though the exigencies of public business had compelled the withdrawal of the Bill, it was his intention, in the next Session, to reintroduce the measure; and that, at any rate, he should endeavour to carry the clauses relating to medical relief.

I see now by the public journals that, Mr. Gordon having been made a judge, his seat has become vacant; and already another lawyer has announced himself as a candidate. Now, I believe I am correct in stating that the majority of the electors of the Universities of Glasgow and Aberdeen are medical graduates. Surely, if they were to put forward a candidate, they might secure the seat; and this procedure is most important just now, for not only is the chance of getting any amendment of Scotch Poor-law medical relief rendered very small indeed, but our just claim to higher consideration from the several public departments with which we are connected is rendered very difficult of attainment, even if not too frequently wholly disregarded, by the fact that we have no one specially deputed to look after our interests in Parliament. To instance one case, can it be supposed that such unjust treatment as that to which Mr. John Simon was exposed, which not only led to his resignation, and thereby the loss to the community of his valuable public services, would ever have been permitted, if we had had some distinct representative, on whom we could rely, to question and expose the conduct of the department towards him?

There are, however, many other questions with which the interests of the profession are largely associated, which would be materially advanced, could we secure this seat in Parliament for one of ourselves.—I am, sir, yours, etc.,

JOSEPH ROGERS.

Dean Street, Soho, September 12th, 1876.

* * We earnestly commend Dr. Rogers's remarks to the members of the Glasgow and Aberdeen Universities, who will have to perform the duty of electing a successor to Mr. Gordon. It is in the highest degree important that they should use energetic endeavours to secure the election of a Member who will understand and support the interests of the medical profession in conjunction with those of the public.

ASSOCIATION INTELLIGENCE.

NORTH OF ENGLAND BRANCH.

The autumnal meeting of this Branch will be held at the Coatham Hotel, Coatham, on Thursday, September 21st, at 2.30 P.M.

Dr. Foss will exhibit, under the microscope, some human hair affected with trichorexis nodosa.

The following papers have been promised.

1. Mr. Paxton: Notes upon Provident Dispensaries (so called) in connection with the Registration of Disease.

2. Dr. Gibson: On the Obstructive Agency of Nosological Definitions.

3. Dr. Philipson: On Carcinoma Hepatis.

Gentlemen who are desirous of reading papers or making other communications, are requested to give notice to the Secretary.

Dinner at the Coatham Hotel at 4.30 P.M. Charge, exclusive of wine, seven shillings and sixpence.

G. H. PHILIPSON, M.D., *Honorary Secretary*.

Newcastle-upon-Tyne, Sept. 13th, 1876.

SHROPSHIRE AND MID-WALES BRANCH.

The annual meeting of this Branch will be held at the Lion Hotel, Shrewsbury, on Tuesday, September 26th, 1876, at 1.30 P.M.: S. TAYLEUR GWYNN, M.D., President, in the Chair.

The following papers and communications have been promised.

1. Dr. Andrew: On the Hypodermic Injection of Morphia in Hæmoptysis.

2. Dr. Andrew: On the Operation for Cataract, with a Patient.

3. Dr. Andrew: On the Relative Value of Chloroform, Bichloride of Methylene, and Ether, as Anæsthetics.

4. Dr. Stowers: On the Administration of Chloroform as an Anæsthetic.

5. Dr. W. Thursfield: On the Cause of Endemic Ascaris Lumbricoides.

6. Dr. Alfred Eddowes: Case of Alarming Symptoms under Ether.

7. Dr. Eddowes will also show a new Axillary Air-Pad.

Dinner at 4.30 P.M. Charge, 7s. 6d., exclusive of wine.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate at once with the Honorary Secretary.

HENRY NELSON EDWARDS, *Honorary Secretary*.

Shrewsbury, September 12th, 1876.

SOUTH EASTERN BRANCH: EAST SUSSEX DISTRICT MEETINGS.

The next meeting of the above District will be held at the Fox Inn, Three Bridges Junction, on Wednesday, September 27th, at 3 o'clock P.M.; T. H. MARTIN, Esq., of Crawley, in the Chair.

Dinner will be provided at 5 o'clock, at the usual charge.

Papers are promised by the Chairman, also by T. Smith, Esq. Notice of intended communications is requested by the Secretary on or before Tuesday, the 19th instant, in order that they may be inserted in the circular convening the meeting.

THOMAS TROLLOFF, M.D., *Honorary Secretary*.

35, Marina, St. Leonards-on-Sea, Sept. 12th, 1876.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The next meeting of this Branch will be held at Caerphilly, on Thursday, September 28th, 1876.

Further particulars will appear in the circulars.

ANDREW DAVIES, M.D. } *Honorary Secretaries*.

ALFRED SHEEN, M.D. }

September 6th, 1876.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

VACCINATION.—Mr. J. Prior Purvis, Public Vaccinator for Greenwich, has received a grant (the third) of £49.13 from the Local Government Board, for efficient Vaccination.

THE LOCAL GOVERNMENT BOARD, AND SECESSION FROM COMBINED SANITARY DISTRICTS.

At the last meeting of the Solihull Rural Sanitary Authority, a discussion took place with reference to an important correspondence with the Local Government Board on the subject of the appointment of a medical officer of health. It appears that, for some reason, the Board of Guardians of Solihull, acting as the rural sanitary authority for the Union, were desirous to secede from the Warwickshire Combined Sanitary District, and to appoint a local practitioner as their medical officer of health; and had, by their clerk, reported their decision to the Local Government Board. The Local Government Board expressed regret that the Solihull authority should be indisposed voluntarily to continue in combination with the other authorities; and stated that, in consequence of this decision, the Board had had to consider the formation of an united district, pursuant to Section 286 of the Public Health Act of 1875. It was stated to be very expedient that the combination should continue, with a view to the further joint appointment of a "medical officer of health not engaged in practice, and who possessed special qualifications for the post". It was further pointed out that, under the proposed arrangement, the Solihull authority would only be called upon to pay £64 per annum as their share of the £800 to be paid as salary to the medical officer of health, thus exceeding by but

£4 the contemplated salary of the separate officer proposed by the authority. The Local Government Board in a subsequent letter gave formal notice that, after the expiration of twenty-eight days from the 5th instant, they propose to issue an order, under Section 286 above referred to, forming into an united district the rural sanitary districts of Meriden, Rugby, Solihull, Southam, and Warwick, and the urban sanitary districts of Lillington, Milverton, Rugby, and Warwick. We are pleased to see that a resolution to offer further opposition to the proposal of the Local Government Board was outvoted, although by a slender majority. The rural sanitary district of Solihull has a population of about 15,000 persons, and there can be no question about the advisability of their forming part of the combined district, in order to share the advantage derived from the services of a thoroughly and specially qualified medical officer of health. We have often maintained that private practice and the efficient performance of the duties appertaining to public hygiene are in most cases incompatible, and this opinion is continually being strengthened by experience derived from the working of the Public Health Acts of 1872 and 1875. The Local Government Board's opposition to the secession of Solihull from the Warwickshire Combined District appears to afford evidence of a present willingness of the central health-authority to uphold these combinations, many of which have recently been allowed to fall through. May we hope that the Board now sees the mischief which has thus been done to sanitary progress, and that it intends to adopt a new policy?

THE BARNHILL POORHOUSE.

SOME months ago, we reviewed at considerable length the report forwarded by Dr. Strehill Wright, chief medical officer of Barnhill Poorhouse, Barony, to the House Committee, and in which was exhibited how scant was the consideration shown by the authorities of this large Glasgow parish in their arrangements for the curative treatment of their in-door sick poor. At the time, we expressed our belief that Dr. Wright would have to pay the penalty for the very complete exposure he had made. It would appear that, immediately after the publication of his report, and of our comments thereon, Dr. Wright was subjected to every description of insulting conduct, from the Governor of the workhouse downwards, culminating at last in his dismissal from office.

One of the charges made against Dr. Wright was that he was too extravagant in his orders for medical comforts, *id est*, that he took a just view of their requirements, if the infirm were to be relieved, the sick cured, and the young rendered healthy and strong by proper nourishing food. That the authorities charged with the provision of these requisites have been temporarily successful in the practice of a vicious economy is shown by the extract we take from a Glasgow paper, and which we print below :

"August 28 1876. Barnhill Poorhouse.

"Sherif Murry—Hounder Sir we humbly crave pardon for intruding on your valuable time but we wish to draw your attention to some of our greivances and see by so doing we get any sympathy from the Public. In the first place the bread that we are getting for ourselves and our children is unfit to be used and likewise our broth all the rest of the house have a Change of diet but us but it is always the same thing over again Dear Sir we sadly miss Doctor right for in him we found a friend but it is the Governor that is acting as Doctor now and we cannot get the Milk or the shugar that we had before and the women in the Nurcry is not Allowed shoes or stockings since the Doctor came on there was been too children got in the nurcry without any attendance we are kept Locket up like Prisners, and when we want a Doctor we have to wait for hours before we can get admittance for to get a Doctor. The Children in the Nurcry is not Allowed no warm clothing gust-gowns mad out of old cloths that has been worn by old Infirm wimen that is not fit for use with vermin we cannot get a change of under clothing only every three weeks. Dear sir we only wish that you would make this Publick and by so doing you will oblige your humble servants."

"The letter is signed by fifteen of the inmates."

We say temporarily, for although, by the tactics adopted by the Liberal Opppsition, the Lord Advocate's Bill for the better treatment of the sick and necessitous poor of Scotland has been for the present shelved, we would remind our readers that, in answer to a question from an independent Member, on the last day of the Session, Mr. Gordon emphatically stated that he would reintroduce the clauses of his measure relating to medical relief to the poor early in the ensuing Session. Should these clauses become law, local Poor-law authorities like those of Barony would no longer have it in their power to summarily dismiss gentlemen like Dr. Wright, though they may still be enabled, if so minded, to insult them.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

MACCLESFIELD.—This district suffered severely from scarlatina during 1875, the disease appearing as an epidemic at first in a public infant-school, which Mr. Bland requested to be closed, but failed until he applied to the Education Department in London. There was not any hospital to which patients could be removed, so that isolation was impossible. The birth-rate was 35.2, and the death-rate 25.0, per 1,000 persons, which is about the average of the preceding five years, but above that of 1861-70. There were 987 deaths, of which 252 were of children under one year old, being at the rate of 19 to each 100 births, and therefore almost as high as for Liverpool. There were 88 deaths from the seven chief epidemic diseases, and the rate from all zymotic diseases was 2.4 per 1,000. The Report contains some useful suggestions for preventing the spreading of infectious diseases. The sanitary work of the district was actively carried out, as 4,143 houses were inspected, 1,024 nuisances entered in the books, and 1,010 removed. There were also 380 houses examined on account of zymotic diseases, of which number 328 were disinfected, and 119 supplies of vermin-killer given to the poor. This is rather a curious item, and perhaps Mr. Bland will state in a future report what he directed to be given away for this purpose. There were no less than 9,984 loads of night-soil and rubbish removed, against 8,882 in 1874; so that there cannot be a good system of drainage in the borough.

CLEATOR MOOR.—The number of houses in this district was about 1,146; of population, 7,932; the births 339, and the deaths only 108, so that the excess of births over deaths was 231. If the calculated population be correct, the death-rate for 1875 was only 13.36 per 1,000 persons. These are extraordinary statistics, especially when compared with former years, when the death-rate varied between 18.96 and 29.42 in 1873, at the time when small-pox was epidemic. The percentage of deaths of infants under one year to total births was as low as 13.86; and the deaths from the seven principal zymotic diseases were only 1.63 per 1,000 persons, which certainly indicates a good sanitary condition of the district. Dr. Eaton gives a full description of the natural characteristics of the district, and of the arrangements for drainage, respecting which he observes that "the sewerage system will ere long require to be more fully, thoroughly, and comprehensively considered." He points out the nuisances which are caused by the large number of piggeries—viz., 304—which exist in the locality; and congratulates the Board on the removal of the most offensive, despite the violent opposition of the owners. He also complains of the large number of small unpaved yards, of defective drainage, and absence in many houses of any sanitary accommodation; so that the low death-rate is not to be considered as indicative of a new Hygeia having been discovered.

SIR, —Will you kindly inform me through your paper if a medical man is bound to report cases of infectious or contagious diseases to the Health Officer of his district?—Yours truly,
E. G. C. SNELL.

. No.

POOR-LAW MEDICAL APPOINTMENTS.

EAGER, R. T. S., M.D., appointed Medical Officer to the Oldswinford District of the Stourbridge Union, *vice* R. L. Campbell, M.D., resigned.
LEACOCK, Charles G., L.R.C.P., appointed Medical Officer to the Wymondham District of the Melton Mowbray Union, *vice* H. Douglas, M.R.C.S., resigned.
OLIVER, Thomas, M.B., appointed Medical Officer for the No. 2 District of the Preston Union.
STANLEY, T. B., M.R.C.S.E., appointed Medical Officer for the Tannfield District of the Lanchester Union, *vice* John G. Hunter, L.R.C.P. Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

PAY OF ARMY MEDICAL OFFICERS IN INDIA.

SIR,—It would seem desirable, perhaps, that members of the medical profession thinking of joining the Army Medical Department should realise the fact, that the first half of their service will almost certainly be spent in India, and that they will receive in that country only the rate of pay at present fixed by the Indian Government, which is wholly irrespective of any increased emolument guaranteed by the New Warrant.

The English pay on appointment, with allowances, and including the value of quarters, or an allowance in lieu thereof, may be estimated at about £313 *per annum*. Indian pay for the same period, at the present slightly improved rate of exchange (1s. 8d. for the rupee), may be calculated at £317, or £4 in excess of the English rate; and this in a country where the daily expenditure is considerably enhanced from

the exigencies of climate and allied causes, and where the purchasing power of money is diminished from 30 to 40 per cent., as compared with England,—I am, sir, faithfully yours,
N. S.

NAVAL MEDICAL APPOINTMENTS.

BIDDLEPH, Surgeon R. W., to the *Terror*.
BIRD, Surgeon R. G., to the *Hercules*.
WILLIAMS, Surgeon Robert W., to the *Excellent*.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

SANITARY SCIENCE CERTIFICATES.—The next examination for Sanitary Science Certificates by the University of Cambridge will be—in Part I, on Tuesday and Wednesday, the 3rd and 4th October; and in Part II, on Thursday and Friday, the 5th and 6th October. These examinations are open to those whose names are on the *Medical Register* of the United Kingdom, whether members of the University or not. Candidates must send their applications for admission to the next examinations, on or before September 19th, to Professor Liveing, Cambridge.

OBITUARY.

JOHN ROBERTSON, L.R.C.S.Ed.

MR. ROBERTSON, formerly of Manchester, died at his residence, New Mills, Derbyshire, on August 24th, in the eightieth year of his age. He was born near Hamilton, Lanarkshire, in 1797. He obtained his diploma as surgeon at Edinburgh in 1817, after an education there and in Glasgow. Almost immediately afterwards, he went to Liverpool, in the hope of obtaining an appointment as surgeon to a ship bound for a long voyage. His introduction to some members of the Society of Friends determined him, however, to settle in practice at Warrington, where he speedily obtained a high local reputation. He subsequently married the daughter of the late David Bellhouse, senior, of Manchester, and, by the advice of his friends, removed to that city, where in a very short time he obtained one of the largest provincial practices. Mr. Robertson was a most diligent worker in obstetric medicine; and his labours, along with those of Dr. Radford and Dr. Whitehead, have given to Manchester a high position in the annals of that department of practice. Mr. Robertson's chief communications to obstetric medicine were his extensive inquiries on the subject of menstruation in various countries, his original remarks on secondary puerperal hæmorrhage, and his advocacy of the long forceps now in general use. The subject of hospital construction also occupied much of his attention. For many years, Mr. Robertson threw himself heart and soul into every philanthropic endeavour to ameliorate the condition of the working classes. The shortening of the then excessive hours of labour, the removal of the taxes on bread, and other kindred matters, occupied a large portion of his time. Mr. Robertson was not only a public supporter of such measures, but his private charities were as numerous as unostentatious.

GEORGE WEBSTER ABSOLON, M.D., L.R.C.S.E.

DR. ABSOLON died at his residence, Southview, Perth, on Friday, July 7th, at the early age of 50. He was born at Usan, near Montrose, in 1826, and received his elementary education at the Montrose Academy. In 1840, he was apprenticed to Dr. Guthrie of Brechin; and in 1844 he proceeded to the University of Edinburgh to study medicine. After a diligent career of four years, he graduated in 1848, and next year commenced practice at Bridge of Earn, where he remained till he went to Perth in 1853. Few were better known in the city and county, and his death has removed one of the leading practitioners. His natural dexterity, and the solid training he received under Mr. Syme, made him a most skilful and successful operator in surgical cases; and he had a fair field in his extensive general practice and in his long connection with the Infirmary of Perth. His handsome face and figure, and the genial urbanity which always characterised him, made him a great favourite with all classes of the community; and this esteem was further increased by the high professional tone which made him uniformly oblivious of remuneration, and only careful of the patient and the success of the case. On his removal to Perth, he was appointed District Surgeon to the Infirmary, and shortly afterwards Surgeon to the Royal Perthshire Rifles (Militia). On the retirement of his old and valued friend, the late Dr. Fraser Thomson, he

was in 1864 appointed Visiting Surgeon to the Infirmary, and, on the expiry of his term of office, Honorary Consulting Physician. He also held the appointments of Inspecting Medical Officer under the Factory Acts, and Consulting Physician to the County Asylum. Some years ago, his health began to fail; and, with the view to diminish the harassing labours of general practice, he sought and obtained the appointment of Surgeon to the General Prison for Scotland at Perth. This and the foregoing appointments he held till his death; and it will be difficult to find one so eminently qualified for them, or so justly esteemed by all with whom he came into contact. He has left a widow and young family.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 7th, 1876.

Chavasse, Thomas Frederick, Birmingham
Wagstaff, John Philip, Marlborough Road, Dalston

The following gentleman also on the same day passed his primary professional examination.

Taylor, Frank, Bristol Medical School

MEDICAL VACANCIES.

The following vacancies are announced:—

COTON HILL INSTITUTION—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, etc. Applications to Dr. Hewatson.
EDMONTON UNION—District Medical Officer. Salary, £25 per annum. Applications on or before September 18th.
HEWAHETA, Island of Ceylon—Medical Officer. Salary, 5000 rupees per annum. Applications to the Committee, Gonavay Deltota, Ceylon.
HULL GENERAL INFIRMARY—House-Surgeon. Salary, £105 per annum. Applications on or before October 1st.
KENT COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum, with board, lodging, and washing. Applications on or before September 26 h.
METROPOLITAN FREE HOSPITAL—Assistant-Physician. Applications on or before September 18th.
PAISLEY INFIRMARY—House-Surgeons. Salary, £80 per annum, with board and lodging. Applications on or before September 21st.
ST. LEONARD'S, Shoreditch—Assistant Medical Officer. Salary, £120 per annum. Applications on or before September 18th.
SALISBURY INFIRMARY—House-Surgeon. Salary, £100 per annum, with board, lodging, etc. Applications on or before September 21st.
WESTMINSTER GENERAL DISPENSARY—Honorary Physician. Applications on or before September 25th.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—Assistant to the House-Surgeon. Lodgings and board will be provided. Applications to be made on or before September 18th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association

BOLTON, Wm., M.D., appointed Assistant Medical Officer to the Ipswich Borough Asylum.
DYSON, Wm., M.D., appointed Lecturer on Physiology at the Sheffield School of Medicine.
FAIRBANK, F. Royston, M.D., appointed Surgeon to the Doncaster General Infirmary, *vice* Francis C. Fairbank, M.R.C.S., deceased.
FROST, W. A., M.R.C.S. Eng., appointed House-Surgeon to the North Staffordshire Infirmary, *vice* W. Walter, M.B., resigned.
JUMEAUX, Benjamin, L.R.C.P. Ed., appointed Resident Medical Officer to the Newark Hospital, *vice* R. F. Quinton, M.D., resigned.
MCALDOWIE, A. M., M.B., appointed House-Physician to the North Staffordshire Infirmary, *vice* B. Jumeaux, L.R.C.P. Ed., resigned.
PRILEAUX, J. Engledeue P., L.S.A., appointed Resident Medical Officer to the Small Pox Hospital, Derby.
UPTON, Alfred, M.R.C.S., appointed Resident Medical Officer to the Brighton and Hove Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

ROWLAND.—On September 7th, at Malvern Wells, the wife of *H. Mortimer Rowland, M.D., of a daughter.

MARRIAGE.

PRINS—LEAN.—On July 13th, at St. Peter's, Riccarton, New Zealand, by the Rev. F. A. Hare, Henry Horsford Prins, M.R.C.S.E., third son of the late Dr. John Theobald Prins of Ceylon, to Emily Constance, eldest daughter of Alexander Lean, of Christchurch, Canterbury, New Zealand.

BEQUESTS.—The Rev. Charles B. Elliott, late Rector of Latingstone, Norfolk, has bequeathed £1000 to the East Suffolk Hospital at Ipswich.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Ordinary Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

It is particularly requested that, during the month of September, communications for "The Editor of the BRITISH MEDICAL JOURNAL" be so addressed, and not to any person by name.

OBSTINATE VOMITING IN PREGNANCY.

SIR,—Will you allow me, through the medium of your valuable columns, to ask for some suggestions with a view to the cure of persistent vomiting? The facts are as follows.

Mrs. X. suspects that she is three months in the family way, and has been married only a few months. Before marriage, she was troubled with pertussis, from which she has recovered. Her age is 27. Her constitution is delicate, and she is of nervous disposition, with a tendency to hysteria. The bowels are regular. Vomiting is persistent, though abating at times somewhat; it has been as often as thirteen times a day, with violent retching. Until lately, the sickness more resembled pyrosis; but recently it has been more gurgulous, at times gelatinous, and at others a light bilious fluid. Food is ejected soon after administration. The patient has but recently come from the country.

I ought to have mentioned a pain existing at the epigastrium; but no tenderness on pressure there or in the bowels.

As remedies, I have tried trisnitrate of bismuth, hydrocyanic acid, bicarbonate of soda, Schacht's liquor bismuthi, nitrate of silver in pill, creasote in pill, pills of oxide of zinc with morphia, effervescent mixtures with hydrocyanic acid; and now, dilute sulphuric acid with disulphate of guinine, in sheer desperation. (Can any of your readers give their experience of oxalate of cerium, and the doses?) I have also ordered ice, champagne, brandy, soda-water, milk and lime-water, soda and milk, oysters, fish, Liebig's extractum carnis, thin beef-tea, cocoa; in fact, I am puzzled to know how to sustain the strength.—Yours respectfully,

September 11th, 1876.

QUERENS.

M.B.—Mr. Lennox Browne's book on Australia for the Consumptive was published by Hardwicke, Piccadilly; price 5 shillings.

PERSONATION AT EXAMINATIONS.

SIR,—Will you allow me space in your JOURNAL to propose a plan by which the frauds practised by impersonation at medical examinations may be prevented? My plan is, that all examining boards shall insist upon each candidate sending, at the time he sends his fees (prior to examination), his photograph, certified on the back to be a true one by a magistrate and a minister of religion; if need be, also his height, complexion, etc., should be stated. With such a system, there could be no such frauds as have lately been discovered in connection with some of our examining boards.—I am, sir, yours truly,

M.D.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, twelve o'clock.

WATER-FILTERS.

SIR.—In answer to the inquiry as to the best filter for domestic purposes, I beg to state that, after careful examination of the filters in general use, and by analysis of the water after filtration, I have come to the decided opinion that the filters of the Silicated Carbon Filter Company, Battersea, are the best if not the only reliable filters I have seen. These filters are constructed so that the solid matter deposited on the filtering medium can be easily cleansed away. Mr. Wanklyn informed me he considered them to be the best filters made. The old-fashioned filters, composed of sponge, sand, and charcoal, are almost valueless. They scarcely produce any effect on water, except straining it: and the sponge is very objectionable, as it not only decomposes after continued use, but forms a nidus for worms and animalcules. These filters are injurious after some months' use. I have analysed water from some of these charcoal and sponge-filters, and have found the same water to contain less organic matter before filtration than after. The employment of the silicated carbon filter may be safely recommended.—I am, yours truly,

W. THOMSON, M.D., Medical Officer of Health, Peterborough.
Peterborough, September 4th, 1876.

W. F. S.—1. An union medical officer is not compelled to allow a medical officer of health to inspect his district medical relief book at regular intervals; but the union medical officer should, as a matter of courtesy, give the medical officer of health every reasonable assistance in obtaining information regarding the diseases of the district. 2. The proper and usual pronunciation of the word is umbilical.

A CURIOUS CASE OF SEXUAL DEFORMITY.

SIR,—A few weeks ago, a woman brought me her child, aged 5 months, to ask if something could be done for it; "for the child was a boy, she was sure, but if he lived, he would always have to make water like a girl, as he did now." On examination, I found the following state of things.

The penis was of normal size, curved downwards; the glans uncovered, and exhibiting two minute slits, one on each side of the median line; rudimentary urethra. Behind the glans, which could be slightly raised, there was apparently no corpus spongiosum. This curved penis divided the scrotum equally into two sacs, as it were. In the right one, a testis could be felt; and the mother said that in the left also she had felt a testicle. The sac was sufficiently evident; but there was no testicle when I examined the patient. The lower border of the divided scrotum was on a level just above the glans penis. Immediately below the glans, a little to the right of the median line, was the urethral orifice. An elastic catheter passed apparently about two inches before reaching the bladder. In a corresponding position to the left of the median line was a fleshy patch, of the size of a shilling-piece, in which, however, no orifice could be found. The child was well formed otherwise.—I am, etc.,
G. C. FRANKLIN, F.R.C.S.
Leicester, September 1876.

S. H. (Manchester) should consult a physician personally.

QUERIES RESPECTING MIDWIFERY ENGAGEMENTS.

SIR,—Will you kindly favour me with a reply to the queries in the following case? I was engaged to attend a Mrs. T. in her confinement in June last. I went from home in August, leaving a doubly qualified gentleman as my *locum tenens*. During my absence, Mrs. T. was taken in labour, and my *locum tenens* called and saw her; but as there was no occasion to remain, he returned home. A short time afterwards, the husband of the lady called to express his annoyance at my being from home, and to say that he would get some other medical man himself. When I returned, I ascertained that a neighbour of mine had attended the case and kept it.

Can I recover my fee in this case, the engagement being for June? Was my neighbour's conduct correct in a professional sense? Your replies will oblige, yours faithfully,

A MEMBER.

. 1. Our correspondent can, we think, recover a fee, provided that he can show that his *locum tenens* was efficient for the management of obstetric cases.

2. There are not sufficient data to enable us to judge the conduct of the practitioner who took charge of the case; but his duty was obviously only to take it in deference to the strongly expressed wish of the patient's husband, and to report the occurrence to our correspondent on his return.

MR. C. W. DREW (Loughborough).—We think that it would be legal for a person who has had scarlet fever, in whom desquamation has entirely ceased, and in regard to whom all precautions as to disinfecting both person and clothes have been taken, to be removed without information of the illness being given.

CHANGES OF PRESENTATION IN LABOUR.

SIR,—Having met with the following case in the course of our practice, and believing that it presents some features of interest, we venture to hope that it may merit a space in your columns.

Mrs. M., aged 24, a primipara, was confined on Friday, July 21st. Labour commenced at 10.30 P.M. on Thursday, and terminated at 9 o'clock on the following morning, by the birth of a female child. On our arrival, at 3 A.M., the pains, which we were informed had previously been regular and strong, became few and weak, and continued so till near the termination of the labour. On examination *per vaginam*, the passages were found to be narrow and tender, and the os dilated to about the size of a shilling, or rather larger. Through the membranes, the fore part of the sagittal suture was felt anteriorly, and the vertex recognised as the presenting part. The subsequent pains were feeble, yet the os continued to dilate, till it was finally obliterated. Then the membranes ruptured, and examination at this stage showed that the face was the presenting part, and not the vertex, as at the beginning of the labour. The position of parts was as follows: Face in the left oblique diameter of the pelvis; chin anteriorly, and to the right of the symphysis pubis; forehead behind and to the left of the middle line. For three hours following the commencement of the second stage matters remained in this condition, with but little advance of the face, the pains being inefficient and infrequent. At the expiration of this period, examination revealed another change—viz., that the vertex was again presenting. The case having now become one of vertex presentation, labour advanced more rapidly; and at nine o'clock, about eleven hours from its commencement, the child was born, the head and body being expelled by one pain.—I am, etc.,

Edinburgh, August 1st, 1876.

X. Y.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

MEDICAL TITLES.

SIR.—In the letter of your correspondent, M.R.C.S., some inaccuracies occur, which should not be allowed to pass unnoticed. In his anxiety to depreciate Scotch and Irish degrees, he, following the example of others who have recently written on this now threadbare subject of medical titles, makes erroneous statements regarding the Dublin University.

Willingly would I have left the correction of these statements in the hands of a more able brother, but as they may escape the notice of such an one, or may be deemed unworthy of comment, I take upon myself the responsibility of replying to them.

In the first place, no Dublin school (*i.e.*, apart from its own school of medicine, as in Oxford and Cambridge) forms an integral part of the University. The lectures of all are recognised, and by the appointment of extern examiners, the chief objection—of the examination being conducted by the teachers of those examined—is obviated.

Secondly, the Dublin University curriculum is in every way equal to those of Oxford and Cambridge, with which it should be alone compared; these three Universities being the only ones which require graduation in arts prior to graduation in medicine.

Thirdly, the previous medical examination includes botany, chemistry, physics, etc.—a fact, it is as scientifically difficult, as any other medical examination, and as practical also; candidates being examined on the dead subject—and this, by the way, before such a practice was adopted in London.

Fourthly, the B.A. cannot be taken by instalments, nor can a candidate pass if "he fail in two out of the five subjects" required of this degree, which is as difficult to obtain as any B.A. degree in the kingdom, London, perhaps, excepted. To say that the M.B. can be obtained by instalments is utterly absurd; for, at the final examination, failure in any subject insures the rejection of a candidate.

The preparation required for an examination, such as the London University matriculation, does not give a man the training that an undergraduate course at an University ought to, if, as I take it, the object of University education is not to "cram" a man, but to teach him how to think, reason, and study.

As long as Universities do not insist on candidates for medical and surgical degrees having a degree in arts before proceeding to medical graduation, so long will their degrees be comparatively worthless; hence, the M.D. of Durham will never give a man that position which the possession of the same degree from one of our old Universities confers upon him.—Faithfully yours, B.A., M.D.

SIR.—I have this instant read a letter by "M.R.C.S." in the current number of the JOURNAL. With your permission, I ask him to oblige me by describing the case which, in his apprehension, I have rested on an entirely false issue.

I am, sir, yours, etc.,

WALTER GARSTANG.

Blackburn, August 23rd, 1876.

L.R.C.S.I.—Practitioners desirous of serving as surgeons in the Turco-Servian war should apply to the Secretary of the National Society for the Aid of the Sick and Wounded in War, St. Martin's Place, Charing Cross, London, W.C.

THE RED CROSS SOCIETY.

SIR.—In the *Times* of Wednesday, Captain Nolan states that the symbol of this Society is not respected by the Turkish soldiers at the seat of war. With a view to protect our professional brethren, and others mercifully engaged there, from ignorance and fanaticism, I suggest that the Society should add the crescent to the existing badge during the present war. This double emblem would be respected by both sides.—I am, etc., C. F. MAUNDER.

Surgeon to the London Hospital; formerly Surgeon on the Staff of the Army in the Crimea.

16, Queen Anne Street, W., September 14th, 1876.

A VETERAN SURGEON should apply to the War Office for a copy of the Regulations.

THE EFFECT OF TEA-DRINKING.

SIR.—So many gastralgic cases occur to me having apparently an intimate resemblance to the case related by Inquirers, and proceeding from a specific cause, that I hope Inquirers will pardon me for suggesting that he make special inquiries as to this cause in his patient, if he have not done so already. I know not whether in other parts of the country the prevalent habit exists as extensively as it does here, of drinking tea for breakfast, and perhaps for two other meals, or whether other medical men find the same injurious effects to occur from the practice. Here these painful effects are most marked. Besides the severe gastralgia, which I have to treat—in some cases by scores—there is often a pale, agitated, nervous expression of countenance. So common is the custom, that, in spite of much and often prolonged suffering, suspicion as to the cause does not often occur to the sufferer. Amongst so large a mass of population as are accustomed to the free use of tea, it is no wonder that the idiosyncrasies of some persons rebel. I belong myself to this latter class. Sir Thomas Watson mentions the case of a barrister who, it was thought, had severe cardiac functional disease, but whose symptoms entirely ceased with the cessation of tea-drinking. With three days' tea-drinking in succession, I should myself be unfit for business from palpitation and an undefined feeling of alarm and agitation. When the disturbance is purely functional, as it very often is, relief follows very quickly from abstinence from tea-drinking and the use of an ordinary stomachic, antacid, and tonic. Why is it that this beverage is so universal a favourite, or nearly so? No doubt it is "light," agreeable, cheap, or can be made so. It is a luxury for the rich, a cheap but fallacious substitute for food for the poor. It often keeps the promise of supply to the stomach, and breaks it to the nutritive wants. When taken—as it unfortunately is to a most fearful extent in large classes of the population—as a main nutrient, it has, I deliberately think, an evident tendency to impoverish the system, and to deteriorate the health and physique. I have often been astonished to know that men engaged in laborious occupations will take their first daily meal of tea and a few light accessories. What such a meal can give as a foundation for often heavy physical labour, they do not seem to comprehend.

I am further induced to send these few notes, because I have met with at least one accomplished and able physician who seemed not to have had his attention aroused to the cause of gastralgic symptoms herein stated.

August 26th, 1876.

WILLIAM HINDS, M.D.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

UMBILICAL HÆMORRHAGE IN INFANTS.

SIR.—A case of fatal umbilical hæmorrhage in an infant is recorded in the BRITISH MEDICAL JOURNAL of July 29th, and the death is attributed to a morbid state of the blood preventing the formation of a coagulum. I would venture rather to suggest that it may have been owing to imperfection in the ligature. It is not stated what the cord was tied with; but a very common and a very objectionable mode of doing so is by means of tape. I once saw an infant very nearly lose its life from this cause. Tape had been used by a woman who was present at the birth, and I arrived just in time to prevent a fatal termination by tying the cord properly and administering stimulants: the clothes were saturated with blood. The wonder is that hæmorrhage does not occur oftener, as I very frequently find when the cord has been tied with tape before my arrival, that the point of the scissors can readily be put under the ligature; and in such cases there could be no security against hæmorrhage. Nothing answers better than common grey linen thread—generally speaking, triple is the proper thickness. Care must be taken also in using this form of ligature, for if too much force be abruptly employed, the cord may be cut through, and, on the other hand, it may not be tied sufficiently tight. The best way is to tighten gradually by a series of little pulls, until it is felt that the cord will not yield any more, even by exerting considerable force. When this is properly done, I venture to affirm, as the result of large experience, that hæmorrhage through such a ligature will never occur.—I am, etc.,

August 1876.

R. BRUCE, M.D.

SIR.—In a letter on the above subject in your impression for July 29th, Mr. Walter Lattey writes: "I do not know whether such cases are at all common; but if anticipated, some sort of spring clamp or elastic ligature might be useful". In the narration of his case, he leaves it to be inferred that the funis was secured immediately on respiration being established, but he does not state whether the cord had ceased to pulsate. Now, a minute or two after the cessation of pulsation, the cord shrinks and becomes flaccid; if, therefore, the cord be ligatured too soon, there is always a certain amount of risk, unless the ligature is tied up tightly. After the cessation of pulsation the cord may easily be torn across, which, besides being a natural method, is decidedly a good one, the torn ends requiring no ligature, or the cord may be divided by crushing between the handles of a pair of scissors, or by means of any "cord-crusher". Mr. Lattey's suggestion of an elastic ligature might meet the requirements of those who still prefer to tie the cord before it has ceased to pulsate.

With regard to another subject which is interesting your correspondent—viz., that of nervous shock communicated to the suckled babe, I think there can be no accoucheur who has not seen some instances producing disturbance of the infant's digestion, if not death; but these cases are not to be hastily confounded with cases of suffocation from sudden hugging during the mother's fright.—Yours faithfully,

HEYWOOD SMITH.

TREATMENT OF POSTNASAL CATARRH.

SIR.—The case described by "Rusticus" in your issue of August 26th is just one of those to which I referred in my paper at Sheffield, and of which an abstract appears in the same number of the JOURNAL. In all probability, the anterior nasal douche would increase the discharge and the deafness.

I should advise "Rusticus" to daily syringe the nostrils from behind, by means of a posterior nasal douche (made by Krohne and Sesemann), with a solution of permanganate of potash and salt. A teaspoonful of Condy's sea-salt in a tumbler of tepid water is what I use. At the same time, if there be—as is probably the case—ulceration or fœtor, I should have applied every night with a camel's-hair brush, inside the anterior nostrils, carbolic acid in olive-oil or vaseline—1 to 50. If the throat be dry, chlorate of potash crystals, or the effervescent chalk of potash lozenges of Cooper, are most grateful and serviceable.

The patient may also be directed to frequently sniff at Dunbar's "Alkaram". Those who object to use patent remedies may like to know that this smelling-salt may be made approximately as follows: Carbolic acid, half a drachm; carbonate of ammonia, one ounce; powdered wood-charcoal, one ounce; oil of lavender, twenty minims; compound tincture of benzoin, half an ounce; with a few drops of strong liquor ammoniac added.

For the deafness, Politzer's inflation should be employed immediately after the use of the posterior nasal douche.

I have only indicated the line for local treatment. The general health must, of course, be looked after. I have sometimes found great benefit from giving twenty-grain doses of hydrochlorate of ammonia with cinchona three times daily. In other cases, phosphorus or iron-phosphates with strychnia may be useful.—Your obedient servant,

LENNOX BROWN.

36, Weymouth Street, Portland Place, August 28th, 1876.

SIR.—In answer to "Rusticus", I would suggest the possibility of a syphilitic origin, especially as one side only appears to be affected, and as there is loss of smell. Affections of the nasal mucous membrane, appearing as the solitary indications of the syphilitic poison, are far from uncommon, and are most difficult to treat; at the same time causing the patient extraordinary annoyance, considering the small amount of surface affected. Probably iodide of potassium would aggravate the discharge. I would rather suggest the use of the perchloride of mercury internally; and, as a local application by means of the postnasal syringe, a most valuable instrument hardly sufficiently in use in this country. In many cases chronic nasal catarrh, the oedema of the mucous membrane is so great as to closely simulate polypus. I find that the swelling and stiffness may generally be entirely relieved by passing a curved brush through the anterior nares, previously dipped in a solution of iodine and carbolic acid. On the first two or three occasions, the brush will probably not pass without causing pain and slight bleeding; but in a few days an easy passage and great relief are obtained. This treatment should be alternated with the use of the postnasal syringe.

"Rusticus" should warn his patient that the "slight deafness" will probably increase and become permanent, unless the tympanic and Eustachian catarrh be at once overcome. Inflation of the tympanum by Politzer's method, and the application of the vapour of creosote to the mucous membrane of the tympanum by inhalations—the vapour being driven through the Eustachian tubes by Val'salva's process—will prove of great service in the aural affection. The treatment suggested may appear tedious and difficult of execution; but I am convinced if nasal affections are most obstinate in their course and most disastrous in their results, and therefore well worthy of the most careful investigation.—I am, etc.,

25, Weymouth Street, W.

LEWELYN THOMAS, M.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

SIR,—Be good enough to inform me if a person holding the qualification of L.F.P. & S.Glas. only, is entitled to claim medical as well as surgical fees in a debt court.—I am, etc., D. V.

* * The Licence of the Faculty of Physicians and Surgeons of Glasgow is a qualification to practise surgery. The holder can recover surgical fees only.

A SINGULAR CASE.

SIR,—The case described by "Inquirens" is one of "neurosis". A somewhat similar case yielded to the following treatment: a blister over the seat of pain, afterwards treated with belladonna ointment, freely rubbed in, and at the same time phosphorus and strychnia in pills (Kirby's) three times a day. I had the advantage of seeing my case shortly after the outbreak of the complaint. "Inquirens" case will be more difficult of cure, owing to the time it has lasted; in his case, medical treatment must be accompanied by change of air, relaxation from business, careful attention to diet, security for good sleep, prevention of fatigue, etc.—Yours, etc., FRANK L. STEPHENSON, M.B.

Bradninch, Devon, August 26th, 1876.

SIR,—The case alluded to by "Inquirens" resembles closely, in most of its details, one which occurred to me some fifteen years ago in Egypt, and in which marked relief followed the use of bromide of potassium with Battley's liquor cinchonæ. Had subcutaneous injection been in use in those days, I should probably have commenced the treatment by administering morphia or atropine in that way. The pain, which exceeded in intensity, while it lasted, almost any species of bodily suffering I have ever witnessed, came on quite suddenly, and was not attended with fever. I always supposed the spleen to be the seat of the affection, a supposition which became a conviction when, some eighteen months afterwards, the patient died of another malady, and I had an opportunity of examining that viscus. It was found adherent throughout to the surrounding organs, and when the species of false cyst thus formed was cut into, the contents literally flowed out—a mass of disorganised erectile tissue of the consistence of thick pea-soup. In this case, the patient had suffered much from long continued and severe gouty rheumatism, aggravated by exposure, hardships, and intemperate habits, none of which are alluded to by "Inquirens" in his case.—I am, sir, faithfully yours, J. F. O.

Norwood, August 24th, 1876.

SIR,—An identical case, except that the pain was on the right side, to that described by your correspondent Inquirens, came under my observation a few years ago. My patient, a lead miner, aged 30, suffered, as Inquirens describes, for three years, when he died of phthisis. At the *post mortem* examination, the cause of the pain was anxiously looked for; and, on opening the right kidney, a calculus, the size of a small filbert, was found in its pelvis. This, doubtless, had been the cause of his great suffering, and which nothing but opiates would relieve. Stone in the kidney never having been suspected, his urine was not examined; neither to my knowledge did he ever have hæmaturia.

The above, I trust, will be of some value to Inquirens in coming to a diagnosis in his case.—I am, sir, yours truly, W. M. RENTON, M.D. Edin., etc.

Shotley Bridge, co. Durham, August 31st, 1876.

If the patient of "Inquirens" will wear habitually a firm broad riding-belt, and take a teaspoonful of freshly made mustard with every meal, he will probably prevent his intermittent neuralgic affection.—T. K. C.

DEAF-MUTISM NOT HEREDITARY.

SIR,—The question of "hereditary predisposition" is always a most interesting one, both from a physiological and social point of view. The following case, in which the children have not "taken after" the parents, is, I think, well worthy of record.

A patient of mine, aged about 50, is perfectly deaf, and though not absolutely dumb, his power of articulation is most extremely defective. His wife is quite deaf and dumb, and yet the three children of the marriage have the full possession of the gifts of speech and hearing. Two sisters of the woman are also deaf and dumb, but their parents are in possession of these senses. In each case the deaf-mutism has been congenital.

I offer no remarks, except these: (x) on the one hand, has not too much stress been laid upon "hereditary predisposition"? or (a) are these cases which I have mentioned above, the "exception which proves the rule"?—Yours faithfully, W. L'HEUREUX BLENKARNE.

Buckingham, August 1876.

DR. H. FITZSIMONS of York writes to us that he was not the author of the letter on Filters, purporting to be signed by him, which appeared in the JOURNAL of September 2nd.

WHAT IS THE USE OF BEING REGISTERED?

SIR,—I beg to submit my case to you, and to ask your opinion upon the treatment I have received.

Some few days back, I applied for the post of house-surgeon to a county hospital. In the advertisement, diplomas were required to be sent; but, instead of sending those documents, I sent the registration-certificate of my three qualifications, together with testimonials from some of the leading authorities of the day. The answer to my application was, that the Committee of Management could not entertain my application to be placed on the list of candidates, my diplomas not being presented.

I cannot help feeling that being registered is utterly useless. Either the certificate is wrongly worded, or Committees of Management content themselves with seeing the diplomas, and not knowing whether their candidates are registered or not, in preference to seeing a certificate which both sets forth the qualifications and shows that the candidate has conformed with the law and is registered.

I would ask if it is customary to send diplomas (which might be lost or destroyed, either of which would be a serious matter to any man), or whether county hospitals, as a rule, accept the certificate of registration.

I enclose my card, and am, sir, yours, etc.

August 20th, 1876. M.R.C.S.E., L.R.C.P. LONDON, L.S.A.

* * We believe that it is customary to send diplomas when the advertisement states that they must be produced; and we do not remember hearing of an instance in which they have been lost when so sent. Our correspondent should be complied with the strict letter of the instructions. The Medical Act exempts the holders of appointments in institutions "wholly supported by voluntary contributions" from the necessity of being registered.

DISEASE OF THE BONES IN THE INSANE.

SIR,—Approves of your leader on the maltreatment of lunatics by attendants, and Dr. Davey's remarks in last week's JOURNAL, I may mention the case of an insane patient who received a fall, being pushed, as was alleged, by another patient. He died in about a fortnight after the accident, being unable to leave his bed in the interval; and the coroner ordered a *post mortem* examination and held an inquest. Two ribs had the appearance of being recently fractured; but several others on the same side looked as if the subjects of former fracture. This led one to suppose that the two recently injured had been in the same condition before the accident. Where the ribs were originally broken did not, however, appear in evidence, but from the fact that those on the opposite side broke down easily under digital pressure, appearing to have lost both lime-salts and elasticity, the natural conclusion is that the fractures were a result of the patient's condition. In addition to this state of the ribs, a large cyst was found in the right kidney, and several small calculi in the bladder. The symptoms preceding death were uræmic, and the verdict of the jury was: "Death from inflammation of the bladder and kidneys, accelerated by a fracture of the ribs caused by a fall, but how such fall was caused there was no evidence to prove." In the above, as in Mr. Wimberley's case, we see the value of making *post mortem* examinations of deceased lunatics.—I remain, your obedient servant, Birmingham, August 28th, 1876. ALEX. M'COOK WEIR, M.D., etc.,

ERRATUM.—In the notice of St. Mary's Hospital at page 347 of last week's JOURNAL, the statement that the extra Natural Science Scholarship is restricted to pupils of Epsom College should have been omitted, the scholarship being open.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; The Harrogate Herald; The Dumfries and Galloway Standard; The Glasgow News; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. George Johnson, London; Mr. J. P. Purvis, Greenwich; Mr. Brimmer, Penge; Dr. Fitzsimons, York; Mr. A. A. Cuthbert, Glasgow; Mr. F. A. Southam, Manchester; Mr. Leeds, Sheffield; Dr. Grimshaw, Dublin; Dr. J. Milner Fothergill, London; Dr. Bradbury, Cambridge; The Registrar-General of England; Mr. T. Holmes, London; Dr. Edis, London; Dr. Tripe, Hackney; Mr. G. Eastes, London; The Secretary of Apothecaries' Hall; Mr. S. S. Alford, London; Volunteer Surgeon; Dr. Gooden, London; Quagator; Mr. Lennox Browne, London; Dr. Tuckwell, Oxford; The Registrar-General of Ireland; Mr. M. A. Morris, Goole; Mr. E. Johnson, London; Dr. Joseph Rogers, London; M.R.C.S. Eng.; Dr. Dowse, Highgate; Mr. J. Bainbridge, Harrogate; Mr. E. Prideaux, Derby; Mr. Annington, Cambridge; Mr. G. Bainbridge, Dhulia, Khandeish; Mr. G. H. Tilley, Coventry; Mr. A. H. Martin, Evesham; Mr. G. D. Brown, Ealing; Dr. J. P. Cassells, Glasgow; Mr. R. Doyne, Wrexham; Mr. W. D. Husband, York; Dr. Chadwick, Tunbridge Wells; Mr. J. F. Blake, London; Mr. J. H. Porter, Netley; Our Glasgow Correspondent; Mr. W. D. James, Hull; Dr. Ashburton Thompson, London; Our Dublin Correspondent; M.D.; Dr. Mackey, Birmingham; Dr. D. M. Brunton, Paisley; Our Edinburgh Correspondent; Dr. John Cross, London; Dr. H. M. Rowland, Malvern Wells; Dr. Charteris, Glasgow; Dr. A. B. Shepherd, London; Mr. C. T. Kingzett, Glasgow; Dr. Trollope, St. Leonards-on-Sea; Dr. R. Bruce, Edinburgh; Dr. Collie, Homerton; Dr. Fairbank, Doncaster; Mr. C. W. Drew, Woodhouse Eaves; Miss Nelson, Esher; Dr. Philipson, Newcastle-on-Tyne; W. F. S.; Dr. R. Scott, Halifax; Mr. C. Hartley, Lynton; Dr. J. Wallace, Cork; Dr. Asher, London; Mr. McReddie, Walthamstow; Mr. A. B. R. Myers, London; Mr. R. Goodall, Silverdale; Mr. Chiene, Edinburgh; Mr. G. Mockett, St. Ives; Dr. W. Millar, Madras; Dr. J. W. Miller, Dundee; Mr. E. P. Hardey, Hull; Mr. J. Barker, Birmingham; Dr. Berkart, London; Dr. J. C. Phillips, Jamaica; Mr. H. N. Edwards, Shrewsbury; Dr. Smith, Dumfries; Dr. L. Colborne, Weston-super-Mare; Dr. F. Ransom, Sunderland; etc.

BOOKS, ETC., RECEIVED.

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Surgical Observations on Gunshot-Wounds of the Hip-Joint. By B. von Langenbeck. Translated by James F. West, F.R.C.S., etc. Birmingham: White and Pike, 1876.
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REMARKS

ON

BURNS BY GUNPOWDER AND SCALDS
BY STEAM.*BY WILLIAM R. E. SMART, C.B., M.D.,
Inspector-General, Haslar Hospital.

DURING the China war of 1857-1858, I treated in a ship-hospital twenty-one cases of severe burns by powder-explosions. They were all burnt in the face, neck, hands, and extremities, but not on the trunk. There were six deaths, on the seventh, tenth, fifteenth, seventeenth, eighteenth, and thirtieth days respectively.

In surveying these cases, the remarkable points are: 1. The great extent of burnt surface curable; 2. The amount of nervous shock, and its long continuance, even on the second day; 3. The great secondary or suppurative fever, with delirium (often noisy); 4. The high amount of gastro-enteric and dysenteric disturbance.

The case that died on the seventh day is thus noted:—J. B. Burn, head severely; hair singed off; face black, masked; eyelids closed and tense; all features obliterated. Second day. Hissing respiration; neck, arms, and hands swollen and vesicated; feet, legs, thighs, scrotum, and penis, all much burnt and vesicated. Fourth day. Suppuration commenced; ophthalmia. Fifth day. Sloughs fixed on face; sloughy patches from nates to ankles; suppurative action in legs, thighs and scrotum; apyretic; requiring a laxative. Sixth day. Pyrexia, with restless delirium, frequent pulse, furred tongue, thirst. Vespere. Muttering; tossing clothes; hot skin; feeble pulse; dyspnoea and great general prostration. Seventh day, 9 A.M. Exhaustion. Expired tranquilly, without convulsion or coma.

Case of Death on Eighteenth Day.—E. W., severely burnt on head and neck; face masked in gunpowder-eschars; eyes closed, lower lids everted; lips swollen, and burnt inside; upper extremities much scorched; the knees and thighs (lower) less so. Second day. Moaning drowsily. Vespere. Hands cold; gangrene of a finger; pus from eyelids. Third day. Forearms tumid and red above burns. Fifth day. Pyrexia; erythema around thighs. Tenth day. Diarrhoea, with tormina and tenesmus. Eleventh day. Suppuration very free. Thirtieth day. Stools sero-feculent and shreddy, with tormina; tongue dry and furred; sloughs detaching by suppuration. Evening. Prostration, with delirium. Fourteenth day. Exhaustion advancing; suppuration decreasing; sordid lips and teeth. Fifteenth day. Diarrhoea continues, with irritable stomach. Sixteenth day. Moaning; restless all night; purging. Evening. Conscious, and replying. Seventeenth day. Sinking; blood oozing from hands. Eighteenth day. Expired at 3 A.M.

Case fatal on Thirtieth Day.—H. P. Burn, face, neck, and upper extremities severely; face masked; eyelids and nostrils occluded. Second day. Eyes and nostrils discharging a muco-purulent secretion; restlessness; dyspnoea; wheezing inspirations. Fourth day, evening. Deglutition painful and difficult; extremities cold. Fifth day. Dysphagia; prostration; pulse feeble and frequent; commencing suppuration. Sixth day. Delirious; restlessness; hot dry skin; urgent thirst; sloughs detaching. Tenth day. Constant low delirious muttering. Eleventh day. Irritative fever; restless delirium; all limbs sloughs separated; general suppuration. Eighteenth day. Face masked and painful; contraction commencing in flexors of fingers, wrists, and elbows; rapid feeble pulse; sordid lips and teeth. Nineteenth day. Sense of extreme prostration; deep ulcers in place of the sloughs; sloughing bed-sores. Twenty-first day. Sleeps sounder; coherent when awake. Twenty-fifth day. Ulceration of right cornea; anterior chamber filled with pus. Twenty-sixth day. Comatose; passing stools involuntarily. Twenty-seventh day. More intelligent; cornea has burst. Twenty-eighth day. Urine scanty, thick, and dark-coloured. Twenty-ninth day. Coma; subsultus; muttering delirium; ischuria. Thirtieth day, 4 A.M. Awoke with a sense of dissolution, jactitating and screaming; desire to micturate; bladder empty. 10.45 A.M. Expired.

These three fatal cases of burn are typical of the pathological conditions preceding death in the stages subsequent to the passing off of shock. The first died in the primary reaction, with signs of acute meningeal congestion, on the seventh day; the second, in the suppurative fever, with enteric complications that assumed the dysenteric type,

that probably would have been gastro-duodenal in a non-dysenteric climate, on the eighteenth day; the third, by exhaustion of nerve-force and blood-poisoning, ending in renal suppression, on the thirtieth day.

In another, that died on the tenth day, there was much nervous shock, subsiding into delirium on the second night. It calmed down next day, to reappear on the seventh, after which sloughs commenced to form on the heels, insteps, and ears.

A case, fatal on the fifteenth day, had been badly burned. On the sixth day, the scrotum, nates, and thighs were suppurating; and next day he had fallen into a state of restless, groaning, talkative delirium, attempting to leave his bed; which state continued to the last. On the thirteenth day, there was hæmorrhage under detaching sloughs on the scalp; on the morning of the fourteenth day, trismus, with tonic contractions of the fingers and wrists; and death closed the scene towards night, amidst diarrhoea, subsultus, typhomania, and efforts to rise.

A case that terminated on the seventeenth day had delirium with stertor. On the evening of the second day followed semi-coma, which passed away. On the eleventh day, he had pyrexia and much pain in the parts burned; on the fourteenth, nausea and retching. On the sixteenth, there was brawny erysipelatous inflammation of the face and scalp; on the seventeenth day, delirious jactitation, with feeble rapid pulse, dry tongue, dyspnoea, death.

It will be pertinent to afford an example of recovery from a degree of injury which, in its first aspect, was appreciably the same in form as in those that perished, but not so near the trunk as in case No. 1.

J. McB. Face, head, neck, arms, and hands partly escharred, and in parts vesicated and tumid; knees, legs, and ankles vesicated. Second day. Nervous depression; hissing respiration, from tumefaction of passages; features obliterated—a black mask; eyelids tumid; ectropium with purulent discharge; dyspnoea and restlessness. Fourth day. Suppuration on hands and feet; eyelids less tumid—could be opened. Fifth day, evening. Pyrexia. Sixth day. Eschars separating from face; sense of exhaustion; constipation. Eighth day. Tongue dry; in other respects the same. Sixteenth day. Ulcers healing; tongue dry; bowels regular; sitting up in bed. Twenty-fifth day. Full diet. Forty-fourth day. Discharged cured.

The case of McB. was as severe as any that finally recovered; he had continued throughout free both from meningeal and from gastro-enteric complications. In other cases, these were present; and the former was found to give less ground for unfavourable prognosis than the latter, as it would rapidly disappear; while the latter was exceedingly troublesome, and its contrary state—constipation—was the most favourable of symptoms. In some, otitis and otorrhoea existed. In some, adenitis of the glands of the neck or groin, and balanitis, occurred, perhaps from incapability of cleansing the part. In the state of shock, the catheter was often used provisionally. Convalescence was apt to be retarded by the readiness with which the new cuticle was abraded or vesicated.

However, out of twenty-one cases of very severe gunpowder burns, fifteen, or over two-thirds, recovered, and only one was invalided to England.

The local treatment used was, as a rule, in the first stages of depression and reaction, by Carron-oil on cotton-wadding; in the suppurative stage by oxide of zinc, and by calamine ointment; in the granulating and cicatrising processes, the same means were continued; but, when the granulations became flabby and pale, much benefit was found in laying on them strips of lint well covered with resinous ointment containing an excess of turpentine.

Our naval history affords many instances of terrible destruction of life by explosions of powder magazines, when the corpses and the dismembered limbs of men have been blown far away from the scene, and the hurt, strewn around the decks, have presented injuries like in every respect to those I have been describing. Since the introduction of steam-power, there have been at rare intervals instances of boiler explosions that have now and then hurled into eternity an individual or two and disabled others; but such a catastrophe as that which lately happened in the stoke-holes of H.M.S. *Thunderer* has been unprecedented. Of thirty-four in the vigour of manhood and pride of life who descended to their post of duty in the stoke-holes after dinner on July 14th only two are alive to tell the tale, and other thirteen, who were slightly removed from the stoke-holes, have added their names to swell the calamity.

In all, about eighty persons were involved, of whom forty-five have perished. The explosion, which has been estimated as equal to that of a 35-ton gun, occurred in a confined space, scattering around huge masses of iron, pouring out tons of boiling water with volumes of intensely heated steam, mixed with the sulphurous and carbonaceous

* Read at a meeting of the South Hants Branch of the Association.

fumes of suddenly extinguished furnaces, freshly heaped up with live coal, giving a mimic but too near representation of the sudden eruption of a dormant volcano. This happened within one hour of our hospital doors, which were open to receive the living and the dead.

Fifteen corpses, many of them more frightfully mutilated than is rarely seen in battle, and all much excoriated, were drawn out from the scene of disaster, and of those who were extricated alive four died in the passage to the shore. Fifty-eight living sufferers reached their beds in hospital. The majority of those were terribly scalded; some had had their light clothing torn away from their bodies by the force of the penetrating blast of the steam, but only one had received any mutilation—a compound fracture of the lower leg, with ablation of the heel. He survived his injuries about four hours without rallying. Within thirty hours, eleven of his comrades brought with him to the hospital succumbed in the stage of primary shock, some apparently insensible and semi-comatose, others, after imperfect attempts at rallying, deliriously rolling from side to side, breathing heavily from obstructed air-passages, retching and vomiting, and suffering from strangury; in their great distress, using all their efforts to tear from their flayed limbs the dressings that had been laid on.

Those who survived the primary shock and rallied, felt relieved of their scorching agony and gained fitful sleep in from thirty-six to forty-eight hours, passing urine and intestinal evacuations, and some of them asking for nutriment. It is difficult, where so many causes, each sufficient in its way, contributed to fatal results, to assign to each its due weight; but I am of opinion that, in those that succumbed within the first thirty hours, the scalded state of the fauces and glottis was a lesion of paramount importance that turned the balance against recovery, by retarding rallying from the shock of the accident. Unfortunately, no opportunity was afforded of *post mortem* examination to test the correctness of this view.

In some, a semi-comatose condition released them from suffering, but in others the effort of Nature to establish suppurative action was attended with internal organic congestions: that of the nervous centres marked by low muttering delirium, moaning jactitation, involuntary evacuations of the bladder; and that of the gastro-enteric tract by retchings and forcible emptying of the stomach, lapsing into coma and death. In this stage of irritative fever reaction, six perished: one on the fifth day, three on the sixth, one on the eighth, and one on the ninth day after the receipt of injury.

On the tenth day, when thirty-three had perished—fifteen killed, twelve by shock, and six by irritative fever and its organic complications—there remained alive in hospital forty-four still suffering; of these, many lay beyond reasonable hope of recovery, and of these twelve have since died, twenty-seven have been discharged healed of their wounds, and five still continue under treatment, which will in all probability be attended with success.

Of these, J. D. was deeply scalded by steam only over the face and head, and in the air-passages and over the upper extremities. He had been exposed to the first upward rush of the steam through the casing of the funnel, by which he had been blown fifteen feet from the spot on which he stood, and over 350 square inches of the upper part of his body were denuded of cuticle or covered with it in large vesications. On the sixth day, his entire surface was of a livid red colour, like that of scarlet fever of bad type. Until then, he had not become conscious of his condition, and then he lapsed into a state of restless delirium, with frequent fits of moaning. That state of fever reaction lasted until the eleventh day, when he again began to answer coherently; but, on the fifteenth day, he relapsed into delirium, and maintained it up to the twentieth day, when he first inquired where he was, and what it was all about, and recollected, when reminded of it, that he had been on board the *Thunderer*. In the meantime, he had had severe ophthalmia, which had destroyed the left eye and had endangered the sight of the right, which has, however, been restored. Complaining of dysphagia on the twenty-second day, his fauces were found to have small sloughy patches. At the end of the fourth week, he was suffering from gastro-enteritis, with red glazed tongue, retching and vomiting, diarrhoea and prolapsed anus, which began to subside on the thirty-second day. But his dangers had not yet ceased, as, on the fortieth day, the kidneys showed signs of sympathising in diminished secretion, followed next day by changes in its character, darkened with bile-pigment, of acid reaction and high specific gravity, 1046, without albumen or urinary casts, which subsided into urates and phosphatic deposits, with oxalates in the last stage, after four days of disorder. He is now left with left staphylococcal granulating sores that will leave a few cicatricial contractions on the forearms, hands, and eyelids, which will somewhat disable him through life.

Another case of steam-scald, still under treatment, was in the engineer's galley in the casing of the funnel, and severely scalded to the

extent of 400 square inches. He had no signs of full meningeal inflammation, but, from the stage of suppurative fever at the end of the third week, in which sloughing of the integuments of the fore-arms was present, he had renal irritation, or rather nephritis, masked by secretion of albumen with disintegrated blood-discs, and also attacks of gastric irritation, with retching and vomiting. He is now in a promising condition, with every chance of restoration; maimed in the arms and hands, and with more or less lesion of the kidneys.

I have detailed these as the two worst of the cases that have escaped death, subordinated to which, in degree only, are many of the survivors. Amongst all of them the results of the nervous shock will be slow to disappear, which in some has assumed a sentiment of horror, about what they have gone through, with an insuperable idea that they will not recover their former courage, to render them capable of undergoing similar risks with unconcern and freedom from apprehensions. Many of the recovered cases passed through severe stages of meningeal and gastro-enteric irritation of high degree, and in some there was a minor degree than that detailed of renal complication. In the majority there was a minor degree of the acute congestion of the fauces and air-passages, which had been a prominent symptom amongst those who perished in the primary stage of shock. In several cases there was severe conjunctivitis, terminating by suppuration; and in some there was inflammation of the meatus auditorius, that ended by curable otorrhoea.

There was one very marked condition, in the rarity of sloughing of the deeper integuments, which contrasted strongly with what occurs in burns by the explosion of gunpowder—in which I have known the hair singe to the scalp, and the lighter articles of clothing set on fire, and perhaps the destruction of tissues aggravated by that cause—so that sloughing is a very common sequel, and the danger greatly aggravated thereby; and erysipelatous inflammation is much more frequent after powder-burns than after scalds, even when so severe as these now recorded, and delirium comes on much earlier. But the primary mortality from these forms of injury, from the immediate results of heat, has been much greater in this casualty than I have noted in the instance of gunpowder explosion in the open air. This contingency is, I do not doubt, attributable to the greater amount of surface involved, affecting a much wider extent of a highly endowed nervous tissue, productive at once of such a degree of shock to the nervous centres as cannot be recovered from, precluding the systemic effort to rally from the overwhelming nervous depression. It was remarked to me by a scientific observer, who had been witness to the consequences of two great magazine explosions, that, with eighty square inches of damaged integuments, there was always a degree of secondary fever that involved danger to life. This induced in me a desire to ascertain, by measurement, the extent of scalded surface which did not involve fatal termination; and I placed the inquiry in the hands of a very painstaking zealous officer, Dr. Burke, to make approximate measurements of the surface that had been scalded in all the cases remaining under treatment, in the seventh week after the casualty, with this result in twelve cases, respectively: 198, 213, 232, 265, 283, 345, 355, 363, 377, 398, 477, and 766, giving an average of 356 square inches excoriated or vesicated; and I may vouch for the data as free from exaggeration, and as rather on the contrary. Of these, the men now remaining under treatment showed 198, 355, 363, 398, and 477.

All these cases have two points in common, viz., the severity of the scald of the face and head, and sloughing spots of skin on the arms, in which indolent ulcers formed, leaving delicate cuticle that abrades and vesicates from slight causes.

The first (198) indicates the lowered chances of age, this man being the oldest of those injured, and fifty-three years old. He has had a heavy struggle in the febrile reaction, and healing has been retarded by indolent granulations. The figures 355 belong to the case alluded to in full, as that which had evaded the very worst forms of danger.

The highest amount, 766 square inches, is altogether exceptional, and it is inconceivable that he would have survived the primary shock and passed through the suppurative stage, had that extent of surface actually secreted pus. The scalded portion represented very nearly one-third of his superficies (which may be computed at 2,300 or 2,400 square inches), highly endowed with nerves and capillaries, and having a secreting apparatus of about 1,000 sweat-glands to the square inch. It is hard to realise what febrile reaction and what a depth of early prostration would have been consequent on suppurative inflammation of 750 square inches of such a tissue. I think we may set aside the question as one not within the scope of human endurance, not even under confluent small-pox, in which the purulent secretion is not prolonged as in the healing of a deep scald or burn. How are we, then, to account for his escape? The safest view is, that the injury to a great extent was only of the first degree—simple vesication that cicatrised without re-

removal of the epidermis—which is borne out by the first record of his being scalded all over the head, neck, and limbs in light vesications, and that so early as the end of the third week he was healed except in a few spots, after which he was detained only for nervous debility, that rendered him incapable of further service.

The history of this case has its points of almost tragical interest from his being one of a pair who, out of thirty-four, escaped with life from the immediate scene of the casualty. When the explosion occurred in the after stoke-hole he was at work in the fore stoke-hole, where he was knocked down by the force of the steam, and, as he states, his clothing was blown from his limbs. In this forlorn state he crept into a coal-bunker, when he was discovered insensible. The question of viability as affected by the amount of injury to the skin, and also that of the reparative power of skin as dependent on the depth of its injury down from the cuticular surface, are not unworthy of more precise observation. I would submit an opinion that in those who had not power to rally from the primary shock, as well as in those scalded to death in the stoke-hole, the viability was destroyed by the amount of violence done to the respiratory track, as well as over a large amount of sensitive nervous tissue, by which life was at once compromised beyond the recuperative power of the nervous centres; while, in the twelve who succumbed later, death was the consequence of the inability of the reparative forces to cause the restoration of the extent of tissue injured, dependent on its depth more than on its actual superficial extent. This conveys to my mind a sufficient explanation of the greater mortality from the sequences of gunpowder explosions than from scalds, within that degree in which viability is not at once annihilated. The amount of injury to the surface not inconsistent with viability is, in my opinion, approximately defined by the mean value of the measurements now recorded, so that I would view the removal of 350 inches of cuticle from an adult by scalding, whether by steam or by boiling water, and less in the latter case, as placing life in the greatest jeopardy, through inability of the systemic forces to sustain the impress of acute suppuration over so wide an extent, or to withstand the inflammatory sequences that arise in internal organs during the processes of external repair by prolonged suppuration and cicatrization.

In comparing results under my own observation, I am disposed to infer that, from the greater depth of gunpowder explosion burns, 250 square inches are on an average as fatal as 350 square inches of scalded surface, in which larger patches will not necessarily suppurate, but will heal without suppuration when the vesications are not torn off.

The treatment pursued in this casualty can only be spoken of generally in its constitutional and local aspects. Of the former, it may be said that, until decided signs of rallying were shown, stimulants with sago and beef-tea were liberally administered, and anodynes of opium and chloral-hydrate were given to relieve pain, and chloric ether or chloroform to allay any irriability of stomach, and the catheter was introduced whenever there was any urinary distress.

After rallying, beef-tea and animal food were given under appropriate circumstances during the night as well as the day. Milk was also freely poured in as a drink, mixed with lime water where irriability of stomach had not subsided.

In all cases where no alvine evacuations had taken place on the third day, recourse was had to saline laxatives, with senna infusion, at intervals whenever called for. The disposition to constipation existed in all cases, so long as they progressed favourably; and, in fact, this disposition was observed throughout to be the most auspicious of indications, as a liberal diet of animal food was then always well borne, and in all such cases the healing processes went on rapidly. In the treatment of internal congestions and inflammatory reactions, general therapeutic indications were followed. In those of the air-passages, there was a very favourable course in the primary congestive stage; and pneumonic symptoms were developed in the secondary stage in only two instances, one of which died.

The meningitic symptoms scarcely admitted any treatment of a special character; nevertheless, two cases occurred in which ultimate recovery took place—there being besides several cases in which delirium was present.

Gastro-enteric disturbance often led to most unfavourable prognosis, but it subsided more frequently than the meningitic complications, in proportion as suppuration went on uninterruptedly; recurring in a few instances at a later stage, but not even then with fatal consequences except in one instance where coffee-ground vomiting occurred, perhaps from gastric ulceration.

The renal disturbance generally disappeared under a few doses of alkalies, with nitric ether; but suspicions were entertained that this complication may have depended on the too free use of carbolic acid in the dressings.

Weakness and prostration were in many cases extreme, and the greatest precautions had to be taken against syncope; but, notwithstanding this, one sudden death occurred from that cause. Exhausting dressings were, as a rule, postponed until after the patient had had some nourishment, and a slight stimulant administered immediately before their being changed. In the treatment of these cases, the habits of discipline of the sufferers were conducive to their recovery—inasmuch as the persuasions of officers rarely failed to secure the concurrence of the patients in carrying out whatever treatment was thought best for them. The local treatment was by oil and lime-water on cotton wadding, on every part, to the fourth and fifth days, and to a later period, in the majority of cases, on the limbs. Where suppuration commenced on the face, head, and neck, and the upper part of the chest, this being found inconvenient and dirty, causing distress to the patients, the moist dressing was changed for dry, cotton-wadding was abandoned, the parts were washed with carbolic oil, and then dusted, from a common flour-dredger, with a powder consisting of one part of oxide of zinc, one of carbonate of magnesia, and two of powdered starch, sifted on wherever moisture appeared, care being taken to keep the facial orifices free. By this means a firm incrustation was formed as a mask to the features, which remained intact, excluding the atmosphere. Under its protection, the process of scabbing, by which nature heals most of the wounds and sores of the lower animals, and of man himself in an uncivilised state, went on most favourably, so that, on the detachment of the crusts, the parts were found to have healed, which they did in the neck, face, and head very rapidly, except as regards the ears, the pinna, probably from the restlessness of the patients, gave trouble in many cases, and in some was the seat of abscess.

The results are that only in one case is there any permanent indicated cicatrix on the face producing deformity, and that in the parts where the mode of treatment could not be well applied. The advantages of this plan of treatment were first seen by me among the blacks in the Island of Mauritius, who, being employed in sugar-boiling, often meet with very severe scalds by superheated syrupy fluid. The material I saw used by them was nothing but pulverised calcined sea-shells, dusted on wherever moisture oozed out through cracks in the crust, which remained on until scabbing had taken place, not only excluding the atmosphere, but preventing the deposit of larvæ by flies, often a severe embarrassment in treating wounds in tropical climates.

I think so favourably of this treatment in the prevention of unsightly scars as to lead me to suggest its applicability in confluent small-pox, at least to the parts usually exposed. It was also used to a minor degree in some of the sores on the limbs, more especially of the hands and forearms, in some of which the scalds were so severe, that the cuticle, and in one the nails with it, came off in the form of gloves; and it is satisfactory to know that, although attenuated fingers and very thin cuticle will affect the sufferers for a time, yet there are no cases of contracted tendons to be recorded.

I mention this as an efficacious mode of excluding atmospheric air, and not as any new principle of treatment. In fact, it is but one of the numerous means to the same end which have been kindly suggested from many sources, among which I may enumerate immersion in a bath of olive-oil, covering the scalded surfaces with various paints and varnishes, dressings of many unguents, raw cream, and red currant jelly: all being the suggestions of the kindest desire to relieve suffering, although frequently emanating from a too limited experience. All I venture to claim for this is simplicity and readiness of application.

The treatment by oil and lime-water was disused generally before the tenth day, and, where the above was not employed, it was substituted by olive-oil with a twentieth proportion of carbolic acid, which was applied on lint under oiled silk, with Lister's gauze as a bandage, and this was very successful also, not, however, free from the suspicion I have already referred to, of its injuriously irritating the renal organs. In dealing with numerous cases with such extensive suppuration not free from superficial sloughs, there is an impossibility of maintaining a pure state of the atmosphere. Almost every deodorant was tried by sprinkling the floors with solutions delivered from the roses of watering pots, and by whitewashing them with suspended solids; but the plan found to be most efficacious was that proposed by Dr. Gooldeen: the imperceptible disengagement of chlorine from a mixed solution of nitrate of lead and common salt, sprinkled on the floors and spread on sheets hanging from screens placed near the beds from which offensive odours emanated.

In conclusion, I would add that very much has been due to the efforts by careful personal attention of the surgical staff under the guidance and responsibility of Deputy Inspector-General Loney, for by them the duties, however humble, if tending to the welfare of the sufferers, have been performed in a zealous spirit.

NOTES OF A REMARKABLE CASE OF POISONING BY LEAVES OF YEW.*

By P. MAURY DEAS, M.B.Lond.,
Medical Superintendent, Cheshire County Asylum, Macclesfield.

E. L., FEMALE, aged 41, was admitted into the asylum on June 14th, 1875, having been already under treatment for two years in the Northampton Asylum. She was noted as labouring under chronic melancholia, with dementia. She was thin and not strong, but suffering from no bodily disease. On September 1st, there is the following note:—"Much the same; troublesome in regard to her food. She requires careful watching, as she wastes and hides it. Far from strong." Three months after, there is the note:—"Is a good deal better. Looks stouter and stronger. Takes her food well. Mind unchanged: much demented. Dirty in her habits. Seldom speaks, and does nothing."

She remained in this state till February 1st in this year. On the morning of that day, she appeared to be in her usual health, and made a good breakfast. About eleven o'clock, she went out into the airing court for a short time, with other patients and two nurses. Between eleven and twelve, I visited the ward myself, and found all as usual. Very shortly afterwards, I was summoned out of another ward to see E. L., who, it was stated, had been suddenly taken ill. The nurse noticed her half lying on the day-room floor (which she had a habit of doing), and asked her to get up. The patient said she was not well; she was very faint. The nurse assisted her up, saw she was faint, laid her on a sofa, and went for me. I found the woman lying on her back on a sofa, apparently in a faint. Her face was pale, eyes shut, and pulse almost imperceptible. Her head was laid low, and a small quantity of whisky and water put into her mouth; this was swallowed readily. In a moment or two, she revived somewhat, became conscious and able to speak. She said she felt very faint. In a few minutes, she became worse again. She became unconscious, and at the same time the facial muscles were convulsed, chiefly on the left side, the head itself being drawn to that side. The eyes were thrown up, and the pupils contracted. The arms were also drawn up, and there was general restlessness. The facial convulsions were similar to those in an epileptic fit, and ended in a few minutes in frothing at the mouth and stertorous breathing. A short period of quiescence ensued, and of semi-consciousness. The heart's action continued very weak, and the extremities were cold. Friction was employed to them and over the heart. In a few minutes more, another convulsive seizure took place similar in its features, and these were repeated three or four times, with short intervals. Consciousness never returned; the action of the heart became weaker and weaker; the respiration became very slow, with long intervals; and the woman finally died within an hour from the time when she was first found to be ill.

The symptoms were somewhat anomalous, but they seemed to point to some cerebral effusion, probably near the medulla. At the *post mortem* examination, however, made about twenty hours after death, no organic disease was found to account for death. The brain generally was actively congested, as well as the membranes. The sinuses and veins were filled with dark liquid blood, and this condition also existed in the large systemic veins. The internal organs seemed all healthy, but venously congested. On opening the stomach, it was found to contain a small quantity of green-tinted watery fluid, a small quantity of leaves, and six or seven small seeds mixed with some glairy mucus. There was no food in the stomach. There were a few patches of moderate congestion. The leaves were of two different kinds. They were carefully removed, suspended in water, separated, and then dried. The smaller portion of the leaves (weighing five grains) consisted of yew. There were many of them entire, all quite fresh, and apparently had not been long in the stomach. The remainder (weighing eleven grains) were fragments of holly leaves. These were much more broken up, but also appeared fresh. The seeds were those of holly. The duodenum contained some green-tinted fluid, and was somewhat congested. In it were found two yew-leaves only. The upper portion of the small intestine was also somewhat congested, but contained no leaves.

REMARKS.—Although this, I think, must be regarded as a case of poisoning by yew-leaves, in the absence of any other adequate cause of death, yet the nature of the symptoms and the rapidly fatal result seem out of all proportion to the amount of leaves and the short time they appeared to have been in the stomach. The recorded cases of poisoning by yew are not numerous, and information on the subject is scanty. Christison states, in his work on *Poisons*, on the authority of Orfila,

that large doses both of the leaves and berries had little or no effect on dogs or horses. It took two ounces of the juice of the leaves to kill a small dog, and thirty-six grains of extract of the leaves, injected into the jugular vein, caused giddiness, stupor, and death. In the case of a large dog, three ounces of the juice of the leaves merely caused vomiting, and in another a decoction of twelve ounces of leaves had no effect. Accidental poisoning has several times occurred in children through eating the berries of the yew; but in these large quantities were eaten. The symptoms were vomiting, purging, coma, convulsions, dilated pupils, hurried respiration, a small pulse, and cold skin. In some of the fatal cases, death ensued in from two to four hours; but in one the child survived nineteen days, and died from the effects of severe inflammation of the bowels. A case is recorded in which three children died from the effects of a tablespoonful of the fresh leaves of yew administered to each as a vermifuge. The time they survived is not stated.

Taylor, in his *Medical Jurisprudence*, quotes the following case, which is the nearest approaching to ours which I can find.

"In March 1845, a case was reported to the Dublin Pathological Society by Dr. Mollan, in which a lunatic had died from the effects produced by yew-leaves. The deceased was observed chewing the plant, probably from that perversion of appetite so commonly observed in insanity, and, before the attendants had taken it from him, he had succeeded in swallowing a portion of the masticated juice (*sic*). He was soon afterwards seized with giddiness, spasms, and irregular action of the heart. He died in fourteen hours. On inspection, the stomach was found much distended. It contained some yew-leaves. There was emphysema in the submucous tissue, but no other abnormal change."

The precise quantity of leaves, it will be observed, is not given. Taylor says: "There is no doubt that the yew is a cerebro-spinal poison; the symptoms produced by the leaves and berries are pretty uniform in character: convulsions, insensibility, coma, dilated pupils, pale countenance, small pulse, and cold extremities, are the most prominent. Vomiting and purging are also observed among the symptoms." Some little time ago, a female patient in the Shrewsbury Asylum died from the effects of eating a quantity of yew-leaves. In this case, the woman must have eaten the leaves in the course of the afternoon, or, at all events, gathered them. She appeared well when she went to bed at 7.30, and was found dead in bed in the morning. At the *post mortem* examination, the stomach and intestines were found to be enormously distended. There were several patches of congestion on the inner surface of the stomach, and near the pylorus a small quantity of yew-leaves. The duodenum contained a few of the leaves, and was very red; but the rest of the small intestine was loaded with the yew-leaves, congested in patches, and softened.

The symptoms in these recorded cases seem to correspond in the essential points, viz., convulsions, with insensibility and great weakening of the action of the heart, with those observed in our case. But there are peculiarities in the latter worthy of special remark, and making the case quite unique among those hitherto recorded.

These peculiarities are as follow:

1. The very small quantity of the leaves which had been swallowed. I think the holly-leaves and seeds may be dismissed as inert. By careful separation, only five grains in all were obtained; and the total quantity taken cannot much have exceeded this. Either, therefore, yew is, in some cases at any rate, a much more powerful poison than is generally supposed, or there must have been in this case some special idiosyncrasy similar to what some individuals exhibit in regard to opium and other powerful drugs.

2. The short time which the leaves appear to have been in the stomach, the rapid development of the symptoms, with a quickly fatal result. The woman had breakfasted about eight o'clock. Had she eaten the leaves shortly after this, or while the food was still in the stomach, the leaves would have become mixed with the food, and, unless vomiting had occurred, would mostly have passed with the food into the duodenum. But there was no food found in the stomach, while nearly all the leaves were still in it. The inference, therefore, is, that the leaves could not have been eaten before ten o'clock, and this is quite in accordance with the whole fresh state in which they were found. The holly-leaves were more broken up; no doubt from more chewing being needed before they could easily be swallowed. In the Shrewsbury case, it will be recollected that nearly all the leaves had passed from the stomach through the duodenum into the small intestines, and one meal, at any rate, intervened between the eating the leaves and the woman's death.

3. The total absence of vomiting or other evidence of gastric or intestinal irritation. Probably this was due to the small quantity and the short lapse of time. This shows, too, that the chief poisonous action of yew is a specific one, exercised immediately through the

* Read before the East Cheshire Medical Association.

nervous system, and that the irritant symptoms observed in other cases were secondary, and probably due to mechanical irritation.

4. What was the precise mode of death in this case? The sudden faintness, depression, and symptoms of collapse, with great weakening of the heart's action, seem to point to shock to the vaso-motor system as the most likely *modus operandi*. The evidence of shock was undoubted, and also that interference with the action of the heart was the first marked symptom, and preceded any cerebral or convulsive symptoms. It seems, indeed, a fair inference to assume that the latter were mainly due to congestion, owing to obstructed return of blood to the heart, partly through failure of the latter, but probably mainly through impaired vaso-motor power in the vessels themselves. A further point might be raised, viz., whether it is possible or likely that the symptoms could have been due to direct irritation of the nerves of the stomach, and thus affecting the heart through the inhibitory action of the vagus. If this were admitted as possible, the fragments of holly-leaves would assume greater importance; for the sharp spicula of these leaves, of which there were a number, might cause such direct irritation. I merely throw out this idea, which many may think fanciful; but, if my memory serve me right, there are cases on record in which the amount of constitutional disturbance caused by a sharp-pointed body in the stomach has been out of all proportion to the cause, and could only be accounted for in some such way as I have suggested.

5. To sum up, there can be little doubt that, extraordinary as it may seem, this woman did die from the effects of eating this very small quantity of leaves; that the symptoms were mainly those of shock or collapse, and that these were either due to a specific poisonous action, or possibly to direct irritation.

From the point of view of asylum practice, the case forcibly illustrates the dangerous consequences which at any time may result from that perversion of appetite which exists in certain cases among the insane, leading them to eat anything and everything which comes in their way. Many anomalous symptoms are, I believe, often due to this cause. In the case of E. L., the existence of this propensity had not been observed before; but, even if it had, I know no morbid habit among the insane more difficult to eradicate, or the indulgence of which it is more difficult always to prevent. That there was any intentional suicidal purpose in this case, it is hardly necessary to discuss. Although at an early period of the case a suicidal tendency was feared, none such had manifested itself during the patient's residence here; and, even if it had, it is in the highest degree improbable that a patient of her class would adopt such a method of carrying out a suicidal intention; still more so, that she would have limited herself to such a small quantity.

ON SOME FORMS OF IDIOPATHIC PERITONITIS.*

By R. H. MEADE, F.R.C.S.,

Consulting Surgeon to the Bradford Infirmary.

PERITONITIS is so frequently traumatic in its origin, or comes on during the course of other diseases, that its existence as a primary affection, like pleurisy, is often ignored, or very briefly alluded to by most authors. The peculiar form of peritonitis to which I wish to call attention mostly arises from cold; it is generally subacute, and sometimes latent in its character, and speedily causes effusion of serum into the abdominal cavity. This complaint often bears a great resemblance to the latent forms of pleurisy not uncommon in children and young persons; in which, after exposure to cold or damp, the patient complains of slight pain in one side, followed by shortness of breathing; and, upon examination, one pleural cavity is found full of fluid.

The early inflammatory stage in this affection of the peritoneum is sometimes so slight, that it is altogether overlooked, and the enlargement of the body is the first symptom of disease that attracts the attention either of the patient or his medical attendant. These attacks have sometimes been designated active ascites; and Sir Thos. Watson, in the latest edition of his *Lectures*, goes so far as to say that he thinks they may arise without any inflammation of the peritoneum at all, and are rather forms of simple inflammatory dropsy, arising from checked excretion of fluid from the skin by cold.

There is no doubt, however, that the effusion of serum into the peritoneal cavity in these cases is as much the result of inflammation of the peritoneum as the pouring out of fluid into the pleural sac is the result of pleurisy; for, by careful observation, cases may be found in which the characteristic symptoms of peritonitis may be noted of vary-

ing degrees of intensity: from some in which they are of quite an acute character to others in which they are exceedingly slight, but in all of which the termination is the same, by rapid effusion. I saw a young woman a few weeks ago, with Dr. Byrne of Horton, who had suffered last year from acute pleurisy, and complained, when I saw her, of abdominal pain increased upon pressure, with frequent vomiting, etc. Her temperature was high, her pulse quick, and her abdomen half full of fluid. She had been exposed to wet and cold a few days before the attack came on, and, though a delicate girl, had been in good general health since the attack of pleurisy.

This case, which was quickly relieved, will illustrate the more acute varieties of the affection; and I will briefly mention another as an example of the most latent forms. An active man, about forty years of age, called at my house to consult me respecting a considerable enlargement of his abdomen, which had come on during the previous two or three weeks without pain. His general health was fairly good, and he was able to walk about and attend to his business. Upon examination, I found his abdomen full of fluid. There were no symptoms of disease of his liver or other internal organs, and the only cause he could assign for the complaint was exposure to cold. He quickly and permanently recovered.

In these forms of peritonitis, the inflammatory process seems to be principally or entirely confined to the parietal part of the peritoneum; it is also often of a latent character; it speedily causes effusion, and is mostly curable. I have always met with it in adults. It must not be confounded with the tubercular forms of peritonitis which commonly occur in children, are very chronic in their character, and very intractable.

In conclusion, I may say that I have found mercury the best remedy in these cases. In the purely latent forms, I have been in the habit of prescribing small doses of the bichloride with some demulcent. One-twentieth of a grain three times a day is sufficient. It may be continued for two or three weeks or more, if necessary. In the more acute cases, I direct the abdomen to be covered with dilute mercurial ointment spread thickly upon lint, and generally find that the ascitic fluid begins to be absorbed as soon as the mercury slightly affects the system. Digitalis with other diuretics may also assist the cure. In the more chronic forms, where the abdomen has become much distended, I have found it sometimes desirable to let off the fluid by tapping; after which operation the remedies will act more readily, and generally prevent the return of the effusion.

LITHOTOMY IN INDIA.

By G. BAINBRIDGE, M.R.C.S.ENG.,

Her Majesty's Bombay Medical Establishment, Civil Surgeon, Khandeish.

It may, perhaps, interest surgeons who deal with vesical calculus, if I place on record, for the sake of the credit of lateral lithotomy, the results of my experience. From the commencement of 1868 to the present time, I have performed the lateral operation on 199 persons with only 6 deaths, *i. e.*, 3.01 per cent., or 1 in 33. To these I will add two fatal cases of lithotripsy in old men with much diseased urinary organs, who would probably have died under lithotomy if that procedure had been selected, for the stones were above crushing size, and the health unfavourable. These raise the mortality to 3.92 per cent., or 1 in 25.

The accompanying table shows my cases, with deaths at various ages. I am glad to see that Surgeon-Major Harris (Bengal Medical Establishment), in his recent work, shows that the deaths from lithotomy among children in Bengal, so far as his knowledge extends, were only 1 in 27, a result which nearly coincides with mine. In England, the mortality during the same period of life appears, from Sir Henry Thompson's table, to be 1 in 15; so that our Indian success is not entirely due to a small mortality in our younger patients.

Ages.	No of Cases.	No. of Deaths.	Percentage of Deaths.	Proportion of Deaths.
15 and under	147	5	3.4	1 in 29
16 to 35	35	None	None	
Above 35	17	1	5.8	1 in 17
Totals.....	199	6	3.01	1 in 33

It is true that juveniles composed nearly 74 per cent. of my own, and only 56 per cent. of Sir H. Thompson's series; but this of course only tends to lessen the general death-rate, not that of children.

Of my own success I have no explanation to offer; and cannot, in this short paper, enter into those statistical details which are necessary for

* Read before the Annual Meeting of the Yorkshire Branch.

a minute comparison of different series of cases. I believe that 169 of my cases in a tabulated form, with remarks, will shortly be published in the *Transactions of the Bombay Medical Society*, to which I submitted an account of my lithotomies up to July last. Since then, I have operated thirty times. Suffice it to say, for the present, that the only cases I have ever declined were, a boy in whom I could not clearly detect a stone, which if present was small; and an infant under one year, for whom I recommended a postponement of the operation, the symptoms being slight.

My list includes twelve adults in whom the average weight of the calculi was above two ounces and a half, and nine children with stones of one ounce and a half (apothecaries' weight); besides which, there were many large in proportion to age, or of peculiarly irritating shape or composition; and great emaciation was by no means unfrequent. I have only had two cases of troublesome hæmorrhage, which in each was checked by plugging; both recovered.

The only death among adults after lithotomy was in an old feeble man with a large phosphatic stone, and a very debilitated and diseased body, whom I cut at his own request as a last resource. One of the deaths among children took place on the twenty-first day after operation after removal from hospital without my permission, the case being unpromising, but not hopeless. The cause of death was scarlet fever, with some abdominal or pelvic complication—not acute peritonitis.

I can only attribute the low mortality after lithotomy in this country to the hardness and temperance of the people. The cultivating and labouring classes, among whom stone chiefly occurs, live very frugally; and consequently corpulence, undue vascularity of tissue, or atony of the blood-vessels, are uncommon, and their constitutions are non-inflammatory.

On the other hand, the build of our patients is much smaller than in Great Britain; their constitutions more often decidedly feeble, and they are not unfrequently sufferers from ague or enlargements of the spleen or liver. Moreover, adults over forty are in this country almost always prematurely aged, and I am disposed to think that our patients more often present themselves to us in advanced stages of the malady than in England.

As regards instruments, I have always used a scalpel for the first incision, and usually a long bladed knife sharp along its whole edge for the deep cutting. But in small children I have often done the whole operation with a narrow-bladed scalpel. The probe-pointed knife, gorget, or stone-crusher, I have never used. My after-treatment consists chiefly in the free application of cold water for the first few days, and after this wet lint, or other simple dressing. I have never found drainage tubes necessary, except in two cases of plugging for hæmorrhage.

REMARKS ON CURRENT MEDICAL TOPICS.

Abstract of an Address delivered before the North Wales Branch.

By JOHN RICHARDS, L.K.Q.C.P.I., etc.,

Surgeon to the Carnarvonshire and Anglesea Infirmary; President of the Branch.

I BEG to thank you most sincerely for the compliment you have paid me in electing me your President for the ensuing year, an honour I am well aware I owe to your kindness, and not to any merits of my own. I take a deep interest in the prosperity of our Branch, and will endeavour to discharge the duties appertaining to the office to the best of my abilities. If I fail to do so to your satisfaction, I hope you will attribute my deficiencies to the right cause, viz., a fault of the head and not of the heart. It is usual for, and expected of, the person who holds the honourable position which I do this day, to deliver an address. As the time at our disposal for transacting the ordinary business of the day is short, I think you will agree with me, that I shall be consulting your convenience if, in any remarks I may make, I endeavour to be as brief as possible.

I propose to make a few remarks on some of the subjects which have lately engaged the attention of the profession. Before I do so, permit me to congratulate you on the prosperous condition of your Branch, both numerically and financially. As to the Parent Association, to borrow a phrase from "Guizot", it has become "a great fact". It numbers now 7,000 medical men, scattered over the whole of the British dominion. For my own part, I consider it both a privilege and an honour to belong to an Association which has been the means of binding so many medical men in one brotherhood, with one aim and one object in view, viz., promoting the interest of the profession, and advancing the healing art. It has been well and truly said that—

"A wise physician, skilled our wounds to heal,
Is more than armies for the public weal."

But our Association has done more than merely uniting British medical men; it has been the means of forming a bond of union between medical men of all nations. Last year, I was at the annual meeting at Edinburgh. I then made the acquaintance of an American physician, who informed me they had a Sister Association in the United States, governed by the same rules as ours; and that if any of us went over to America and brought a certificate of membership from our local or general secretary, we should be admitted as honorary members of the American Association. Last year also, the members of our Association were invited to attend the Medical Congress at Brussels, a congress composed of members from every medical society in Europe. Truly, our Association may be said to be cosmopolitan.

The JOURNAL, under the able editorship of Mr. Ernest Hart, has become second to none of our weekly periodicals.

All of you are aware that, in consequence of the determination of the Council of the College of Surgeons to grant their licence in midwifery to persons not otherwise qualified in medicine or surgery, three of the Midwifery Board of Examiners, viz., Drs. Barnes, Farre, and Priestley, resigned, and I think they deserve the best thanks of our profession for their straightforward and manly conduct. Let us consider what effect this action of the College would have on the medical profession. By the Medical Act, 1858, the midwifery licence of the College of Surgeons is one of the qualifications in Schedule A, and can be registered. The 34th Clause of the above Act enacts that a "legally qualified medical practitioner means a person registered under this Act", so you perceive that a person wholly unacquainted with medicine or surgery might, by means of this midwifery licence, become, to all intents and purposes in law, as much qualified as any of us here. More than that, such a person might use any title he chooses, for one of the judges has given an opinion that, once a person is registered, he may adopt any title he likes. The 40th Clause enforces a penalty against any person for wilfully pretending or implying that he is registered under this Act. Whatever the College of Surgeons may do further in this matter, I have been informed by one of the members of the Medical Council that a midwifery licence *only* will not be placed on the Register. Had not this matter been nipped in the bud, a back way would have been opened, enabling half-educated people to get into the medical profession.

The next subject I have to draw your attention to is the Medical Defence Association, which has been established within, I think, the last twelve months. Amongst its objects is the suppression of the practice of medicine and surgery by unqualified persons, the suppression of indecent works, and the amendment of the law relating to quackery and quack medicine. Since its formation, the Society has been very successful in obtaining verdicts in every case. In the case of the Apothecaries' Company v. Nottingham, tried before Baron Bramwell, and reported in the BRITISH MEDICAL JOURNAL of February 5th, 1876, the learned judge, in charging the jury, made the following remarks: "It was his duty to inform them what the law was. Whether they approved or disapproved of the law had nothing to do with the case. His duty and theirs was to administer the law as it was. The defendant was a chemist. The Act of Parliament was clear on the subject. If a person went to a chemist's shop and complained of a headache, and the chemist gave him a draught, that person was liable to a penalty of £20 for each offence." A verdict was given for the Company, the plaintiffs. It is for you to decide this day whether you form a Branch or take some other mode of affiliating yourselves with this Association. In no part of the country is quackery more prevalent than here; and it is a great hardship that medical men, who have gone to the trouble and expense of qualifying, should be deprived of their rights by quacks with impunity.

The case of medical officers to sick benefit societies is a subject to which I wish to allude. Much dissatisfaction prevails as to the remuneration these gentlemen receive; in this part of the country, I believe, it is about 2s. 6d. per head. Now, I had a club twenty years ago; I got 3s. a head; I found the pay unremunerative, and I gave it up. Since then, the wages of the artisan class have increased 30 or 40 per cent.; on the other hand, the expenses of the doctor have doubled nearly. He has to pay more for his horse, fodder, a groom, living, etc., and yet his pay from the sick club is the same. This is not the case with union medical officers. The district I held as union medical officer twenty years ago, and for which I got £65 per year, is now divided into two districts, each £60 a year. So, you see, the salary of the union medical officer has doubled, while that of the club doctor is the same, or less. I am not interested in the matter personally; therefore, I can give an unbiased opinion. I should say that 4s. or 5s. per head is the lowest sum that should be accepted for these appointments. These meetings afford an excellent opportunity for these medical officers to discuss their grievances and act in concert.

I would remind them of what Stuart Mill says in his work: "Man possesses one great advantage over all the lower animals, viz., his power of acting in combination with his fellows, and of accomplishing by the united efforts of numbers, that which could not have been done by the detached efforts of individuals."

Medical education has been much discussed during the past year. Now, I have a very decided opinion on this subject, viz., that it should be compulsory on every student to produce a certificate that he has been engaged for twelve months as a pupil with a general practitioner. The advantages are these: the student becomes familiar with drugs, their actions and doses, and with compounding the same; he gets an insight into the general routine of the profession he is himself to follow; and, above all, he learns what may be termed the business part of the profession, the mode of bookkeeping and general accounts. Many young men, who had commenced their hospital attendance without any previous training have come to me and told me they could not understand the hospital conversation, which related to diseases and drugs which they had never heard of before. The College of Surgeons of England recognises one year with a surgeon, provided he is medical officer to an hospital, dispensary, or union workhouse. I see the desirability of all licensing bodies doing the same was mooted by some of the members at the late session of the Medical Council.

With regard to the Medical Council, it appears to me an anomaly that, while nine-tenths of the medical men in this country are general practitioners, they are not represented on the Council, and have no voice in the management of the education of the medical students. I think if our representative on the Parliamentary Committee would move in this matter and get a memorial to the Minister who makes the nomination to the Council on the part of the Government, this might be remedied, at least in part. While on this subject, I may mention that it appears, from a return compiled by Dr. Farre, that the number of medical men in proportion to the population is decreasing; that, while in 1857 the ratio was nearly one medical man to every 1,000 of the population, in 1871 it was only 1 to 1,500, and there is reason to suppose that this proportion will still further decline, for the standards of the examinations are being yearly raised, and the consequence is that the idle, the dissipated, and the dunce are locked out of the profession. Hitherto a large number of young men entered the medical profession in order to serve in the Army Medical Department. Great changes have lately taken place in consequence of the reforms which were introduced by Lord Cardwell. At the time, protests were sent to the War Office from the Councils of nearly all the Colleges, many of the Universities, and from the Parliamentary Committee of the British Medical Association; but all to no purpose. The Gladstone Government soon afterwards fell, and Mr. Hardy succeeded as War Minister. Soon after he was installed in office, Mr. Hart, as Chairman of the Parliamentary Committee of our Association, waited on him with a large deputation, going at length into the grievances of the medical officers of the army. Mr. Hardy promised to inquire into the matter. So things remained until the commencement of this year, when advertisements appeared, stating that there would be a competitive examination held on February 14th last to fill up seventy-six vacancies in the Medical Department of the Army. Valentine's Day came, but no woovers except a few previously rejected ones. Mr. Hardy now saw that the time for acting had arrived, that the British public would not tolerate their brave soldiers being left without medical attendance, so a New Medical Warrant has been recently issued, restoring the rank, pay, and privileges which were taken away by Lord Cardwell, but introducing the system of ten years' service. Young men entering the army are offered £250 a year, to engage for ten years, to be then dismissed with a gratuity of £1,000 in lieu of a pension. For myself, I shall be very much surprised if young men will accept these terms; certainly the same class that has hitherto entered the service will not give the best ten years of their lives in all climates, and then be turned adrift to commence life as it were anew. I had intended touching on some other points, but I find I have already trespassed too long on your time. I beg to thank you for your kind attention.

OBSTETRIC MEMORANDA.

THE OAKUM-PESSARY.

MR. MORGAN of Lichfield, in the JOURNAL for September 2nd, "advocates the use of the oakum-pessary in almost all cases requiring support". He writes about this mode of treatment as of one introduced by himself, and little known to the profession. Such being the case, I wish to ask Mr. Morgan what he means by "cases requiring

support", for they are singularly variable; and to give the profession some further details respecting a mode of treatment that is said to offer the advantage of being as easily applied by the patient as by her medical adviser.

EDWARD J. TILT, Seymour Street.

AN EFFICIENT AND SIMPLE PESSARY FOR PROCIDENTIA UTERI.

I QUITE agree with Dr. Clement Godson's remarks upon the utility of Zwanke's pessary in procidentia uteri, but consider that a far simpler instrument than the one he describes, and equally efficient, can be made of boxwood in one piece. I keep a gutta-percha model,* and get the boxwood pessaries made from it at the small cost of eighteen-pence each. Nothing can be simpler than this instrument, as there is no metal to corrode, and no joint or hinge. I think the projecting portion should not be made so long as it usually is, and its terminal half should be rather bulbous. It is peculiarly useful in hospital practice, as it cannot get out of order, and never wears out. The use of a little sand-paper may be required at long intervals to keep the surface perfectly smooth. It is very easy to introduce, and the patient readily learns to withdraw it at night and replace it in the morning. It should be washed on removal, and kept in water during the night. In cases of procidentia, its use should be preceded by that of the tow-pessary for a week or ten days, or until the perineum has regained its natural power. It seems incredible to those who have not actually tried it, that such an instrument can prevent the uterus from falling out, for it is itself less in superficies than a plane drawn through the widest portion of the procident uterus covered by the inverted vagina. The reason is, that it does away with the wedge-action of the latter, and substitutes a flat surface, below which the perineum contracts, instead of being gradually expanded and pushed back, as it is by the wedge-shaped uterus.

JAMES BRAITHWAITE, M.D., Leeds.

CLINICAL MEMORANDA.

NOTE ON THE COMMUNICABILITY OF IDIOPATHIC ERYSIPELAS.

THE following facts bearing on the above are of interest.

A gentleman, with his wife and four children, of ages ranging from nine to fifteen years, left home for summer quarters on July 12th. At that time, their landlady was convalescent from an attack of erysipelas of the head and face. She was going about, but the face was still peeling. Having no idea that the disease was communicable, and, moreover, being assured by the landlady that the house had been thoroughly cleansed since her illness, they took possession of their rooms. On July 22nd, their daughter, aged 13, presented the first symptoms of what became a well marked attack of erysipelas of the face, head, and neck. She recovered. On July 28th, the gentleman himself had rigors and headache, followed by a sensation of heat and tingling on the right side of the nose. From this point, the inflammation gradually spread over the face and head. He had a smart attack of erysipelas, from which he recovered. As soon as he was seized, they left the apartments and returned home. No other case occurred.

It is possible that some local unsanitary condition of the house may have been the cause of each attack; but, as no evidence could be found of such, as the landlady's attack was the first case, so far as could be ascertained, which had occurred, and as the house was an old one, it seems to me that, whatever view we may take as to the mode of production of the first case (and on this point there is no evidence pointing to any special cause), the second and third are fairly attributable to contagion derived from the first. Granting that such was their mode of production, the period of incubation was in the one case not more than ten days, and in the other not more than seventeen. In both, it may have been anything under that.

T. MACLAGAN, M.D.

LONG RETENTION OF A HALFPENNY IN THE ALIMENTARY CANAL.

THE following may be interesting from the length of time a coin swallowed was retained. A child, aged two years, was brought to me on September 14th, 1874, by his father, who stated that during breakfast the child had swallowed a halfpenny. An emetic was at once administered; but, though vomiting ensued, no coin appeared. After two days, castor-oil was given, and the motions were examined without

* This m. y be obtained from W. O. J., 29, Spurrergate, York.

finding the halfpenny. From that time to the present, the little boy was sick at least once every day. On Sunday, August 13th, 1876, during a violent fit of vomiting, the halfpenny was brought up in a blackened corroded state. After this, all vomiting ceased. The child's health during these twenty-three months was very slightly impaired.

PAULIN MARTIN, Abingdon.

DIABETES MELLITUS: PEMPHIGUS OF FEET.

In the case of a widow, aged 56, under my care, bullæ of pemphigus began to appear about three months before she sought advice, after great physical fatigue and mental worry. When first seen, there was one on the anterior and inner part of the left sole, about the size of a crown, with others on the tips of the toes and between the toes, and four or five smaller ones on the right sole. There was a great deal of inflammatory œdema around them, and they were attended by severe paroxysmal pains. After these bullæ broke, there were left sloughing ulcers, very prone to bleed and very tedious to heal. She had been subject to boils for years, and, when quite a girl, had suffered alarming hæmorrhage from the extraction of a tooth. She had also suffered for years from great thirst and dryness of the skin, and the tongue was very red and raw; but her appetite had never been excessive, nor had she ever noticed an excessive flow of urine. There was no evidence of tubercular disease of the lungs, and no appearance of cataract. The urine contained a large quantity of sugar. With reference to the connection between diabetes and sloughing ulcers, Trousseau (*Clinical Medicine*, New Sydenham Society's translation, vol. iii, p. 506) mentions cases of spontaneous gangrene occurring in this disease.

JOHN CROSS, M.D. Camb.

SURGICAL MEMORANDA.

SEVERE WOUNDS OF THE KNEE.

A. H., LABOURER, aged 29, opened the right knee-joint with a bill-hook, causing an incised wound eight inches and a half long, extending from the lower border of the patella anteriorly to the upper part of the popliteal space posteriorly, the joint being laid open for over three inches. Considerable hæmorrhage, necessitating the application of the tourniquet, took place during the three hours that had elapsed between the occurrence of the accident and my seeing the patient. The leg was placed in a slightly inclined plane; carbolic acid lotion (1 in 80) was thrown into the joint after the clots had been cleared out; the entire wound was brought together with ordinary silk sutures and adhesive plaster; and the only dressing employed throughout was lint soaked in the carbolic solution. The man quite recovered the use of his leg, and was at work in two months.

F. F., aged 14, a labourer, had the right knee-joint opened to the extent of three inches along the outer side of the patella by the hoop of a water-barrel which fell on him. The wound, which was lacerated, extended two inches below and three inches above the joint. The treatment was, as in the preceding case, with poulticing for four days in the third week from temporary suppuration.

The sutures were removed in the first case on the fourth, and in the second case on the fifth day. Quinine was administered in both cases during the whole treatment. F. F. could use his leg as well as ever, and was at work in thirteen weeks. No stimulants were given.

NORMAN KERR, M.D., C.M.

CASE OF BRONCHOCELE IN A MALE SUCCESSFULLY OPERATED UPON.

J. W., AGED 20, clerk, came to me last year complaining of great inconvenience and difficulty of breathing, arising from a large bronchocele involving the isthmus and right lobe of the thyroid gland, and extending between the sterno-mastoid and the deep structures of the neck. Upon the urgent request of the patient, I consented to operate. On making an incision in the median line, and exposing the capsule, or rather the sac, of the tumour, it proved to be of the cystic form of bronchocele. I laid it open, evacuating a quantity of thin purulent fluid. The tumour at once collapsed. The sac was stuffed with lint, and afterwards daily injected with a strong solution of iodine. It gradually contracted, and in the course of about a month the tumour had entirely disappeared, and the patient has felt nothing of it since.

J. B. UNWIN, Honorary Surgeon to the Wigan Infirmary.

REPORTS

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

LONDON HOSPITAL.

ANKYLOSED PATELLA: SUBCUTANEOUS OPERATION.

(Under the care of Mr. MAUNDER.)

IN the JOURNAL of November 6th and December 4th, 1875, we recorded two cases of partial ankylosis of the knee-joint, in which Mr. Maunder had separated a fibrous ankylosis of the patella to the femur by subcutaneous section with perfect impunity, and with the effect of restoring usefulness to the limb. We are now indebted to Mr. John Job, house-surgeon, for the report of a third case of still greater interest.

Alice F., aged 11, was admitted into the hospital on December 7th, 1875. The patient stated that, five years ago, she fell down stairs and struck her left knee; it gradually became swollen and stiff, but there was very trifling pain. She had not kept her bed. She had never, as far as she knew, suffered from illness; no history of joint-disease in the family. In appearance, the patient was delicate; rather anæmic, with long, dark-brown eyelashes, pearly conjunctiva, and fine hair. On examination, the left knee was found bent at an awkward angle, whilst the leg was slightly displaced backwards, and rotated outwards. The patella was firmly fixed to the outer condyle of the femur, and perfectly immovable. The extensor muscles of the leg were a good deal wasted. No pain was complained of on handling the joint, and some degree of flexion existed.

December 8th. Mr. Maunder said that, in proposing to straighten the limb, it was necessary to place the child under an anæsthetic, so that, whilst muscular volition was in abeyance, the surgeon might readily appreciate the degree in which each structure interfered with extension, with a view to deal with them in the order of their severity. Ether having been administered, the tendon of the biceps muscle seemed to be the first obstacle to extension, and was accordingly divided subcutaneously. This done, the patient was returned to bed to allow the necessary repair.

December 15th. The child was again put under the influence of ether; and, while the integument above the knee was drawn to one side, and so held by the dresser, Mr. Maunder penetrated it in the centre of the long axis of the limb, at the edge of the articular cartilage, with a narrow-bladed knife. This was carried straight downwards behind the centre of the patella, and between it and the femur, to which it was fixed. The knife was now made to divide the adhesions on one side, and the same being attempted on the other, bony ankylosis was appreciated by its edge. This being the case, the knife was withdrawn, and a very fine saw was run down into its place, and made to sever the bony connection. The saw was again replaced by the knife, and the patella was soon freely movable. The skin was now allowed to return to its normal position, and the little wound was closed by compress, strapping, and bandage. Forcible extension having been employed, the limb was placed on a McIntyre's splint, and two bags of ice were ordered to be kept continually applied to the knee.

December 16th. There was a little tenderness on pressure over the patella, but no appreciable swelling.

December 17th. There was no discomfort.

December 18th. The patient made no complaint.

December 21st. The ice-bags were removed. She was ordered to have a seven pound extension weight put on the leg. The patella was movable; there was not the slightest swelling or pain about the joint.

December 31st. The compress and strapping were removed, disclosing a small scar. The limb is now as straight as it ever will be (an angle of 170 deg.), seeing that the leg is, and was when the operation was undertaken, slightly displaced backwards and outwards. In this instance, unlike the two already recorded, the saw, in addition to the knife, was used, but no unpleasant consequences whatever followed.

In speaking of this and other cases, in which more or less displacement backwards, with rotation of the leg outwards, existed, as a common consequence of gelatinous disease of the synovial membrane, Mr. Maunder said: Why not divide one or more ham-string tendons early in the progress of the disease, and before the ligaments are so far involved that they must yield to unrestrained muscular action? In the case of the child of a professional friend, he had divided all three

ham-strings about two years ago, and, as he believed, with marked benefit; for, although the disease is arrested without suppuration, but with ankylosis of the patella to the femur, the displacement of the leg is scarcely appreciable. It is to such cases as the latter that Mr. Maunder deems his operation pre-eminently applicable, when angular deformity exists.

WEST LONDON HOSPITAL.

EXTRAVASATION OF URINE: GANGRENE OF THE PENIS: FREE
INCISIONS: TEMPORARY CONVALESCENCE, FOLLOWED BY
ABSCESS AND BED-SORES: DEATH ELEVEN WEEKS
AFTER OPERATION.

(Under the care of Mr. TEEVAN.)

THE following case is interesting on account of the extravasation being limited in extent, and not affecting the perineum or scrotum.

James L., a sawyer, aged 47, was admitted into the West London Hospital on September 7th, 1875, suffering from extravasation of urine. It appeared that the patient caught a gonorrhoea twenty-five years ago, and had had a very bad stricture for fifteen years. Seven years ago, he submitted to a course of treatment by gradual dilatation, and was put into a comfortable condition. For the past two years he had, however, neglected himself, and had gradually become worse, so that for many months he had only been able to urinate drop by drop.

When admitted into the hospital, the patient, who was naturally thin, was in a very critical condition, the expression of his countenance was anxious, the pulse quick and feeble, and tongue dry and brown. The penis was greatly swollen, tense, and glossy, measuring six inches in length and six inches and a half in circumference. On the dorsum of the ovary, about the centre, there was a gangrenous spot of the size of a pea. An erysipelatous blush extended from the base of the penis upwards towards the umbilicus. The perineum and scrotum were in no way involved in the affection. Mr. Alderton administered ether, and Mr. Teevan made eleven incisions into the penis, each cut being half an inch long, and parallel to the axis of the organ. In some places the skin was quite undermined, and the finger could be passed in at one hole and its point made to emerge at another. Mr. Teevan, on examination, found that the stricture was situated three inches from the meatus externus, and, having tried to introduce different instruments, finally succeeded in passing one of the smallest English elastic catheters, stiffened with a stylet, and drew off about one pint of turbid urine. The instrument was tied in, and the penis enveloped in a charcoal poultice. The patient took nourishment freely.—On the 9th, Mr. Alderton found the pulse 98, and the temperature 98.2. The gangrene had increased, and the dorsum of the penis was of a dead black colour.—On the 10th, the pulse was 100, and the temperature 98.8. All the skin over the penis had become gangrenous, with the exception of a small strip covering the corpus spongiosum.—On the 12th, the dead integument began to fall off.—On the 15th, the corpora cavernosa were quite denuded, but the strip of skin covering the corpus spongiosum still preserved its vitality. The catheter was removed. The patient's appetite was good, and he had much improved in health.—On the 16th, urine was passed freely through the penis, but some of it escaped at a hole close to the stricture.—On the 18th, nearly all the urine came through the meatus externus. A No. 16 olivary catheter was introduced into the bladder.—On the 22nd, a No. 17 olivary catheter passed, after failure with English metal and elastic instruments. The new surfaces were covered with florid granulations.—On the 23rd, smart hæmorrhage took place from an artery on the dorsum penis; the bleeding was speedily arrested by Mr. Alderton.—On the 25th, the patient was much better, up and about the ward. A No. 16 olivary catheter was passed.—On the 29th, some more bleeding took place, but it was quickly stopped.—On October 2nd, nearly all the urine came the right way. A No. 14 olivary catheter was introduced. The patient went on improving from this date till the evening of the 19th, when a rigor took place. The pulse rose to 132, and the temperature to 103.8. He complained of loss of appetite and great thirst.—On the 20th, an erysipelatous blush appeared on the left buttock, accompanied with much induration of tissue.—October 23rd, an abscess burst close to the tuberosity of the left ischium. Pulse 120; temperature 102.8.—October 24th. Another slight rigor at night; a bed sore made its appearance over the right buttock.—October 25th. The patient was very much emaciated, but slept well, and had a very good appetite; fæces and urine passed involuntarily. A catheter was introduced into the bladder, and but little urine was drawn off.—October 28th. A great quantity of pus escaped from the abscess; tongue brown; pulse 102; temperature 99.8.—November 3rd. The patient's tongue was clean; his appetite was recovered; the

pulse and temperature were normal, but all fæces and urine were still passed involuntarily. The man was very emaciated. The bed-sores looked cleaner. A No. 15 olivary catheter was introduced, but the bladder was found nearly empty.—November 15th. The patient was still more emaciated. Tongue dry and brown. The bed-sores, five in number, had increased in size and looked sloughy. Fæces and urine were all passed involuntarily. A catheter was introduced to show that the bladder was empty. From this date the patient gradually became weaker. The exhaustion and emaciation increased, and when he succumbed on the 25th, he was literally but skin and bone, although the appetite had remained good till nearly the last. The intellect was clear until a few hours before death.

Necropsy, ninety-six hours after death.—The body was very blanched and emaciated. The lungs were healthy; no abscesses were to be anywhere found. The liver was very friable, and of typical nutmeg aspect; it contained no abscesses. The left kidney was of normal size; numerous streaks of injections could be seen. Two abscesses, each half an inch in diameter, were found situated close to the cortical substance. The right kidney was of normal bulk, and presented similar appearances to its fellow, with the exception that there was but one small abscess. The bladder was empty, dilated, pale, and not fasciculated; there was no injection of the blood-vessels. The urethra had but one stricture, three inches from the meatus externus. No communication could be discovered between the urethra and the abscess in the left ischio-rectal fossa; nor could any diseased bone be found in the cavity of the abscess. The ureters were neither dilated nor thickened.

LIVERPOOL WORKHOUSE HOSPITAL.

REMARKABLE COURSE OF AN ABDOMINAL FISTULA: REJECTION OF
FOOD THROUGH THE EXTERNAL OPENING: DEATH FROM
STARVATION.

(Under the care of Dr. ALEXANDER and Dr. IRVINE.)

THE subjoined case is an example of a remarkable course followed by a fistula. Commencing externally at the ensiform cartilage, it passed down to the liver, turned to the left along its surface, perforated the hepatic substance at the site of the gall-bladder, and opened into the duodenum.

Richard K., aged 64, a hard-working labourer of moderately temperate habits, was admitted into the Liverpool Workhouse Hospital, August 4th, 1875. He had been a healthy man up to the beginning of the year, when he began to experience a feeling of "coldness" in his right hypochondriac region; at first more unpleasant than painful, and not confined to any particular spot. In about a month, he felt a decided pain around the last two or three costo-sternal articulations on the right side, which gradually increased in severity, and was followed in a short time by a "swelling" at the same spot. This swelling rapidly increased in size, and, extending to the right and left, formed a hard painful ridge across the upper part of the epigastric region. In June last, an opening formed a little to the right of the tip of the ensiform cartilage, from which a whitish foetid matter escaped. This gave him great relief until another source of annoyance arose in persistent pyrosis, the fluid regurgitated being not glairy, and curdy.

On admission, the patient was very much emaciated and debilitated, had a yellowish cachectic appearance, but was not jaundiced. There was a rugged opening of the ensiform cartilage, from which ran a ridge to the right and left, as above described. The discharge from this opening was variable in character, sometimes thick, sometimes thin and watery. The appetite was good, tongue slightly furred, skin cool, and pulse quiet. He complained most of the pyrosis, for which bismuth and kino were prescribed.

On the morning of August 21st, a gall-stone, oval in shape, three-fourths of an inch long and half an inch thick, was found in the poultice. He remained in much the same condition from this date until the morning of October 1st, when another gall-stone, similar to but three times as large as the first, was removed, the opening having to be enlarged for this purpose. During the day, small quantities of food were noticed to escape from it; the same occurring on the following days, but in larger quantities, until everything he took was discharged in this way immediately after being swallowed. Efforts were made to prolong life by nutrient enemata, of which, however, only three were retained. He died on October 6th.

At the necropsy forty-eight hours after death, the following state of matters was found. The stomach was dilated to at least twice its normal size; the cardia was healthy, the pyloric end for two inches above the pylorus presented several small excavated ulcers. The pyloric ring was firm and prominent, with the mucous membrane

ulcerated. The first part of the duodenum was much dilated; its right extremity adhered to the liver-substance, thus concealing the usual position of the gall-bladder; its peritoneal covering was smooth; its mucous lining was ulcerated and thickened, and its cavity full of a mixture of pus and food. At the point where the duodenum had become applied to the gall-bladder and liver, no trace of that part of the wall of the duodenum, nor of any part of the gall-bladder, could be found, and the finger could here be passed into a large irregular cavity bounded by indurated hepatic substance, and extending at one point to the upper surface of the liver. From this point a sinus ran to the left between the upper surface of the gland and the abdominal wall to reach the external opening. The hepatic and common bile-ducts were normal. A small portion of the cystic duct was found and could be traced to where the duodenum and liver adhered to each other. Behind the dilated duodenum, the fibrous tissue was thickened and matted, and some glands were enlarged, but no signs of active peritonitis existed. The horizontal portion of the fistula passed through the centre of a fibrous mass that had cemented, as it were, the liver to the ribs. The hepatic substance in the region of the affected parts was fortified by a thick layer of effused material, making it firm and almost gristly in feel. Microscopical examination of the liver-substance at various distances from the abscess showed innumerable steps between fibrous and hepatic tissue, through their commingling in most varied proportions.

REMARKS.—It may, we think, be fairly concluded that the gall-stones were the cause of the mischief in this case. The probable course of events was—ulceration and absorption of the walls of the cystic duct in consequence of a gall-stone becoming obstructed in its entrance; adhesion of the duodenum, and perforation of its walls; gradual blending of the walls of the gall-bladder and duodenum; encroachment of the abscess on the hepatic substance; and the course of the fistula to the weak part of the abdominal wall at the side of the ensiform cartilage.

In a *post mortem* examination, a short time ago, we found an illustration of one of the steps of the above case. The duodenum was adherent to all the unattached surface of the gall-bladder, from which, however, it could be removed by moderate force. Had a strong barrier at a sufficiently early period been thrown out on the side towards the liver, a natural cure might have taken place; as it was, death was only produced indirectly by interference with digestion.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 5TH, 1876.

WILLIAM O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

Blunt Hook.—Professor LAZAREWITCH of Kharkoff, Russia, exhibited a modification of the blunt hook. One end was adapted for replacing the funis; the other for extracting the child by the thigh, placing a silk loop round it, or for placing a plaited silk noose over the child's foot.—Dr. GODSON had on a former occasion called attention to the danger consequent upon using the blunt hook formerly recommended by the Professor; he was glad to see he had discarded it for one with a different curve.

Hypertrophy of the Spleen and Liver.—Dr. ROUTH exhibited for Dr. OSWALD specimens removed *post mortem* from a child, nine years old. The swelling had begun in early childhood. She was strumous, and measured thirty-three inches round the abdomen. A brother was similarly affected.—Dr. WILTSHIRE inquired as to the nature of the enlargement; whether there was any history of syphilis, or of chronic suppuration, or of tubercle, obsolete or with cavities. It looked as if it were a case of albuminoid infiltration. He would suggest the desirability of a microscopic examination.—Dr. WYNN WILLIAMS, who had had the case under his care, said the mother denied all knowledge of syphilis: but the father acknowledged to having had hard chancres. The condition was often seen in ague districts. Many children got it when the Metropolitan Railway was being made. The child was not rickety.—Dr. ROUTH, Dr. W. Williams, and Dr. Wiltshire were requested to examine and report further on the case.

Addendum to Case of Colloid Tumour.—Dr. BARNES reported the further history of the case reported last year. A mass nearly as large as before, weighing twenty-two pounds, had been removed by gastro-tomy; and, in spite of some wounding of the intestine owing to adhesions, the patient made a good recovery.

On the Displacement of the Uterus by the Distension of the Bladder, as shown by Experiments on the Dead Body.—Dr. BRAXTON HICKS read

a paper upon this subject, detailing the results of numerous experiments he had made in conjunction with Dr. J. F. Goodhart. The conclusions arrived at coincided in many respects with those obtained by Dr. J. Williams. Distension of the bladder produces retroversion without flexion; and a combined distension both of bladder and rectum raises the uterus bodily in the pelvis in an axis more or less perpendicular to the plane of the brim. The uterus may be regarded as poised in its centre, at the junction of the body and cervix. Moderate distension of the bladder suffices to tilt the fundus to a horizontal position; further distension, though generally completing the retroversion, may act in distending the anterior wall of the vagina, and so prevent version, but encourage flexion, more especially if the cervical attachments be firm.—Dr. SNOW BECK inquired as to where the intestines were during these experiments.—Mr. SPENCER WELLS doubted whether experiments made on the dead body in the recumbent position, after removal of the small intestines, could afford reliable information as to the effect of varying degrees of distension of bladder and rectum upon the uterus of living women in the erect and other positions of the body. The influence of the small intestines (whether empty or distended with faeces or gas) upon the uterus, was at least as great as that of either bladder or rectum, or both; and, when they fell at all low down behind the uterus into Douglas's pouch (as they certainly do not unfrequently), they not only affect the positions of the uterus, but often lead to mistakes in practice.—Dr. CLEVELAND remarked that, in estimating the full effect of a distended bladder upon the uterus, it should be remembered there is a considerable difference in degree between the distension, and it may be added thickness, of walls of a healthy bladder, injected after death, and that of an organ gradually enlarging to an enormous size under retention during life. In Dr. Hicks's interesting experiments, the maximum of distension produced by injecting two pints of water did not probably reach one-fourth of what sometimes occurs under retention.—The PRESIDENT reminded the Society how William Hunter had taught that retroversion of the gravid uterus was produced by an over-distended bladder, and this doctrine had been almost exclusively accepted for a time. Dr. Tyler Smith had pointed out that, in some instances at least, the retroversion was not due to the pressure of the bladder, but that pregnancy supervened in an uterus which had been known to be retroverted before gestation commenced. William Hunter's observations applied especially to the uterus when its fundus was enlarged by pregnancy, but the investigations of Dr. Hicks carried the subject further, and seemed to indicate that the unimpregnated uterus might be displaced by a distended bladder.—Dr. JOHN WILLIAMS stated that his experiments were performed both on the living and on the dead subject. When the bladder and rectum were both full, the uterus was high up in the centre of the pelvis. If the bladder were empty, the uterus became immediately anteverted. When the bladder and rectum were both empty, the uterus was low and retroverted. As to the objections raised to the experiments, it was said that the intestines were generally found in Douglas's pouch during life: they were not found there once in twenty cases. When the uterus was attached to the posterior wall of the bladder for a longer distance than usual, it became anteverted when the bladder was empty. Unless the bladder and rectum were very much distended, the uterus never reached the brim of the pelvis. Constipation was an undoubted cause of retroflexion, as on defecation the bladder was first emptied, and then the straining produced retroflexion.—Dr. ROUTH had been in the habit for years of recommending patients with anteversion to hold their urine for as long as possible. He thought the intestines were very rarely found in Douglas's pouch. In cases of retrocele, he could not recall a single case where they had descended into the pouch.—Dr. SNOW BECK thought the intestines were very seldom found posteriorly—behind the uterus—he did not mean in Douglas's pouch.—Dr. BANTOCK stated that his experience, gained in the operation of ovariectomy, was directly contrary to that of Dr. Williams, as to the intestines being behind the uterus.—Mr. SPENCER WELLS believed the intestines were always behind the uterus.—Dr. J. WILLIAMS remarked that, in most cases of ovarian tumour, the uterus was either pressed down or else drawn up; in the latter case, of course, the intestines would go down behind.—Dr. WYNN WILLIAMS thought the cases of ovarian tumour and healthy abdomens were not comparable.—Mr. LAWSON TAIT had never found any evidence that the intestines were down behind the uterus in a case of ovarian tumour before its removal. He thought it must be exceptional, for he had observed it only twice, and then demonstrated it to others on account of its rarity. He did not think that any conclusions which Dr. Hicks might draw from experiments on a dead body lying on its back would materially aid in judging of the influence of distension of the bladder in the living subject.—Dr. ROPER thought it difficult to understand how distension of the bladder could produce retroflexion of a healthy uterus. Retroflexion was mostly connected

with a morbid condition of the structure of the uterus resulting from metritis, or the uterus became bent by the contractions and adhesions brought about by parametritis.—Dr. HEYWOOD SMITH thought the weight of the lower segment of the bladder tended to pull down the uterus.—Dr. GALABIN had been present at some of the experiments described in the paper, and he had noticed that the bladder did distend in a globular manner, the lower segment first. It seemed evident that, when the uterus was anteverted during life, the intestines were in contact with its posterior surface, and aided in maintaining its positions.—Dr. TILT thought the experiments interesting as far as they went; but the effects of vesical distension on the womb would be better understood by injecting the bladder without opening the abdomen, and by then making a section of the body after freezing it.—Dr. HICKS stated that he had brought forward his communication as a small contribution on the subject. In the horizontal position of the body, the uterus was still vertical. The intestines did unquestionably get behind the uterus. It was impossible to distend the bladder to the umbilicus without bursting it.

Case of Vesico-Vaginal Fistula.—Mr. LAWSON TAIT brought forward a case in which this condition remained fourteen years after lithotomy, and was cured by a series of plastic operations. In 1842, the patient underwent vaginal lithotomy. After that, she went through a series of operative proceedings at the hands of different surgeons. In July 1874, she came under Mr. Tait's care. Considerable loss of tissue had taken place, by sloughing, atrophy, and attempted operations, so that a small pouch at the upper part of the vagina, not much larger than a walnut, represented the bladder. The patient suffered from phosphatic diathesis of the most inveterate description. During the eighteen months she was under treatment, she was under the influence of chloroform twenty-three times. In order to provide an exit from the bladder other than the urethra, until the wound from the operation had fairly united, a Boudault's trocar was passed through the left vaginal wall as far from the urethra as possible, into the bladder, and out on the other side close to the cervix. Through it a nickel-wire drainage-tube was passed and fastened in. The operation was then conducted as before, and the result was most satisfactory. The stitches and drainage-tube were removed on the sixteenth day; the wound from the latter, being valvular, closed without trouble. The patient had now complete control over the bladder, and could retain as much as ten ounces of urine, rarely requiring to rise more than once during the night.—The PRESIDENT thought this an instance of the most unmitigated perseverance under the most difficult circumstances.—Mr. SPENCER WELLS had seen the patient operated on by Mr. Tait, and confirmed all that had been said in the paper as to the benefit which had followed the operation. In two similar cases, such great benefit was derived from the application of the actual cautery to the orifice of the urethra and for about an inch along the canal leading to cicatricial contraction after the separation of the eschar, that no further operation was necessary. So much good was done in both cases, that he would be disposed to try the effect of cauterisation of the urethra in any case of incontinence of urine in women, when there was no vaginal fistula.—Dr. BANTOCK stated that Mr. Tait's experience confirmed that of Emmet, that, in cases of fistulae involving the urethra, it was absolutely necessary to success to make an outlet for the urine through the floor of the bladder.—Dr. ROUTH remarked that Mr. Baker Brown had adopted the plan of making an artificial urethra, sewing up the normal one in similar cases.—Mr. LAWSON TAIT inquired if Mr. Wells would employ the actual cautery in cases of large dilatation of the urethra, such as proposed by Mr. Teale of Leeds.—Mr. WELLS replied that he had not seen incontinence after dilatation.

Case of Hematocephalus.—Dr. GRIFFITHS communicated the particulars of a case of this nature, which had been mistaken for hydrocephalus. Brain-substance and clotted grumous blood issued from the opening made in the head, after which delivery was effected by the blunt hook.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JULY 5TH, 1876.

J. D. GILLESPIE, M.D., President, in the Chair.

Sarcoma of the Ovary.—Dr. FOULIS showed for Dr. THOMAS KEITH a solid sarcomatous tumour of the ovary, lobulated, and weighing sixteen pounds and a half, which Dr. Keith had removed on the preceding Friday from a lady in London. Her own medical attendant had supposed it to be a fibrous tumour of the uterus; but a careful examination had satisfied Dr. Keith that it was of the ovary, and a sarcoma. Ascitic fluid in the peritoneal cavity was found to contain the proliferating masses of epithelial cells, which, on more than one occasion already, Dr. Foulis had shown to the Society, and which he regarded as evidence of sarcomatous, probably malignant, growths. The tumour

was growing rapidly, and evidently killing the patient. The operation was very difficult from adhesions of the tumour to intestines, omentum, and mesentery. It lasted two hours. There was profuse hæmorrhage, but the pedicle was long and healthy. All the other abdominal and pelvic organs were healthy; the tumour, though so large, having not infected neighbouring parts.—In answer to a question from the President, Dr. FOULIS stated that the patient had survived the operation for thirty-six hours, dying apparently from suppression of urine, none whatever having been passed during that time.

Dr. FOULIS also showed two teeth and a piece of bone resembling a piece of a jaw-bone removed by Dr. Keith in an ovarian cyst.

Drainage of Wounds.—Mr. CHIENE read a paper, entitled a *New System of Drainage of Wounds*. In it he advocated the substitution of hanks of catgut prepared in carbolic acid solution for the India-rubber tubes in ordinary use. After illustrating by a reference to the manner in which field-drains were laid, that it was not absolutely necessary that a drain-pipe should be either tubular or patent, he expressed his conviction that a hank or skein of catgut would act by capillary attraction even more powerfully than an ordinary tubular piece of India-rubber. It would have the additional advantage that it would not need to be shortened or removed, as the granulations of the parts might be trusted to absorb it. Four cases illustrated the paper. One was an amputation at the ankle drained by three hanks of catgut. In this, putrefaction took place, and the drain was not a success. One, an excision of knee for ankylosis, healed up well; and two others, in which small tumours had been excised with antiseptic precaution, had done well also. From these somewhat scanty data, the conclusions had been drawn. The size of the skeins was to vary with their number and the depth of wound to be drained, and the most careful antiseptic precautions were to be taken.—Mr. ANNANDALE wished Mr. Chiene had given a different title to his paper. In his title, there was no mention of its being applicable only to antiseptic wounds; and he had, therefore, come to-night expecting to hear about a system of drainage applicable to all wounds. Again, he fancied, from Mr. Chiene's cases and his remarks on them, that the catgut acted not so much as a drain as by absorbing fluids. In some of the cases, was there any fluid effused to drain? One had not been dressed for four days. Again, such a plan was evidently quite inapplicable to suppurating wounds. The case in which putrefaction and suppuration occurred, showed that catgut in putrid wounds acted like any other foreign body. The subject was a new one; but, from his experience of antiseptic surgery, he did not think it would answer, though Mr. Chiene's practical talents might considerably overcome difficulties.—Dr. JOHN DUNCAN had great satisfaction in seeing that now the principle of drainage of wounds was meeting with general recognition as an important addition to surgical armature. He remembered, when in Paris, in 1863, being much impressed with M. Chassaignac's use of drainage in every case, from a whitlow to lithotomy, and writing home to Professor Spence in its favour. His remarks, however, were not received with much *éclat*. He had himself tried the catgut drains in two cases of removal of tumour. In one, he tied three, in the other six vessels with catgut ligatures, and just left both ends hanging out, instead of cutting them short. The cases did well under antiseptic management. This plan had the advantage that the number of drains was thus in proportion to the vascularity of the part, and thus to the probable amount of discharge to be expected.—The PRESIDENT related a case in which he, without antiseptics, had tied a vessel in the depth of a wound with catgut, and left the ends out. The wound had healed, but the ends were still hanging out, and not absorbed.—Mr. CHIENE briefly replied.

Puerperal Fever and Septicæmia.—Dr. HUNTER read a paper on Puerperal Fever and Septicæmia, their Relations and Probable Identity: with cases. He first alluded to the difficulty felt by the practitioner in publishing cases of puerperal fever; and then described some cases in his ordinary practice which preceded the puerperal ones. Two were in the same house; the husband had a diffuse cellulitis of the arm after a puncture which nearly proved fatal, and his wife had a very bad attack of erysipelas. Other cases of erysipelas had large abscesses and great fever; and one especially required very constant dressing and care by Dr. Hunter's own hands. The puerperal fever cases were six in number, of which four died, and two recovered. These cases were coincident with some most curious and serious results on the health of their nurses and families, e.g., the mother of one who nursed her had axillary abscess of a most severe type, with great prostration; her sister, who succeeded the mother as nurse, had a most dangerous inflammation of finger, hand, and arm. The servant girl, who washed the linen, had fever and sore-throat; and the husband a slighter form of the same in his tonsils. Another case similarly affected her mother, husband, three sisters-in-law, who all acted as nurses successively, and the husband of one of the latter. Dr. Hunter, by an exhaustive process of reasoning, traced

out the chain of phenomena, and ascribed the commencement of the whole to the thoroughly septic condition of his own hands after the bad cases of erysipelas and abscess first alluded to. He described the extreme precaution he took as to cleanliness, and their good effect when once thoroughly undertaken.—The PRESIDENT felt sure the Society was indebted to Dr. Hunter for his interesting paper.—Dr. SIMPSON thought the Society, and indeed the whole profession, were indebted to Dr. Hunter for his paper. It certainly required a great deal of courage to bring forward the series of disastrous cases so admirably detailed. The question now was, were we to retain the term puerperal fever? In the discussion previous to Dr. Hunter's paper, there was a variety of fevers in women, all puerperal, because they occurred in the puerperal state. Thus, when typhoid fever or small-pox laid hold of a puerperal woman, there was danger of death, because she had never had them before. In one case of a lady, who had been sedulously guarded from infantile diseases, an attack of measles in her thirteenth confinement proved fatal in a few days. Now, were we to look on puerperal fever as identical with erysipelas? Sometimes the erysipelatos poison coming into contact with the vaginal or other canals caused symptoms similar to those arising after a surgical operation. Then there was the group of cases so well brought forward by Dr. Hunter, where the surgeon got impregnated with a poison which would give a surgical patient a fever with local manifestations from the introduction of poisons into a wound. This, as taught by the late Sir James Simpson, should be held as puerperal fever when the patient was a puerperal woman. There were two things, however, required from Dr. Hunter, viz., *post mortem* examinations of the women who had died, and also of the fatal surgical case. This would, no doubt, have shown lymphatic inflammation, phlebitis, thrombosis, and metastatic inflammation. He had collected for his late uncle, in the dissecting-rooms at Vienna, the results of *post mortem* examinations of patients dying after puerperal fever and after surgical operations. The results in both classes of cases were the same, especially where the surgical operation had been on the abdomen. The great danger in a puerperal patient lay in her condition. It would have been interesting to know the health of the puerperal women in the district at the time of Dr. Hunter's fatal cases, as it would have added to the value of his paper. He had undoubtedly carried a morbid agent, and it was, therefore, important to watch the kind of source from which such an agent might arise. Dr. Hunter had done so in his cases, but it might come from less striking sources. Thus, in a case of his own, it was traced to the sore thumb of the nurse; and, in a second instance, it was also traced to the nurse, who had been dressing an old ulcer. Then, again, the obstetrician might get the poison from the foetid lochial discharge of a patient already confined, although it was doing the woman herself no harm. He felt much interested in Dr. Hunter's cases, and felt sure they all owed him thanks for it.—Dr. A. MACDONALD wished simply to endorse Dr. Simpson's remarks. The contribution was valuable, and one much needed in science. There was always a certain amount of reluctance in furnishing such cases; and, although the practitioner was honoured by his brethren, yet the popular amount of credit was not in proportion to his deserts. No member would now deny the view of puerperal fever advocated this evening. The only question was the bearing of antiseptic measures on these cases; whether by the diligent use of antiseptic agents such organic fever poisons could be destroyed. He would fain believe such was the case. It might be true, as Dr. Hunter had said, that the epidermis of the hand might be so impregnated that so much poison might lurk in its deeper layers as to cause puerperal septicæmia even after a three weeks' holiday on the part of the medical attendant. He did not, however, think that their present knowledge warranted this. Probably, if the cases were examined, some hidden relationship between them and other causes might be traced different from what Dr. Hunter had shown. Then they knew that carbolic acid caused desquamation of the cuticle; and most of them would demur to the case of pyæmia where the pulmonary mucous membrane was supposed to be the absorbing medium. It was more probably a scratch in some accessible part. These were the doubts that occurred to him; and, if it were true that these poisonous influences, bacteria, etc., were so subtle that no carbolic acid could kill them, then no obstetrician nor surgeon could, after a sinking wound, go to cases for weeks. Dr. Hunter certainly deserved thanks for his interesting paper.—Dr. SMART thought that too much could not be said on this important subject. He was interested and pleased in the paper and remarks on account of the unanimity which had prevailed; and he hoped the professional minds would be educated in this matter. Dr. Hunter was not limited to the pulmonary mucous membrane for the absorption of poisons, as the eye is often a habitat for such. Then, as to Dr. Hunter's doubts on the source of the poison, he should remember that puerperal women are so susceptible that an infinitesimal

dose might do all the mischief. Many years ago, in a debate at the Royal Medical Society, he had ventured to generalise the whole question into one of septicæmia. As physician and pathologist in one of the largest obstetrical hospitals in Britain, he had ample proof that puerperal fever was septicæmia. He, indeed, considered it dangerous for an accoucheur or medical man in practice to attend at a necropsy. As to the question of puerperal fever existing as an epidemic, if they admitted it was a septic disease, then they got at the question at once. There was no epidemic of puerperal fever apart from direct septic influences. All knew how easy it was to produce an epidemic or quasi-epidemic. Medical men should, therefore, be very careful in avoiding all places where such danger could be.—Dr. HUNTER thanked the members for their remarks. In regard to what Dr. Simpson suggested about *post mortem* examinations, he thought the Society would agree with him, that he would not have been justified in making them. In fact, when lately called on by the Procurator Fiscal to make such an examination, he had refused. He was glad to hear Dr. Macdonald's remarks; and he only regretted that time prevented him from saying more.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MEETING IN GLASGOW, SEPTEMBER 1876.

SECTION D.—BIOLOGY.

DEPARTMENT OF ANATOMY AND PHYSIOLOGY.

President: JOHN G. MCKENDRICK, M.D., F.R.S.E.

The Structure of the Placenta.—Professor TURNER gave a description of the structure of the placenta in relation to the theory of evolution. He described, by means of coloured diagrams, the various forms of the placenta in the different mammals which he had chosen as the best media of illustration, and pointed out that there was nothing in the structure of the organ that was opposed to the theory that evolution had taken place from some simple fundamental type. He refrained from entering upon any discussion as to the cause of the evolution, merely remarking that, after having given a careful study to the subject, he had not been able to see any determining cause of the evolution.

Physiological Action of Vanadium.—In the absence of Dr. W. Stirling, Mr. JOHN PRIESTLEY gave a summary of a research on the physiological action of vanadium. He stated that the results of this research were embodied in a paper presented to the Royal Society of London, an abstract of which appeared in the last volume of their *Proceedings*. Vanadium was a metal that had been carefully examined by Roscoe, but nothing was ascertained in that examination as to its physiological action. It belonged to the group of metals including arsenic, antimony, and bismuth, and its atomic weight was 51.2, very nearly resembling chromium. It formed four series of compounds, and numerous experiments had been made as to the action of solutions of the metal on physical organisms. It was found to be an intense irritant poison, rapidly causing death, which was accompanied or preceded by paralysis, convulsions, and supervening drowsiness. It appeared that all the solutions, except those that were extremely diluted, acted injuriously on such organisms as bacteria, germinating seeds, fungi, and so forth. It was applied to rabbits, pigs, cats, dogs, pigeons, and frogs, and the results might be thus briefly stated. The solution was injected into the skin, into the veins, and into the alimentary canal, and in all cases the results were similar. The symptoms were first of all paralysis of motion, next convulsions, either local or general, and then rapidly supervening drowsiness, congestion of the alimentary mucous membrane, the presence of a fluid mucus in the intestines after death, and certain changes of respiration, and, coincidentally, a falling temperature and feebleness of pulse. Experiments on respiration, circulation, and the nervous system had been taken at length. Experiments on a rabbit showed that, both before and after the division of the nerve-centre, vanadium caused in the first instance a stimulation, and in the next a depression of respiration. This was due to the action of the poison on the nervous centre of the medulla. It was also found, by injections made under the skin and into the veins, that vanadium caused a diminution of blood-pressure and irregularity of pulse. When a frog had been poisoned by injected vanadium, it was found that, when the reflex irritability was entirely abolished, and the muscles and nerves were tested by electricity, the work done, compared with the normal work of muscles not poisoned, did not show any difference.

Physiological Action of Vanadium.—Dr. GAMGEE read a paper on the action of vanadium upon the intrinsic nervous mechanism of the frog's heart. He said he had found certain definite phenomena following the injection of vanadium. The ventricle came to a standstill when a certain quantity was injected, but, where the quantity was exceedingly small, there was slowness of the ventricular systole, the auricles began to beat more slowly, and finally the heart stood still. The inhibitory centres of the heart connected with the auricles were not affected, but the vagus lost its power of inhibiting the ventricle. It might be suggested that this remarkable action of the poison resulted from the fact that vanadium did not act on the inhibitory fabric connected with the vagus or centres of the auricles, and that there was one inhibitory centre of the ventricle quite distinct from the inhibitory centres of the auricles. He should be loth to formulate such a suggestion. Physiologists knew nothing of the inhibitory centres in the heart; they only surmised their existence to account for the phenomena exhibited in cases of poisoning by nicotine and other poisons. The researches of Mr. Priestley had shown that vanadium was not a muscular poison, because, after it had been injected, the muscles were found to retain all their irritability. He (Dr. Gamgee) was not prepared to say to what extent the phenomena in the heart were really due to the influence exerted on the contractile substance of the heart. Digitalis, veratrine, and aurtar had been looked upon as muscular poisons; but he should be inclined to think that they were not, because, while they affected the contractions of the ventricle, they did not affect the contractions of the auricle. No doubt vanadium, like digitalis and other poisons, must be regarded as a poison of the muscular substance of the heart, but more particularly as a poison of the nervous apparatus of the heart. He next gave a summary, showing the difference in the poisonous activity of the ortho-, meta-, and pyro-phosphoric acids. He pointed out that, although all the vanadates were poisons in the animal economy, they differed considerably in intensity; and, having given an account of the results of experiments with different acids, he arrived at the conclusion that the meta-phosphoric acid was not so poisonous as the pyro-phosphoric, and that there was a great relationship between all these phosphates and the corresponding vanadates. He also stated that not only did the pyro-phosphoric acid produce death very rapidly when administered in certain quantities, but that it might be made to produce the same result very slowly. Dr. Gamgee summarised the results of experiments, showing the physiological action of pyro-phosphoric acid, especially as a cardiac poison.

Nervous Apparatus of the Lung.—Dr. WM. STIRLING described the nervous apparatus of the lung. He pointed out that numerous nerve-cells are found in various organs of the body, and that the lung is no exception in this respect. There were numerous nerves entering the lung and accompanying the bronchi and blood-vessels; these nerves were derived from the pneumogastric and sympathetic nerves, which nerves accompanied the blood-vessels. In the course of these nerves numerous small masses of nervous matter, constituting ganglia, quite visible to the naked eye, were intercalated. These ganglia were most numerous around the bronchi at the base of the lung, and could easily be isolated by means of a dissecting microscope. The probable destiny of each of the two sorts of nerve-fibres—white and grey—found in the ganglia was indicated; the former supplying the bronchial mucous membrane and the bronchial muscles, while the latter probably presided over the muscular fibres of the blood-vessels, and so, controlling their calibre, regulated the amount of blood passing through them.

The Physiological Action of Chromium.—Mr. PRIESTLEY offered some observations on the physiological action of chromium, stating, as the results of experiments performed on rabbits, guinea-pigs, and frogs, that the action of chromium was two-fold; first, it induced irritation of the alimentary mucous membrane, which was evidently congestion and ecchymosis; and, secondly, it acted directly on the great nerve-centres, causing convulsions, paralysis, vomiting, a fall of blood-pressure, and a sudden and temporary stoppage of the heart in dilatation. It was not specially a poison of muscle or nerve-trunks.

The Effect of Esmarch's Apparatus on the Circulation.—Dr. GAMGEE read a paper on the changes of circulation which are observed when blood is expelled from the limbs by Esmarch's method. He stated that experiments carefully conducted on Esmarch's method with healthy students had produced the following results. When the blood was expelled from one leg, the heart beat more rapidly, but only for a short time, and the same result followed the application of the bandage to the second leg. When the heart began to beat at its usual rate, the tourniquets were loosened; and in an instant the limbs, previously blanched, became suffused with a blush, while sensibility therein became more and more blunted, and the heart bounded off at an exceedingly rapid rate, to return, however, to its normal beat almost imme-

diately. In applying the bandage, the blood in the veins was first expelled, then that in the arteries, and next there was an expulsion also of the lymph. He was of opinion that compressing the limb would send more blood into the veins than into the arteries, and, as the lymph would go to swell the venous pressure, the venous blood plus the lymph would be greater in amount than the blood sent into the arteries. But the valves in the veins would prevent the increase of pressure in all parts of the system. It had been suggested that the increase of heart-beat when the bandage was applied was intimately connected with the diminution of the normal difference between arterial and venous pressure; that, if the right side of the heart be subjected to greater pressure, that would cause an increase of the cardiac contractions. These certainly were facts making it likely that an increase of pressure on the right of the heart tended to quicken the heart-beats, and the quick beats on the removal of the bandage were, no doubt, the result of the removal of the arterial pressure.

Intestinal Secretion and Movement.—The PRESIDENT (Dr. McKendrick) submitted the report of the Committee on Intestinal Secretion and Movement. The conclusions at which the committee arrived were as follows. 1. Application of various soda and potash salts to the intestinal mucous membrane produces a more or less profuse secretion; that caused by sulphate of magnesia, acetate of potash, sulphate of soda, and tartrate of potash and soda being more abundant. 2. The presence in the intestines or in the blood of atropia, morphia, chloral, etc., does not prevent the abstraction of sulphate of magnesia. 3. The splanchnic nerves are as usually admitted the vaso-motor nerves of the intestines, but either have no centrifugal fibres to their muscular coats, or affect them only indirectly by diminishing their supply of blood. 4. The secretory nerves of the intestines have the small ganglia of the solar and superior mesenteric plexuses for their centres, and this secretion is unaffected by the splanchnics, the vagi, or the dorso-lumbar parts of the cord. 5. Destruction of the lumbar part of the cord after extirpation of the solar plexus produces hæmorrhage or hyperæmia of the intestinal mucous membrane, which is absent after division of the splanchnics, destruction of the semi-lunar ganglia and solar plexus, or division of the mesenteric nerves themselves. 6. The splanchnics are the afferent nerves for peristalsis of the intestine, the efferent stimulus probably reaching the intraparietal ganglia through the lumbar cord and abdominal sympathetic, the former effect being inhibitory, and the latter stimulating to these ganglia. These results, the President stated, had been drawn from numerous experiments. He considered that investigations of this kind promised to be of very great value with reference to practical medicine; for example, with regard to the knowledge of purgative medicines.

The Leaves of the Fly-Trap.—Dr. BURDON SANDERSON gave the results of researches on the electrical phenomena consequent on irritation of the leaves of the fly-trap (*Dionæa muscipula*). He exhibited a specimen of the fly-trap, and described the formation of the plant, how the leaves closed when a fly lighted on them, and how the insect was held by the hairs which crossed each other in triangular form, and which were so jointed that, when the leaves closed, they were not broken. He next gave the result of experiments made on the plant with an electrical apparatus. At Bradford, he had brought forward certain new facts relating to the electrical changes which took place in the leaf of the fly-trap in consequence of mechanical irritation. These changes were of such a nature as to show, first, that the leaf, when in the normal state, was electromotive; and, secondly, that when excited either mechanically or electrically, it became the seat of electrical changes of a very remarkable kind. He drew a parallel which he then, and still, thought justifiable, between these changes and those which occurred in the excitable tissues of animals.

The Finger-Muscles of the Whale.—Dr. STRUTHERS of Aberdeen read an account of finger-muscles in the Greenland Right whale. He described some dissections of the hand of this whale, from which, he said, it may now be concluded that these muscles exist in the group of the whalebone whales, while in the ordinary toothed whales they are represented by fibrous tissue only. The observation he had formerly communicated to the Association, that these muscles exist in the true bottle-nosed whale, had a special interest, as the teeth of that whale were rudimentary and functionless. These muscles in the forearm of whales he had found to be largely mixed with fibrous tissue, giving them a ligamentous as well as a muscular function, and the transition was, therefore, easy.

The Rudimentary Hind-Limb of the Whale.—Dr. STRUTHERS gave an account of dissections of the supposed rudimentary hind-limb of the Greenland whale. The paper was illustrated by drawings of the soft parts and by a number of specimens of the bones. These parts he stated to be extremely rare, no complete specimen having been in any museum in this country, and, so far as known to him, the muscles

had never been investigated. He agreed with the view of the Danish anatomists Reinhard and Eschricht, and of Professor Van Beneden of Louvain, that these parts were really rudiments of the thigh-bone and leg-bone.

Action of Alcohol on the Brain.—Mr. T. C. KINGZETT read a paper on the action of alcohol on the brain. He said the question of what became of alcohol taken into the system had been extensively studied. Thudichum was the first to determine quantitatively the amount of alcohol eliminated by the kidneys from a given quantity administered, and the result he obtained was sufficient to disprove the elimination theory then widely prevailing. Dupré and many others continued these researches, from which, according to Dupré, they might fairly draw three conclusions; first, that the amount of alcohol eliminated per day did not increase with the continuance of the alcoholic diet; therefore, all the alcohol consumed daily must of necessity be disposed of daily, and, as it was certainly not eliminated within that time, it must be destroyed in the system; second, that the elimination of alcohol following the taking of a dose was completed twenty-four hours after the dose was taken; and, third, that the amount eliminated in both breath and urine was a minute fraction only of the amount of alcohol taken. In 1839, Dr. Percy published a research on the presence of alcohol in the ventricles of the brain, and concluded "that a kind of affinity existed between the alcohol and the cerebral matter". He further stated that he was able to procure a much larger proportion of alcohol from the brain than from a greater quantity of blood than could possibly be present within the cranium of the animal upon which he operated. Dr. Marcet, in a paper read before the British Association in 1859, detailed physiological experiments which he considered to substantiate the conclusions of Dr. Percy, inasmuch as they demonstrated that the alcohol acted by means of absorption on the nervous centres. Lallemand, Perrin, and Duroy had, moreover, succeeded previously in extracting alcohol from brain-matter in cases of alcoholic poisoning. But all these researches did not show the true action, if any, of alcohol on cerebral matter, and no method of investigation was possible until the chemical constitution of the brain was known. Thudichum's recent researches in this direction, together with some more recent investigations by Thudichum and the author, had placed within reach new methods of inquiry. In his research, he (Mr. Kingzett) had maintained the brains of oxen at the temperature of the blood, in water, or in water containing known amounts of alcohol. The extracts thus obtained had been studied in various ways, and submitted to quantitative analysis, while the influences exerted by the various fluids on the brain had been also studied. These influences extended in certain cases to hardening and to an alteration in the specific gravity of the brain-matter. Water itself had a strong action on brain-matter (after death), for it was capable of dissolving certain principles from the brain. These principles included cerebrine, myeline, and apparently a new phosphorised principle insoluble in strong alcohol, together with that class of substances generally termed extractive. At the same time, the brain swelled and attained a smaller specific gravity; thus, in one case, from 1036 it became 1007. Water, however, dissolved no kephaline from the brain. Alcohol seemed to have no more chemical effect on the brain than water itself, so long as its proportion to the total volume of fluid did not exceed a given extent. The limit would appear to exist somewhere near a fluid containing 35 per cent. of alcohol. But, if the percentage of alcohol exceeded this amount, then not only a larger quantity of matter was dissolved from the brain, but that matter included kephaline. Such alcoholic solutions also decreased to about the same extent as water the specific gravity of brain-substance, but not from the same cause; that was to say, not merely by the loss of substance and swelling, but by the fixation of water. Many difficulties surrounded the attempt to follow these ideas into life, and to comprehend in what way these modes of action of water and alcohol on the brain might be influenced by the other matters present in blood. From Thudichum's researches it followed that the brain must be subject to every influence affecting the blood, and it was probable that what was written above regarding the action of water on the brain was likewise true of an extraordinary watery serum in life. But, if the serum were rich in salts, those salts, by a power of combination which they had for the cerebral principles, would preserve the integrity of the latter. On the other hand, it was difficult to see how any of the matters known to exist in the blood could prevent alcohol, if present in sufficient amount, from either hardening the brain (as it did after death) or dissolving traces of the principles to be henceforth carried away in the circulation; that was to say, should physiological research confirm the stated fact that the brain in life absorbed alcohol and retained it, it would almost follow of necessity that the alcohol would act as he had indicated, and produce disease, perhaps delirium tremens.

Food in India.—Surgeon-Major JOHNSTON, of the 4th Punjaub Infantry, gave a paper on the dynamics of the diet in India. He submitted a very elaborate document, containing the result of numerous experiments on the dietary of various sections of the inhabitants of the empire, these going to show that carbo-hydrate and hydro-carbon elements were the chief generators of kinetic energy or labour. In answer to the President, he stated that the natives require more nitrogen and much more carbon and salt than the average European; that the former also ate more than the latter, and that the native servants who lived on the remnants from the Europeans' tables thrived exceedingly well on them. Lentil and other vegetables he spoke of as being a very cheap and nourishing diet.

Drinking Water and Health.—Mr. WANKLYN read a paper "On the Effects of the Mineral Substances in Drinking Water on the Health of the Community". He said: Inasmuch as by the help of subsidence, reservoirs, and wholesale filtration, the water-supply of towns may be sufficiently cleansed from organic impurity, the selection of an appropriate water-supply now resolves itself into the selection of water unobjectionable from a mineral point of view, and the question, What are the sanitary effects of the small quantities of mineral substances in drinking water? which meets the chemical adviser whenever he is called on to choose between different sources of supply. At present, we are very much in the dark on these questions, and are obliged to fall back on the system of giving the preference to water the mineral character of which is not in any way unusual, rejecting for town supply water of unusual mineral character. It is time, however, that better ground should be provided; and, with the object of placing the question on a firmer basis, I am endeavouring to get up a kind of register of the chief water-supplies, and, in course of time, hope that peculiarities of bodily constitution may be connected with peculiarities of water-supply. At first sight, when first taking up the subject, both the chemist and the physician are inclined to protest against the notion that appreciable effects may follow from the slight mineral differences in waters; but a nearer view of the subject alters that frame of mind completely. The fluid taken daily by an adult man may be roughly set down at about half a gallon, and, at that rate, the mineral matter imbibed in a fortnight is quite appreciable. On the other hand, the amount of mineral matter in different articles of food is much smaller than might at first sight be imagined. In wheat flour it is 0.6 per cent., of which the greater part is phosphate of potash. The mineral contents of the drinking water are not by any means overwhelmed by the mineral matter in ordinary dietaries. One of the questions which has often been asked is, whether it is better to drink hard water or soft water. The reply which has been given is, that at present we cannot tell, but that apparently the system can accommodate itself to either, and that a soft water drinker is sometimes disordered when he begins to drink hard water. One of the characteristic difficulties met with in these inquiries is, that, unlike our cows and horses, we are not confined to our water-supply. In Glasgow, for instance, persons who drink beer receive the hard water of the breweries. My object in bringing this question up is to call the attention of fashionable physicians to an excellent opportunity which has arisen, and which it would be a pity not to embrace, of studying the effects of hard water in a very exaggerated shape. I have, however, found a water which contains about 100 grains of real carbonate of lime per gallon, and which is now being drunk in high society. The Taunus water, according to Mr. Taylor's analysis, contains in one gallon carbonate of lime, 97.3 grains; carbonate of magnesia, 12.3 grains; chloride of sodium, 180.0 grains; chloride of potassium, 17.5 grains; sulphate of soda, 4.5 grains. I have in the main verified that. Accordingly, Taunus water may be said to contain about 100 grains of carbonate of lime and 200 grains of common salt per gallon. At the present moment, Taunus water being largely advertised, fashionable physicians have an opportunity of observing the effect of drinking a water five times as hard as the typical hard water of the country.

Flesh-Diet in Tropical Countries.—A paper on the unwholesomeness of a flesh-diet in tropical countries was read by Mr. C. O. GROOM NAPIER. It was almost universally admitted, he said, that, in Great Britain, meat was not required during the summer. If that were true, it must follow that flesh was not needed in warmer climates. The heat in this country inflamed the blood of animals, which made them unhealthy as a diet for man. In warmer climates, though the animals were more naturally fed, yet, when taken with liquors, flesh had a prejudicial effect. The Europeans resident in these countries who lived on vegetables and abstained from stimulants were healthier than the natives. It seemed to him the inability of these people to work arose from their diet, a change of which would render them quite vigorous.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 23RD, 1876.

THE NON-ALCOHOLIC TREATMENT OF DISEASE.

WHETHER alcohol acts beneficially on healthy life, and whether it is necessary to the proper treatment of disease, are questions agitating the minds both of the profession and of the public at the present time. Since the publication of the manifesto against the use of alcoholic drink in general by a large number of men in practice, several individual opinions have been given on the question, that of Sir Henry Thompson being, perhaps, the best remembered, as the lay press generally commented upon it. It is certainly noteworthy, at a time when magistrates and other custodians of public morals are constantly speaking of the deleterious effect of alcoholic beverages on public morality, that the opinion of medical men is tending, on scientific grounds, and quite apart from moral considerations, in the direction of saying that, as a general rule, the use of alcoholic drinks is not necessary to people in average health; and that it is even a grave question whether they act beneficially. Many popular opinions on this question, such as that wine gives strength, are being shaken; and opinion seems to be generally tending to this, that neither in extreme heat nor in extreme cold, neither during excessive work nor in illness, is it wise to indulge in the use of alcoholic drinks. In this position of things, it is much to be desired that it were possible to decide the question as to the necessity or advisability of using alcohol in the treatment of disease once and for all. Unfortunately, the facts do not seem to be yet sufficient to decide the question. We have seen a *brochure* on this subject, professing to be Notes of Cases treated at the London Temperance Hospital, in which a number of cases are thrown together, all of them treated without the use of alcohol. The success of the treatment, we are bound to say, appears equal to the average of treatment in other hospitals. But we are struck by several things about the pamphlet, which leave only an unsatisfactory and dissatisfied impression on our mind. If, indeed, it were not positively asserted that these notes are compiled by a medical man, whose name is given, we should be inclined to think that some lay pen had put them together. Anything like fine appreciation of the difficulties of the alcoholic controversy, and indeed, we might even say, discrimination of the phases of disease and its different stages, is entirely absent from these notes. Besides, there is a certain staginess about their composition which is more worthy of a writer who has set himself to be a special pleader, than of one whose sole aim is the discovery of a scientific truth. Take, for instance, the following case of "Dipsomania": "This patient had been in the habit of taking brandy whenever she felt unwell, and the habit at last became too strong", etc. Then the notes say: "Remedies were given which overcame the constant craving she had for intoxicating liquors. She remained in the hospital for four weeks, and, when discharged, was able both to eat and sleep well." It seems to us a pity that, in a medical report, published for the purpose of helping to its solution a difficult question, the nature of these remedies is not stated. Further, every one who has had any experience in cases of this sort knows how enormously difficult it is to prevent a return to the alcohol. Yet here it is not indeed asserted that this patient was permanently relieved, but we may almost say that it is insinuated, as she is left "eating and sleeping well", and we are left to suppose that that happy state continues.

Again, take this case of typhoid fever in E. T., aged 28, painter, an abstainer; admitted on the seventeenth day of the fever, delirious, and suffering from bronchitis: "The crisis did not occur until the twenty-eighth day, and during the last five days his pulse was so weak that, in the usual way, large quantities of alcohol would have been administered. Instead of this, tincture of digitalis, in small doses, was given several times with marked benefit; and, under non-alcoholic treatment, he tided safely on until a crisis occurred very rapidly and completely, and he left the hospital at the end of forty-one days." This case seems to us as if it had been specially written for the eye of the lay public. As a medical report, it is particularly unsatisfactory; no account being given of the effects of the digitalis, and no notice taken of the fact that a tincture is an alcoholic solution of a remedy; and, lastly, no comparison is attempted or thought of between the duration of a case of typhoid, treated without alcohol, and a similar case treated by the administration of alcohol. So far as it goes, this case may be taken as proving that this particular case of typhoid fever, which seems to have been a severe one, recovered without the use of wine or brandy, but that is all. No suggestion is offered us as to whether the patient would not have been better with the use of alcohol, nor is it hinted that alcohol may be beneficial at one point in the course of a disease, and hurtful at another. In fact, it does not seem to have entered the writer's mind that, in order to make his case of any value, the treatment ought to be brought under a general law, which might be applicable to other similar cases. This is, unfortunately, not an unfair specimen of the kind of literature that is from time to time prepared for the public and the profession, in which the writer indulges in the common practice of putting two things together to find his way to a third, just as if Bacon and Whewell had never lived and induction were unknown. Without saying that disease can or cannot be better treated with alcohol than without it, and without in the least detracting from the accuracy of the statement in these notes, that so many cases of disease recover under non-alcoholic treatment, we may say that the compiler seems to us to have failed entirely to appreciate the problem he had before him, and to be quite incapable of understanding the significance of a general law. We have not a hint that the writer distinguished acute cases from chronic; sthenic from asthenic; congestion from spasmia. Neither have we any hint that he realised to himself that this question is at least twofold: first, do cases get well without alcohol? and second, if so, do they get well as soon? *Cito, tuto, et jucunde*, is an old quotation which we recommend to the writer's notice.

A point of great importance, which also seems to have escaped the notice of the author of these notes, is the following. When a man in the full vigour of health, and who is in the habit of drinking a free allowance of stimulants, meets with an accident, if, when he is ordered to bed for the proper treatment of the same, he be at the same time made a teetotaler, the chances of his becoming delirious are very strong indeed. But the onset of delirium can be prevented by an allowance of stimulants, which may be by and by diminished in quantity, and finally stopped entirely, without any damage, but probably with benefit to the patient. No cases of accident having been reported in these notes, this combination of circumstances does not seem to have arisen; but it is one which ought not to be lost sight of by any one who may wish to deal with this question as a whole.

The letters at the end of the notes, one from Dr. Lee and one from Dr. Ridge, state the opinions of these gentlemen as regards the non-alcoholic treatment of disease. That of Dr. Ridge is valuable, as coming from a man who was sceptical as to the possibility of treating disease successfully without the use of alcohol; but who is now, though not bigoted in any way, rather in favour of the non-alcoholic treatment than otherwise. We agree with him in the hope that figures, on a larger scale, may be forthcoming, which may help us to decide this question. The statement by Dr. Edmunds is also valuable, as showing the way in which his mind has gradually become more and more impressed with the opinion that alcohol is not necessary for the proper treatment of most cases of illness. Several very suitable directions as

to the use of alcohol, in many circumstances where it is customary to prescribe it, bring to a close this small *brochure*. There can be no doubt that the subject is a most important one; and it were much to be wished that it may soon be treated, as a whole, in a comprehensive and scientific spirit.

PAYMENT FOR MEDICAL CERTIFICATES OF THE CAUSE OF DEATH.

UNTIL quite recently, the furnishing, by the medical profession, of certificates of the cause of death for insertion in the Death Register, was an entirely voluntary contribution, made in the interest of public hygiene. The clause in the Births and Deaths Registration Act of 1874, which changed this voluntary service into a compulsory one, was naturally viewed as involving a species of hardship, and it was argued that when it ceased to be a voluntary it should also have ceased to be a gratuitous service. The impossibility, however, of fixing a fee which could be offered to the profession and yet which would not double the entire present cost of the civil registration of deaths, was treated by Parliament as an insuperable obstacle to payment for medical certificates of the cause of death. We have always felt, however, that the State is not entitled to demand of the medical profession the gratuitous performance of this important service, unless it make provision for obtaining scientific evidence as to the cause of all those deaths relating to which no medical certificate can be obtained, where deceased persons have died without the attendance of a registered medical practitioner.

About five per cent. of the deaths in England and Wales occur without any qualified medical attendance, and in about five per cent. more of the deaths inquests are held. The State, however, at present makes no attempt to obtain any reliable evidence in the former cases, and no medical evidence is called in a large proportion of inquests. If the State judge the certification of the causes of 90 per cent. of the deaths so important as to demand it as a gratuitous service at the hands of the medical profession, it is surely not unreasonable of the profession to demand of the State, as evidence of its *bona fides*, that satisfactory measures should be taken to secure some form of scientific evidence as to the cause of the remaining ten per cent. of the deaths, in order that the value of the certified causes of death may not be vitiated by the insertion in the register of uncertified causes.

A somewhat lengthy correspondence between the Registrar-General and the coroner of Manchester has recently been published, the subject of which in part related to making a charge for medical certificates. The coroner for Manchester, who appears to take a far larger view of the duties of his office than is shared by many of his brother coroners, reported to the Registrar-General, some months since, a case in which he alleged that a medical practitioner of Manchester had taken a fee of five shillings as a consideration for giving a medical certificate of the cause of death of a person whom he had never seen during life. In reporting the case, the coroner asked the Registrar-General to prosecute the medical practitioner in question. The Registrar-General in his reply stated, that the Treasury would not sanction such a prosecution; the letter also contained the following sentence: "When a registered medical practitioner has regularly attended a patient, and has failed to prevent his decease, I do not see any harm in his making a small charge for a written statement of the disease which he believes to have caused the death which he could not avert". The coroner, from subsequent letters, has evidently misunderstood this portion of the Registrar-General's letter, which, in point of fact, applied to a case very different from the one reported by the coroner for Manchester. It is beyond question most undesirable that a medical practitioner should give a certificate of the cause of death of a person he has never seen alive; and it is reprehensible that he should take any fee as a consideration for making the false statements involved by his so doing, and the Registrar-General regrets that there is no public prosecutor to take notice of such cases. The coroner complains that such laxity in giving

medical certificates might frequently, by affording additional facilities for registration, prevent the holding of inquests when such inquiries are desirable; and so far we entirely coincide with that officer's opinion. With regard to the Registrar-General's statement that he sees no objection to a charge being made for a medical certificate, it appears to us that the coroner has misunderstood its bearing. The Registrar-General could not by any possibility have meant that any charge could legally be made as a condition for granting such certificate, although he sees no harm in the medical practitioner making a charge to the relatives of his deceased patient for fulfilling a compulsory duty to the State. It must be evident that the relations between a medical practitioner and his patient, or his patient's relatives, are quite beyond the jurisdiction of the Registrar-General, who is only bound to require, through his officers, that a certificate shall be forthcoming in all cases where a registered practitioner has been in attendance upon the deceased during his last illness. The Births and Deaths Registration Act of 1874 places both the registered practitioner and the coroner in the same position, as to compulsorily furnishing certificates of the cause of death. We can, therefore, hardly imagine that any one but the coroner of Manchester would misunderstand the Registrar-General's statement, that he sees no harm in a medical practitioner charging his patient's relatives for filling up the certificate, or in any way inferring that the granting of such certificate can be made conditional on the payment of such charge.

THE PROPER POSITION OF REVACCINATION.

In a recent report to the Manchester Board of Guardians, Dr. Williams, Medical Officer of the Swinton Schools, relates the history of an outbreak of small-pox which occurred there in June last. The first three cases occurred on June 4th, 8th, and 17th; and, between the latter date and July 7th, twenty-one cases occurred. Dr. Williams, who had already recommended that the affected boys should be immediately isolated, believing the germs of the disease to be widely disseminated, resolved upon revaccination. The disease ceased to spread, not a single case having occurred after the revaccinations had had time to take effect. From this, Dr. Williams concludes that revaccination at once arrested the spread of the disease; and that, owing to the successful local results produced by his revaccinations, "after seven years the effect of primary vaccination is, in the majority of cases, more or less worn out; and that revaccination is, therefore, absolutely necessary". It would have been of value if Dr. Williams had stated the exact date of his revaccinations; whether the eight cases which occurred between June 25th and July 7th occurred after the general revaccinations, and in revaccinated subjects; and the state, as to quantity and quality, of the vaccinations in those attacked, as compared with that of those who escaped. This last detail is somewhat important; for, if the vaccination in those attacked was bad, either as regards its amount or its quality, their seizure would be readily explained; and as the vaccination of those revaccinated was, as regards at least the great majority of them, extremely good, as vaccination goes, their escape might reasonably be attributed to this condition, without any reference to revaccination. If the revaccination checked the spread of small-pox, how is it to be established that, before a single revaccination took place, the disease had not reached its acme, had not attacked all susceptible subjects, and was not disappearing of its own proper motion? Such a supposition is in the highest degree probable, both when we consider the (as vaccination goes) fairly efficient way in which the Swinton children were vaccinated, and that it is not uncommon for a few cases of small pox (as well as of other infectious diseases) to occur in institutions where large numbers of children are taken care of, and to of themselves cease without the elaborate precautions taken by Dr. Williams. A few cases of what was thought a contagious fever appeared some time ago in a metropolitan institution. In consequence of this, every person who complained of the slightest ache or pain was forthwith declared infectious, and sent off to hospital. More careful

inquiry, aided by time, showed that an infectious fever did indeed exist; but, although about forty cases were declared by authority to be specific infectious fever, two of the forty proved to be genuine cases. Had the disease been small-pox, and those first attacked been revaccinated, how liable we should have been to suppose that the revaccination, and not the natural course of the malady, was the cause of its termination. In considering, again, the effect or the value of the revaccinations at Swinton, it is to be remembered that isolation must be credited with at least some share in the success which attended Dr. Williams's treatment; and if this was at once carried out, which we are informed it was, we find it difficult to attach the same value to the preventive power of revaccination.

In the case of the girls, Dr. Williams himself attributes their entire freedom from small-pox, not to his revaccinations, but to the "careful manner" in which they were isolated by the master and his staff. The revaccination of well-vaccinated subjects under fifteen years of age is not simply a work of supererogation, but, by increasing unnecessarily differences of practice in this matter, weakens the public confidence in the good sense of the profession, and gives a handle to the antivaccinator, which he will use with more effect than we may think.

We have no time to consider at any length Dr. Williams's statement (founded on the success which attended his revaccinations—*i. e.*, we imagine, the local results) that the Swinton children were badly protected from small-pox; and that primary vaccination after seven years is, in the majority of cases, worn out. Of the statement, however, that the local results of revaccination are any evidence of the liability of a person to contract small-pox, we are able to say that it is quite erroneous; and of the seven-years notion, that it is worthy of the times in which it arose—the times, not yet quite gone, when medicine was evolved from the human consciousness.

A MEETING of the promoters of the Society for Promoting Legislation for the Control and Cure of Habitual Drunkards will take place at the Charing Cross Hotel to-day (Friday), at 4 P.M., for the transaction of the following business: 1. To appoint a President, Vice-Presidents, Executive Committee, and Officers; 2. To settle prospectus and agree upon course of action; 3. To transact such other business as may arise. The attendance of all who are anxious to promote legislative action is requested.

THE ninth annual meeting of the Canadian Medical Association was held in Toronto, under the presidency of Dr. Hodder, on August 2nd and 3rd. Among the business transacted was the appointment of a committee to prepare a memorial to the Dominion Government with respect to vital statistics and public hygiene. From the remarks made in the discussion, it appears that there is some chaos in sanitary legislation in Canada—it being an undecided question whether the general government or the provincial governments are to have authority. It was decided to hold the next meeting in Montreal in September 1877, and Dr. Hingston of that city was chosen President-elect.

DR. MINICH of Venice has lately presented to the Academy of Science, through M. Larrey, an essay in which he recommends the use of sulphite of soda as an antiseptic in dressing wounds. He uses a solution of one part of the sulphite in nine of water and one of glycerine, and applies it in the same way as the carbolic acid solution in Lister's method. The effects are said to be satisfactory. This mode of treatment, Dr. Minich says, was adopted on the recommendation of Professor Polli of Milan, whose advocacy of the sulphites as preventives and remedies in ferment-diseases is well known. In an article on the subject in the *Journal d'Hygiene*, Dr. de Pietra Santa quotes, as confirming the value of these salts, Pozziale, De Ricci, Ridolfi, Burgraeve, Mazzolini, Ferrini, and Timmermans; and adds his own testimony in the same direction.

UNREGISTERED SALE OF POISONS.

THERE appears to be some considerable difference of opinion as to the extent of the obligation of druggists to register sales of poisons. Recent circumstances have emphasised strongly the desirability of a very rigid interpretation and observance by druggists of the provisions of the law which require them to carry out such registration, and to observe the conditions of the clause of the Pharmacy Act which require them not to sell poisons to any stranger unless after an introduction by some person known to the vendor. At an inquest at Spalding lately, it transpired that three ounces of laudanum had been sold in one day to a stranger without introduction and without entry on the register. This, it appears, is indeed the general custom of the trade; the Coroner declared it to be contrary to the law; and other good legal opinion has since confirmed the view. But the official *Pharmaceutical Journal* states that the practice of the druggist in this instance is that of the trade generally, and has been so for many years; and it hopes that "local officials will be restrained from commencing vexatious proceedings against unoffending chemists and druggists". In that hope it is hardly in the public interest that others should concur.

SMALL-POX PREVALENCE AND FATALITY IN LONDON.

SMALL-POX has for some time been fatally prevalent in Manchester and Salford, and in Liverpool. Outbreaks of the disease have also been reported in various parts of the country, notably in Blackburn and Derby; but of these outbreaks no official reports have yet been published. In London, the fatal cases of this disease, which were but seven during the first quarter of this year, rose to 26 in the three months ending June; and further increased to 84 in the eleven weeks ending the 16th instant. The Registrar-General, in his last weekly return, calls attention to the fact that the 16 fatal cases of small-pox registered in the week ending the 16th exceeded the number recorded in the metropolis in any week since the epidemic of 1871-2. Of the 117 small-pox deaths in London since the beginning of the year, 67 have been recorded in the two Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell; and 50 in private dwelling-houses or in other institutions. The control of the small-pox epidemic with which London again appears to be threatened depends, in great measure, upon prompt and full use being made of these asylum district hospitals for isolating and treating cases of this disease as soon as they are discovered. The last weekly return of the Registrar-General contained a reference to a severe outbreak in Islington, resulting in five deaths, four of which occurred in one street. It would be desirable to know whether the registration of these deaths from small-pox were the means of conveying to the local medical officer of health and sanitary authority the first intelligence of so serious an outbreak; and, if they were previously aware of the outbreak, how it was that none of the cases were removed to the Homerton Hospital. The metropolitan sanitary authorities should, by public notice, urge upon the public and upon medical practitioners the importance, at the present time, of reporting to the local medical officer of health, at the earliest possible moment, every case of small-pox that occurs. The Registrar-General publishes some important and interesting statistics relating to the cases of small-pox admitted and treated in the two Metropolitan Asylum District Hospitals since the beginning of this year. At the beginning of this year, both these hospitals, which contain 204 beds for in-patients, were empty; the Hospital at Homerton was, indeed, closed, and was not reopened until the beginning of August. Since the beginning of the year, 378 small-pox patients have been admitted, of which 67 have died, 216 have been discharged recovered, and 95 remained under treatment on Saturday, the 16th instant; this number, although leaving 109 of the hospital beds unoccupied, considerably exceeded the number in any previous week of the year. Of the 233 computed cases, it should be stated that 80 per cent. were vaccinated, and 20 per cent. unvaccinated. During the epidemic of 1871-2, the proportion of vaccinated to unvaccinated cases was three to one; the above figures show that, during the present year, they have been four to one. This is pro-

bably due to a considerable reduction in the proportion of unvaccinated persons in the population of London since 1871. The proportion of mortality in the 283 computed hospital cases during this year has been 23.7 per cent. Among the vaccinated cases, it has been 15.4 per cent.; and among the unvaccinated, 57.1 per cent. The Registrar-General points out that, if all the 283 cases had been unvaccinated, and if the rate of mortality had been the same as among the 56 which were unvaccinated, the deaths in the hospitals would have been 162 instead of 67, showing a saving of 95 lives which may be attributed to vaccination. It is worthy of note that the rate of mortality among the cases has been considerably higher than it was during the 1871-2 epidemic, when it averaged 18.7 per cent., and did not exceed 10.2 and 44.8 per cent. respectively among the vaccinated and unvaccinated cases. The largest proportional increase of fatality is showed among the vaccinated cases. The large proportion of the cases of small-pox now occurring in London are of adults, who, vaccinated in infancy, have not since been revaccinated. It may be useful to quote from the Report of the Managers of the Metropolitan Asylum District on the Small-pox Epidemic of 1871-2, the following statement of facts: "Out of upwards of 14,800 cases received into the hospitals, only 4 well authenticated cases were treated in which revaccination had been properly performed, and these were light attacks." Recent experience has not shaken the value of this evidence in favour of revaccination.

SMALL-POX AT DERBY.

SMALL-POX is reported to be creating some alarm in Derby. A few days ago, there were eight cases in a temporary workmen's hospital, some of which were of the confluent type. Two unvaccinated patients had died from the disease, one in the infirmary, the other a private patient. The outbreak is said to be traceable to Liverpool, whence a case was imported some weeks since, and treated at the infirmary.

LUNACY IN ENGLAND AND WALES.

It appears from the Thirtieth Report of the Commissioners in Lunacy, just issued, that on the 1st of January last, there were in England and Wales, 64,916 lunatics, idiots, and persons of unsound mind, showing an increase of 1,123 upon the number on the first day of 1875. It is stated that this is the smallest annual increase since 1859, which is the first of the series for which complete information is available. In 1859, the number of lunatics was only returned at 36,762; and, after due allowance for increase of population, the increase of lunacy within the knowledge of the Commissioners of Lunacy has been equal to 43.4 per cent. in the seventeen years. At the beginning of 1859, the proportion of lunatics in England and Wales was equal to 18.7 per 10,000 persons living; whereas, on January 1st last, this proportion had increased to 26.8. Of the 64,916 lunatics reported upon at the beginning of this year, 29,342 were males, and 35,574 were females; the proportion to the number of the two sexes living was 24.9 per 10,000 males, and 28.6 in the same number of females. Female lunatics are not only actually more numerous than male lunatics, and also show a larger proportion to the population, but after due allowance for increase of population the increase of female lunacy during the seventeen years, 1859-76, has been greater than that of males during the same period. The ratio of male lunacy to population in the seventeen years showed an increase equal to 42.6 per cent., whereas the increase in the ratio of female lunacy was 44 per cent. With reference to the frequent assertion that intemperance is the actual cause of the large proportion of cases of lunacy that come under treatment, it is difficult in the face of the before-mentioned figures to avoid one of two conclusions. Either the influence of intemperance upon lunacy has been much exaggerated, or, judged by the lunacy returns, intemperance has increased more rapidly among females than among males during the past seventeen years. It is somewhat difficult to accept the latter conclusion, more especially as it would seem to necessitate a belief that there is more intemperance among women than among men. It may, however, be possible that intemperance is more likely to produce

lunacy in women than among men. With regard to the increase in the ratio of lunacy to population during the past seventeen years, it is worthy of remark that, among pauper lunatics, it has been equal to 47 per cent.; whereas, among private lunatics, the increase in the ratio has not exceeded 23 per cent. On January 1st last, no less than 88 per cent. of the lunatics in England and Wales were pauper lunatics; the proportion of paupers being 86 per cent. among the male, and 90 per cent. among the female lunatics. It is evident that there is an increasing proportion of lunatics treated as paupers in our workhouses and county asylums.

HYDROPHOBIA IN BAVARIA.

ACCORDING to the statistical reports for 1873, the number of dogs in Bavaria amounted to 291,841, out of which 821 died, or were killed, as suspected of being attacked by hydrophobia. This is an average of 2.8 per 1,000. The disease also declared itself in several cats, but it was not possible to determine whether it was spontaneous or consecutive on bites. The number of animals bitten is not stated; but five horses, ten oxen, six sheep, and eighteen pigs died of hydrophobia. Out of 109 persons bitten, seven died—one from the bite of a cat. The duration of incubation recorded was, in dogs 18, 18, 27, 33, 35, 42, 56, 61, and 98 days; in oxen, 21, 21, 28, 30, 42, and 240 days; in sheep, 21; in pigs, 21, 33, 33, 42; finally, in man, 38, 56, and 140 days.

A HEALTH-RESORT IN CORNWALL.

WE are given to understand by a local correspondent that the west coast of Cornwall, which offers many advantages to invalids, appears comparatively unknown. Padstow is spoken of more as a pleasure-resort, and is rapidly advancing; whilst within ten miles of Penzance—which is in many instances too relaxing for the consumptive—is the town of St. Ives, which, from its natural resources and position, should now, on the opening of direct railway communication, attract convalescents. The climate is bracing, and differs in temperature six or seven degrees from the south. It is hence suitable for certain cases of lung-disease; also for debilitated constitutions, the result of excess, overwork, or too long a residence in the tropics. The upper part and suburbs of the town command a view of thirty miles of coast; from the hills above can be seen both channels. The water-supply is good, and the sands and bathing excellent. Houses and lodgings are to be obtained, but there is as yet no hotel accommodation. The lower part of the town is built on a sandbank. Towards the island of Pendennis, which forms a bay of ten or twelve square miles, the houses are densely crowded together, and, according to the last census, the inhabitants numbered 7,000. It is only superficially drained, and without a medical sanitary officer; nevertheless, epidemics are rare and of short duration. It is to be hoped that the corporation will carry out improvements, erect a commodious hotel, and conduce towards building villas.

SUICIDE BY DECAPITATION.

A VERY remarkable case of suicide, as regards the means employed, is related by Dr. Vinnege of Lafayette, Indiana, in the *American Practitioner* for August. In June last, James Moon, a farmer, aged 37, hired a room in an hotel, and in it fitted up an apparatus for beheading himself. The instrument consisted essentially of a broad axe and a lever seven feet long, to which the axe was firmly fixed by pieces of iron fastened with bolts and screws. The widened end of the lever was attached to the floor by hinges. The axe being elevated, was sustained at the proper angle for falling the greatest distance possible by means of a double cord attached to the free end of the lever, and to a small hook in a bracket, which was securely fastened to the wood on the side of the window, about five feet from the floor. On this bracket was placed a lighted candle between the cords, which were consumed when the candle had burned sufficiently. The axe being then unsupported, fell to do its fearful execution. The suicide

placed an ordinary soap-box on its side, with its open end just even with the line marked where the axe would fall. This box contained his head, when he lay stretched out on the floor at right angles to the direction of the falling axe. His neck was supported by pieces of wood, and his body was fastened to the floor by straps and buckles. He had obtained two ounces of chloroform, with which he saturated some cotton, which he placed on the box so that it could be inhaled. Dr. Vinnedge, however, concludes from the fact that there was no evidence of any struggle, that he was still conscious, though perhaps somewhat stupefied, when the axe fell. As to his previous mental state, Dr. Vinnedge gives the following information.

"He always enjoyed talking about mechanics. It was a hobby with him. One of his neighbours states that he without assistance became an excellent blacksmith, learning the trade during the intervals between working hours on the farm. His mind had a tendency to 'run' on methods of causing death. He had great admiration for men who have rendered their names famous as inventors of machines which would cause death suddenly and with dispatch. During a service of three years in the Sixteenth Indiana Battery, he would spend his leisure time in making out of wood, with a penknife only, various articles, and presented the products of his labours to his comrades as *souvenirs*, exhibiting great ingenuity in design and skill in execution. He had a good education, was temperate in his habits, and kind to his family. His intimate friends state that he was thoroughly familiar with the Bible—with both the Old and New Testaments—though a sceptic as to the inspiration of each. All his acquaintances testify to his habitual genial and pleasant disposition."

MEMBRANOUS CROUP AND DIPHTHERIA.

THE Secretary to the Scientific Committee of the Royal Medical and Chirurgal Society, which is engaged in investigating the subject of the relations of croup and diphtheria, requests us to state that the Committee will be glad to receive all replies to their inquiries, together with any other information, as early as possible. Considering the importance of the subject, and the large amount of valuable experience which must be in the possession of general practitioners in all parts of the country, it is very desirable that all who are able to do so should contribute their quota of information towards the solution of this question. The opportunity afforded by the appointment of this Committee for clearing up a very important and difficult problem in the relations of disease is one which should not be lost, and we trust that members of the Association will give the Committee all the aid in their power. Replies and communications should be addressed to the Secretary of the Committee at the Society's Rooms, 53, Berners Street, W.

HEALTH AND SEWAGE OF TOWNS.

MR. PETER LE NEVE FOSTER writes to the *Times* :—

"In the general interests of public health, the Council of the Society of Arts appealed to the inhabitants of the metropolitan districts and to the public generally to send to the Society evidence of cases showing the various evils which have occurred from the present imperfect system of the drainage of houses. At the conference on the health and sewage of towns lately held by the Society, and attended by numerous representatives from various towns and localities in the kingdom, the importance of greater attention to the house-drainage as distinct from the sewerage was specially brought to the notice of the Society.

"It was pointed out that, however good the general sewerage might be, unless the drainage proper of the house and its connections with the sewers were carefully planned, executed under due supervision, and maintained in proper order, there was imminent danger of typhoid and other diseases from the imperfect exclusion of sewer-gas.

"The Council are well aware of the extensive powers which are given by Act of Parliament to vestries in the metropolitan district to deal with this matter. As regards buildings erected and in course of erection since 1855, the date of the Metropolis Local Management Acts, no doubt a large amount of supervision is exercised, and plans of the house-drainage are frequently deposited and are open for inspection for the ratepayers. But the powers of the local authorities are rather remedial than preventive of disease, and are more or less imperfectly exercised. The evidence already collected shows that, in most of the metropolitan parishes, a small proportion of the total number of the houses in them has been properly dealt with. Consequently, the plans of house-drainage are, on the whole, comparatively few,

even in parishes on the outskirts, where there has been a considerable extension of building in the last few years.

"Neither owner, nor lessee, nor intending purchaser, as regards houses built previous to 1855, unless in some few exceptional and accidental cases, has any means of ascertaining whether the house is or is not well drained or properly connected with the sewers, and, if defective, how or in what direction amendment is to be sought. It is with a view to remedy this admitted evil, which reduces the usefulness of the main sewers on which millions have been spent, that the Council of the Society of Arts, in the interests of improved public health, have taken up this question, and have memorialised the Metropolitan Board of Works on the subject, and propose to address the President of the Local Government Board in reference both to the metropolis and to localities in other parts of the kingdom.

"The Council have sought for information and suggestions from the various metropolitan authorities having such matters in charge. They appreciate the valuable labours of these bodies, but they desire to draw public attention to what it appears to the Council needs further action on their parts, and they suggest that Parliament should be moved, if need be, to confer additional powers and responsibility on local authorities.

"Under these circumstances, the Council invite communications both as to cases of evil arising under the present state of things in the metropolis and in the country generally, as well as any suggestions for remedy, and they will be glad to receive such communications before October 20th next."

DR. BUCHANAN'S REPORT ON THE EPIDEMIC OF ENTERIC FEVER AT CROYDON.

THE following report has been presented to the Croydon Local Board of Health by the Committee appointed to consider Dr. Buchanan's Report on the Epidemic of Enteric Fever at Croydon.

"The Special Committee, appointed by the Croydon Local Board of Health May 16th, 1876, to consider the recommendations contained in Dr. Buchanan's Report to the Local Government Board on the Epidemic of Enteric Fever at Croydon in 1875, have sent in a report, in which they express their regret at the time which has unavoidably elapsed between their appointment and the presentation of their report. This interval has intervened in consequence of the important nature of the recommendations made by Dr. Buchanan, and the necessity which naturally arose that the Local Board's Engineer should have ample time afforded to enable him to go into the details of the whole subject, so as to provide such plans as he considered requisite for the completion of the suggested works, before submitting them to the notice of the Board. It appeared to the Committee that their duties would apply to a consideration of the recommendations contained on page 14 of Dr. Buchanan's Report, and not to the general matter of the Report itself. Whilst not being unmindful of the great work contained in the details of the Report, they have avoided as much as possible the consideration of debatable ground, and have confined their attention to the practical remedial measures suggested by Dr. Buchanan. It appeared to the Committee that Dr. Buchanan had done justice to the work of the Board in enumerating the steps which the Board had taken for the removal of the epidemic during its progress, and previous to the presentation of his Report. He gives full credit for the difficulties which surrounded the case.

"The Board, on the recommendation of the Sanitary and Water Committees and the medical officer of health, had already taken steps to remove the possible causes of the epidemic by—1. A more efficient ventilation of the sewers by inserting a considerable number of new ventilators in such positions as the Sanitary Committee considered to be urgently required, and by the removal of the charcoal trays from the air-shafts of the public sewers, which had been found to impede ventilation rather than purify the air; 2. By a more efficient flushing and a daily disinfection of the sewers, by the use of powerful disinfectants, during the prevalence of the epidemic; 3. By the removal of the flushing-valves from the water-mains, in those cases in which they made a direct and continuous communication between the water-services and the sewers, and by reinstating them without that objectionable union; 4. By inserting flushing-stations in those positions in which they appeared to be urgently required; 5. By casing the old well (which had been left unprotected in its middle part) with iron cylinders and concrete, so that all chance of leakage of surface-water into the well is entirely prevented; 6. By the insertion of air-valves in the water-mains, by means of which pure air more easily finds its way into the mains whenever the exigencies of the time compels the intermission of constant supply, and by which the chance of local contamination is in some measure obviated; 7. And by sinking an additional well, and providing

more pumping-power, so that a constant supply of water is likely to be insured in the future.

"Dr. Buchanan fairly recognises the advantage of some of these works. He then recommends certain others to be carried out, some of which had been done previous to the appearance of his Report, or arrangements had been entered into by the Board, which will in due time lead to their completion. His recommendations divide themselves into two classes, viz.: 1. Those which refer to the water-services; 2. Those which refer to the sewers. The proceedings which have been taken by the Board (and which were inaugurated in December last) against the owners of property, to enforce the separation of the water-services from direct communication with the sewers, have been so far successful that a judicial decision has been given in favour of the Board having the power to insist upon the change. This decision is such as now enables the Board to take further measures to comply with the fifth recommendation contained in Dr. Buchanan's Report. Dr. Buchanan's fourth recommendation, which has reference to flushing, has been partially complied with, inasmuch as the communication between the flushing-cocks and the sewers has been intercepted, and the water-services are not now endangered by that cause. The Committee recommend that Mr. Walker's suggestions upon this point be accepted, and that a special course of flushing be applied periodically to all sewers in the way mentioned in Mr. Walker's report.

"The Committee do not see their way to recommend the Board to enforce the third suggestion made by Dr. Buchanan in all cases. They suggest that householders who have a long length of house drain between the house and the public sewer, should have a syphon trap inserted between the house and the main sewer, if a sufficient fall can be ensured in those cases in which it is probable that a defective sewer exists which cannot at present be remedied. The Committee consider that every house should have the house drain ventilated, quite independently of any ventilation that may be provided for in the public sewer. They are of opinion that such private ventilator, if it be inserted in the proper position, will, in a great measure, prevent the chance of evil to any individual house. It may be that, in certain instances in which it is found absolutely impossible to prevent the formation of much sewer gas from a particular sewer, that a syphon trap should be placed between the house drain and the main sewer, especially if the house drain be of considerable length. The Committee consider that, in all such cases, a ventilator should be inserted on the syphon trap, so that a free circulation of air be provided in the manner recommended by Dr. Buchanan. In the case of houses in immediate communication with the main sewer, and having short lengths of private drain, the Committee do not consider that the suggested trap is required. The combined ventilation of soil pipe and public sewer will, in such cases, sufficiently effect the object in view without adding to the difficulties that the insertion of a trap between the house and the sewer would necessarily entail. A detailed inquiry has been made as to the necessity for increased ventilation of the public sewers, and a considerable number of new ventilators have been inserted since the outbreak of the epidemic by order of the Board. The Committee consider that a great addition is still required, and recommend that Mr. Walker's estimate upon this point be adopted, and that £3,300 be borrowed for the purpose of providing one hundred and eighty-five new manholes, fifty new ventilators, and seventy-five manhole tops, to be inserted in the positions indicated on the plans which the engineer has prepared.

"The most serious part of Dr. Buchanan's Report and recommendation, and to which most of the time of the Committee has been devoted, is that which recommends the Board to replace the defective sewers by others which will be more equal to their work. Your Committee cannot disguise from themselves and the Board the fact that this recommendation, if complied with, carries with it the necessity for an extensive remodelling of the sewer services of the town. The evidence which has been before the Board for some time past has convinced the Committee that the recommendation is sound. It has been so far anticipated by the Board, that it has been already resolved to construct a main sewer from near to St. John's Church to the north end of the Brighton Road, at an expense of £6,750. Application has already been made for power to borrow money for that purpose. But a more extended and detailed inquiry, together with the continuous complaints which have been made to the Board, of stinks from the now open ventilators in the public sewers, have convinced the Committee that a number of the sewers are defective; that they are sewers of deposit, and require to be relaid in a more workmanlike manner, with a greater fall. The Report which has been prepared by Mr. Walker is conclusive on this point. The Committee recommend that the works proposed by Mr. Walker in that schedule be carried out at the estimated expense of about £12,000, and that details be

prepared accordingly. The Board, however, are requested to observe that a very large proportion of this extra outlay is required for the enlargement of the outfall between the bottom of Church Street and Brimstone Barn, £4,252:10 of the extra sum being for this important work. The outfall has been for a long time under its work, and has materially assisted by its sewage-logged condition to keep the sewers in the lower portion of the town full of sewage, especially at those times when, in consequence of heavy rainfalls, it is required that the sewage should pass away as rapidly as possible.

"The Committee are of opinion that it would conduce to the public good, that the regulations which apply to the distribution of water in London should also be applied to its distribution in Croydon, and that 'The Regulations under the Metropolis Water Act, 1871', should be incorporated with the Public Health Act, that the regulations which apply to London generally should also apply to Croydon. They recommend that application be made to the Local Government Board that steps may be taken to get the area so extended that Croydon may be included within the range of their application.

"The Committee express their great appreciation of the services rendered to them in this work by the officers of the Board, Mr. Cheesewright and Mr. Walker, without whose cheerful and laborious services the work they have had to perform could not possibly have been brought to so early a conclusion. They also desire to express their appreciation of the way in which the medical officer of health has devoted a large portion of his time to the exigencies of the case during the prevalence of the epidemic, evidence of which is amply afforded by Dr. Buchanan's Report, as well as by the personal observance of all the members of the Board."

The Report is signed on behalf of the Committee by Alfred Carpenter, M.D., Chairman.

RECENT URBAN MORTALITY.

DURING last week, 5,486 births and 2,944 deaths were registered in London, and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 19 deaths annually in every 1,000 persons living: in Plymouth the rate was 13; Brighton, 16; London, Bradford, and Sunderland, 17; Norwich, Nottingham, and Edinburgh, 18; Sheffield, Birmingham, and Leicester, 20; Glasgow, Bristol, and Liverpool, 21; Wolverhampton, Hull, and Oldham, 22; Newcastle-upon-Tyne, Dublin, and Leeds, 23; Manchester, 24; and the highest rate, 26, both in Portsmouth and Salford. The annual death-rate from the seven principal zymotic diseases averaged 3.7 per 1,000 in the twenty towns, and ranged from 2.1 and 2.5 in Brighton and Norwich, to 8.3 and 11.7 in Salford and Portsmouth. In Portsmouth 20 deaths from scarlet fever were returned (equal to an annual rate of 8.4 per 1,000), raising the number of fatal cases in this borough since the beginning of the year to 304. Small-pox caused 14 deaths in Manchester and Salford (including 4 in the Monsall Hospital), 4 in Liverpool, and 16 in London. The fatality of diarrhoea in the twenty towns showed a further considerable decline from that which had prevailed in previous weeks. In London 2,396 births and 1,119 deaths were registered. Allowing for increase of population, the births exceeded by 121, whereas the deaths were 273 below, the average. The annual death-rate from all causes, which in the seven preceding weeks had steadily declined from 29.5 to 18.4, further fell last week to 16.7, a lower rate than has prevailed in London in any week of the past 20 years. The 1,119 deaths included 16 from small-pox, 8 from measles, 50 from scarlet fever, 6 from diphtheria, 17 from whooping-cough, 21 from different forms of fever, and 53 from diarrhoea; thus to the seven principal diseases of the zymotic class 171 deaths were referred, against numbers declining from 669 to 210 in the seven preceding weeks. These 171 deaths were 170 below the corrected average of the week, and were equal to an annual rate of 2.6 per 1,000. The deaths referred to each of these seven zymotic diseases, except small-pox, were considerably below the corrected average. The fatal cases of small-pox, which had been 10, 8, and 5 in the three preceding weeks, rose to 16 last week. So many deaths from small-pox have not been recorded in London in any week since the epidemic of 1871-2. At the beginning of this year the two Metropolitan Asylum District Small-pox Hospitals were both empty. Since then 378 small-pox patients have been admitted, of which 67 have died, 216 have been discharged

recovered, and 95 remained under treatment on Saturday. Of the 283 completed cases 80 per cent. were vaccinated, and 203 unvaccinated. The mortality was in the proportion of 1.5 per cent. among the completed cases; 15.4 per cent. among the vaccinated, and 57.1 per cent. among the unvaccinated. Had all these 283 cases been unvaccinated, the deaths, at the same rate, would have been 162 instead of 67; thus the saving of 95 deaths may be attributed to vaccination. Under the influence of the continued unseasonably cold weather, the fatal cases of diarrhoea, which in the seven previous weeks had declined from 522 to 99, further fell to 53 last week; these were 96 below the corrected average number in the corresponding week of the last ten years. In Greater London—2,868 births and 1,332 deaths were registered, equal to annual rates of 34.9 and 16.2 per 1,000 of the population. In the Outer Ring the death-rate from all causes, and from the seven principal zymotic diseases, was 13.9 and 2.8 per 1,000 respectively, against 16.7 and 2.6 in Inner London. At Greenwich the mean reading of the barometer was 29.60 in. The mean temperature of the air was 51.5 deg., or 5.9 deg. below the average. Rain fell on four days of the week, but the aggregate amount measured was .18 of an inch.

SCOTLAND.

THE Police Commissioners of Kirkwall have resolved that the sewerage and drainage scheme, which has been prepared for them by the engineers, shall be proceeded with at once. The cost is estimated at £10,000.

AN ancient stone coffin was lately discovered by some workmen who were making excavations for a drain in one of the streets of Arbroath. It contained human remains, apparently those of a man in the prime of life. The bones crumbled away on exposure to the air. The skull contained the whole of the teeth, which were in perfect preservation.

THE BROOMHILL HOME FOR INCURABLES.

THE Broomhill Home at Kirkintilloch, established by the Association for the Relief of Incurables in Glasgow and the West of Scotland, was opened on August 30th, when the public were invited to inspect the accommodation and arrangements connected with the institution. Since the property has been acquired, extensive alterations have been made in its structure. The Lord Provost of Glasgow presided, and there was a large attendance. The Report of the Secretary stated that at present there was only bedroom accommodation for sixty-one persons—namely, forty-nine adults and twelve children; while the grounds and public rooms of the Home were sufficiently spacious to receive two hundred inmates, one hundred of each sex. As funds permitted, it was hoped, by the addition of bedrooms or the erection in the vicinity of the main building of separate cottage-hospitals, for special classes of sufferers, to eventually receive the full number. During the past fifteen months, a great amount of good has been done in connection with the outdoor branch of the Association's operations, as much as £100 a month having been spent in assisting, in their own homes, persons suffering under various chronic and incurable diseases.

HEALTH OF EDINBURGH.

THE city death-rate for the past week was only 17 per 1,000, or, including six cases dying in hospitals from country districts, 18.44. This must be regarded as satisfactory for such a city as Edinburgh, though it must be remembered that many of the poor are engaged in harvesting, and parts of the New Town are almost deserted during the summer months. At the same time, the city continues remarkably free from zymotic or infectious diseases, as is shown by the significant fact that not a single death was registered last week from fever, small-pox, scarlatina, measles, or erysipelas. It is also to be noted with satisfaction at this season, that only two deaths are recorded from diarrhoea. The mortality at Leith is still lower, the returns for the week

showing only fourteen deaths. This is equivalent to an annual mortality of 13 per 1,000. In the same period, forty-one births were recorded, of which four were illegitimate.

GRANGEMOUTH WATERWORKS.

On Tuesday week, a long-felt want was supplied to the fast-growing town of Grangemouth by the opening of a new water-supply on an extensive scale. The town has been materially crippled for a long time past by deficient house-accommodation and the want of a good supply of water. Hitherto the inhabitants have had to depend for water on a canal and basins, both tainted with sewage; and, being built on a flat plain, the drainage was very defective. Zymotic diseases were consequently constantly prevalent. Since the town was made a police burgh under the Lindsay Act in 1872, the commissioners have paid much attention to the improvement of the drainage, with very successful results. Quite recently, the necessary works for a better supply have been completed, and the water was turned on on Friday. The water, which has been obtained from three sources—namely, the canal drainage, springs, and bores—yields a supply altogether of about 75,000 gallons daily, or about 25 gallons a head to the population. The spring-water can, however, when required, be augmented to the extent of 40,000 gallons; and there are other springs in the neighbourhood, which may in time be brought into use.

IRELAND.

DAVID TAGGART of Carrickfergus was last week unanimously elected coroner for the Antrim district, in the room of the late Mr. Taggart.

PHARMACEUTICAL SOCIETY OF IRELAND.

ONE hundred candidates offered themselves last week for the licence of this Society, of whom no fewer than fifty-five were rejected. The excessive mortality has, we understand, been principally due to the imperfect botanical and chemical knowledge of the candidates.

DRAINAGE OF DALKEY.

AT a late meeting of the commissioners of this township, a watering place some nine miles distant from Dublin, a communication was received from the Local Government Board, enclosing the provisional order which had been sanctioned by Parliament for the carrying out of the township drainage at a cost of £7,000.

ROTUNDA LYING-IN HOSPITAL.

A BAZAAR will be held early in December in aid of the funds now being collected for the repairs which this institution is now undergoing. An appeal was made last April, which resulted in the sum of £1,950 being obtained, but some £500 is still required to carry out the necessary alterations. We have little doubt but that the charitable citizens of Dublin will respond in the way required so as to make the charity even more generally useful than it has been hitherto.

MORTALITY OF FACTORY OPERATIVES.

DR. PURDON, Certifying Surgeon of the Belfast Factory District, in a late report, shows that the mortality among factory operatives is exceedingly high, being at the rate of 35 per cent., whilst the artisan and labouring classes only show a mortality of 20 per cent. The death-rate, it appears, is higher in the preparing, reeling, and weaving departments, which is principally done by females, who, when married, are necessarily obliged to leave their homes and families during the day, and, therefore, must place their infants in the care of strangers. The consequence is, that the mortality among these children is exceedingly high, and the inspectors of factories are not very sanguine that any legislation which may be applied will be efficient in remedying the evil.

ST. MARK'S OPHTHALMIC HOSPITAL.

WITHIN the past twelve months, 523 intern patients were admitted to this institution, some coming from various parts of England and Scotland. In the dispensary department, 2,316 new patients were under treatment, and supplied with medicine, spectacles, &c. By recent alterations, numerous sanitary improvements have been effected, but owing to the limited accommodation, many applicants have been refused admission, and a great number suffering from contagious ophthalmia are necessarily excluded in consequence of there not being an isolated ward for their reception. The late Sir William Wilde founded this hospital, and it has been suggested that his name should be identified with the institution, to perpetuate the memory of the distinguished oculist.

THE DEATH OF DR. SIBSON.

THE following resolution was passed by the Weekly Board of St. Mary's Hospital on September 15th.

"That this Board have heard with extreme sorrow and deep regret of the death of Dr. Sibson, consulting-physician to the hospital

"The Board desire to record their appreciation of the valuable services rendered by Dr. Sibson to this hospital since its establishment in 1851, first as physician, and subsequently as consulting-physician. His energy and skill, which had placed him in the foremost rank of his profession, have been of immense advantage to the governors, the students, and, above all, to the numerous patients who came under his care; while his uniform urbanity and constant cheerfulness endeared him alike to all connected with the institution.

"The Board of Governors of St. Mary's Hospital beg to express their deepest sympathy with Mrs. Sibson in the irreparable loss which she has so suddenly and so unexpectedly sustained."

We have been unable to obtain the necessary details of the personal history of Dr. Sibson's earlier professional life to complete a biographical notice this week. The publication of a memoir of our lamented Associate is therefore deferred till next week. We understand that no *post mortem* examination was made: the cause of his sudden death will therefore remain in doubt. There were, however, antecedent symptoms which point to thoracic aneurism.

THE REPRESENTATION OF THE UNIVERSITIES OF GLASGOW AND ABERDEEN.

THE name of Dr. Farquharson has been submitted to the Liberal Committee of the Aberdeen and Glasgow University Graduates by some of those medical graduates who desire to see the number of medical members of Parliament increased. Dr. Farquharson is well known and highly esteemed in London; and, as Honorary Secretary of the Metropolitan Counties Branch of the Association and a member of the Committee of Council of the Association, he has shown qualities of energy and business capacity, together with a conciliatory character, which have commanded confidence and esteem. Dr. Farquharson has a local connection with the county of Aberdeen as one of its landed proprietors, and there can be no doubt that his election would be popular with a large section of the liberal party, and not unacceptable to many moderate conservatives. The names of Mr. Freeman, the eminent historian, and of Mr. Kirkwood, have also been under consideration. Dr. Andrew Clark, who is one of the most distinguished sons of the University of Aberdeen, has declined to stand. We hear a rumour that Dr. B. W. Richardson, F.R.S., the well-known physician and eminent writer on subjects of hygiene, is disposed to offer himself as a candidate, if formally invited by persons of sufficient influence. Dr. Richardson has no local or other connection with the counties or with the Universities, nor is he a Scotchman by birth; but his general claims are well known, and we imagine that his influence in Parliament would make itself felt advantageously.

TO BE OBSERVED BY CANDIDATES FOR ADMISSION INTO THE ARMY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

1. Every candidate desirous of presenting himself to compete for a commission in the Army Medical Department must be twenty-one years of age, and not over thirty-two years at the date of commencement of the competitive examination. He must produce an extract from the register of birth, or, in default, a declaration made before a magistrate by his parents or guardians, giving his exact age. He must also produce a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the department if a commission be granted; and also a certificate of moral character, from the parochial clergyman if possible. 2. The candidate must declare upon honour that both his parents are of unmixed blood, and that he labours under no mental or constitutional disease, nor has any hereditary tendency thereto, nor any imperfection of vision which can interfere with the efficient discharge of the duties of his office in any climate; also that he does not hold, and has never held, any commission or appointment in the public services. His physical fitness will be determined by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, provided it does not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. The Board must also certify that he is free from organic or other disease, and from constitutional weakness, or tendency thereto, or other disability of any kind likely to unfit him for military service in any climate. 3. Certificates of age, registration of diplomas, &c., and of character, must accompany the declaration when signed and returned. 4. Candidates will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a.* Anatomy and Physiology, 1,000 marks; *b.* Surgery, 1,000; *c.* Medicine, including Therapeutics, the Diseases of Women and Children, 1,000; *d.* Chemistry and Pharmacy, and a practical knowledge of drugs, 100 marks. N.B.—The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The eligibility of each candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Examinations will also be held in the following voluntary subjects, for which the maximum number of marks will be—French and German (150 each), 300 marks; Natural Sciences, 300 marks. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The natural sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to *Materia Medica*. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences. 5. After passing the examination, every candidate will be required to attend one entire course of practical instruction at the Army Medical School on—(1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Military Surgery; (4) Pathology of Diseases and Injuries incident to Military Service. At the conclusion of the course, he must undergo an examination on the subjects taught in the school. During residence at Netley, up to the time of passing his final examination, he receives 5s. a day. Every candidate must possess two diplomas, one to practise Medicine, and the other Surgery, in Great Britain or Ireland, and must be registered under the Medical Act in force at the time of his appointment.

NAVAL MEDICAL SERVICE.

1. Every candidate desirous of presenting himself for admission to the Naval Medical Service must be not under twenty-one nor over twenty-eight years of age. He must produce a certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must produce also a certificate of moral character, signed by a clergyman or a magistrate to whom he has been for some years personally known, or by the

president or senior professor of the college at which he was educated. 2. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, nor any other imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate. His physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's test-types. He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so. 3. He must be registered under the Medical Act in force at the time of his appointment as licensed to practise Medicine and Surgery in Great Britain or Ireland. 4. Certificates of registration, character, and age must accompany the schedule when filled up and returned. 5. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics and the Diseases of Women and Children; Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.) The eligibility of each candidate for the Naval Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to *Materia Medica*, also in French and German; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science. 6. After passing this examination, every candidate will be required to attend one entire course of practical instruction in the Medical School at Netley on—(1) Hygiene, (2) Clinical and Naval and Military Medicine, (3) Clinical and Naval and Military Surgery, (4) Pathology of Diseases and Injuries incident to Naval and Military Service. 7. At its conclusion, the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of a naval medical officer, he will be eligible for a commission as surgeon. 8. During the period of his residence at the Netley Medical School, each candidate will receive an allowance of 5s. *per diem* with quarters, or 7s. *per diem* without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform (*viz.*, the Regulation undress uniform of a Surgeon, but without the sword). 9. All candidates will be required while at Netley to conform to such rules of discipline as the Senate may from time to time exact. 10. After completing three years' full-pay service, Surgeons will be allowed to be examined for the rank of Staff-Surgeon, but no Surgeon can be promoted to the rank of Staff-Surgeon until he shall have served five years, two of which must have been in a ship actually employed at sea.

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

UNIVERSITY OF DUBLIN SCHOOL OF PHYSIC.—Regius Professor of Physic, Dr. W. Stokes, D.C.L., F.R.S.; Regius Professor of Surgery, Dr. W. Colles; University Professor of Anatomy and Surgery, Dr. B. G. M'Dowel; University Professor of Chemistry, Dr. Reynolds; University Professor of Botany, Dr. E. P. Wright; Professor of Surgery in Trinity College, Dr. E. H. Bennett; University Anatomist, Dr. T. Evelyn Little; Professor of Comparative Anatomy and Zoology, Dr. Macalister; Erasmus Smith's Professor of Natural Philosophy, Rev. John Leslie, M.A.; University Lecturer in Operative Surgery, Dr. R. G. Butcher; King's Professor of Institutes of Medicine, Dr. J. M. Purser; King's Professor of Practice of Medicine, Dr. W. Moore; King's Professor of *Materia Medica* and Pharmacy, Dr. Aquilla Smith; King's Professor of Midwifery, Dr. E. B. Sinclair; Professor of Medical Jurisprudence, Dr. R. Travers. Demonstrators, Dr. W. G. Smith, Dr. J. M. Penny, Dr. E. W. Collins, Dr. J. Barton.

The Winter Session commences on October 1st by the opening of the Dissecting Room, and terminates on March 31st. Lectures will commence on November 1st. The Winter Courses consist of fifty-six Lectures each. Attendance on at least forty-two Lectures in each Course is required. The Summer Session commences April 1st, and ends June 30th. The Courses (Botany, Institutes of Medicine, Comparative Anatomy, *Materia Medica*, and Medical Jurisprudence), consist of forty lectures each, attendance on at least thirty of which is

required. Two Medical Scholars are elected annually by the Board of Trinity College, at an examination held at the end of June. Each Scholarship is worth £20 *per annum*, and is tenable for two years. Two prizes of £50 each are given for the best answers in Practical Medicine and Practical Surgery. The Professors of the School of Physic give three exhibitions annually, amounting altogether in value to £40. No student can attend any of the Lectures delivered in the School of Physic, or Dissections, who has not complied with the provisions of the School of Physic Act as to Matriculation.

ROYAL COLLEGE OF SURGEONS IN IRELAND: SCHOOL OF SURGERY.—The Introductory Lecture will be delivered on October 30th, at 1 P.M., by Dr. W. Stokes, Professor of Surgery. The Dissecting Rooms open on October 2nd. The usual winter course commences on Monday, October 30th, as follows: Anatomy and Physiology, Dr. Mapother, daily except S., 2; Descriptive Anatomy, Dr. Bevan and Mr. Thorneley Stoker, daily, 12; Surgery, Mr. J. Stannus Hughes and Mr. Stokes, Tu., Th., S., 3; Practice of Medicine, Dr. James Little, M., W., F., 3; Chemistry, Dr. Cameron, M. W. F., 1; Midwifery, Dr. Cronyn, Tu., Th., S., 1. A public course of lectures on Comparative Anatomy will be delivered by the Professor of Anatomy and Physiology. Practical instruction in Operative Surgery will be given by the Professors of Surgery. The Professor of Chemistry receives operating pupils. The dissections are under the direction of the Professors of Anatomy assisted by the Demonstrators—Dr. Stoney, Dr. Ormsby, Dr. Wheeler, Dr. W. Stoker, Dr. W. J. Smyly, Dr. Peele, Dr. Franks, and Dr. Roe—who will daily attend. The summer session will commence on April 1st, 1877.—Lecturers: *Materia Medica*, Mr. Macnamara; Medical Jurisprudence, Dr. Davy; Botany, Dr. Minchin; Practical Chemistry, Dr. Cameron; Midwifery, Dr. Cronyn; Hygiene, Dr. Cameron; Ophthalmic and Aural Surgery, Mr. Wilson. The fee for each course of lectures is £3:3, excepting Descriptive Anatomy, which is £8:8, and Ophthalmic and Aural Surgery and Hygiene, which are free. A composition fee for all lectures and dissections required for the Diploma in Surgery, £55:2:6. A Junior Exhibition of £15, a Senior Exhibition of £25, and honorary certificates, will be awarded at the end of each winter session.

ADELAIDE HOSPITAL.—Consulting Physician, Dr. James F. Duncan. Consulting Obstetric Physician, Dr. Lombe Atthill. Physicians, Dr. Henry H. Head and Dr. James Little. Surgeons, Dr. A. J. Walsh, Dr. John K. Barton, and Mr. B. Wills Richardson. Obstetric Physician, Dr. R. D. Purefoy. Assistant Physician, Dr. Walter G. Smith. Assistant Surgeon, Dr. Montgomery A. Ward. The hospital contains 100 beds.

CARMICHAEL SCHOOL OF MEDICINE.—The following are the courses of lectures.—Winter Session, commencing Monday, October 2nd. Surgery, Mr. Anthony H. Corley, Tu., Th., and S., 11.30; Practice of Medicine, Dr. Samuel Gordon and Dr. J. W. Moore, M., W., and F., 11.30; Anatomy, Mr. Foy and Dr. Gunn, daily, except Sat., 12.30; Physiology, Dr. Reuben J. Harvey, daily, except Sat., 1.30; Midwifery, Dr. W. B. Jennings, M., W., and F., 2.30; Chemistry, Dr. C. R. C. Tichborne, Tu., Th., and S., 2.30. Summer Session, 1877.—Institutes of Medicine, Dr. S. Woodhouse, Tu., W., Th., and F., 11; *Materia Medica*, Dr. Duffey, M., W., and F., 12; Botany, Mr. E. B. Blakeley, Tu., Th., and S., 12; Practical Chemistry, Dr. C. R. C. Tichborne, Tu., Th., and S., 1; Forensic Medicine, Mr. Auchinleck, M., W., F., 1; Practical Physiology, Dr. Harvey, five times weekly; Ophthalmic Surgery, Dr. Fitzgerald, twice weekly. The Carmichael School of Medicine is in the immediate vicinity of the Richmond, Whitworth, and Hardwicke Hospitals. The dissections are superintended by the lecturers and demonstrators. The Lecturer on Physiology will give demonstrations in Histology and Physiological Chemistry; and a special class for instruction in those subjects will be held during the summer session. Demonstrations in Pathological Anatomy will be given on Saturdays. During the session, the lecturer on Surgery will give special courses of demonstrations and illustrations in Operative Surgery. The Museum of the School comprises a valuable collection of Anatomical and Pathological preparations. There is also an extensive Museum of *Materia Medica*.—Fees, for each course of lectures, £3 3s.; for Dissections, £5 5s.; Practical Physiology and Practical Chemistry, £1 1s., for materials, etc. Perpetual Pupils, paying £56 3s. 6d. in two instalments, can attend all the lectures required by the Royal College of Surgeons of Ireland. Carmichael premiums are awarded as follows: senior class, three prizes, £10, £5, and £3; second class, £7, £4, and £2; junior class, £4 and £2; also special (Carmichael) prizes of £3 each in other subjects than Anatomy and Surgery (for which the premiums above mentioned are

given). The Mayne scholarship, value £15, is awarded for proficiency in Practical Medicine, Surgery, Anatomy, and Physiology. For further information, apply to Dr. Harvey at the School, or at No. 7, Upper Merion Street.

CATHOLIC UNIVERSITY SCHOOL OF MEDICINE.—Anatomy and Physiology (Human and Comparative), Dr. T. Hayden, and Dr. R. Cryan; Chemistry, Dr. John Campbell; Surgery, Mr. Tyrrell; Medicine, Dr. R. D. Lyons; Midwifery, Dr. J. A. Byrne; Demonstrations in Dissecting Room, Mr. P. J. Hayes, Dr. C. J. Nixon, Dr. Whitby, Mr. C. Coppinger, Dr. M. Kilgariff. *Summer Session.*—Practical Chemistry, Dr. Campbell; Materia Medica, Dr. Quinlan; Medical Jurisprudence, Dr. MacSwiney; Pathology, Dr. Lyons; Botany, Dr. Sigerson; Natural Philosophy, Rev. Dr. Molloy. *Prizes.*—At the end of the Winter Session, prizes in each class: the University Exhibition, value £20, after examination. At the end of the Summer Session, the University Gold Medal, value £7. Prizes in each class. *Fees.*—Each course, £3 3s.; except Dissections, £5 5s. A reduction of one-sixth is made to perpetual pupils paying the entire fees in advance, or in two instalments at the commencement of the first and of the second years. The School is in a central situation, and within a few minutes walk of the principal hospitals of the city. It includes a Reading Room well supplied with medical books and periodicals, also an extensive and most complete Laboratory, in which students can pursue the study of Practical Chemistry, Materia Medica, and Toxicology. Further particulars may be learned from the Medical Registrar, Dr. Hayes, 29, Westland Row; or on application at the School.

JERVIS STREET HOSPITAL.—Physicians: Dr. Stephen M. MacSwiney, M.R.I.A.; Dr. William Martin. Surgeons: Mr. M. Harry Stapleton, Dr. J. Stannus Hughes, Dr. J. K. Forrest, Dr. Austin Meldon, Mr. James E. Kelley, Mr. M. J. Kilgariff, Dr. E. W. Collins. The winter session will commence on November 1st. This hospital is in the immediate vicinity of the Catholic University and Carmichael Medical Schools. The surgeons and physicians attend daily from 9 to 11 o'clock. Medical and surgical lectures are delivered in each week, and clinical instruction is given daily by the physicians and surgeons. Operations are performed on Saturdays mornings at 10. Practical Pharmacy is taught under the superintendence of the apothecary to the hospital. Resident pupils and dressers are selected from among the most attentive of the pupils, without payment of any additional fee. Two interns are appointed each half year, and are provided with apartments, fuel, etc., free of expense. Special certificates are given to the resident pupils and dressers who have performed their respective duties to the satisfaction of the physicians and surgeons.

Fees.—For the winter and summer sessions (nine months), £8 8s.; for the winter six months, £6 6s.; for the summer three months, £3 3s.; perpetual pupils, £21, paid on entrance. For further particulars, apply to Dr. E. W. Collins, 33, Lower Baggot Street, or to any of the physicians or surgeons.

LEDWICH SCHOOL OF SURGERY AND MEDICINE.—The lectures will be delivered by the following teachers. Anatomy, Surgical and Descriptive: Mr. Edward Ledwich, Mr. T. P. Mason, Mr. A. R. Glanville, Mr. J. E. Kelly, and Mr. M. A. Ward, five days, weekly, 1 P.M. Anatomy, Physiological and Pathological: Mr. T. P. Mason, Mr. Edward Ledwich, and Mr. J. E. Kelly, five days, weekly, 12 noon. A brief course of Comparative Anatomy will be delivered during the winter session. Surgery: Mr. J. H. Wharton and Dr. J. K. Barton, M., W., F., 11. Medicine: Dr. Arthur W. Foot, Tu., Th., S., 11. Midwifery: Dr. S. R. Mason, Tu., Th., S., 2. Chemistry and Natural Philosophy: Mr. W. H. Griffiths, M., W., F. Practical Chemistry: Mr. Griffiths. Materia Medica: Dr. B. F. MacDowell, M., W., F., 11. Botany: Dr. W. R. McNab, Tu., Th., S., 12. Forensic Medicine and Hygiene: Dr. R. Travers, M., W., F., 12. Fee for each course, £3 3s. Anatomical Demonstrations: Mr. T. P. Mason, Mr. E. Ledwich, Mr. A. R. Glanville, Mr. J. E. Kelly, Mr. M. A. Ward, Mr. C. H. Robinson, Mr. S. R. Mason, Mr. R. Rainsford, Mr. F. T. Porter, Mr. Nixon, Mr. T. W. Madden, daily, in the Anatomical Dissecting Rooms. A course of operations to be performed by the student, under the superintendence of the Lecturer (subjects, etc., included), £5 3s. The dissecting rooms open on Oct. 1st. During the summer session, to commence in April 1877, the usual courses will be delivered on Midwifery, Chemistry, Materia Medica, Botany, and Forensic Medicine. There are endowments in favour of students, subject to the conditions prescribed by the founder, in the following departments; two in Anatomy and Physiology, two in Minute Anatomy, two in Practical Anatomy, one in Surgery. The

usual prizes in the other departments will be awarded at the termination of each session.

This School is in a central situation, and by its teachers it is connected with six hospitals, five of which are medical and surgical hospitals, and one for midwifery and diseases of women and children.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—Physicians: Dr. A. W. Foot, Dr. J. W. Moore. Surgeons: Dr. G. H. Porter, Mr. J. H. Wharton, Mr. P. C. Smyly, Mr. R. Macnamara, Mr. R. P. White, Mr. L. H. Ormsby. Four clinical lectures are given weekly, on alternate days. The physicians and surgeons visit the hospital at 9 A.M. Fees: perpetual, £26 5s.; twelve months, £12 12s.; nine winter months, £9 9s.; six winter months, £7 7s. three summer months, £3 3s. The hospital contains 120 beds; it has a dispensary, lending library, and physiological laboratory attached, and is within a few minutes' walk of the University, the College of Surgeons, and the Ledwich School of Medicine. It contains a ward for diseases of children. Prizes are given at the end of the winter course. The office of resident pupil is open to pupils as well as to apprentices. Further information may be obtained of Mr. L. H. Ormsby, 12, Lower Fitzwilliam Street, or at the hospital.

MERCER'S HOSPITAL, DUBLIN.—Medical Officers: Dr. Thomas P. Mason, Mr. Edward Ledwich, Mr. E. S. O'Grady, Dr. G. F. Duffey, and Dr. Benjamin F. McDowell. The hospital is visited daily at 9.15 A.M. Systematic clinical lectures and catechetical instruction will be given daily. The appointments of resident students are open to all perpetual pupils of the hospital, through competitive examination. Dressers are selected from the most attentive of the students. The hospital is in the close vicinity of two of the principal Medical Schools. Fees: six months, £6 6s.; nine months, £8 8s.; perpetual, £21. Further information can be obtained from any of the physicians or surgeons of the hospital, or from the Registrar, Mr. James Shaw.

QUEEN'S COLLEGE, BELFAST.—Anatomy and Physiology, Dr. Peter Redfern, M., Tu., W., Th., F., 2. Demonstrations of Anatomy, M., Tu., W., Th., F., 12. Theory and Practice of Medicine, Dr. J. Cumming, M., Tu., W., Th., F., 4. Practice of Surgery, Dr. A. Gordon, M., Tu., W., Th., 1. Materia Medica, Dr. J. S. Reid, M., Tu., W., Th., 4. Midwifery, Dr. R. F. Dill, M., Tu., Th., F., 3 (after May 1st). Medical Jurisprudence, Dr. J. F. Hodges, M., Tu., W., Th., 2 (after May 1st). Chemistry, Dr. T. Andrews, M., Tu., W., Th., F., 3. Zoology, Dr. R. O. Cunningham, M., Tu., W., F., 1. Botany, Dr. Cunningham, M., Tu., W., Th., F., 11 (summer). Fees for course for Medical Jurisprudence, Chemistry, Materia Medica, Medicine, Surgery, Midwifery, and Botany, each £2; reattendance on same course, half fee; Practical Chemistry and Practical Anatomy, first and subsequent courses, each £3; Anatomy and Physiology, first course, £3; each subsequent course, £2. Eight scholarships of the value of £24 each are awarded to students of the Faculty of Medicine, two being awarded for each of the first, second, third, and fourth years.

QUEEN'S COLLEGE, CORK.—Anatomy and Physiology, Dr. J. J. Charles, daily, except S., 1. Practice of Medicine, Dr. D. C. O'Connor, M., W., F., 3. Surgery, Dr. W. K. Tanner, Tu., Th., 4; S., 1. Materia Medica, Dr. M. O'Keeffe, Tu., Th., 3; S., 12. Midwifery, Dr. J. R. Harvey, M., W., F., 4. Medical Jurisprudence, Mr. M. O'Shaughnessy and Dr. O'Keeffe, Tu., Th., 1; S., 2. Chemistry, Dr. M. Simpson, M., W., F., 11. Zoology and Botany, Dr. J. R. Greene, M., W., F., 3. The fees are the same as at Belfast. Eight scholarships are awarded in the Faculty of Medicine.

QUEEN'S COLLEGE, GALWAY.—Anatomy and Physiology, and Practical Anatomy, Dr. Cleland. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Browne. Materia Medica, Dr. J. P. Pye. Medical Jurisprudence, Dr. J. P. Pye. Midwifery and Diseases of Women and Children, Dr. P. Doherty. Chemistry, Dr. T. H. Rowney. Natural Philosophy, Dr. A. H. Curtis. Botany and Zoology, Dr. A. G. Melville. The County Galway Infirmary, Town, and Fever Hospitals, are in the immediate vicinity of the Queen's College.

Eight scholarships of the value of £25 each, and exhibitions varying in value from £12 to £16, are appropriated to students pursuing the course for the degree of M.D.

Fees.—Anatomy and Physiology, £3 first session; afterwards, £2. Practical Anatomy or Practical Chemistry, £3 each session; Operative Surgery, £3; other classes, £1 for each course extending over one term only; £2 for each course extending over more than one

term; and £1 for each reattendance on the same. The College session is divided into three terms. The first term commences on October 17th, 1876.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—These Hospitals contain 312 beds; 110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases. A Dispensary for out-door patients is attached to the Medical and Surgical Hospitals. There is an extensive Pathological Museum, containing above 4,000 drawings, casts, and preparations, and a Medical and Surgical Lending Library. Two Clinical Lectures are delivered in each week, in addition to Bedside Instruction given daily by the Physicians and Surgeons. There will be a distinct course of Lectures and Clinical Instruction in Fevers. A course of Practical Instruction in Ophthalmic Surgery will be given. The Hospitals are visited at 9 A.M. by the Physicians and Surgeons. Operations are performed on Wednesday mornings. Eight resident Clinical Clerks are appointed each half-year, and provided with furnished apartments, etc. The Dressers are selected from among the best qualified of the pupils, without additional fee. At the termination of the Session, prizes will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing over 1,000 patients, adjoins these Hospitals. The Carmichael School of Medicine is also in the immediate vicinity of these Hospitals. Consulting-Physician, Sir D. J. Corrigan, Bart., M.D.; Physicians, Dr. J. T. Banks, Dr. B. G. M'Dowel, Dr. S. Gordon, Dr. R. D. Lyons; Assistant-Physician, Dr. R. J. Harvey; Consulting Obstetric Surgeon, Dr. G. H. Kidd; Surgeons, Mr. W. Stokes, Dr. W. Thomson, Dr. W. T. Stoker, Dr. A. H. Corley; Ophthalmic Surgeon, Mr. C. E. Fitzgerald; Dental Surgeon, Mr. W. B. Pearsall. *Fees.*—Winter and summer session (nine months), £9 9s.; six winter months, £7 7s.; three summer months, £3 3s.; Perpetual Pupils, £25 (paid on entrance). Resident Clinical Clerks, winter session, £21; summer session, £12 12s., including certificate of attendance)

ST. VINCENT'S HOSPITAL AND DISPENSARY.—This hospital is visited daily at 9 A.M. It is connected (by its medical officers) with three leading medical schools in its immediate vicinity. Medical and Surgical Clinical lectures will be given three times weekly; operations on Fridays, at 10.30 A.M. At the beginning of each winter and summer session, two resident pupils will be selected by competitive examination. At the end of the winter session, an examination will be held in Clinical Medicine and Surgery, at which a senior and junior prize will be awarded. A portion of all these examinations will be conducted at the bedside. Physicians, Dr. Francis J. B. Quinlan, Dr. Robert Cryan. Surgeons, Dr. Edward D. Mapother, Dr. William H. O'Leary, M.P. Surgeon Dentist, W. J. Doherty, L.D.S. Apothecary, C. T. Boland. Terms of attendance.—Winter and summer sessions, £8 8s.; winter session, £6 6s.; summer session, £3 3s.

SIR PATRICK DUN'S HOSPITAL.—Consulting-Physician: Dr. W. Stokes, D.C.L., F.R.S. Consulting-Surgeon: Dr. W. Colles. Clinical Physicians: Dr. J. M. Purser, Dr. W. Moore, Dr. Aquilla Smith. Midwifery Physician: Dr. E. B. Sinclair. Clinical Surgeons: Dr. B. G. M'Dowel, Dr. E. H. Bennett, Dr. T. E. Little. University Lecturer in Operative Surgery: Dr. R. G. Butcher.

The physician on duty visits the wards, with his class, at 9 A.M., on Mondays, Wednesdays, and Fridays. The surgeon on duty visits the wards, with his class, at 9 A.M., on Tuesdays, Thursdays, and Saturdays. The hospital dispensary is open from 9 to 11 o'clock daily (except Sundays).

The payment of £3 3s to the hospital entitles the student to attend the clinic of the hospital for twelve months, and the lectures delivered by Dr. Butcher, at 10 A.M., on Thursdays.

Students who have taken out the degrees of Bachelor in Medicine or Master in Surgery, in Trinity College, are entitled to attend the hospital as perpetual free pupils. Clinical lectures are delivered at 10 o'clock, on Mondays, by the clinical physician on duty; and on Tuesdays by the clinical surgeon on duty. In addition to the hospital fee, the payment of a fee of £6 6s is required for these lectures. Total fee for hospitals and lectures for twelve months, £9 9s. Students of Trinity College desirous of entering for six months' instruction in Practical Midwifery, pay a fee of £3 3s. Other students pay, in addition, £3 3s to the King's Professor, for six months' practical instruction. The Governors of the hospital award Silver Clinical Medals in Medicine and in Surgery to the students who shall pass the best examinations on the medical and surgical cases treated in the hospital during the year. The written part of the examination consists of five cases recorded by each candidate.

DR. STEEVENS' HOSPITAL AND MEDICAL COLLEGE.—The hospital contains 250 beds, and is provided with special wards for the treatment of fever, syphilis, and diseases of females. Visiting Physician, Dr. W. M. Burke; Visiting Surgeons, Mr. S. G. Wilmot and Mr. C. Fleming; Physicians, Dr. H. Freke and Dr. T. W. Grimshaw; Physician-Accoucheur, Dr. J. Isdell; Surgeons, Mr. W. Colles, Dr. E. Hamilton, and Dr. R. M'Donnell; Ophthalmic Surgeon, Mr. Swanzy. The hospital is visited at 8.30 P.M.; and clinical instruction is given as follows: The physicians and surgeons, Saturdays at 10; and Dr. Freke, Monday; Mr. M'Donnell, Tuesday; Mr. Hamilton, Wednesday; Mr. Colles, Thursday; Dr. Grimshaw, Friday; Dr. Isdell, Saturday—each at 9 A.M. Operations are performed on Saturdays at 10. Pathological Demonstrations are given by the Lecturers as opportunity offers. The following lectures are given in the Medical School. Anatomy, Physiology, and Morbid Anatomy, Mr. Hamilton, daily, except Sat., 10; Practice of Medicine, Dr. Freke, M., W., F., 11; Surgery, Mr. Colles, Tu., Th., S., 11; Midwifery and Diseases of Women and Children, Dr. Isdell, M., W., F., 12; Chemistry, Dr. Bell, Tu., Th., S., 12; Descriptive Anatomy, Mr. Swan and Mr. Booker, daily, except Sat., 1; Dissections superintended by the Lecturers on Anatomy and the Demonstrators, 7 A.M. to 8 P.M. Practical Anatomy and Hospital Attendance commence on the first Monday in October. The Sessional Lectures commence on the first Monday in November. The summer session will include Clinical Medicine and Surgery, Ophthalmic Surgery, Materia Medica, Midwifery and Practical Midwifery, Botany, Chemistry, Medical Jurisprudence, Pathology, and Practice in Surgical Operations. The reading room and museum are open daily. There is also a lending library. Fees: Hospital Practice nine months, £9 9s.; six months, £7 7s. Practical Anatomy, £5 5s. Lectures, each course, £3 3s. Resident Dressership (six months), winter, £21; summer, £15 15s. A perpetual fee of 78 guineas, which may be paid in two instalments, entitles the student to attend all the lectures and hospital practice required by the Colleges of Surgeons, Halls, and the public service.

An examination for two midwifery assistants is held on the last Saturday in November, salary £30. Candidates must be students in at least their second year. General examinations will be held at the close of the session, at which students are expected to answer, in order to entitle them to certificates of attendance. Students who reach a certain standard will be recommended for honours, and will receive special certificates. A Gold Medal in the third and second years, respectively, and a Silver Medal in the first year, are offered.

Further particulars may be learned from any of the Lecturers; from the Resident Surgeon, at the hospital; or from Dr. E. Hamilton, 120, Stephen's Green West.

PUBLIC HEALTH OR STATE MEDICINE.

SURJOINED are the regulations of the Universities which grant degrees or certificates on Public Health or State Medicine.

UNIVERSITY OF EDINBURGH.—This University gives the Degrees of Bachelor and Doctor of Science in several departments, among which is that of Public Health.

BACHELOR OF SCIENCE IN THE DEPARTMENT OF PUBLIC HEALTH.—1. Candidates for Graduation must be Graduates in Medicine of a British University, or of such Foreign or Colonial Universities as may be specially recognised by the University Court. 2. Candidates who have not passed an *annus medicus* in the University of Edinburgh must, before presenting themselves for examination, have attended as matriculated students in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the Examinations. 3. There are two examinations for the Degree of Bachelor of Science in the Department of Public Health. Candidates who have passed in the first examination may proceed to the second immediately, or at any subsequent Medical or Science Examination. 4. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which instruction was given on Public Health, and that they have studied Analytical Chemistry practically for three months with a recognised teacher. 5. The examinations are written, oral, and practical, and are conducted by University Examiners selected by the University Court. 6. The subjects of the examinations for the Degree of Bachelor of Science in the Department of Public Health are as follows:

First Examination. 1. Chemistry.—The Analysis of Air, Detection of Gaseous Emanations and other Impurities in the Atmosphere; Analysis of Waters for Domestic Use, and Determination of the Nature

and Amount of their Mineral and Organic Constituents; Detection, Chemical and Microscopical, of Adulteration in Articles of Food and Drink, and in Drugs; Practical Examination, including at least two analytical researches. 2. *Physics*—Hydraulics and Hydrostatics, in reference to Water-Supply, Drainage, and Sewerage; Pneumatics, in reference to Warming and Ventilation; Meteorology, and methods of making Meteorological Observations; Mensuration, in reference to the Plans and Sections of Public and Private Buildings, Mines, Water-works, and Sewers. 3. *Sanitary Law*—Knowledge of the leading Sanitary Acts of Parliament. 4. *Vital Statistics*—Knowledge of statistical methods and data in reference to Population, Births, Marriages, and Deaths.

Second Examination. 1. *Medicine*—Origin, Nature, and Propagation of Epidemic and Contagious Diseases; Prevention of Contagion and Infection; Endemic Diseases, and the Geographical distribution of Disease; Insalubrious Trades; Overcrowding; Epizootics, including pathological changes. 2. *Practical Sanitation*—Duties of a Health Officer in reference to—Water-Supply; Insalubrious Dwellings and Public Buildings; Removal and Disposal of Sewage and other Refuse and Impurities; Cemeteries; Nuisances from Manufactories, etc.; Bad or Insufficient Supplies of Food; Outbreaks of Zymotic Diseases; Quarantine; Disinfectants and Deodorisers; Construction of permanent and temporary Hospitals.

The written examinations will take place on October 20th and 21st, 1876, and April 2nd and 3rd, 1877, at eleven o'clock each day.

Candidates who intend to present themselves for examination in October are required to lodge with the Clerk of the University proof of their being eligible, and to pay the fee on or before October 2nd, and for the examination in April on or before March 5th.

DOCTOR OF SCIENCE.—Bachelors of Science in the Department of Public Health may, after the lapse of one year, proceed to the Degree of Doctor in the same department, on producing evidence that they have been engaged in Practical Sanitation since they received the Degree of Bachelor of Science, and on presenting a Thesis on some subject embraced in the Department of Public Health. Every such Thesis must be certified by the candidate to have been composed by himself, and must be approved of by the Examiners.

Candidates for the Degree of D.Sc. must lodge their Theses with the Dean of the Medical Faculty on or before January 31st in the year in which they propose to graduate. No Thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

The fees for the Degrees in Science in the Department of Public Health are: for the first B.Sc., in Public Health Examination, £5 5s.; for the second B.Sc. in Public Health Examination, £5 5s.; for the Degree of B.Sc. in Public Health, £5 5s.; in all, £15 15s.

The following are recommended as books to be studied in preparation for the above Examinations: Parkes, E., *Practical Hygiene*; Wilson, George, *Hand-Book of Hygiene*; Smith, Edw., *Manual for Public Officers of Health*, and *Hand-Book for Inspectors of Nuisances*; Michael, Corfield, and Wanklyn, *Manual of Public Health*, edited by E. Hart; Latham, Baldwin, *Sanitary Engineering*; Law, Henry, *Rudiments of Civil Engineering*; Monro, Geo., *The Public Health (Scotland) Act*; Buchan, Alex., *Introductory Text-Book of Meteorology*.

UNIVERSITY OF CAMBRIDGE.—An examination in so much of State Medicine as is comprised in the functions of Officers of Health will be held in Cambridge in October 1876.

Any person whose name is on the *Medical Register* of the United Kingdom may present himself for this examination, provided he is twenty-four years of age. The examination will be in two parts.

Part I will comprise: Physics and Chemistry. The Principles of Chemistry, and methods of analysis with especial reference to analyses (microscopical as well as chemical) of air and water. The laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, and sanitary engineering in general.

Part II will comprise: Laws of the realm relating to public health. Sanitary statistics. Origin, propagation, pathology, and prevention of epidemic and infectious diseases. Effects of overcrowding, vitiated air, impure water, and bad or insufficient food. Unhealthy occupations, and the diseases to which they give rise. Water-supply, and disposal of sewage and refuse. Nuisances injurious to health. Distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

Candidates may present themselves for either part separately, or for

both together, at their option. Every candidate must pay a fee of £4 4s. before admission to each part of the examination. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate, testifying to his competent knowledge of what is required for the duties of an Officer of Health. All applications for admission to this examination, or for information respecting it, should be addressed to Professor Liveing, Cambridge.

UNIVERSITY OF DUBLIN.—Doctors of Medicine of Dublin, Oxford, or Cambridge, who wish to obtain from this University a Certificate of Qualification in State Medicine, can do so on passing an Examination in a limited course of the following subjects: 1. Law; 2. Engineering; 3. Pathology; 4. Vital and Sanitary Statistics; 5. Chemistry; 6. Meteorology; 7. Medical Jurisprudence.

The following text-books are recommended:—Parker's *Practical Hygiene*; J. O. Byrne's *Compendium of Irish Sanitary Law*; E. Powell's *Principles and Practice of the Law of Evidence*; Taylor's *Manual of Medical Jurisprudence*; Buchan's *Handybook of Meteorology*; Roscoe's *Lessons in Elementary Chemistry*.

CORRESPONDENCE.

MR. HUTCHINSON'S ADDRESS.

SIR,—“Philalethes” would be wise to study the facts on which he writes, before he ventures to attack such a giant in argument, such an accomplished reasoner, as Mr. Jonathan Hutchinson. Let me show the fallacy of the arguments which “Philalethes” brings forward to confound his opponent.

I. “It is as easy for Mr. A. with £200 a year, to marry Miss B. with £200, as for Mr. A. with £400 to marry Miss B. with nothing.” Now, the merest tyro who has read the most elementary work on political economy must know that, if it take two people to earn what one man should earn, one of those people's work is waste labour. If it take Mr. and Mrs. A. to earn what Mr. A. alone should be able to earn, whatever work Mrs. A. does is waste; and the wife's proper work (which, we maintain, is as important in its nature as the husband's), viz., the management of the household, the training of the children, the economical administration of the common fund, goes unlooked after, or has to be looked after by one who has to be paid out of the scanty income. Besides, half of the income is earned by the wife's work; and, during pregnancy, labour, and convalescence, such work must be curtailed or neglected altogether, to the serious loss of the family. No man could marry under such circumstances; better be a bachelor by far. Miserable Mr. A. No. 1 goes home wet, tired, and cross; his wife is out, and when she comes in, she is equally wet, tired, and cross. His clothes are unaired, so are his wife's; the fire is out, the servants out, the children neglected; the house—home it is not—miserable. Mr. A. No. 2 goes home and finds a happy wife, dry herself and well, a good fire, well-aired clothes, a good dinner, orderly children. And surely the wife has room for intellectual expansion. Although she may not know it, she is practically studying the noble science of political economy. She is training the next generation of men who will rule the world. She shields from her husband all those domestic worries which prevent the thoughts from being fixed on his noble profession. Mutually dependent (for surely the husband is dependent on the wife for all that makes life desirable, for comfort, for help, for love), they pass through life hand in hand, neither feeling a galling superiority in the other, but both knowing that the comfort of each is dependent on their mutual exertions; feeling a mutual trust, a mutual respect, until they part only at the grave.

II. I have answered “Philalethes” second objection, “that the dependence is curiously one-sided”, by showing that it is not so; that the life of woman, if she but make it so, is as noble, as needful, as that of man.

III. No fair judgment can be pronounced till women have had many generations of fair play. If one could find a race of people who, in whatever age, in whatever country they might be found, always occupied an inferior intellectual position, we should be justified in presuming that there was a mental inferiority. And such is the position of women. The very fact that not one single woman has thrown off the trammels of ignorance without assistance, and shown that originality of mind, that firmness of purpose, which raised Stephenson from the coal-pit and Hunter from the carpenter's bench, argues inferior mental development. Let these women show us that they have more than the mere power of memory, more than the mere power of following discoveries already made, that they have originality to discover for them-

selves, then will we entrust our wives and children to their care. The men who lead, and have led, the branch of science which they claim have been giants in the land. Let them show that they can fill the places of Simpson, of Barnes, of Leishman, of Tyler Smith, before we admit that they can. The proof is with them. And let them not be deceived; if they take that branch of the profession into their own hands, they must hold it: they must take the place of its giants as well as of its dwarfs.

IV. "*Tens of millions of Hindoo women.*" The most ignorant, debased, and lascivious race on the face of the earth is called to give witness of the impropriety of men attending women!

V. The argument, founded on drapers'-assistants following a *mechanical* employment, is not tenable, and does not apply to the case in point.

VI. "*The works of God are not unclean.*" Alas! it is not with God's work that the surgeon too frequently has to do. Are those crimes which we read of in our works of medical jurisprudence, and which we dare not name, are they God's works which ladies may look on? Are those subjects treated of (as Mr. Hutchinson remarks) by Acton, are they God's works, and fit for ladies' ears?

In conclusion, I take the argument which "Philaethes" has put into my mouth: To the pure all things are pure; it is only the unchaste, the impure, the lascivious who can find harm in the ministration of a medical man.—I am, sir, faithfully yours, A. H.

REPRESENTATION OF THE UNIVERSITIES OF GLASGOW AND ABERDEEN.

SIR,—In the JOURNAL of September 16th is an appeal by Dr. Joseph Rogers for the election of a medical representative for the above constituency. I do not know who may be the coming medical candidate, or what may be his political creed. In the abstract, the return of a member of the profession of good standing, and holding moderate opinions, would justly commend itself to virtually the whole medical portion of the constituency; but I cannot help feeling that, in the present instance, Dr. Rogers has not sufficiently weighed the probable influence of such a return upon the cause he has so much at heart, and with a reference to which he prefaces his letter, that, namely, of the amendment of Scotch Poor-law medical relief. Without a doubt, the Solicitor-General, Mr. Watson, will be appointed Lord Advocate; having at present no seat in Parliament, he will be a candidate for the representation of the universities, and, if returned, will endeavour to redeem Lord Advocate Gordon's pledge as to the reform of the Scotch Poor-law, for the clamant need of which I need only refer to the case of the Barnhill Poorhouse, as quoted and commented on in the last number of the JOURNAL. Being a member of the Government, and having charge of the Scotch business, his chance of success will be very good. But what hope would there be of so much being accomplished by any medical man who might manage to secure the seat, no matter how greatly he might have the cause at heart, or how high might be his social or professional standing? I fear the answer must be, very little; perhaps, rather, none at all. If, then, the medical graduates of the two universities would really wish to improve the position of their brethren in the Scotch Poor-law Medical Service, and thus also add to the status of the profession at large, I am afraid they must once more consent to send a lawyer as their representative to Parliament. In Mr. Watson they would find one in whose hands the honour of the universities might safely be trusted, seeing he will not only be a prominent member of the Government, but is already, by the voice of his brethren, the leader of the bar.

I am, sir, yours obediently,

A SCOTCH POOR-LAW MEDICAL OFFICER.

*** We are unable to agree with this view of the case, since we believe that the Bill in question is brought in as a Governmental measure, and its fate will not be influenced by the choice of this constituency. On the other hand, the presence of a medical representative in the House from Scotland might prove of material advantage to the Poor-law medical officers when the Bill is reintroduced. The Bill is backed by Sir Stafford Northcote and Mr. W. H. Smith.

THE Chesterfield Board of Guardians have, upon the recommendation of a committee, increased the salary of Mr. Bluet, the medical officer of the workhouse, from £37 10s. to £60 per annum. The committee, upon comparing Mr. Bluet's salary with others in adjacent unions, found that he was very much underpaid, his salary having been the same for thirty years.

ASSOCIATION INTELLIGENCE.

SHROPSHIRE AND MID-WALES BRANCH.

THE annual meeting of this Branch will be held at the Lion Hotel, Shrewsbury, on Tuesday, September 26th, 1876, at 1.30 P.M.: S. TAYLEUR GWYNN, M.D., President, in the Chair.

The following papers and communications have been promised.

1. Dr. Andrew: On the Hypodermic Injection of Morphia in Hæmoptysis.
2. Dr. Andrew: On the Operation for Cataract, with a Patient.
3. Dr. Andrew: On the Relative Value of Chloroform, Bichloride of Methylen, and Æther, as Anæsthetics.
4. Dr. Stowers: On the Administration of Chloroform as an Anæsthetic.
5. Dr. W. Thursfield: On the Cause of Endemic Ascaris Lumbricoides.
6. Dr. Alfred Eddowes; Case of Alarming Symptoms under Æther.
7. Dr. Eddowes will also show a new Axillary Air-Pad.
8. Thomas Law Webb, Esq.: On the Treatment of Enlarged Bursæ.

Dinner at 4.30 P.M. Charge, 7s. 6d., exclusive of wine.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate at once with the Honorary Secretary.

HENRY NELSON EDWARDS, *Honorary Secretary.*

Shrewsbury, September 12th, 1876.

SOUTH EASTERN BRANCH: EAST SUSSEX DISTRICT MEETINGS.

THE next meeting of the above District will be held at the Fox Inn, Three Bridges Junction, on Wednesday, September 27th, at 3 o'clock P.M.; T. H. MARTIN, Esq., of Crawley, in the Chair.

Dinner will be provided at 5 o'clock, at the usual charge.

Papers are, promised by the Chairman, also by T. Smith, Esq. Notice of intended communications is requested by the Secretary on or before Tuesday, the 19th instant, in order that they may be inserted in the circular convening the meeting.

THOMAS TROLLOPE, M.D., *Honorary Secretary.*

35, Marina, St. Leonards-on-Sea, Sept. 12th, 1876.

EAST YORK AND NORTH LINCOLN BRANCH.

THE autumnal meeting will be held at the Royal Hotel, Grimsby, on Wednesday, September 27th, 1876, at 2.30 P.M.; Mr. KEETLEY, the President, in the Chair.

The following papers and cases are promised.

1. Mr. Keetley: Case of Hemiplegia, from Gunshot-wound of the Brain. Removal of Bullet five weeks afterwards. Recovery.
2. Mr. R. H. B. Nicholson: Case of Chronic Abscess beneath Frontal Bone.
3. Mr. R. H. B. Nicholson: Case of Excision of both Tonsils by means of the Guillotine.
4. Mr. Morley: Case of Acute Poisoning by Tartar Emetic.
5. Mr. Hardey: Case of Retention of Urine, illustrating the use of the Aspirator.
6. If time permit, the question whether Habitual Drunkenness is a Vice or a Disease, will be re-introduced, and a resolution thereon will be proposed by Mr. Dix.

A packet leaves the Victoria Pier, Hull, at 12.50. Members must book to the Dock Station, which is close to the Royal Hotel.

Dinner at five o'clock. Tickets 7s. each, exclusive of wine. Members of the profession are invited to attend both the meeting and dinner.

E. P. HARDEY, *Honorary Secretary.*

35, Regent Terrace, Hull, Sept. 18th, 1876.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of this Branch will be held at the Town Hall, Woburn, on Friday, October 13th, at 3.30 P.M.; H. W. SHARPIN, Esq., President, in the Chair.

Dinner at the Hotel at 5.30 P.M.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate at once with Dr. Bryan.

An excursion to Woburn Abbey is proposed at 1.30 P.M.

J. M. BRYAN, M.D. } *Honorary Secretaries.*
W. MONON, Esq. }

Northampton, September 19th, 1876.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next meeting of this Branch will be held at Caerphilly, on Thursday, September 28th, 1876.

Further particulars will appear in the circulars.

ANDREW DAVIES, M.D. } *Honorary Secretaries.*
ALFRED SHEEN, M.D. }

September 6th, 1876.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Red Lion Hotel, Dulverton, on Thursday, October 5th, at Five o'clock: FREDK. FARMER, Esq., President.

Full particulars by circular.

W. M. KELLY, M.D., *Honorary Secretary.*
Taunton, September 18th, 1876.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

THE next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 12th, at 4 P.M.; Dr. C. HOLMAN in the Chair.

The following communications are promised.

1. Mr. Durham: A Paper.
2. Mr. Maunder will exhibit three patients recently submitted to Osteotomy of the Femur.
3. A Case of Hydrophobia, by Mr. R. Steele, with notes by Dr. Dyce Duckworth.
4. Missed Labour in a Cow, with Delivery after use of Barnes's Bags, by Mr. Hawker and Mr. R. Steele.
5. A *Résumé* of a Year's Practice in the Reigate Cottage Hospital, by Dr. Walters.
6. Two Cases of Fracture of both Thighs, by Dr. Flood and Dr. Holman.

Dinner will be provided at the White Hart Hotel at 6 P.M. Tickets, exclusive of wine, 6s. a head.

JOHN H. GALTON, M.D., *Honorary Secretary.*
Woodside, Anerley Road, S.E., September 20th, 1876.

THAMES VALLEY BRANCH.

A MEETING of the above Branch will be held at the Board Room, Richmond Infirmary, at five o'clock, on October 18th, 1876.

Dr. Collie will read a paper as to the manner in which Contagious Diseases spread, and the extent of Isolation which is necessary in their treatment.

A discussion will then take place as to the Treatment of Burns.

There will be a dinner afterwards at the Greyhound Hotel at seven o'clock. Charge, 7s. 6d. each, exclusive of wine.

Those who intend to be present at the dinner are requested to send word to the Honorary Secretary as soon as possible.

F. P. ATKINSON, *Honorary Secretary.*
Surbiton Road, Kingston-on-Thames, Sept. 21st, 1876.

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE thirty-third annual meeting of this Branch was held at the Royal Clarence Hotel, Bridgwater, on Thursday, July 27th. There were present ten members and one visitor.

The retiring President, Dr. CORDWENT, took the Chair; and, after a few brief remarks on his past year of office, he introduced his successor, FREDERICK FARMER, L.K.Q.C.P.I. (Bridgwater).

Letters of Regret.—The SECRETARY laid before the meeting letters from fourteen members, and a telegram from one, accounting for their absence.

Report of Council and Treasurer's Accounts.—The following report of Council was read by the SECRETARY.

1. In taking a retrospective view of the proceedings of the Branch during the past year, your Council feel that they can do so with much satisfaction.
2. The autumnal and spring meetings were both well attended. Papers and communications were brought forward, not only of great interest, but which also evidenced originality and research.
3. The question proposed at the autumnal meeting on the disuse of blood-letting elicited a good and useful discussion.
4. Petitions to both Houses of Parliament, with a view to some restrictive legislation being enacted for Habitual Drunkards, were sent up

from this Branch in February last; but, as no Act of Parliament has been passed on the subject, it will be a matter for consideration whether further action in the same direction should not be taken by this Branch during the ensuing year.

5. Several new members have joined the Branch since the last anniversary, and the number of members now on the books is greater than at any former period, namely, fifty-six. Your Council are happy to state that there has been no loss from death, and only one withdrawal during the year.

6. The Treasurer's accounts and balance-sheet will be presented as usual. The receipts about equal the expenditure, and there is a balance in hand of £7 : 1 : 4½.

7. Dr. Kelly having found it necessary to be absent from England during six months of the past year, Mr. Alford performed the secretarial duties for that time. The thanks of the Branch are due to Mr. Alford for having rendered to them this kind service.

8. Under Laws 19 and 20, it became necessary to send to the General Secretary of the Association before the end of June, the names of the representatives of this Branch in the General Council for the ensuing year. Trusting to have their action confirmed at this meeting, your Council authorised the Secretary to send up the following names: F. Farmer, Esq., J. Meredith, M.D., and W. M. Kelly, M.D.; and they now ask your approval of their action in this proceeding.

9. Mr. Garland has proposed that the autumnal meeting of the Branch shall be held at Yeovil, and it is his intention this day to propose a resolution to that effect.

The Treasurer's Accounts and Balance-Sheet were taken as read, having been examined and vouched as found correct by Mr. R. B. Robinson.

It was resolved: "That the report of Council, and the Treasurer's accounts and balance-sheet, be received and adopted; and that Dr. Farmer, J. Meredith, Esq., M.D., and the Secretary be the representatives of the Branch in the General Council for the ensuing year."

Next Annual Meeting.—Mr. RANDOLPH proposed, Mr. PARSONS seconded, and it was resolved: "That the next annual meeting be held at Taunton, and that Henry Alford, Esq., be President-elect."

Intermediate Meetings.—A letter from Mr. Garland (Yeovil), expressing a hope that the autumnal meeting would be held in Yeovil, was read. Mr. ALFORD proposed, and Dr. KELLY seconded: "That the autumnal meeting be held at Yeovil." Two amendments to this resolution were moved. 1. "That the meeting be at Taunton," proposed by Mr. WINTERBOTTOM, seconded by Mr. RANDOLPH; 2. "That it be at Dulverton," proposed by Mr. ROBINSON, seconded by Mr. PARSONS. The last amendment was carried.—It was proposed by Mr. ALFORD, and seconded by Mr. PARSONS: "That the spring meeting be held at Bridgwater." To this an amendment was proposed by Mr. WINTERBOTTOM, and seconded by Mr. RANDOLPH: "That it be held at Taunton." The amendment was carried.

Council of the Branch.—Messrs. Randolph, Nash, and Robinson were elected in the place of Messrs. Alford, Parsons, and Prankerd, who were the members retiring in rotation.

Secretary and Treasurer.—Dr. W. M. Kelly was reappointed Secretary and Treasurer.

President's Address.—The PRESIDENT (Dr. FARMER), after the conclusion of the preceding business, delivered an address, in which, having first made appropriate allusion to some matters of personal interest, he addressed the substance of his remarks to affections of the spleen. He gave a description of the anatomy and physiology of that organ; and then, referring to its diseases, he specially commented on those peculiar enlargements of the spleen which are found prevalent in paludal districts like the neighbourhood of Bridgwater.

Paper.—Dr. CORDWENT read a paper on the Healing of Wounds, which gave rise to an animated discussion.

Votes of Thanks.—The thanks of the meeting were voted to the President for his valuable address, and to Dr. Cordwent for his interesting paper.

Exhibition of Instruments.—A selection of instruments, lent by Mr. Coxeter at the request of the President, were viewed by the members.

Dinner and Entertainment.—An excellent dinner was served at the Clarence Hotel, and the usual toasts were drank; after which, by the invitation of the President, the meeting was adjourned to his residence, and a very pleasant evening was passed under his hospitable roof.

BORDER COUNTIES BRANCH: ANNUAL MEETING.

The annual meeting of the above Branch was held at the County Hotel, Carlisle, on Friday, July 21st, 1876; Dr. W. A. F. BROWNE took the chair at one o'clock.

Report of Council.—Dr. LOCKIE (Secretary) read the following report of Council.

"The Council have the pleasure of submitting their eighth annual report to the members of the Border Counties Branch.

"At the commencement of the year, there were ninety-five members on the list. During the year, ten new members have been elected; one has resigned; one has left the district; and three have died; so that the number at present is one hundred. The Council desire to express their great regret at the loss the Branch has sustained through the death of Dr. Green of Kendal. He was an active member of the Branch from its commencement, held the office of President during the year 1874-5, and subsequently that of Vice-President until the time of his death.

"During the year, meetings were held at Dumfries, Carlisle, and Moffat. They were not so numerously attended as the Council might wish, but still were fairly successful.

"A form of petition to Parliament, praying that it will pass a measure providing for the restraint of habitual drunkards, has been sent by the Secretary of the Parent Association for signature by members of the Branch and others, and the Council hope that as many members as possible will affix their signatures.

"The balance in hand at the commencement of the year was £8:2:5; and the receipts consist of sixty-five subscriptions for the year, six arrears for previous years, and four subscriptions for 1876-7 paid in advance, amounting to £9:7:6; total, £17:9:11. The disbursements amount to £10:2:10, leaving a balance in hand, June 30th, 1876, of £7:7:1.

"The Council recommend that, as was done last year, a donation of five pounds be made to the British Medical Benevolent Fund."

The report and recommendation of the Council were adopted by the meeting.

President's Address.—The retiring President then vacated the chair, and introduced the President for the year, Dr. BARNES of Carlisle, who delivered his inaugural address. After thanking the members for the honour which they had conferred upon him by electing him to this high office, and bespeaking the same kind consideration which had been accorded to him during the seven years he had held the office of Secretary, the President proceeded to give a clinical exposition of some points in practical medicine which had more particularly attracted his attention, drawing his illustrations both from hospital and private practice. Reference was first made to his six years' experience as Physician to the Fever Hospital, and an attempt was made to trace a periodicity or rotation of epidemic influences in the district. The causes and periods of incubation of the different forms of fever were then discussed, and also the precautionary measures necessary for the arrest of any given epidemic at the outset. The clinical value of the thermometer was referred to, and charts giving the typical range in the different forms of fever and variations from this range were exhibited. The therapeutical treatment of epilepsy was then discussed; and it was pointed out that, although the progress made in the direction of the intimate pathology of the disease had not been very decided, a marvellous stride had been made in its successful treatment since the more general use of the bromide of potassium, and cases were brought forward in support of this plan of treatment. A brief historical sketch of the lesion known as mitral stenosis was then given, and the various physical signs and general symptoms by which this lesion is recognised during life were discussed in detail, and morbid specimens taken from recent cases in hospital practice showing the usual varieties of the valve deformity were exhibited. A case of tricuspid stenosis was also brought before the meeting, and the rarity of this lesion commented upon. In conclusion, some observations were brought forward having reference to the character of the fever curve present in cases of croupous pneumonia, and charts were exhibited showing the range of fever in some cases recently under the author's observation.

At its conclusion, the meeting adopted a cordial vote of thanks to Dr. Barnes for the address, expressing a hope that he would take steps to publish it.

Cruelty to Animals Bill.—The following resolutions were passed.

"1. That this meeting views with satisfaction, and entirely approves the action of the Medical Faculty of the University of Edinburgh in regard to the 'Cruelty to Animals Bill', and indicates its entire adherence to the memorial set forth by that body to the Government.

"2. That a copy of this resolution, accompanied by a printed copy of the Edinburgh memorial, be sent to the members of Parliament re-

presenting the following counties and their included boroughs: Cumberland, Westmorland, Dumfries, Kirkcudbright, Wigtown, Roxburgh, Selkirk, and Peebles, these being the counties in which the members of the 'Border Counties Association' are resident."

New Member.—Mr. O'Reilly (Keswick) was elected a member of the Association and Branch.

Election of a Vice-President.—Dr. W. A. F. Browne was elected a Vice-President, in accordance with Rule 4.

Election of Office-Bearers.—The following were elected office-bearers for the ensuing year. *President:* Henry Barnes, M.D., Carlisle; *President-Elect:* Stewart Lockie, M.D., Carlisle. *Honorary Secretaries:* Roderick MacLaren, M.D., Carlisle; John Smith, M.D., Dumfries. *Council of Management:* J. A. Campbell, M.D., Garlands; H. Dodgson, M.D., Cockermouth; J. Gilchrist, M.D., Dumfries; S. Grierson, Esq., Melrose; C. S. Hall, Esq., Carlisle; Thomas F. I'Anson, M.D., Whitehaven; R. B. MacBean, M.B., Annan; M. W. Taylor, M.D., Penrith; R. Tiffen, M.D., Wigton. *Representative on Parliamentary Bills Committee:* Wm. Reeves, M.D.

Medical Fees.—Dr. SMITH brought forward the scale of fees recommended by the Committee appointed for drawing up a tariff. The discussion of this was not concluded, owing to want of time, and was adjourned to next meeting.

Dinner.—The members and their friends afterwards dined together.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ANNUAL MEETING.

The sixth annual meeting of this Branch was held at the Town Hall, Swansea, on July 6th, 1876. About forty-five members were present. S. H. STEEL, M.B. (Abergavenny), President, resigned the Chair to the President-elect, ANDREW DAVIES, M.D. (Swansea).

A Vote of Thanks was unanimously accorded to the retiring President, who briefly returned thanks.

The Report of Council, with Statement of Accounts, was read by Dr. SHEEN, and adopted. The number of members was stated to be 56; and the balance in hand, £20:6:5.

Next Annual Meeting.—It was moved by Mr. DYKE (Merthyr), seconded by Mr. HALL (Swansea), and carried unanimously: "That the next annual meeting be held at Brecon, and that Talfourd Jones, M.B., be the President-elect."

New Members.—The following gentlemen were declared members of the Branch: V. L. Jones (Dowlais), R. H. Hopkins, G. Wilkins, and Thomas Dickson (Pontypridd).

The Retiring Members of Council were re-elected, viz., Dr. T. D. Griffiths, Messrs. J. G. Hall, Evan Jones, and J. Hancock Wathen.

The Honorary Secretaries.—Drs. A. Davies and Sheen were re-elected.

President's Address.—The PRESIDENT (Dr. A. DAVIES) delivered an address, which was very warmly received; and, at its conclusion, a cordial vote of thanks for the same was carried by acclamation.

Papers, etc.—1. J. HANCOCKE WATHEN (Fishguard):—1. Quinine as an Ecbolic; 2. Case of Strangulated Labial Hernia, in which aspiration was used with success.

2. J. A. RAWLINGS (Swansea): The Duty of the Medical Profession in Relation to Intemperance.

3. Dr. GRIFFITHS (Swansea):—1. A Child with Spina Bifida, which had been injected twice with iodine, but without much benefit; 2. (For Mr. GREEN of Neath.) A Child, in whom the Abdominal Wall was imperfect at birth, the cavity being completed by peritoneum, which, for a few days after birth, was so transparent that the contents were completely recognisable by sight. Subsequently it became opaque and thickened, and a more substantial fence was being established.

Habitual Drunkards.—A petition to the House of Commons in favour of institutions for the control and cure of habitual drunkards was placed before the meeting, and received a large number of signatures.

Medical Defence Association.—Mr. WATHEN (Fishguard) brought forward the question of establishing a branch of the Medical Defence Association in South Wales; and it was resolved "that the proposition should be referred to the Council, with the request that they report on it at the next meeting".

Dinner.—The members and visitors afterwards dined together at the Mackworth Arms Hotel.

MR. H. CROOKSHANK of Liverpool has been appointed Surgeon-Major in the Turkish Army Medical Service during the present war.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE HORSHAM BOARD OF GUARDIANS AND THE SUPPLY OF EXPENSIVE MEDICINES.

At the fortnightly meeting of the Board of Guardians of this union, held on the 6th instant, Mr. W. G. Sharp proposed "that notice be given to the medical officers that, after the present quarter, no payment will be made by the guardians on account of expensive medicines". It would appear that, some weeks ago, a committee of this Board (consisting, among others, of two members of the profession, Mr. Powell of Crawley and Dr. Carey of Kingsfold) was appointed to take into consideration the "enormous" increase in the cost of expensive medicines supplied by the guardians in aid of the medical officers. The resolution, mainly due to the support afforded by the votes and authority of its two medical members, was adopted by the Board.

The Horsham Union, consisting of twelve parishes, has a population of 19,343, spread over an area of 69,582. The total expenditure for relief of the poor for the financial year 1874-75 was £10,607, and the total outlay for medical relief, including fees and expensive medicines, being £619, or about one-seventeenth of the total cost, this being much less than prevails in the majority of south country unions. Now, it may be asked, What is this "enormous increase" which has frightened the members of this Board into rescinding the resolution come to some half-dozen years ago, in compliance with the recommendation of the Select Committee of the House of Commons on Poor Relief that the supply of such expensive medicines should be a charge upon the rates. It will hardly be believed that the total outlay for the year 1875 only amounted to £35 16s. 6d., as against £23 in 1874 and £32 4s. 4d. in 1873. It is true that, in 1872, the total cost did not exceed £11 7s. 1d. This lesser sum is not to be wondered at when we state that it was only a short time previously that this Board had assented to this provision, and it would necessarily take some time before the Poor-law medical officers, notably the older ones, would awake to the novel sensation of having such things as quinine, opium, etc., provided for them.

One of the speakers, a Mr. Bedford, at the Board meeting, stated "that a surgeon of one of the London workhouses said he never used expensive medicines, as he had to pay for them out of his pocket." The speaker does not give either the name of the medical officer or the workhouse he held; and that he has drawn on his imagination for his statement will not seem improbable when we inform our readers that no workhouse medical officer in the metropolis has found any medicines whatever for some years past, such being always supplied by the guardians under the provisions of Mr. Gathorne Hardy's Metropolitan Poor Act, which came into operation in 1867.

In conclusion, whilst expressing our earnest condemnation of the conduct of the two medical men implicated in the committee's report, we would advise that the medical officers should forward a remonstrance to the Local Government Board, and we doubt not that the council of the Poor-law Medical Officers' Association will co-operate with them in their effort by memorialising the department on the subject; and, having regard to the reply made by the President to the deputation from this Association which recently waited on him, we have no hesitation in expressing our conviction that this action of the Horsham guardians will be negatived by the Local Government Board.

POOR-LAW MEDICAL APPOINTMENTS.

DAWSON, Edward, L.F.P.S.G., appointed Medical Officer to the Wethersfield District of the Braintree Union, *vice* H. R. G. Rust, M.R.C.S.Eng., resigned.
RUST, H. R. G., M.R.C.S.Eng., appointed Medical Officer to the Pinchingfield District of the Braintree Union, *vice* Henry Rust, M.R.C.S.Eng., resigned.
POPHAM, Samuel Lane, M.B., appointed Medical Officer to the Second District of the Daventry Union, *vice* Charles Bennett, M.R.C.S.Eng., resigned.
SPARROW, Walter W. B., M.R.C.S.Eng., appointed Medical Officer for No. 5 District of the Aston Union, *vice* J. C. Waddell, M.D., resigned.
STEPHENS, Edward B., L.F.P.S.Glasg., appointed Medical Officer to the First District and Workhouse of the North Witchford Union, *vice* J. B. Ryley, L.R.C.P.Ed., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

COOK, John W., M.D., appointed Medical Officer of Health for the Tending Union, *vice* Henry Gramshaw, L.R.C.P.Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL APPOINTMENTS.

BURGESS, Surgeon Peter, to the *President*.
COMERFORD, Surgeon J. T., to the *Haslar Hospital*.
CONNOLLY, Staff-Surgeon W., M.D., from the *Britannia* to the *Monarch*.
DE MÉRIC, Surgeon Eugène V., from the *Warrior* to the *Salamis*.
EVANS, Surgeon Septimus, to the *Duncan*, additional, for Sheerness Naval Barracks.
FITZMAURICE, Surgeon Nicholas F., to the *Valorous*.
GABRIEL, Fleet-Surgeon John T., from the *Boscawen* to the *Defence*.
GOODMAN, Staff-Surgeon Godfrey, to the *Valorous*.
HALPIN, Staff-Surgeon Joseph, from Chatham Dockyard to the *Aboukir*.
HARRAN, Fleet-Surgeon Henry, to the *Royal Adelaide*, additional, for the *Bel-lorophon*.
HEAD, Surgeon R. L. B., to the *Britannia*.
HICKEY, Surgeon Thomas C., to Cape of Good Hope Hospital.
IRVINE, Surgeon G. J., to the *Hercules*.
JACKSON, Staff-Surgeon Gordon, to the *Revenge*.
LUTHER, Surgeon Edward W., to the *Warrior*.
NELSON, Staff-Surgeon Robert, to the *Fino*.
PEARSON, Surgeon William, to the *Zephyr*.
RATHBONE, Surgeon Charles A., to Plymouth Hospital.
SANDHAM, Surgeon W. S., from the *Valorous* to the *Foam*.
TYNDALL, Surgeon John, to Jamaica Hospital.
WALSH, Fleet-Surgeon James C., from the *Defence* to the *Asia*.
WARD, Fleet-Surgeon Marmaduke P. S., to the *Duncan*.
YEO, Surgeon Robert T., to the *Hercules*.

MEDICAL NEWS.

MEDICAL VACANCIES.

THE following vacancies are announced:—
BLACKBURN and EAST LANCASHIRE INFIRMARY—House-Surgeon. Salary, £100 per annum, with board, lodging, etc. Applications on or before September 23rd.
CHELSEA ROYAL HOSPITAL—Dispenser. Salary, £182:10 per annum, with apartments, etc. Applications to the Secretary.
CLAYTON HOSPITAL, Wakefield—House-Surgeon. Salary, £120 per annum, with residence, etc. Applications on or before September 30th.
CUCKFIELD UNION—Medical Officer for the Fourth District.
EASTBOURNE UNION—Medical Officer for the Fourth District.
ELHAM UNION—Medical Officer for the Sellindge District.
FROME UNION—Medical Officer for the Kilmersdon District.
HEWAHETA, Island of Ceylon—Medical Officer. Salary, 5000 rupees per annum. Applications to the Committee, Gonyav Deltota, Ceylon.
HULL GENERAL INFIRMARY—House-Surgeon. Salary, £105 per annum. Applications on or before October 1st.
KENT COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum, with board, lodging, and washing. Applications on or before September 26th.
LIVERPOOL DISPENSARIES—Two Resident Assistant House-Surgeons. Salary, £108 per annum, with furnished apartments, etc. Applications on or before September 27th.
ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum, and apartments. Applications on or before October 7th.
SUNDERLAND INFIRMARY—Junior House-Surgeon. Salary, £60 per annum, with board and residence. Applications on or before October 21st.
TOXTETH PARK TOWNSHIP—Assistant Medical Officer for the Workhouse.
WESTMINSTER GENERAL DISPENSARY—Honorary Physician. Applications on or before September 25th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

FINLAY, D. W., M.D., appointed Physician to the Royal Hospital for Diseases of the Chest, City Road.
JONES, E. Owen, M.B., appointed Assistant Medical Officer to the Hulme Dispensary, *vice* A. E. Jones, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

GAIRDNER.—On September 13th, at Ardrossan, Ayrshire, the wife of *Professor Gardner, M.D., Glasgow, of a daughter.
HARDYMAN.—On September 13th, at 24, Crockherbtown, Cardiff, the wife of Charles E. Hardyman, M.R.C.S.Eng., of a daughter, still-born.

MARRIAGES.

HARDWIDGE—RIGGALL.—On September 12th, at St. Stephen's Church, Westbourne Park, Robert, son of the late Robert Hardwidge, of Burnham, Somerset, to Emily Florence, only child of Edward Riggall, M.R.C.S., of Bayswater.—No cards.
MANBY—FARRER.—On Sept. 7th, at Spole, *Alaa Reeve Manby, M.R.C.S.Eng., at East Rudham, Norfolk, to Charlotte Annie, daughter of Edmund Farrer, Esq., of Petyards Hall, Swaffham, in the same county.
WOODLAND—LUND.—On September 15th, at St. George's, Hanover Square, London, by the Rev. T. H. Gill, Rector of St. Margaret's, Whalley Range, assisted by the Rev. J. W. Goucher, M.A., Clement C. Woodland, late Royal Navy, youngest son of the late R. R. Woodland, Esq., of Bridgwater, Somersetshire, to Frances, elder daughter of Edward Lund, F.R.C.S., Professor of Surgery in the Owens College, Manchester.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

COMMUNICATIONS TO THE "JOURNAL".

WE have again to impress upon our correspondents that, as the bulk of communications addressed to the JOURNAL is considerably in excess of its space, the task of selection will be greatly facilitated by the observance of studied conciseness.

TWO CASES OF TRIPLETS.

SIR,—On January 23rd last, I was sent for to attend Mrs. B. in her sixth pregnancy. On my arrival, at 2.15 P.M., I found the os fully dilated, the membranes ruptured, and the funis descended; a hand and shoulder to be felt. I at once turned and delivered the patient of a male child, stillborn; I then examined and found the chest presenting. I again turned, and at 2.45 delivered her of a second male child, living. A third, likewise a boy, was born at 2.50, feet presenting. The placenta came away rapidly, and of an enormous size. The children were all well formed: of the last two, one lived six weeks, the other two months. The mother did very well.

I was sent for this morning (August 1st) at 3 A.M. to go a long distance to see the wife of Mr. P., seven months gone, who had been in labour twelve hours. I found the os dilating rapidly. After rupturing the membranes, the funis descended, and I found the side presented. I immediately proceeded to turn, and delivered her of a stillborn female child; a second, also a female child, living, was born twenty minutes after the breech presenting. I then examined and found the placenta filling the vagina. On placing my hand on her abdomen, I was convinced there was another child. The placenta came rapidly away, and I found the membranes of another child presenting, which I ruptured, when one foot and hand immediately presented themselves. After putting back the hand, I brought the feet down, and delivered her of a stillborn son. The placenta, which was separate from the former, containing only one insertion of the funis, came away, and all was over. There was very little hemorrhage during labour. The whole was completed within two hours after I arrived. She is doing very well.

Mr. Clayton, my employer, informs me that he has been in practice twenty years without having a case of triplets; and, having had two so recently, I shall feel obliged if you will insert the above cases.—I am, sir, yours, etc.,
Accrington, August 1876. J. TORRINGTON.

T. W. R.—Minorities have their rights; among the most important of these is the right of pleading.

URINARY SEDIMENT.

SIR,—A patient, aged 66 (*cirriter*), apparently healthy, and of active habits, passes occasionally large deposits of ammoniaco-phosphatic sediment in his urine. In the intervals, it is copious and pellucid. This deposit is latterly becoming more frequent, and so profuse as to cause alarm. There is no organic disease or obstruction to micturition. The derangement seems to be functional. Mineral acids and ordinary tonics have failed to correct it. Could any of the readers of the JOURNAL suggest a remedy? I may add, that he has had several attacks (four or five) of podagra, which have never been attended with any lithic manifestation, and he is troubled by occasional vertigo.—Yours truly,
September 1876.

QUESTOR.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

WATER-FILTERS.

SIR,—Your correspondent Dr. Thompson, who writes rather dogmatically on the subject of filters, has evidently something to learn before he instructs others. The filters of the Silicated Carbon Company, which he eulogises so strongly, to the disparagement of all others, may be very good ones, but they have no advantage over others made of the same material—*i.e.*, block charcoal. The term "silicated carbon" may do very well as a trade designation, but any one who knows anything of the material which is so designated is quite aware that the *silicated* part of the business is all nonsense, and that if charcoal could really be effectually silicated, for filtering purposes its utility would be *pro tanto* diminished.

In objecting to the old-fashioned filters of "sponge, sand, and charcoal", that they only *strain* water, Dr. Thompson is evidently not aware that no filter does anything else. All filters are only strainers. It is true that in so doing they also produce the well known chemical effect of oxydising oxydisable matters, and that they separate certain constituents that may happen to be dissolved in the water; but this is only the result of the peculiar molecular action which the minute subdivision of the water in the process of straining effects.

Your correspondent is ludicrously wrong in saying that sponge decomposes after continued use. Sponge is one of the most indestructible of bodies, resisting the action of the strongest chemical agents, such as caustic potash and hydrochloric acid. It has no tendency of any appreciable kind to undergo decomposition from exposure to water. What is mistaken for decomposition is the accumulation of filth which takes place in the sponges of filters that have been neglected. That such should be the case is just what might have been expected, and is no reflection upon the sponge, but only on the carelessness of the users of the filters. The fact is, that sponge is an admirable material for the preliminary straining to which all water should be exposed before passing it through charcoal or any other similar material. So well adapted is it for this purpose, on account of its elasticity, porosity, indestructibility, and the facility with which it can be cleaned, that Nature might almost be thought to have designed it for this special purpose.

The prime essential of a filter is, that it should be easily cleaned; and the great defect of most filters is, that this condition is entirely ignored. A great deal of nonsense is published about filters, especially by the makers of some of them, who evidently know little or nothing about the subject; and it is desirable that the confusion which already exists in the public mind should not be increased by those who ought to know how to instruct it.—Yours truly,
M. O. H.

MR. R. HUGHES (Bala).—The best translation of the Aphorisms, we believe, is that in the *Works of Hippocrates*, translated for the Sydenham Society by Francis Adams of Banbury.

AN ADVERTISEMENT.

SIR,—I have cut the accompanying advertisements out of a weekly pamphlet called the *Literary World*, and I have taken the small slip out of the *Medical Directory*. Of course, I do not know whether Dr. Niblett knows anything of the Mr. Williams of the advertisement; if so, perhaps he could give us a little information about him; but undoubtedly it would be desirable to give Mr. Williams the publicity he desires by your copying this advertisement for the benefit of the profession generally, as I am inclined to think we were not aware that any one had discovered a "certain cure" for epilepsy; and I perhaps you would give Mr. Williams the opportunity of informing the profession, through the medium of the BRITISH MEDICAL JOURNAL, the means he employs, as I am sure the information would be very acceptable to many of us, provided the cure is as certain as it is stated to be.—I am, sir, yours, etc.,
PAISTOW, Essex, August 1876. ALFRED WOODFORD.

"Fits: Epileptic Fits or Falling Sickness.—A certain method of cure has been discovered for this distressing complaint by a physician, who is desirous that all sufferers may benefit from this providential discovery. It is never known to fail, and will cure the most hopeless case after all other means have been tried. Full particulars will be sent by post to any person free of charge. Address Mr. Williams, 10, Oxford Terrace, Hyde Park, London."

"Niblett, S. Berry, 10, Oxford Terr., Hyde Park, W.—L.R.C.P. Edin. (exam.), 1860; L.F.P.S. Glasg. and L.M. 1861; L.S.A. 1858 (Guy's)."

"MUSIC HATH CHARMS."

The *Allgemeine Wiener Medicinische Zeitung* says that the following remedy for tenia is given in a homoeopathic hand-book of popular medicine. "A musical watch or any other self-playing instrument is placed on a table, against which the patient leans his bare posterior. The tones of the instrument are thus conveyed into the body. In no very long time, the tapeworm comes out head foremost, makes for the instrument, and coils itself around it. A second person must now drive a sharp nail through the head of the animal and fasten it to the table. After this, the remainder of the tapeworm may be gradually withdrawn from the patient."

THE ADMINISTRATION OF CALOMEL IN MIXTURE.

SIR,—Dr. F. J. Brown, in his remarks in the BRITISH MEDICAL JOURNAL of September 2nd, on the treatment of infantile summer diarrhoea, recommends calomel in a mixture, with bismuth and aromatic confection. Mayhap he will kindly inform his readers by what means the calomel is diffused and equally maintained, so to speak, throughout the water; for in several attempts, made thirty years ago, to "suspend" hydrargyrum cum creta through the medium of mucilage and treacle, I invariably failed, inasmuch as the mercury would subside, my efforts to the contrary notwithstanding. Finding, therefore, that unless extreme care were used by the nurse in administering the medicine, my little patients ran a great risk of getting little or no hydrargyrum cum creta in the first and an excess in the last doses, I deemed it prudent to cease prescribing it in the form of mixture.—Yours truly,
L. M. D.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

FOREIGN DEGREES.

SIR,—I beg to correct a slight error which M.D. Brussels has made regarding the examination of the Irish College of Surgeons, and which, when explained, makes it very different from what a reader of his letter would infer. Each candidate for the first half is examined on three different days. The first day is devoted to dissections. If he pass, the following day he is examined by papers in anatomy (four papers, with two questions on each of which one must be answered), physiology, materia medica, and chemistry. If he fail to score a mark in any one paper, or to get half marks out of the gross number (half of which must be in anatomy), he is stopped from going any further; and on presenting himself at a future time, is allowed the dissections, but is examined in all the papers again. The candidate having passed in papers, the third day is devoted to the oral examination, when the same rule is carried out—disqualified in one subject, disqualified in all. No matter on what day he is stopped, he still has to be examined in all the subjects again. At the second half, the same regulations are enforced.

I beg to state for M.D.'s information, that operations on the dead body are required from candidates, and that they have to select from a tableful every instrument required to perform them, besides mentioning those which it would be useful to have at hand.—I am, sir, your obedient servant,

September 6th, 1876.

L.R.C.S.I.

SIR,—I must ask you to permit me to venture a few remarks upon the subject of foreign degrees, and to render a helping hand to one of my own alma mater, who, I think, is being unfairly dealt with in the present discussion.

The statement made by Justitia on June 17th, to the effect that a degree can be obtained from the University of Brussels by a residence of two or three days, could not have occurred if the trouble had been taken to look over the regulations issued by the University. It is an impossibility to get through the examination under five days, and frequently a longer period is occupied. Of the test itself I will say nothing, for the reason that British graduates have for the most part an exalted opinion of their own degrees, and look upon those obtained from foreign colleges as "delusions" and "shams." That we, however, "presume" to call ourselves Doctors of Medicine is an undoubted fact, and apparently, to Justitia's point of view, an unparalleled piece of effrontery.

M.B.'s letter of July 2nd contains a statement demanding some explanation from him. It runs thus: "But if the aspirant to that distinction (i.e., M.D.) be not 'well up', it is quite possible for him to be coached a few days before in his weak points by some of those who are his subsequent examiners." Did M.B. pen these lines in good faith? If so, I, with others, should be obliged by his proving his statement. Did M.D. Brussels display such a vast amount of ignorance when he expressed the opinion that operations on the dead body were not required by the examining boards in England? Excepting at the Irish College, I have yet to learn that operative surgery is a compulsory subject—that is, for the licence; and the statement that operations on the dead subject do form a portion of the examinations for qualifying to practise, held by all the best medical examining boards in these countries, is an error.

Relative to R. McBride's letter, which appeared in your last impression, I am quite at a loss to know how to style him. He would doubtless be offended if I mentioned him as "Mr. McBride"; but according to the London College of Physicians, he must not be called "Dr.," being only a Bachelor of Medicine. He asks foreign graduates whether they "expect to share the same rights with those who spend their money, time, and, in a great many instances, risk health, to obtain a good medicine and surgical degree?" Does R. McBride believe that the Universities on the other side of the Channel are so generous as to give their degrees, and without the expenditure of time? and is Ireland really such an unhealthy locality that the students of the several Colleges there incur the chance of a premature interment? As to the privileges to be enjoyed, they differ in this respect principally. The English graduate is allowed to contribute five shillings to an annual publication called the *Medical Register*, for which he receives nothing in return—not even protection from unqualified men in his neighbourhood; on the contrary, he is obliged to fall back upon "defence associations" for aid and support. From the foreign graduate this permission is withheld. Ought he to complain? I personally see no reason why he should.

If foreign degrees be so worthless as they are represented to be, why make so much ado about them? If English degrees be so superior to those from the Continent, how comes it that, while hundreds of Englishmen seek foreign degrees, foreigners themselves seldom seek English degrees?—I remain, sir, truly yours,

August 29th, 1876.

M.D.(BRUSSELS), No. 2.

The papers of Dr. Clementi (Catania), Dr. Thomson (Algiers), Mr. Teevan, and Dr. Allan, will be published at an early date.

MEDICAL TITLES.

We have received a letter from a correspondent in Cupar Fife, whose name we think it better not to mention, to which we regret we cannot give insertion, on account of the terms—offensive, as we take it, to more than one person—in which the letter is couched. The one point in the letter which it seems to us is important, is the writer's opinion that the University of Durham would have done better not to have insisted on the candidate for the M.D. degree having reached the age of forty years. A good deal, it seems to us, might be said on both sides of this question; and if the age were reduced, as our correspondent suggests it should be, perhaps no one would suffer. The testing character of the examination, and not the age of the candidate, will always be the standard by which the value of the degree will be measured. Nevertheless, there are reasons why the candidate for the Durham degree of M.D. should be fairly advanced in life. First, this is the standard required by St. Andrew's University, of registered medical practitioners who intend to graduate there as M.D. Second, it is well to maintain a certain amount of status in connection with the M.D. degree; and one of the means of doing so is to give it to gentlemen who, by their standing both in the profession and in life, shall show themselves worthy to obtain it. The stipulation that the intending graduate shall have been fifteen years in practice goes along with that as regards his age; and there appears to us to be a reasonableness in both, so long as the M.D. degree is to be looked on as something more than a mere qualification to practise. To call the stipulation an "absurdity," as our correspondent does, does not seem to be the proper way to argue this question, although we quite agree with him that the actions of men are a far more real test of their merits than the degree which they hold.

Another point made by our correspondent has regard to classical attainments.

He does not think that a knowledge of Latin, and still less of Greek, should be required of intending graduates in medicine. We are sorry to differ from him; but we do so very emphatically for this reason, that a thorough appreciation of his position is, in our opinion, impossible to any practitioner who is unacquainted with some of the chief facts in the history of medicine, while we have only to mention that our knowledge of the fevers which raged in London so recently as the time of our revolution, is derived from a work which is written in Latin, and is still best consulted in its original form. Our correspondent should scarcely require to be further informed that the book of inductive canons to which the scientific advances of modern times are chiefly to be attributed, was written in Latin also, and that the medical practitioner is all the better equipped for making the observations which are to advance medicine that he knows something about that book. As for Greek, besides that medicine had its birth, so far as we know anything about it, among people who spoke and wrote in that tongue, very many of the words at present in use among us, and almost all those which are now being formed, have Greek roots. We should like, indeed, to see a high classical standard among our practitioners, but at present all we ask for is as much knowledge of these matters as may fairly be expected from lads of fifteen or sixteen years of age.

CHRONIC PEMPHIGUS.

SIR,—I shall be obliged if some of your correspondents would kindly give me a hint as to the treatment of the subjoined case, which has hitherto baffled all my efforts to cure it.

A woman, aged 74, has suffered for two years or so from chronic pemphigus, commencing at an old chronic ulcer of the leg, and invading during the above period almost every part of the body. The bullae have varied from the size of a pea to that of a small orange, containing sometimes clear serum, at others a bloody fluid. From being a stout corpulent woman, she has now become quite emaciated and flabby, and very feeble. The following have been the medicines hitherto employed as external applications. Lotions of lead, sulphate of zinc, and nitrate of silver, carbolic acid, Condy's fluid, liquor calcei sulphatis, warm baths, ointments of zinc, of camphor, of iodide of lead, and of iodine; and internally, nitric acid, decoction of sarsaparilla, decoction of cinchona, iodide of potassium, liquor arsenicalis, yeast, sulphur, and opiate. The above have been tried simply or combined, for long periods at a time, but without lasting benefit. Of all, the carbolic acid lotion seemed to be the most serviceable.

I enclose my card, and beg to remain your obedient servant,

Northampton, September 4th, 1876.

ENQUIRER.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; The Harrogate Herald; The Dumfries and Galloway Standard; The Glasgow News; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, &c., have been received from:—

Dr. W. R. E. Smart, C.B., Haslar; Dr. George Johnson, London; Dr. W. M. Kelly, Taunton; Dr. Bryan, Northampton; Dr. G. M. Humphry, Cambridge; Mr. W. Moxon, Northampton; Dr. Braidwood, Birkenhead; Dr. Braithwaite, Leeds; Dr. Easby, March; Dr. J. Milner Fothergill, London; Mr. Meade, Bradford; Mr. Walter Lattey, London; Mr. G. H. Lilley, Coventry; M.D.; Dr. Copeman, Norwich; Dr. Cotterill, Newcastle-under-Lyme; Mr. Thomas, Paddington; Dr. Richards, Carnarvon; Mr. Hordley, Hartshill; An Ardent Lover; Dr. Norman Kerr, London; The Registrar-General of England; Our Paris Correspondent; Dr. Edis, London; The Secretary of Apothecaries' Hall; Mr. Eastes, London; The Registrar-General of Ireland; Dr. J. W. Langmore, London; A District Visitor; Anti-Humbog; Mr. C. H. W. Parkinson, Wimbome Minster; Mr. Robert Smith, Heckfield; Mr. R. H. Coombs, Bedford; Mr. H. Crookshank, Liverpool; Mr. Heron Rogers, Retford; Our Edinburgh Correspondent; Mr. Teevan, London; T. W. R.; Mr. Stephen Alford, London; Our Dublin Correspondent; Dr. Wm. Thomson, Algiers; Dr. Balthazar Foster, Birmingham; A. M. W.; Dr. T. O. Dudfield, Kensington; Mr. W. S. Wade, Wakefield; Dr. C. B. Taylor, Nottingham; Dr. G. Clementi, Catania; A Member; Dr. Joseph Rogers, London; Dr. Farquharson, London; Mr. E. Pope, Brixton; A Subscriber; Dr. Wilson, Greenock; M. O. H.; Cantab; A Correspondent; Dr. Maury Deas, Macclesfield; Mr. R. Hughes, Bala; Mr. Wilkinson, London; Dr. F. J. Bailey, Liverpool; Mr. H. Burdett, Greenwich; Dr. Greenfield, London; Dr. Dawson, Dartmouth; Mr. J. Parsons, Frome; Mr. E. Riggall, Bayswater; Mr. Hoddon, Bishop Stortford; A Scotch Poor-law Medical Officer; Dr. Alfred Carpenter, Croydon; M.B., L.R.C.S.P., Gifford; Mr. Gordon Sparrow, Chichester; Dr. J. H. Galton, Anerley; M. E., M.D.; Mr. H. N. Edwards, Shrewsbury; Dr. J. Wallace, Cork; Mr. T. Holmes, London; Dr. W. J. Fleetwood, Devizes; Mr. F. J. Reilly, London; Dr. A. P. Walkenstein, St. Petersburg; Mr. Joseph White, Nottingham; Dr. C. J. Gibb, Newcastle-on-Tyne; Mr. C. H. Perry, Reepham; Mr. W. D. Husband, York; Mr. J. Ryan, Ballynacally; Dr. J. Ward Cousins, Southsea; Dr. J. Drummond, Nice; Dr. B. Gamble, Enniskillen; Dr. Braidwood, Birkenhead; Dr. E. J. Thompson, Omagh; Dr. Crichton Browne, London; Dr. F. C. Crosslie, Newry; Mr. J. Elliott, Bodenham; Dr. S. Middlemiss, Darlington; Dr. T. Davis, Clevedon; Dr. Mackey, Birmingham; Mr. T. F. Chavasse, Birmingham; Mr. James Reed, London; Mr. W. S. Allott, Hoyland Nether; Mr. T. J. Browne, Dungannon; Dr. T. Crowther, Luddenden; etc.

REMARKS

ON

THE MECHANISM OF THE SOUNDS OF THE HEART.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.,

Physician Extraordinary to the Queen; Consulting Physician to the Hospital for Consumption, Brompton; etc.

In the JOURNAL for August 5th, appeared a letter from Dr. Leared, taking exception to a statement in my communication of July 22nd, entitled "A few Personal Facts concerning Experiments on Animals, etc." In this I say that in animals in a state of insensibility I made the series of observations on the sounds of the heart and on the means of stopping or altering them, which gave the first complete knowledge of those sounds. On this, Dr. Leared remarks: "Dr. Williams intended by this to convey that the mechanism of the sounds of the heart was there and then definitely settled. I must beg to differ from him. Pathological changes in the sounds make it certain that his explanation of the first sound, at one time almost universally received, is incorrect. With some diffidence, I venture to assert that the true explanation was given by myself many years ago."

I refrained from noticing Dr. Leared's letter at the time, because it was not expedient then to enter into a controversy, which might be quoted by the persecutors of vivisection as disparaging the value of its results; but now, as the matter has been settled by the Legislature (in a manner calculated, as I conceive, to limit the usefulness, quite as much as to prevent the abuse, of experiments on animals), I need no longer delay my reply to Dr. Leared, which is to the effect that I reassert that those observations made in February 1835 supplied the first complete knowledge of the sounds of the heart, which has given to the profession the means of distinguishing the physical signs in health and in disease. I do not maintain that every point on the subject was "then and there settled". Further observations have enlarged our knowledge of details, and have extended, as well as confirmed, the inferences drawn from those experiments; but, according to my judgment, no facts or arguments subsequently brought forward have controverted or materially modified those inferences, as laid down and explained in the fourth edition of my work on the *Pathology and Diagnosis of Diseases of the Chest*, which appeared in 1840.*

Before I proceed to recapitulate the leading facts and inferences by which my experiments established the view that the first sound of the heart is produced by the tightening of the ventricular walls and valves in the systole, and the second by the tightening of the arterial valves by the recoil on them of the column of blood in the arteries at the diastole, I will discuss the hypothesis of Dr. Leared and others, that the sounds of the heart are produced by the motions of the blood. In the first place, I would object that, of all bodies, liquids are the least adapted to produce sound. In contact with air, they become very sonorous; and all sorts of noises, rushing, splashing, etc., result, from the trickling of a brook to the roar of the sea or of a cataract; and, in collision with solids, they cause the noises of wave-dash and rainfall, also musical and other murmurs in the circulation, and the loud notes of the syren and other water instruments. But, without air, or without a solid, it is difficult to make a sonorous vibration in a liquid. It may receive waves of sound from solids or from air, and reciprocate them; but its molecules are too yielding, too little elastic, to originate the vibrations of sound. I have made many experiments on this point, and have constantly found the motions of liquids almost noiseless, except when mixed with air, or in collision with a solid. On forcibly squeezing an India-rubber bottle under water with the end of a stethoscope (avoiding the use of the hand, because that makes its own muscular sound), I failed to get any noise, except that of a slight rushing from the orifice. But, if the orifice were brought near a solid, or near the side of the vessel, then a noise of the solid resistance to the motion became obvious, caused, not by collision of fluid with fluid, but of fluid with solid. So, also, the blowing or bellows sound which Dr. Leared produced by forcing water from an India-

rubber bottle into a reservoir was caused, not by the collision of liquids, but by the vibrating resistance or friction of the edge of the discharging orifice; if this edge, instead of being abrupt, be sloped outward, as in a conical or trumpet orifice, there will be less resistance, and little or no sound, although the so-called collision of the liquids remains the same. In short, the whole idea of noisy collision of liquids, without air or solid, is a mistake. The molecules of liquids are too yielding, mobile, and inelastic in their motions to produce sound; and, although under favouring conditions they can receive and transmit sounds from solids and from air, not only are their own motions in most cases silent, but they act as dampers or neutralisers to other sounding bodies. The common impression of rushing and splashing liquids is derived from their behaviour in contact and combination with air and solids, and does not apply to liquids alone or to the circulating blood. Dr. Elliotson's explanation of cardiac murmurs (quoted by Sir T. Watson) by comparing them to the noises of the rushing of a river through the arches of a bridge, although plausible and striking, is not exact, because the respective conditions are imperfectly analogous in the two cases.

But, let us consider more narrowly Dr. Leared's notion as to the cause of the systolic sound of the heart. "Blood, driven from the ventricles into the aorta and pulmonary artery, comes into forcible contact with the blood in these vessels, which, supported by the semilunar valves, had attained a state of momentary repose. The impact between the fluid in motion and that in a state of rest gives rise to the sound." I have already shown that no sound results from the impaction of one portion of fluid against another when no air or space intervenes. The whole movement is one of quiet displacement. But do the supporting semilunar valves alter the case by offering resistance? Dr. Leared ascribes no share to them in producing the sound otherwise than as supporting the stationary column of blood. Neither do I believe them capable of producing sound in this direction, because the solid resistance which they offer to the current is so soft and yielding that the elements of sound or sonorous vibration are wanting.* The case is one not of striking through a space at a tight barrier, but of a soft, rather sluggish, fluid in close contact, being pushed against a thin membrane, which yields and loosens in proportion to the pressure. Thus is the onward movement of the blood rendered as easy and quiet as possible. The tightening and sounding parts are those concerned in the active propulsion of the blood, and in the barriers to prevent its reflux.

Certain instances have been cited to prove that liquids can produce sounds like those of the heart: they are those of the water-hammer, the forcing pump, and the stop-cock suddenly closed in a pipe with running water. But, in all these cases, the noises produced are obviously referable to the collision of a fluid with solids. In the water-hammer, a body of water falls through a vacuum with unresisted force, till suddenly stopped by the solid bottom of the tube: forcible motion meeting with sudden resistance. The noises of the forcing pump are evidently also due to the motion and resistance of the solid piston and valves, forcing and directing the motions of the liquid.

The case of the water-pipe and stop-cock deserves a little further consideration, because its true nature has not been fully explained; and it was supposed even by Dr. Arnott to bear on how the heart-sounds are produced. If a water-cistern have a stop-cock at its bottom, or connected by only a short tube, no particular sound attends the closing of the cock; but if there be a long descending-pipe of several feet in length, the sudden closing of the tap by turning the cock is accompanied by a shock and noise, more marked in proportion to the length and descent of the tube. The cause is obviously, as explained by Dr. Arnott, the momentum of the fluid in the long descending tube being suddenly stopped by the solid of the closed cock. This noise is another instance resulting from fluid motion resisted by a solid, and so far has a resemblance to the second sound of the heart; but it supplies no proof of the production of sound by a liquid alone, and is quite different from any of the processes of the circulation.†

* In these and similar discussions on the production of sound, it is useful to have a more definite idea of what sound is than any that is contained in most works on acoustics. In the year 1834, I proposed to the Physical Section of the British Association this definition of sound: *Resisted motion, or motion of a certain force, resisted with a certain force.* The moving force and the resisting force, unswerving matter alternately to and fro in opposite directions, constitute the vibrations of sound. These vibrations are transmitted through various media—solid, liquid, and aerial—in waves, and produce in the ear the sensation of sound. In order to the production of sound, there must, therefore, be enough force of motion and enough of resistance: if either be wanting, there is motion, but no sound.

† In my garden at Cannes, there was a water-pipe exhibiting remarkably this phenomenon. The tap was many feet distant from the cistern, and connected by a long tube descending with several curves. The noise on stopping the tap was not single, but was followed by two or three diminishing repetitions, which I ascribe to the rebound and successive vibrations of the column of water. This implies a slight tendency to a vacuum and momentary separation of the surfaces by gas or vapour, which could take place only in a rigid tube, and never in blood-vessels, which are everywhere exposed to atmospheric pressure.

* It has been much to my regret, as well as to my disadvantage in the permanent establishment of my views, that this work has been long out of print, and that my health and the engrossing engagements of consulting practice have prevented me from bringing out new editions. It is less surprising, therefore, that few of the present generation have seen the book; and some of those who do refer to it, by their misquotations, render it probable that they have not read it. See Dr. Shapter's *Notes and Observations on Diseases of the Heart*, 1874, p. 8.

Although we are thus led to the conclusion that the sounds of the heart originate, not in the blood, but in the solids, it is nevertheless certain that the presence of that fluid, its quantity, and its quality, have as much share in modifying the sounds as they have in influencing the action of the heart. To this I shall recur; but, to enforce my chief conclusion, I will contrast the difficulty of producing sound in liquids with the readiness with which they are caused by solids under water. The slightest knock, rub, or scratch of one solid against another makes quite a little noise, which the stethoscope transmits from the water to the ear; and the sudden tightening of a tape or of a bit of cloth or membrane under water gives a similar result, the sounds in the latter examples often closely resembling those of the heart. The noise of such motions under water is less than in air, because the liquid somewhat deadens the sound; but they are quite distinct, and the more exactly represent the sounds of the heart, inasmuch as the motions of this organ are enveloped in liquid and wet membrane. The chest-walls, or a stomach distended with gas, sometimes act like a sounding-board to the heart-sounds, and make them as loud as if they were produced in air.

I will conclude with a summary of the most conclusive observations in my experiments on asses in 1835. The animals were poisoned with woorara—dead, in fact, except the heart, which, by aid of artificial respiration, continued to contract vigorously for more than an hour.

EXPERIMENT I.—1. The first sound was equally audible on all parts of the ventricles, simultaneously with the shock of their sudden tightening in the systole. 2. The second sound was most distinct near the roots of the large arteries, being audible there in the weaker pulsations, when it could not be heard elsewhere. 3. Pressure on the arterial roots, by the fingers or the stethoscope, invariably stopped the second sound. Slight pressure caused a bellows-murmur with the first sound. 4. On pushing the auricles by the end of a finger into each auriculo-ventricular opening, the ventricular contractions became weak and irregular; but the first sound, although weak, was still heard alone. 5. The left auricle was cut open, and the mitral valve partially destroyed. The blood issued in jets at each systole; yet the first sound still accompanied the systole, but the second sound ceased. The right auricle was freely laid open; still the first sound continued. 6. I pushed my finger through the mitral orifice into the left ventricle, and pressed on the right so as to prevent the influx of blood into either ventricle. The ventricles continued to contract strongly; and the first sound was still distinct, but weak.

EXPERIMENT II.—Observations 6 and 7. A dissecting-hook was passed into the pulmonary artery, and made to draw back its valves, and thus prevent their closure. The second sound was weakened, and attended by a hissing sound. A shoemaker's curved awl was then passed into the aorta, so as to act in the same way on the aortic valves. The second sound now entirely ceased, and was replaced by a hissing. On withdrawing the hook and awl, the hissing ceased, and the second sound returned. These observations were several times repeated, and with the same results. Observations were also made, that both heart-sounds were distinctly heard when the heart touched no part of the walls of the chest, and, in one instance, when it hung out of the chest and touched nothing; that at the root of the aorta both sounds were heard; but at three inches from this point the second sound was alone heard.

Without detailing the inferences from these observations, they seem to me sufficiently to prove that the essential cause of the first sound is in the walls of the ventricles; for it distinctly accompanied their contractions when the action of the valves was prevented by pressure or division, and even when there was no blood in the ventricles. Of course the sound was much weaker than usual, but it was sufficiently audible and distinctive to convince myself and my assistants, all skilled auscultators. The persistent vigour of the heart's action in this extremity was quite striking and unexpected, and supplied positive evidence of greater weight than all the negative results and doubts that have been urged against it.

Among the opponents of my view of the physical cause of the first sound, the most formidable is Dr. Halford, with his striking experiments with the *bull-dog* forceps. By aid of this, he compressed the afferent veins of the heart in a dog so effectually as to stop all supply of blood, with the result, as he states, of entirely suspending the sounds, although the ventricles continued to act. On removing the forceps, the sounds returned with the restored supply. Dr. Halford inferred that the absence of blood suspended the action of the valves, and thence concluded that the valves only are the source of the sound. Dr. Leared with equal reason ascribes the cessation of sound to the absence of the blood, which he holds to be its essential cause. Not having witnessed these experiments, I cannot help entertaining a doubt that the sound was *totally absent* where the muscular contraction was

vigorous; but I should expect it to be much weakened, not only from want of the proper stimulus, but also from the absence of contents to distend the walls into a vibratile condition. A mass of muscle contracting on itself cannot fulfil the transition from slack to vibrating tightness, which is exhibited by a heart propelling a body of blood. The argument that, because the heart without blood gives no sound, the blood or the valves must be the seat of sound, is about as logical as that the bridge of a violin is the seat of its notes because the strings yield no sound without the bridge. In either case, the bridge or the blood is necessary to complete the instrument which yields the sound; but the true source and chief seat of the sound is in the vibrating strings in the one case, and in the vibrating walls in the other.

By a reference to my writings,* it may be seen that I admit that the auricular valves have their full share with the ventricular walls in producing the systolic sound; and I ascribe the flapping commencement of this sound especially to them. But the prolongation of the sound through the whole duration of the ventricular systole, and its equal intensity over all the ventricles, prove the sound to be general, not partial. The second sound, on the other hand, is more local, being decidedly loudest at the base of the heart and roots of the arteries. The sounds in the great arteries are generally those transmitted from the heart; but, in cases of strong pulsation or dilatation of arteries, there is obviously a distinct arterial sound caused by the impact of the blood against their walls.

I conclude, then, that the sounds of the heart are *not* produced by any motions or collisions of the blood, because I find that no such sounds can be produced in fluids alone, nor is there any evidence to show that they can or do occur in the heart; and I conclude that the sounds of the heart are produced by the tightening of the walls and valves, because such tightening does take place in the action of the heart as is always in other cases attended with the production of sound, and I have had positive proof to this effect in my experiments on animals.

AN IMPROVED METHOD OF PERFORMING THE "BOUTONNIÈRE" OPERATION.

By W. F. TEEVAN, B.A., F.R.C.S.,

Surgeon to the West London and St. Peter's Hospitals; late Lecturer on Anatomy at the Westminster Hospital.

THE nomenclature of the operations performed on the urethra is somewhat confusing. Take, for instance, the name "*perineal section*": by it the student at Edinburgh understands an operation which is different from that which the student at Leeds sees practised; and, if an English, Irish, or Scotch student were asked whether an internal urethrotomy practised in the bulbous region of the canal were perineal section, he would probably reply in the negative, although an affirmative answer ought to be given to the question. It would be well, therefore, if all the following terms were abolished—*i.e.*, perineal section, perineal urethrotomy, external urethrotomy, external perineal urethrotomy—and the older and more correct names of "*boutonnière*" and "*boutonnière sur conducteur*" were employed. The French terms have this great advantage, that surgeons all the world over know exactly what is meant by them: By "*boutonnière*" is understood an operation for the division of a stricture through which no guide can be introduced when the operation is commenced. "*Boutonnière sur conducteur*" explains itself, and is the division of a stricture upon a conductor passed through it before the operation was begun.

The "*boutonnière*" is one of the oldest, most valuable, and difficult operations in surgery. For the relief of an impassable stricture, or retention therefrom, it is unsurpassed, as it remedies the cause and effect at one and the same time. It has been greatly praised and considerably disparaged. In recent times, it owes much for its preservation in France to Sédillot, in America to Gouley, and in this country to Teale and Wheelhouse. In Leeds, the operation is performed systematically, frequently; and I should say that in that town it is done more often in one year than in all the London hospitals put together during the same period. The journals may be searched for years together, and but little will be found regarding this most interesting and useful procedure.

* See especially *The Pathology and Diagnosis of Diseases of the Chest*, etc., 4th edition, 1840. Although this work has been long out of print, it may be consulted at the libraries. In it will be found a full description and discussion of the sounds of the heart in health and in disease, and the rules of diagnosis in valvular disease, now generally adopted, which I ascertained and published in 1835, three years before Dr. Hope published his last set of rules, which were almost identical with those previously described by myself. I also first introduced the terms "*regurgitant*" and "*obstructive*", and gave phonetic expressions for the principal healthy and morbid sounds of the heart.

If the various surgical works be examined, it will be found that the operation may be divided into four different steps: 1. Opening the urethra at, above, or below the stricture; 2. Finding the entrance to the stricture, and passing a grooved probe or bougie through it. There are, of course, cases where the surgeon fails to find the entrance, and is obliged to dissect on bit by bit along what he supposes to be the course of the canal till he arrives at the pervious urethra beyond. 3. Division of the stricture on the probe-pointed director or whalebone bougie. 4. Introduction of the catheter into the bladder. As a rule, most surgeons commence the operation from above downwards; but Mr. Coulson and others have reversed the step. I extract the following description of the method as pursued by Mr. Coulson from the French, as there is an impression in this country that French surgeons know but little of the opinions or practices of others.

Procédé de M. Coulson. "Ce chirurgien porte un cathéter cannelé jusqu'au rétrécissement, il incise le périnée, et il fait la boutonnière derrière le rétrécissement: par cette ouverture, il introduit un stylet cannelé dans le stricture, jusqu'à ce qu'il soit presque en contact avec le cathéter, appuyé sur la face antérieure de l'obstacle; il incise ensuite sur le stylet cannelé toute l'épaisseur des tissus de la portion de l'urètre rétrécie; il fait ainsi cesser la rétention en même temps qu'il opère le rétrécissement." (*Traité des Maladies des Voies Urinaires*, par le Docteur Ch. Phillips, p. 180.)

The unfrequency of the performance of the operation is, I think, due to two causes: firstly, the difficulty of finding the entrance to the stricture and introducing a probe through it; secondly, even when the surgeon has succeeded in passing a probe, his state of uncertainty as to where it has gone, and his natural dislike to cut in the dark. There must also be added those cases in which it is impossible to pass any guide, and where the surgeon is left to work a way and grope into the bladder as he best can, and may possibly utterly fail to reach the pervious urethra beyond the stricture. Cases are on record in which experienced surgeons have failed to accomplish the operation, and the patient has been taken away from the operating-table with the stricture unrelieved. Lastly, the surgeon may apparently succeed, and find afterwards that he has only cut open a false passage or a fistula, leaving the strictured urethra untouched. When I had performed the operation several times, I found there were two separate defects to be remedied: firstly, the difficulty of finding the entrance into the stricture; secondly, the uncertainty as to the real position of the probe when apparently introduced into the bladder. The first defect arises from two separate causes. *a.* The probe may fail to enter a stricture because it is too large. A ferret will wriggle into a rabbit-hole when a dog cannot, simply because it is much smaller; and a probe will sometimes fail to enter a stricture when a fine whalebone or filiform bougie will slip in with ease, because the metal director is too big. *b.* The probe being constructed of unyield-

ing metal, it may utterly fail to follow the tortuous passage of the stricture. If a ferret suffered from an ankylosis of the vertebral column, he might possibly succeed in getting into the rabbit-hole; but his progress would soon be arrested by his inability to adapt his body to the windings of the passage. I have, therefore, entirely abandoned the use of metal probes, and taken to whalebone and filiform bougies, as advocated by Dr. Gouley of New York; and I think it will be found that they will overcome the difficulties above alluded to, and prove tractable and efficient instruments in the hands of surgeons.

The second defect is more important. When the probe or whalebone bougie has been passed, the question to be asked is, Whither has it gone? If it could be moved about freely in all directions, were in the median line, and were not in the rectum, most surgeons probably would feel satisfied, and say that it must be in the bladder. But it has occurred to very experienced operators to be deceived on this point; and, when they thought that they had introduced the probe into the bladder, they had really passed it into the rectum, beyond the reach of the finger, or into a sac between the rectum and bladder, or into a false passage. It has been my object to remedy this defect, and to convert an uncertain procedure into one in which the surgeon is able to determine absolutely whether his guide be in the bladder or not before he begins to cut, so that he will be saved the mortification of being foiled in the execution of the operation.

I will now briefly enumerate the various steps of the operation. The patient, having had the rectum emptied and the perineum shaved, is to be put into the lithotomy position, and there secured with Pritchard's anklets and wristlets. A straight staff with a groove in it is now to be passed down to the face of the stricture. I know of none better than Mr. Wheelhouse's, in which the groove stops short half an inch from the end of the staff, which is tipped with a button, so that, after it has served as a guide for the surgeon to open the urethra, it can be turned round to hook up the apex of the wound with its button. The urethra is "to be opened in the groove of the staff, not upon its point" (Wheelhouse). There is a great advantage gained in opening just above the stricture, rather than on a level with it; for the *cul de sac* containing the mouth of the stricture is preserved, and not slit up as it would be were the incision made at the point of the stricture. The edges of the wound are to be kept apart with sharp-pointed hooks, or two pairs of artery-forceps with nibbed points, as used by Mr. Wheelhouse; or two loops of thread may be passed through the edges, as introduced by the late Mr. Avery, and highly extolled by Dr. Gouley of New York. I have always used hooks, and found them answer every purpose. Now comes the most important step but one of the operation—searching for and finding the entrance into the stricture, and passing the instrument through it.* English surgeons use metal probes, but I prefer the bougies as employed by Dr. Gouley. My two favourites are depicted in the woodcut at A C. A B is a very fine whalebone bougie, not much bigger than a horsehair, and having each end tipped with an olive. It is an exquisitely made bougie, and was sent to me from Augusta, Georgia, by Dr. Coleman. The bougies for this operation must for the present be procured from France or America, as the English ones which I have seen are not sufficiently fine and smooth for the purpose, and all lack properly made olives at their ends. Having taken the bougie represented, I impart to one extremity a beak such as is depicted at B, and with it I search for the entrance into the stricture. If I fail, I try with the other end of the bougie; and, if I do not succeed, I take one of Leroy d'Étiolles' "bougies tortillées", C. I may say that I have always managed to pass one or other of the bougies through the stricture into the bladder. It sometimes happens that there are several false passages or fistulae. Each of the openings ought to be filled with a bougie, which is to be left there, and another

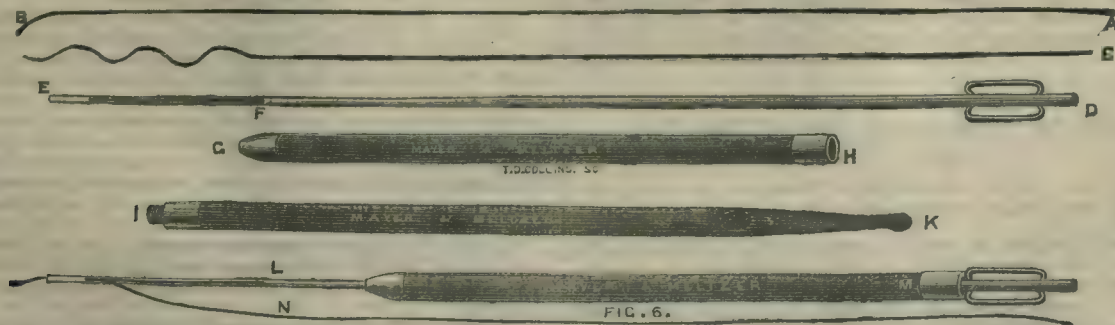


FIG. 6.

and another passed till at last one vanishes, apparently, into the bladder. This plan was introduced by Auguste Mercier, and is adopted by Gouley, and is a practical exposition of the method of arriving at a result by "the process of exclusion".

I now come to the very pith and kernel of the operation. I think I have passed the bougie into the bladder, and I ask myself the all-important question, Whither has it gone? Before commencing to divide the stricture, I proceed to prove the position of the bougie, and to demonstrate conclusively whether it be in the bladder or not by

* The comparative lengths of the different instruments represented in the woodcut are not, relatively, quite correct. The bougies A C, and the tube D E, are each ten inches long. The slit F is two inches long, and terminates two inches from the vesical end, G. The vesical half of the catheter, G H, is five inches in length, and the urethral half, I K, is nine inches long.

sliding over and along the bougie the fine silver tube D E,* which is open at both ends, has a slit (F) for the tenotome to run in, and is fitted with the vesical half (G H) of the elastic catheter; so that, when the tube is entering the bladder, we have the combination depicted in Fig. 6, where the silver tube L, carrying the vesical half (M) of the elastic catheter, is seen gliding over and along the bougie (N), which is now to be withdrawn, when urine will flow out of the metal tube if it be really in the bladder. If urine come out, the stricture is to be divided by sliding a probe-pointed tenotome along the slit in the tube, which is to be held in such a manner that the slit, which serves as a groove, shall look upwards. The deep part of the urethra is thus divided subcutaneously without enlarging the original wound. The vesical half (M) of the elastic catheter is now to be gently pushed along the tube (L) till it is fairly in the bladder. If its progress be arrested at any point, the tenotome must be reintroduced, and any opposing tissue divided. The vesical half of the catheter having been passed into the bladder, the metal tube is withdrawn, and the end (I) of the urethral half (I K) of the elastic catheter is to be screwed into its fellow-half at H, so as to make one continuous catheter. The next thing to be done is to pass the olive end (K) upwards from the apex of the wound till it emerges at the meatus externus. This is usually easy to do; but, if there be any trouble in doing it, an assistant can pass a large olivary catheter down the penis till the point of the instrument appears in the wound. The surgeon now catches hold of the point, and, having cut off three inches of the protruded catheter, he inserts into its cavity the end of the elastic catheter, K. The assistant, still holding the catheter he passed downwards, now draws it upwards, and thus brings up with it the other catheter, which was inserted into it by the surgeon. The catheters are now unlinked, and the one in the bladder can be retained or not as the operator may fancy. I look upon the retention of a catheter as a relic of a surgical age now past; for Dr. Gouley has, by the narration of a number of facts, conclusively demonstrated that the retention of a catheter after operation is, to say the least, perfectly unnecessary.

The advantages of the operation as above described may be summed up as follows. 1. The greater chance of finding the entrance to the stricture with a fine olive-tipped bougie, and, when found, of passing it through the stricture, than with the stiff metal probe, which is larger. 2. Demonstrating that the bougie is really in the bladder by sliding a fine silver tube over it and drawing off the water. This is really the point of the operation, for it enables the surgeon to divide the stricture with certainty, and spares him the mortification of laying open a false passage. 3. The metal tube serves as a guide over which the elastic catheter can be passed into the bladder. 4. Diminishing the risk of the operation by dividing the stricture subcutaneously, instead of enlarging and extending the original wound.

I consider the "boutonnière" the right and proper operation to perform for the relief of impassable stricture, after the surgeon has exhausted all ordinary means to pass a catheter. If retention from urine from impassable stricture set in, then the operation is specially indicated, for by it the cause and effect are treated at one and the same time.

CASES OF OTORRHOEA AFFECTING THE MASTOID BONE.

By F. M. PIERCE, M.D.,

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THE diseases attacking the mastoid bone, primary or secondary, are amongst the most serious with which aural surgeons have to contend, whether we regard the danger to the patients or the prompt treatment required. I do not intend, in this paper, to separate the different kinds of mastoid inflammation, but to record several cases illustrating the various forms of this affection which have come under my care in public and private practice during the last few years.

In a paper read before the Clinical Society in 1872, Dr. S. Gee pointed out very concisely that the connection between cerebral symptoms and purulent affections of the ears might be arranged under the three following heads: 1. Symptoms of otorrhœa preceding those of meningitis; 2. Symptoms of meningitis preceding those of otitis; 3. Symptoms of otitis latent throughout meningitis. In most of these cases, we find that some form of mastoid disease has existed in the course of the complaint. Only occasionally do we get fatal meningitis due to ear-disease without any implication of the mastoid.

The following cases will illustrate the symptoms of mastoid disease as a complication.

* Since writing the above, I have removed the handle of the silver tube, so that the elastic catheter can be slipped over it after it has been passed into the bladder.

CASE 1.—T. L., aged 34, gardener, came under my care at the Manchester Institution for Ear-Diseases in August 1874, having suffered for the previous two years from repeated earache, with purulent discharge from the right ear. He could not account for this condition, except great exposure to cold and frequent use of a pin in that ear. He had gradually become worse; he suffered intense earache, deeply seated, and most marked at night. On examination, the hearing distance was $\frac{2}{3}$ for the right ear; the left ear normal. The tuning-fork placed on the vertex was heard almost entirely by the left ear; it was very slightly perceptible at the right external meatus, the walls of which were much swollen, red, and bathed in offensive-smelling pus. After syringing, a small granular polypus could be seen coming through the membrana tympani, of which only a narrow rim remained. The right Eustachian tube was impervious, and loud rushing tinnitus aurium was constantly present. He was ordered a lotion of sulpho-carbolate of zinc, to be instilled warm and retained for ten minutes three times a day; the meatus to be packed with powdered oxide of zinc every evening. The compound liniment of iodine was directed to be painted over the mastoid bone two or three times a week. Under this treatment, the pain was much relieved, and the discharge became less copious and offensive; but the hearing distance did not exceed $\frac{2}{3}$.

October 27th. The otorrhœa was very slight. He complained of great itching in the ear, and sometimes had a sudden severe attack of deeply seated earache, chiefly at night. The patient's general health had much improved under the use of cod-liver oil and iron; but he still looked very anxious, thin, and pallid.

November 17th. The swollen condition of the walls of the meatus having disappeared, and a more healthy state having been attained, I endeavoured to find if there were any fistulous openings into the mastoid bone, but failed, as on previous occasions, to detect caries with the probe. The polypus was reduced in size, and I intended to apply astringents at the next visit; but he ceased to attend, and did not return until

April 2nd, 1875. He stated that he had been very ill with inflammation of the lungs. He now had a more profuse otorrhœa than before. The hearing distance was $\frac{2}{3}$; the tuning-fork was not heard at the right external meatus, nor in the right ear, when placed on the vertex. He complained of intense pain in the ear and round the face and right side, worse at night, and accompanied by severe headache. He was very feverish and emaciated.

April 9th. He was much improved after taking quinine with morphia, and resuming the local treatment originally ordered, which had been omitted during his illness. The meatus was wiped out with solution of nitrate of silver (gr. 40 to 3j) every other day. The lotion now passed from the ear into the mouth very freely.

April 30th. Lotions of iodine with glycerine, and weak solutions of muriate of iron with opium, were used alternately.

May 7th. Frequent applications of tincture of perchloride of iron were made to the polypus through the speculum. He experienced some difficulty in closing the right eyelid, and in inflating the right cheek. The pupils were equal, but the right was less sensitive to light.

May 14th. A soft red swelling had arisen on the right mastoid process, containing pus, into which a deep incision was made, affording relief from pain, and removing the otorrhœa from the meatus. Poultices were ordered to the incision. A probe passed into the incision came upon soft carious bone; and, on exploring the walls of the meatus for the first time, some dead bone was felt at the superior and posterior walls.

June 18th. Frequent warm-water douches, leeches to the tragus, morphia pills, and the application of small pledgets of cotton soaked in acetate of lead and opium, afforded temporary relief to the pain and discharge.

June 29th. The meatus was found blocked up by a large piece of necrosed bone, which appeared to have descended from the posterior and superior wall of the meatus, and was firmly implanted. The polypus and membrana tympani could not be seen.

July 9th. There was no improvement. The patient was in extreme pain, and complained of numbness of the right half of the face.

The patient died of meningitis, with convulsions, on July 24th, as I was informed by letter from Mr. Renshaw of Altrincham, who attended him. Unfortunately, I did not hear of his death until some time had elapsed, and too late to have a *post mortem* examination.

In this case, there was unusual difficulty in applying efficient local applications, owing to the smallness of the polypus, and the perforation of the membrana tympani, and to the swollen state of the meatus. The situation of the caries and sinuses was made out with difficulty; and the size and fixed position of the necrosed bone did not warrant much attempt at removal in the patient's state of health at the

time. The intercurrent attack of pneumonia was probably due to purulent infiltration from the ear. The mastoid was implicated by extension of the suppuration from the meatus and tympanum.

[To be continued.]

EFFECTS OF VARIOUS DISEASES ON THE WEIGHT OF THE BRAIN IN 2,050 SANE AND INSANE ADULTS OF BOTH SEXES.

By ROBERT BOYD, M.D. EDIN., F.R.C.P.L.,

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THE following record of the effects of various diseases on the weight of the cerebrum, cerebellum, pons, and medulla, in the sane and the insane, is taken from the neurological registers kept by me for thirty years at the St. Marylebone Infirmary and Somerset County Lunatic Asylum. As far as I know, the subject is one which has not hitherto been referred to by any author, and I think it may be of sufficient interest to bring before one of the sections at the Edinburgh meeting of the British Medical Association.

The citation of figures must be wearisome to all, but it is the only means by which the facts can be brought clearly under notice: I will, however, endeavour to be as sparing as possible in this particular. The sane adults, and many of the insane—classified according to age—are included in my tables of the weights of the human body and internal organs in the *Philosophical Transactions* for 1861. From these cases, and others of the insane subsequently examined, it was found that, as regards the sexes, the average weight of the encephalon was from four to five ounces heavier in males than in females, and that there was a difference in height of an equal number of inches. The proportions of the different parts of the encephalon, estimated according to the height, in 400 males and 325 females, insane, were as follow—the average height being in the males sixty-six, and in the females sixty-two inches.

TABLE I.

CEREBRUM.		Cerebellum.	Pons and Medulla.	Encephalon.	Sex.
Right Hemisphere.	Left Hemisphere.				
.301	.302	.077	.016	.697	Males
.294	.295	.076	.016	.681	Females

From the above, it appears that the average weight of the cerebrum was .007 more in males than in females; the cerebellum .001 heavier in males than in females; the pons Varolii and medulla alike in both sexes; and that the left cerebral hemisphere was heavier than the right by .001 in both sexes. The encephalon was .016 heavier in males than in females. Inequalities in the cerebral hemisphere have been frequently observed, especially in epileptics; and cases by me have been published in the thirty-ninth volume of the *Medico-Chirurgical Transactions*.

The heaviest brains have not unfrequently been those of epileptic idiots. Hypertrophy of the connecting tissue of the brain is stated to have been found in such cases; and to the same cause may probably be attributed cases of convulsions and sudden death in children, of which there are instances in the tables referred to amongst the cases examined in the St. Marylebone Infirmary. In these cases of sudden death, apparently in healthy children, when the skull-cap was removed, the dura mater was observed to be extremely tense and shining, and, when divided, the cerebrum projected considerably over the edges of the skull, the convolutions were flattened, the ventricles devoid of fluid, and their sides pressed together, the other internal organs being natural.

The following table shows the average weight of the cerebrum, cerebellum, pons Varolii, and medulla, and the encephalon in the sane and insane of both sexes, commencing with diseases of the nervous system, including those of the brain and membranes, and also of the spinal cord; diseases of the chest, under three heads—pleuropneumonia, bronchitis and asthma, pulmonary phthisis; diseases of the heart and dropsy; diseases of the stomach and abdominal organs; and, lastly, fevers, including the eruptive and erysipelas. The mental disorder in the insane of both sexes is shown on the annexed comparative table. (Table III,

on next page.) Of the 2,050 cases (616 sane males, 653 sane females, 430 insane males, and 351 insane females), the principal causes of death were as follows.

TABLE II.

Diseases.		SANE.		INSANE.	
		Males.	Females.	Males.	Females.
Nervous	Brain	Per cent. 17.3	Per cent. 25	Per cent. 32.5	Per cent. 15.7
	Spinal cord .....	.7	.1	14.4	7.4
	Totals	18	25.1	46.9	23.1
Lungs	Pleuritis and pneumonia	22.1	17.3	21.6	17.4
	Bronchitis and asthma	11.1	13.6	3.7	8.8
	Phthisis	28.7	14.8	13.7	22.8
	Totals	61.9	45.7	39	49
Heart and dropsy		5.5	9.6	3	3.4
Abdomen		7	13.6	11	19.1
Fevers		7.6	6	.1	5.4

From the comparative table of the effects of various diseases on the weight of the brain and its several parts in the sane and insane of both sexes, it appears that, taking the total numbers, the encephalon was heaviest in the insane; the difference being in the males three-quarters, and in the females one ounce and a quarter. The average weights are as follow.

TABLE IV.

Cerebrum.	Cerebellum.	Pons & medulla.	Encephalon.	
41.4	5.1	1	47.5	In sane males
41.8	5.4	1	48.2	In insane males
36.4	4.6	.9	41.9	In sane females
37.5	4.7	1	43.2	In insane females

These averages, taken from the whole of the cases, will serve to show what effect is produced on the average weight under the various diseases enumerated in the table.

With respect to diseases of the nervous system, which include diseases of the brain and membranes, as well as those of the spinal cord, we find the cases most numerous amongst the insane males, amounting in them to very nearly 47 per cent. of their whole number, and in females to 23 per cent. A considerable proportion of this excess in males (insane) is due to the frequency of general paralysis—a disease, as the symptoms indicate, usually arising from disease of the spinal cord. This fact, confirmed by the microscopical observations of Mr. Gulliver, was first stated by me in 1848, also in subsequent annual reports of the Somerset Asylum, and in the *Journal of Mental Science*. The fact has since been confirmed more or less by other observers at home and abroad.

In diseases of the brain and membranes, the encephalon was in the males one ounce below the average above given in the sane, and two ounces in the insane, and in the females about three-quarters of an ounce below the average. In both classes, four-fifths of this loss was in the cerebrum in males and in the sane females; in the insane females, the entire loss was in the cerebrum, and in them the cerebellum was one-tenth of an ounce above the average. It will be seen that there is a considerable difference in the weight of the cerebrum in diseases of the brain and spinal cord, owing to cerebral wasting usually accompanying paralysis of the insane.

In the four cases of disease of spinal cord in the sane males, the encephalon was half an ounce above the average, the increase in weight being due to the cerebellum and pons Varolii. In the insane males a very different state of the encephalon was found; it was three-and-a-quarter ounces below the average, being the lowest average of that organ in any of the various diseases: the loss of weight was entirely in the cerebrum. In the females, also, the loss of weight was entirely in the cerebrum, and amounted to 1.1 ounce.

The form of mental disorder in the foregoing (282) cases of cerebro-spinal disease was in the following ratio.

	19.4 per cent. males;	23.4 per cent. females.
Mania	4.4	12.3
Melancholia	12.9	12.3
Fauity and dementia	35.3	20.5
General paralysis	25	16.5
Epilepsy	3	6
Idiocy		
	100	100

III.—Comparative Table, showing in both Sexes in various Diseases the Average Weight of the Cerebrum, Cerebellum, Pons Varolii, Medulla, and Encephalon, in 2,050 Cases of Sane and Insane Patients, examined in the St. Marylebone Infirmary and Somerset County Lunatic Asylum.

Mental State.	Diseases.	MALES.					FEMALES.					ASYLUM CASES.		
		No of Cases.	Cerebrum.	Cerebellum.	Pons: Medulla.	Encephalon.	No. of Cases.	Cerebrum.	Cerebellum.	Pons: Medulla.	Encephalon.	Mental Disorder.	Males.	Females.
Sane	Brain and membranes	107	40.6	5	.9	46.5	163	35.9	4.5	.8	41.2	Mania	33	15
												Melancholia ..	8	8
												Dementia	11	8
												Fatuity	7	
												General paralysis	28	8
Insane	Do. . . . do.	140	40	5.2	1	46.2	55	36.8	4.8	1	42.6	Epileptic mania	48	12
												Idiocy	5	4
												Total	140	55
Sane	Spinal cord	4	41.3	5.6	1.1	48	1	32.2	4.5	1	37.7	Mania	6	4
												Melancholia ..	1	2
												Dementia	8	2
												General paralysis	43	16
Insane	Do.	61	38.7	5.3	1	45	26	36.4	4.8	.9	42.1	Epileptic mania	2	1
												Idiocy	1	1
												Total	61	26
Sane	Pleuropneumonia	136	41	5.1	1	47.1	113	36.9	4.6	.8	42.3	Mania	35	14
												Melancholia ..	15	20
												Dementia	9	14
												Fatuity	7	2
												General paralysis	7	
Insane	Do.	93	40.8	5.2	1	47	61	36.8	4.8	.9	42.5	Epileptic mania	15	9
												Idiocy	5	
												Total	93	61
Sane	Bronchitis; asthma	68	40.6	5	.9	46.5	89	36.9	4.6	.9	42.4	Mania	6	9
												Melancholia ..	1	7
												Dementia	4	6
												Fatuity	1	4
												General paralysis	1	1
Insane	Do. . . . do.	16	41.5	5.3	1.1	47.9	31	37.9	4.8	1	43.7	Epileptic mania	2	4
												Total	16	31
Sane	Phthisis	178	41.1	5.1	.9	47.1	97	36.8	4.6	.9	42.3	Mania	31	35
												Melancholia ..	7	18
												Dementia	10	8
												General paralysis	2	
Insane	Do.	59	40.7	5.2	1.1	47	80	36.9	4.7	1	42.6	Epileptic mania	4	13
												Idiocy	5	6
												Total	59	80
Sane	Heart; dropsy	34	42.8	5.3	1.1	49.2	61	37.6	4.7	.8	43.1	Mania	6	4
												Melancholia ..	3	1
												Dementia	1	5
												General paralysis	1	
Insane	Do. . . . do.	13	42.2	5.1	1	48.3	12	39.2	4.7	1.1	45	Epileptic mania	2	1
												Idiocy	1	1
												Total	13	12
Sane	Abdominal organs	43	41.4	5.1	1	47.5	89	38	4.8	.9	43.7	Mania	24	40
												Melancholia ..	4	11
												Dementia	9	12
												Fatuity	5	2
												General paralysis	2	
Insane	Do. . . . do.	47	42.6	5.4	1.1	49.1	67	38	4.8	1	43.8	Epileptic mania		1
												Idiocy	3	1
												Total	47	67
Sane	Fevers, etc.	46	42.2	5.2	1	48.4	40	36.8	4.7	.9	42.4	Mania	1	15
												Melancholia ..		2
												Dementia		1
Insane	Do.	1	48	6.5	1	53.5	19	38.2	4.7	1	43.9	Idiocy		1
												Total	1	19

As regards the diseases of the lungs (in the deaths assigned to pleuropneumonia—131 in males and 113 in females in the sane, and 93 males and 61 in females insane)—in the sane males there was a loss of four-tenths of an ounce in the cerebrum, whilst in the sane females there was a gain of half an ounce in the cerebrum as compared with the average; in the insane males the cerebrum was six-tenths of an ounce below the average; in the insane females the same organ was three-quarters of an ounce below the average, while the cerebellum and pons Varolii together were of the average weight.

The cases of bronchitis and asthma were in number about one-half of the foregoing. There was a loss of eight-tenths of an ounce in the cerebrum, and of one-tenth each in the cerebellum and pons in the sane males, whilst in the sane females the cerebrum was five-tenths of an ounce above, and the cerebellum and pons were equal to the average. In insane males the cerebrum was three-tenths of an ounce below, and the cerebellum and pons together equal to the average; and in the females of this class the encephalon was again five-tenths, and the cerebellum one-tenth, above the average weight; so that, whilst in both

sane and insane males there was a loss of weight, there was, on the contrary, an increase in the females of both classes.

Of the three subdivisions of lung-disease, the cases of pulmonary phthisis were most numerous in the sane, amounting to 178 in the males and 97 in the females; also in the insane females to 80. In the insane males, pleuropneumonia was most frequent. The loss of weight in the cerebrum, as compared with the average in these cases of phthisis, was seven-tenths of an ounce in sane males, and there was an increase of one-tenth each in the cerebellum and pons; whilst in sane females the cerebrum was four-tenths of an ounce above, and the cerebellum, pons, and medulla, equal to the average. In the insane, the decrease in the cerebrum was eleven-tenths in the males, and six-tenths of an ounce in the females; and the cerebellum and pons in the males were one-tenth of an ounce below the average; in the females, the cerebellum and pons Varolii were of the average weight.

In disease of the heart, the encephalon attained the highest average weight in each sex and in both classes, being in males one ounce and three-quarters, and in females one ounce and a quarter above the average in the sane, the increase in weight being in all the parts. In the females it was confined to the cerebrum; in the insane males the increase in the cerebrum was four-tenths, and in the females one ounce and three-quarters; in the cerebellum, three-tenths in males; in the pons Varolii and medulla, one-tenth in females.

In the diseases of the abdominal organs in the sane males, the several parts of the encephalon were of the average weight; in the females the cerebrum was one and a half, and the cerebellum a quarter of an ounce above the average; in the insane males the cerebrum was eight-tenths, and the pons one-tenth of an ounce above the average; and in the females the cerebrum was five-tenths, and the cerebellum one-tenth of an ounce, above the average weight.

In fevers, the encephalon in the sane males was nine-tenths of an ounce, and in the females five-tenths of an ounce above the average; in the insane females the cerebrum was seven-tenths of an ounce above the average. There was but one male insane classed as a case of fever; the encephalon, unusually large, weighing fifty-five ounces and a half.

Of the diseases of the abdominal organs in the insane, including fevers, in females there were 133 cases; and the forms of mental disorder in the 47 males and 86 females were in the following ratio per cent.

	Males.	Females.
Mania	51.2	64.1
Melancholia	8.4	15.6
Dementia and fatuity	29.8	17.2
General paralysis	4.2	—
Epilepsy	—	.2
Idiocy	6.4	2.4
Totals	100	100

In the whole number of insane—430 males and 351 females—the forms of mental disorder were in the following proportions per cent.

	Males.	Females.
Mania	39.7	40.4
Melancholia	8.8	18
Dementia and fatuity	20.8	16.4
General paralysis	15	10
Epilepsy	12.5	10.9
Idiocy	5.2	4.3
Totals	100	100

It may be observed, in conclusion, that the "assigned cause of death" was often difficult to determine in the insane, as it was frequently—in pulmonary disease, for example—associated with chronic inflammation of the cerebral membranes.

1. In diseases of the nervous system, in the males, the numbers were 18 per cent. in the sane, and as many as 47 per cent. in the insane; in the females of each class, the numbers were about 25 per cent., the cerebrum being below the average weight. The larger ratio in the insane males was due in great measure to the fatality of general paralysis in that class, which is usually accompanied by inflammation of the spinal cord. This statement was first published by me in 1848, and subsequently confirmed by further examinations, some made by Dr. J. Ogle, at the Pathological Society of London.

2. The three pulmonary diseases, especially phthisis, were most frequent in sane males: in the sane and insane females the numbers were nearly equal. The weight of the cerebrum was in the males below, and in bronchitis and asthma, in females, above the average. In diseases of the vascular system, the brain was above the average, and the numbers in the sane were more than double the number in the insane.

3. The diseases of the abdominal organs were a third more in the insane than in the sane; and the brain was above the average weight,

as it also was in fevers, which were most frequent in the sane, the insane being comparatively free.

From these observations on the different parts of the encephalon, it may almost be said that the variations in weight were confined to the cerebrum.

NOTES ON THE CLIMATE OF ALGIERS.

By WILLIAM THOMSON, M.D.,

Resident English Physician, Algiers.

At this time of year, when many invalids in this country are beginning to ask themselves or their doctors where they ought to go to spend the winter months, I venture to bring forward the claims of Algiers as a health-resort of no small importance; and, in doing so, I have endeavoured to make my remarks as short and concise as possible, and to avoid all semblance of vaunting the comparative merits of the place: a practice which, I regret to say, is too common amongst some of my professional brethren. Having been in many climates, I have never as yet found, and never expect to find, a perfect one; certainly Algiers is not; but I merely wish to describe it shortly as it is, and give a few short remarks from my own small experience as to the cases most suitable for sending there, in the hope that they may be of some small use to my fellow-practitioners at home, from many of whom I have received letters, asking for information regarding Algiers. My personal experience of Algiers and its climate only extends back as far as the last two winters; but the meteorological notes which I have made use of are taken from the published reports of M. Bulard, the director of the observatory at Algiers, who has laboured hard and conscientiously in making observations there during the last fourteen years, which observations can be far more implicitly relied on than stray ones made by casual residents.

The town of Algiers lies in 36.47 deg. N. latitude, and 3.4 deg. E. longitude, almost exactly five hundred miles S.S.W. of Marseilles, with which town it has communication thrice weekly by the steamers of the Messageries Maritimes and Valery Companies, which do the passage in thirty-four hours. The town lies on a low range of hills called the Sahel, a prolongation of the Lesser Atlas mountains, which runs out to the sea here in the shape of a spur in a north-easterly direction, forming the western extremity of the Bay of Algiers, the breadth of which from here to its eastern extremity, Cape Matifon, is about sixteen miles. As the town and suburb of Mustapha, the favourite residence of the English visitors, lie on the south-east side of this range, they are thus protected from the north-west wind, the most prevalent one at Algiers, but which, from its passage across the sea, has no resemblance to the dry piercing mistral of the South of France. The form of the town is triangular, the base of the triangle being the French part of the town, and lying along the sea, whilst the cone comprises the old Arab quarters, and stretches up the hill, ending at the old fort or kasbah, the former residence of the Deys of Algiers. The town and suburb of Mustapha face the south-east, so that they enjoy a good exposure to the sun nearly all the day, whilst the view across the bay, with the fine range of the Djurjura Mountains in Kabylia, is of great beauty. The season for invalids may be said to be from the beginning of November to the end of April; though many English residents who are in the habit of staying on, later say that May is the pleasantest month of all in Algiers. I should advise no invalids, however, to arrive there before November 1st, as the heat in October is sometimes still very trying. With that view, I should recommend all intending visitors to Algiers who leave England in the beginning of October (and I most decidedly think none, with few exceptions, suffering from pulmonary complaints should ever delay their departure later than the 10th of that month) to cross over to Paris, where the temperature is usually warmer, and where the air, at any rate, is free from the fogs to which London becomes liable about this time, and which are often so harmful; after spending a week or so in Paris, they can then move gradually southwards by stages, such as Dijon, Macon, Lyons, Avignon, Nismes, Arles, etc., to Marseilles, where they embark for Algiers. I would here offer another word of advice on the subject of dress, and would most earnestly advise all, especially invalids, to take plenty of warm clothing with them, as, though the temperature of Algiers during the winter is, on an average, much the same as our summer in England, yet slight variations in it are much more felt than the same variations at home.

The average mean temperature during the winter months in Algiers may be said to be 55.0 deg. Fahr.; the mean daily range between 10 deg. and 12 deg. Fahr. The mean height of the barometer at sea-level is 30.0 deg., and the daily variations are very slight, except

occurrence of violent storms or on the approach of the

The average rainfall during the winter season, *i.e.*, from the beginning of November to the end of April, is about twenty-nine inches; the average number of rainy days about seventy. This may seem a very large quantity of rain and number of rainy days to many, but they must take into account the very different character of the rainfall from that of England. In Algiers, as a rule, the rain falls in tropical showers, lasting only an hour or two, instead of the slow drizzle to which we are accustomed at home. The months of November, December, and January, as a rule, have the heaviest rainfalls. According to my own observations, the north-west wind is the most prevalent, and the south wind or sirocco fortunately the least prevalent of all the winds; it also, however, is quite different in character from the same wind-felt in Malta or Italy, not containing the same moisture that it does there from crossing the sea, but being very dry and warm, and not so oppressive to breathe.

The climate of Algiers, especially that of the suburbs of Mustapha Supérieure and Bouzariah, where most of the English reside, is, on the whole, a tonic and bracing one. The soil is light, lying on a kind of tufa, which is very porous, so that the ground dries up very rapidly after rain, and one can walk out half an hour after the heaviest showers. There is abundant vegetation, and the gardens of the villas are rich in all varieties of flowers, which blossom all through the winter, whilst the orange and lemon-trees are most prolific. There are plenty of pleasant walks in the neighbourhood, which do not involve uphill exercise, while for riding or driving the roads are excellent and very varied.

I would here urge upon invalids in Algiers, as in other health-resorts, a few simple precautions, which are too often neglected, either wilfully or through ignorance, which are, nevertheless, of vital importance for the preservation of health: for example, the strong necessity of avoiding being out of doors for an hour before and an hour after sunset. Many are in the habit of starting for long drives in open carriages and long walks on foot in the afternoon. Now, in winter in Algiers, the extreme temperature of the day is reached about 1 P.M., after which it begins to cool gradually, and, after 4 P.M., very rapidly, and there is a chilly feeling in the air, which continues till an hour after sunset, when the air, as a rule, becomes warm again, and very many of the nights at Algiers are extremely pleasant for going out in, with due caution in the case of invalids, especially in the town, where there is little or no dew-fall. With regard to diet also, which, in the hotels at any rate, is different in the style of cooking from that to which they have been accustomed at home, I would urge them to be careful in their selection from the very numerous forms of dishes placed before them. I have also seen much harm result from the evil habit of invalids with chest-complaints lurching, and more especially dining, in *table d'hôte* rooms in hotels: *tables d'hôte*, as a rule, abroad are tediously prolonged entertainments, during which the room generally becomes like an oven, whence the invalid has to pass to his own room through icy passages or up countless flights of stairs. There may be exceptional cases where this is not so, but, in my experience, they are very exceptional.

At times in Algiers, especially when there is a south wind blowing, the dust is very trying, especially to those with pulmonary affections; and, as a guard against this, I would advise the use of a veil or a respirator.

Speaking from my own experience, I should say that the climate of Algiers is of most undoubted value in those cases of phthisis where there is only as yet a slight deposit of tubercle in the lung or lungs, but that it does little more than prolong life for a time in those in whom the disease has gone the length of cavities; and it would be well if doctors at home thought twice before they sent out to Algiers or anywhere else some of the cases, in the most advanced stages, which it has been my misfortune to see there. In several cases in which, up to the time of their arrival, there had been excessive pyrexia, a marked fall in the temperature occurred, due, in a measure, I think, to the capital powers of sleeping which most arriving at Algiers enjoy, notwithstanding its proximity to the sea. In cases of old-standing pneumonia and pleurisy, I have seen much good done by a winter's residence at Algiers; but, in my opinion, those who, by some imprudence, contract maladies there, especially the low lobular forms of pneumonia, do not do so well, from what reason I do not profess to explain. All forms of bronchitis do remarkably well, especially the dry irritable variety and the chronic winter cough of the elderly. Every one of the numerous cases of asthma which I attended seemed to benefit by the climate, though, in this capricious disease, the improvement may have been purely accidental. The cases of emphysema I saw all did well, whilst most of the cardiac affections seemed to

benefit from the mild equable temperature. I have heard that the climate of Algiers is not suitable for nervous complaints, and it may be so, as I have no opportunity of judging; but I see no reason why it should be so. All gastro-intestinal affections, amongst them three long-standing cases of Indian dysentery, did very well. I have only had two cases of typhoid fever in Algiers, and these came over in a yacht from Nice, and had the fever when they arrived. In the summer and autumn months, I believe there is a liability to typhoid and malarious fevers in the country around; but then it is precisely in these seasons that no one dreams of staying in or near Algiers. In the uterine cases which I attended, nearly every case seemed to benefit from the climate, and the menses became more regular in many long-standing cases of amenorrhoea; on the other hand, however, I have heard that the warm climate sometimes causes a too profuse discharge; but I can hardly fancy that it could do so in the winter season. It is impossible, however, to lay down general laws as to what class of cases will or will not suit the climate of Algiers, as nearly everything depends on the individual character of the complaint: a fact which I think too many doctors at home are apt to ignore who appear to send cases at random to Mentone, Cannes, Algiers, etc., quite irrespective of the nature of the case or of the character of the climate. If these short remarks are of any service to any in deciding what to choose and what to avoid, they will not have been written in vain.

SURGICAL MEMORANDA.

DISLOCATION OF THE PATELLA.

As complete dislocation of the patella from direct mechanical violence is not of very frequent occurrence, the following case may be of interest. I was lately called upon to examine a gentleman who had met with a carriage-accident, in which he was thrown with great violence upon his left knee. I found him suffering from great pain in the knee, which was rigidly semiflexed, flattened in front, and broader than the other. The patella could be distinctly felt lying upon the outer side of the external condyle of the femur, its long axis being directed slightly outwards. Reduction was effected by straightening the knee and flexing the thigh upon the abdomen, combined with a little manipulation, so as to tilt the inner edge over the condyle.

J. JOHNSTON, M.B., Bolton.

OBSTETRIC MEMORANDA.

CASE OF TRIPLETS WITH A FOURTH BLIGHTED FŒTUS.

THE following case has lately occurred in my practice.

About 9 A.M. on the morning of August 25th, 1876, I was summoned to attend the wife of a coal-miner in the village of Brownhills. About an hour and a half after my arrival at the house, she was delivered of a full-grown male child, the presentation of which was breech. Twenty minutes or more after its expulsion, I made an examination, and found, on running my finger along the cord, a large rounded tense mass, which proved to be the membranes of another foetus. I waited for some time to see if the uterus would resume its action. After the expiration of two hours, I decided on rupturing the membranes, and, in twenty-five minutes afterwards, a second male child, considerably smaller than the first, was born. This presentation was pedal. Upon my placing my hand on the abdomen after this second birth, I found the uterus nearly as large as at first, and very little reduced in size. I made another examination, and found the membranes of a third foetus presenting. These I speedily ruptured, and another fully developed male child (the largest of the three) was immediately born. This presentation was also breech. In about ten minutes after the expulsion of the third child, the patient had a strong labour-pain, and a foetus of presumably about three or four months was expelled.

There were two placentæ; and, on examining them, I found that the cords of the second and third child, as well as that of the blighted foetus, were attached to one, and that of the first to the other placenta. The mother (who is about thirty-two years of age, and who has twice been delivered of twins) and the three infant male children, are doing well.

DAVID EDGAR FLINN, L.K.Q.C.P.I., Brownhills.

REPORTS OF MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF COMPOUND FRACTURE OF THE LEG TREATED
OPENLY AND ANTISEPTICALLY FOR COMPARISON.

(Under the care of Mr. CHRISTOPHER HEATH.)

THE following two cases of compound fracture of the bones of the leg (for the notes of which we are indebted to Mr. Pearce Gould, the surgical registrar), are interesting for purposes of comparison, since they were treated at the same time and in the same ward by different methods. In the first case, the wound was a small one, and was treated antiseptically from the first with very good results. In the second and older patient, the fracture became compound, as the result of a fit of delirium tremens, and the bones became so displaced that Mr. Heath found it necessary to remove a portion of the tibia with the saw in order to effect reduction. This patient made a good recovery, with a wound dressed with oakum, so as to absorb all discharges, and was sent out with the fractures firmly united. Appended to the cases will be found a table showing the temperature of the two patients for purposes of comparison. It is remarkable that, notwithstanding the greater severity of the injury of the second case, and the open condition of the wound, the temperature was on the average no higher than that of the antiseptic case.

CASE I.—G. S., aged 20, a mechanic, was admitted into the hospital on September 3rd, 1875, with a compound fracture of the right leg caused by a very heavy piece of iron falling on the lower part of the back of his leg. Both bones were broken at about the junction of their middle and lower thirds, and over the front of the shin was a clean cut wound about an inch long leading down to the fracture. Just below the wound a small fragment of bone projected against the skin, which could not be reduced. As soon as he was seen, a piece of dry lint was placed over the wound, and he was carried into bed. The leg and foot were carefully washed with carbolic lotion (1 in 20), the toe-nails were cut as short as possible, and well cleaned; under the carbolic spray the piece of lint was removed, and the wound syringed out with the carbolic lotion. The usual antiseptic gauze dressing was then applied over the leg and foot, but an attempt to put a drainage-tube in the wound was unsuccessful. The limb was then placed on a Macintyre's splint and raised on pillows.

The patient was a well-developed, healthy-looking man, who said he was sober and steady. He suffered a good deal of pain through the day, for which he had a hypodermic injection of morphia at night. For the next four days, the dressing was changed every day; there was no redness round the wound, in which was seen a firm clot of blood. Pain was much diminished. The patient was unable to pass urine all this time, and he was relieved three times a day by the catheter. Aperients were given; and he was placed on middle diet.

On September 8th, the mode of dressing the leg was slightly altered with the view of preventing movement of the limb. Over the pads on the splints was placed some antiseptic gauze; and small dressings were prepared, which were bandaged on to the front of the leg as it lay in the splint. The patient complained of great tenderness and smarting pain in the urethra; there was some discharge of muco-pus from the meatus. There was no retention after to-day. His appetite was good. He was ordered a mixture containing potassæ bicarbonatis gr. 20; tincture hyoscyami ℥30; aquæ ʒj, every four hours.

The dressing was not changed again until the 13th, when the discharge was found to be quite sweet; the wound quite superficial; the comminuted fragment of bone projecting very prominently against the skin. The dressing was changed on the 16th, again on the 22nd, and 28th. On September 27th, some of the femoral glands were enlarged and tender; belladonna and glycerine were applied to them. The next day, the patient complained of a good deal of throbbing pain around the projecting fragment of bone, and, on the day following, September 29th, a collection of pus was discovered in this situation; this was opened under the carbolic acid spray, and Mr. Heath removed the fragment of bone; about an ounce of creamy pus escaped. On account of the oozing of blood through them, the dressings had to be removed the same evening, and again the next morning. The pain was entirely relieved by the operation, and the next day the femoral

glands had returned to almost their normal size. The dressing was changed on October 1st, 5th, and 6th; the clot which formed in the cavity of the abscess did not organise, but broke down into a purulent liquid, which was perfectly sweet; there was no redness round the wound, no pain. He was ordered to discontinue the diuretic mixture, and to take an iron mixture.

On October 8th, Mr. Heath removed another small piece of bone which was loose, through the second wound; the bleeding was free, and the blood was left untouched in the wound to see if it would organise. The dressing had to be changed the next day, and again on the 12th; there was no organisation of the clot. The discharge was sweet, slight in amount.

From this date the patient uninterruptedly improved; the wounds granulated healthily, and his general health became better. The antiseptic dressing was changed on October 13th, 17th, 19th, and 25th. On October 31st, it was finally removed, and the limb put up in a silicate of soda splint; the bones had firmly united.

CASE II.—W. D., aged 45, a carman, was admitted into the hospital on September 16th, 1875, with a compound fracture of the right leg, caused by his falling down and striking the leg on the edge of the kerb. Both the tibia and fibula were found to be fractured at about the junction of their middle and lower thirds. The line of fracture of the tibia was oblique from above downwards and forwards; the lower end of the upper fragment projected forwards under the skin; there was a good deal of bruising of the soft parts. The patient had been a very intemperate man.

The limb was placed on an outside Cline's splint, and laid on its outer side; this position corrected the displacement of the fragments, although the lower end of the upper fragment could still be felt. Next day there was considerable vesication extending all round the limb at the seat of fracture, and there were signs of extensive bruising. On September 18th, in the evening, he had an attack of violent traumatic delirium, for which fifty grains of chloral, thirty grains of bromide of potassium, and then chloroform were administered. The next morning, the limb was placed in two Cline's splints and swung. The bullæ had extended quite round the limb on the 20th; bruising was marked quite up to the knee; and there was much swelling at the seat of injury. On the 21st, boracic acid ointment was applied where the cutis was exposed from the bullæ. At night, he had another less severe attack of delirium; three-fourths of a grain of morphia was given hypodermically, and this quieted him and sent him to sleep.

On September 22nd, the leg was put up in a Macintyre's splint and swung; the swelling and tension were considerable. At night, the fracture became compound by a small opening over the lower end of the upper fragment, a considerable quantity of blood-stained semi-purulent fluid escaped. The tension was greatly lessened by this; the opening enlarged, and formed a very free outlet for the discharge. On the 24th, oakum poultices were substituted for the boracic ointment. A mixture containing ammon. carb. gr. v; tinct. opii ℥x; spirit. chloroform. ℥x; tinct. cinchon. ʒss; and infus. cinchon. ʒj, was ordered to be taken every four hours.—On the 26th, the limb was placed on an outside Cline's splint and swung on its outer side; the mixture was to be taken every six hours. Two days later (28th), Mr. Heath examined the limb whilst the patient was under chloroform; he found that the wound was deep, and that the upper fragment overlapped the lower by a good inch, and was quite bare; he enlarged the wound a little, sawed off the overlapping piece of bone, and removed another fragment with the bone-forceps; the parts were then placed in good apposition, the limb replaced on its splint, and oakum poultices applied. The patient passed a very good night, was quite free from pain; his appetite was good; pulse 88; the wound was at this time syringed out with red wash twice a day.—On October 1st, a counter-opening was made on the outer side of the leg, and a drainage-tube passed between the two wounds; dry loose oakum was applied instead of the poultices. The bone was distinctly visible in the wound, quite bare; the anterior edges of the fragments being about one eighth of an inch apart. The brandy was reduced from four to two ounces, but next day the patient was ordered two bottles of ale.—On October 4th, the opium was struck out of the mixture he was taking. The wound granulated up steadily, and the upper fragment was soon covered over. The patient was quite free from pain, with a good appetite, clean tongue, and regular bowels, and slept well at night. The temperature was raised every evening until October 8th, when a small abscess was discovered on the great toe; this was opened, the temperature then fell to the normal; from the 10th it was raised again every evening till the 13th. That afternoon, Mr. Heath opened an abscess above the fracture which did not communicate with the bone or the original wound. After the 14th, the temperature never again rose above 99.6 degs., and soon became normal.

From this time the wounds gradually healed up, there being abundant discharge from both of them, but no constitutional disturbance. On November 16th, the limb was placed in a plaster of Paris splint, with a window placed in it opposite the fracture, the upper wound having entirely healed. He was sent to the Convalescent Hospital at Walton on December 9th; the wound was still discharging, and the lower fragment of the tibia was exposed and evidently dead. On his return from Walton the wound was still open, and through it bare necrosed bone could be felt. There was firm union of the fragments of the tibia.

TABLE OF TEMPERATURE.—All the Temperatures in this Table were taken in the Morning, about 11 A.M.

Day of Illness.	G. S.	W. D.	REMARKS.
1	100	99	
2	99	99	
3	99	101.2†	† Traumatic delirium at night.
4	99	98	
5	99	98	
6	100*	99.8†	* Urethritis commenced. † Became compound at night.
7	100	99	
8	?	98.8	
9	99	99.8	
10	?	?	
11	99	98.4	
12	98.5	97	
13	?	7†	† Operation; end of upper fragment sawn off.
14	99	99.8	
15	98.7	99.8	
16	*	99	* Temperature not stated in Ward-Clerk's report: it was taken every morning, and doubtless on these days was quite normal, and therefore not noted.
17	*	101	
18	*	99	
19	98.2	98.5	
20	98.5	98.1	
21	99	99.2	
22	99	99.6	
23	99	98.8	
24	99	98.6	
25	100.2*	99	* Femoral buboes discovered.
26	100	99.2	
27	101.2†	99	† Abscess opened; loose piece of bone removed.
28	98.6	98.4	

WEST RIDING LUNATIC ASYLUM.

CASES OF DISEASE OF AND EXTRAVASATION INTO THE CEREBELLUM.

(Under the care of Dr. MAJOR.)

FOR the following report of cases we are indebted to ROBERT LAWSON, M.B.

CASE 1. J. E. was brought to the West Riding Asylum in April, 1864. When admitted, he was wild and unsettled, and complained of strange sensations in the head; fancied that he was going to be either hung or shot, and rambled about so as to avoid such a catastrophe. When examined on admission, he had tremulousness of the tongue and dementia, with excitement; and on these grounds it was suspected that he might be a general paralytic, a suspicion which the later progress of his case did not justify. In about a month, he became somewhat less reckless, and made himself useful. Two years afterwards, he was much improved in physical condition, but unimproved mentally. He had an inguinal hernia, and was latterly liable to recurrent attacks of acute bronchitis, which, in the long run, induced lasting emphysema. No change occurred during the next few years of his stay in the asylum. In February 1872, he was unable to reduce his hernia, but the medical officer did so readily. The reduction, however, was followed by the loss *per rectum* of about twelve ounces of blood. Subsequently, there were symptoms of feverishness, which, however, passed off in two days. From this time onwards, J. E.'s rupture was a standing grievance, inasmuch as he frequently refused to wear a truss, and, when it came down, repeatedly neglected to call attention to it. His general mental condition was that of mania, involving great incoherence, mistakes in identity, occasional outbursts of excitement, in which he coined the most original and grotesque oaths, and, while expressing the wildest vituperation, maintained an appearance of great goodwill and sly humour. He ate brick-dust, whitening, and any cretaceous substance he could lay his hands upon; and nothing afforded him greater delight than to snatch any opportunity of washing his truss in his own urine. He had no paralysis whatever, no strabismus, and his gait was natural, or if in anyway altered was simply somewhat rolling, which, as he was very stout, was apparently not abnormal. Latterly, he never complained of pain, but used to make frequent cursory remarks on his difficulty of breathing. His mixture of quaintness and

humorous excitement made him a general favourite, and his symptoms were closely watched and easily recalled.

On January 26th, 1876, the night-attendant found his rupture down, and irreducible. The medical officer was unable to perform taxis. A morphia suppository, after a warm bath, was ordered, and both were administered. It had previously been found that this treatment led to the almost spontaneous return of the hernia. From his own account, it appears that, after the administration of the suppository, he got up, and, holding the large hernia in his hands, drove it with the impetus of his own body against the lintel of the door till it went back into the abdomen. In the morning, it was found that he was breathing very quickly, and had a temperature of 105 deg. Subsequently, he passed blood with his motions and had stercoraceous vomiting. It was supposed that he had returned the hernia *en bloc*, and that his violent surgery had caused rupture of a vessel. Poulitices were applied and opium pill administered, and, by the evening of the same day, the vomiting had ceased. He had an acute exacerbation of his chronic bronchitis. Next day, he had no abdominal tenderness, and no sickness; and in about a week he was again quite well, having passed through his severe ordeal in such a way as to show that the blunted sensibility of a dement may be exceedingly useful to him in extremities, and that a patient's indifference to death may be the means of saving his life.

April 24th, 1876. Since last report, up, to about a week ago, he had been enjoying fair health, but did not seem to have completely regained his strength. Last week, he complained of giddiness and weakness, and was put to bed. After a few days' rest, he again improved, and got up. On the morning of the 20th, it was found that he was unable to rise. The medical officer was called, and he was seen to be quite conscious, but could not protrude his tongue or raise his right leg or arm. Sensibility was also slightly impaired on the right side. He could not speak, but answered by signs. His pulse was normal, and his breathing 21 per minute. An injection was administered, and since then, he had nutrient enemata repeatedly. During the past three days he had become gradually more prostrate, but still was quite conscious. He was *in extremis*.

April 25th. It was remembered that, before being sent to bed at the commencement of his illness, he, on being asked to approach the medical officer, showed great irascibility and swore in his usual forcible and original manner, and had to be helped towards him. On being left to himself, he staggered and fell forward, but was caught up by those around him. Subsequently, he almost fell backwards. When, on the morning of the seizure, the medical officer reached him, his rupture was found slightly down, but readily reducible. What attracted most attention was the existence of some sensory and great motor paralysis of the right leg and arm, without flattening of the face or alteration of the pupils; and also the integrity of consciousness. The tongue could not be protruded and he could not speak, but showed clearly by signs that he knew what was said to him. Thus he drew up his left leg when told to do so, and when asked whether he wanted any of his special beverage (rum), he nodded his head affirmatively and vigorously. Reflex action was not much, if at all, affected; and it was particularly observable that the pulse, till pulmonary complications modified it, was not quicker than normal, and the respirations continued to number only about 21 per minute.

Post mortem Examination, forty hours after death. The dura mater was adherent to the skull-cap in the upper frontal and parietal regions on the left side, and in the whole of the right parietal and occipital regions. There was no opacity of the membranes, but considerable wasting of the convolutions of the frontal and parietal regions, greatest near the longitudinal fissure. The membranes stripped off with great facility, and were much thickened. Nowhere externally was there any special tract of softening, or anything noteworthy in the course of the convolutions. On the whole, however, the brain was somewhat softer than in health. About two ounces of fluid escaped on removal. In cutting into the ganglia, no recent or old clot could be detected, but the corpus striatum and optic thalamus of the left side were throughout much softer than normal, and of a dirty-brown colour. On the right side, the corresponding ganglia were much firmer, deeper in colour, and altogether more healthy. In cutting into the cerebellum, it was found that the grey matter of the right hemisphere was greatly disorganised, and in most of its structure had a dirty-yellowish colour, and was evidently breaking down at some points. The grey matter of the left lobe of the cerebellum appeared to be uninvolved. Certain leaflets of the right side, which were accurately mapped out, were also intact, and stood out in marked contrast with the others. No further distinct lesion could be determined, but the pons and medulla appeared to be in a state of degeneration. On microscopic examination by Dr. Major and Dr. Bevan Lewis, it was found that the medullary substance was much

broken up, and that numerous crystals of hæmatin from old extravasations were embedded in it. The cells of Purkinje were universally degenerated, and their nuclei were faintly visible in a few cases only. The processes from these cells were normal in number and distribution. There was a good deal of external discoloration of the lower twelve inches of the ileum, and, when this part of the intestine was cut into, it was found to have thickened walls, but there was no appearance of inflammation or of recent or old adhesions.

I offer no comment on this case, feeling assured that those who are at present engaged in trying to determine the physiological functions of the cerebellum are alone qualified to sit in judgment upon it.

CASE II. G. H., aged 52, was admitted into the West Riding Asylum in March 1876. He was exceedingly demented, and weak upon his limbs, but not specially paralysed in any particular limb or set of muscles. It was stated by his relatives, that for a long time he had had habitual bouts of drinking, but never had delirium tremens. His insanity was dated from nine weeks before his admission. He had a fit for the first time about four months before he was brought to the asylum. It occurred during the day, and he had been drinking. In a second fit, which was seen by his relatives, he appears to have lost consciousness, but not to have had clonic convulsions, as far as was seen by them. He was stiff, and when raised his limbs remained extended, and, as his friends said, "he was all in a piece". He had lost his memory, was incapable of fixing his attention, and had become very dirty and degraded in his habits. Once, when left alone with a child, he passed urine in its face.

The examination, on admission, led to results corresponding to the condition described by his relatives. He could understand questions, but was very slow in his answers, and invariably incorrect. He could not calculate time, and was very slow in all forms of ideation. Thus, he took about five minutes to count from ten backwards, and made frequent mistakes. He thought that the present year was 1857, and that the month was the first of the year, but could not tell what the first month of the year was. His expression was very stupid, and his features immobile. He had hallucinations of smell, causing a constant odour of stale fish. He was very weak, but had no absolute disease of any physical organ. He had an arcus senilis and incompressible radial arteries, and his walk was very feeble, but without special paralysis. He had incontinence of urine, without retention.

There was no change in his condition till May 4th. On that morning, between eight and nine, the attention of the medical officer was drawn to the patient, and he was told that G. H. had had a couple of "fits". He was then very stupid, and showed want of power and diminution of reflex action on the right side. Both leg and arm were affected. He was unconscious. No clonic convulsions had been seen; but, when he was shown to the medical officer, his limbs were rigid. It was thought that irritation had been set up around a patch of softening, and rest in bed was ordered, along with other ordinary measures. An hour afterwards, the patient was sick, and, as part of the vomit had lodged over his larynx, he was almost choked. The mouth was at once cleared, the probang used, and, as he had given a long, heavy, and apparently final sob, artificial respiration was established. In twenty minutes he was breathing stertorously and slowly, but with regularity. He was unconscious. For about ten minutes he showed no untoward symptoms; but at the end of that interval he was again sick, and had his breathing impeded. Artificial respiration again brought him round; but sickness repeatedly occurred, and vitiated the good results. The prolongation of the artificial action of the respiration and accessory muscles, and the pressure on the pit of the stomach, were considered to be to some slight extent responsible for the vomiting; and as it was also considered necessary, in his weak state, to save muscular action as much as possible, the secondary current of Stohrer's double-celled battery was used instead. One sponge was applied to the root of the neck on the sound side, and another placed over the insertion of the diaphragm. An extravasation in the posterior region of the brain was supposed to have occurred at the time of the first sickness, and to have been repeated at intervals. The eyes were examined, but there was no change in the pupils, or in their axial disposition; and though, as a rule, the corneæ were dull and dry, yet several times, when respiration was well established, they became clear and bright to an extent which attracted the attention of the attendants. Consciousness was never regained. When the battery was used, good respirations, at the rate of 10 per minute, were at first obtained; but they gradually became slower and weaker till he died, at 11 A.M., artificial respiration having been kept up for an hour and a half.

Post mortem Examination, twenty-nine hours after death. The body was well nourished. Both wrists were slightly discoloured, as if by the continued pressure of a person's hands during life. Hypostatic congestion and *post mortem* rigidity were both markedly present. On

removing the calvarium, it was found that, over the upper two inches of the coronal suture, and corresponding with the posterior ends of the first two tiers of frontal convolutions on each side, there was a rough osseous deposit adherent to the frontal and parietal bones, and formed by the transformation of the dura mater. There were adhesions also of the other membranes to this deposit, and removal of the skull-cap exposed the grey matter of the parts specified. The arachnoid and pia mater were free, but slightly cloudy over both hemispheres; and there was slight wasting of the convolutions, especially in the frontal lobes. On separating the hemispheres, it was found that there was an old clot cavity in the left corpus striatum, filled with dirty fluid, and surrounded by discoloured neurine. It was about three-quarters of an inch long and half an inch across. On the right side, and in the same position, there was a similar cavity, about three-eighths of an inch in diameter. The fourth ventricle was completely filled with dark firm clot, and there was extravasation into the whole of the pons posteriorly—in fact, only about one-quarter inch of the front part of the pons Varolii was unaffected. Clots were found also in the posterior part of the *iter a tertio ad quartum ventriculum*. On the right side of the cerebellum the region of the flocculus *uvulæ* and tonsil was completely broken down with extravasated blood, which was traced also for about an inch into the right lobe of the cerebellum. The right *crus cerebri* was also completely broken down with recent clot; and, except in the posterior part of the pons Varolii, the extravasation was almost completely confined to the right side of the brain. There was no destruction of the *corpora quadrigemina*. In the whole extent of the grey matter, and in the *corpora striata*, there were numerous traces of old extravasation; some being pin point in size, and others as large as a pea. The white matter was pale and its vessels were coarse. The whole brain-substance was soft. Microscopically, it was determined that the vessels of the brain were exceedingly diseased, and presented numerous granules, apparently due to degeneration of the nuclei.

Observations.—The wealth of disease in G. H.'s brain exempts it from scientific service in almost all particulars except one. However much the slow disorganisation may have had to do with the development of his symptoms, before his arrival at the asylum, there is no doubt that the extravasation into the posterior parts of the brain produced the symptoms immediately preceding his death. The recurrent attacks of sickness—acid secretion being vomited when everything else had been ejected; the breathing almost entirely arrested by the first great outburst of bleeding, and afterwards at times slow and stertorous, and at other times feeble, with occasional long sighing inspirations; the comparative slowness of the pulse, and the apparent glosso-pharyngeal paralysis, point to destructive lesions, such as were found bearing the evidence of recent production. In a similar case, published in the BRITISH MEDICAL JOURNAL last year, I stated that it had been noticed, in this asylum, that diarrhoea was a frequent accompaniment of extravasations into the cerebellum. In this case it did not exist. Considering what must have been the extent of the extravasation when the medical officer was called in to relieve the patient from impending death by dyspnoea, and how frequently the bleeding must have recurred, it is wonderful how long the respiratory movements were successfully obtained, and how regular they were under the electric stimulus. No doubt the muscles of respiration acted for a considerable time after the centres stimulating and regulating them were almost completely destroyed, by virtue of their amenability to the action of stimuli in producing their accustomed automatic movements. In this case, it was observed that it was necessary that the current should be comparatively weak; otherwise the natural clonic action, so to speak, which was aimed at in imitation of nature, was substituted by a tonic fixity of the respiratory muscles, sufficient, if persisted in, to frustrate the ends which, after all, as the necropsy showed, were, in this instance, utterly unattainable.

TREATMENT OF TYPHOID FEVER BY ERGOT OF RYE.—At the recent meeting of the French Association for the Advancement of Science at Clermont Ferrand, Dr. Duboué of Pau read an account of his treatment of typhoid fever by ergot of rye. He tried this plan of treatment in fifteen cases of typhoid fever, eight of which were men and seven women. The doses employed varied from 1.5 grammes to 3 grammes (22½ to 45 grains) *per diem*, and it was extremely well tolerated by both classes of cases, though less markedly in the women than in the men. Of these fifteen cases, seven were of moderate severity and were cured; eight were very severe, and of these two were fatal. Of the six cases of recovery, three were taken into the hospital at nearly the last stage of the disease. The two fatal cases, of which a necropsy confirmed the diagnosis, did not at any stage show the physiological phenomena which were so marked in the other cases, such as lowering of the pulse and diminution of temperature.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 30TH, 1876.

OBSERVATIONS ON POOR-LAW MEDICAL RELIEF IN THE NORTH OF SCOTLAND.

IN a former discussion on this subject, we spoke of the abuses of the system of Poor-law medical relief in the northern districts of the island. We drew attention to the immense distances, the harassing work, but, above all, to the insufficient means placed at the disposal of the medical man, for him to supply the Board's paupers with the necessary drugs. All these must be reckoned as factors in producing the state described, and, if they be once fairly and honestly considered, we are confident that the good sense of our countrymen will pronounce the existence of such a state of matters as a national disgrace, which loudly calls for remedy. Things cannot continue as they are. That medical men have been wronged in the past, is no reason why the wrong should continue for ever; and that these things are so in the North anyone can satisfy himself by inquiry. If he be a medical man, we should advise him to try for himself, and we vouch for it that a very short experience will convince him of the utter hopelessness of doing his duty under the present conditions. Some of these conditions, and their effect on the medical man, we have already pointed out. But they have also an effect on the pauper which cannot fail to have a sinister influence on him. When he sees a gentleman wrought hard for his sake, he comes to have a high idea of his own importance in the parish. He knows well there are rules under which he is attended; but what are rules to him if they operate to his disadvantage? He will not be attended at any time he fancies, night or day, as he wishes. Is not the doctor—the Parochial Board, for that matter—there for his benefit? And he wishes to be seen at once; or, if the doctor will be good enough to give an "order", that will do for the present; the doctor can then see him to-morrow. Now, it requires a good deal of firmness in the medical man, conjoined to a strong sense of moral rectitude, to do his duty in such a case. Nay, it needs some little thinking to decide what that duty is. Clearly, he should neither visit the man at unreasonable hours, nor give the "order" without first visiting the pauper and judging for himself. But it is equally plain that the easiest method is to grant the order for relief (not medical), and thus get rid of the importunity and avoid unpleasantness with the Board; for probably the patient has some friend—a relative it may be—who will take up his hard case if he be not attended, but to whom it would never be mentioned were the coveted order—the person's real object—granted.

As an illustration, we may relate a case that happened to a parochial medical officer. Intending to go to a distant part of the parish, he was up betimes making the necessary preparations, when, long before surgery hours, a request was sent in by a young woman to see him instantly on a case of urgency. Being admitted, she explained that her father was extremely ill, confined to bed, and, to prevent him from dying, it was necessary that he should have in the meantime an order for spirits. She did not wish the old man to be seen just then; the afternoon, or even next day, would do for the visit; but the order for the stimulant was wanted instantly. She did not get the latter, but was dismissed with the promise that her father would be attended in the course of the day. The man was known to be an impostor. He had been seen only

a few days before, when no symptoms of the serious illness (so-called) could be discovered. A strong relish for "mountain dew" did, however, manifest itself, and he was left. In the present instance, the medical man set out instantly for his abode, and had the pleasure of seeing the messenger rush out of a shop as he passed the village street, leaving her purchases on the counter, in hot pursuit. The speed of a horse was, however, too much for one on foot, notwithstanding the advantage of a shorter route through the hills, and he arrived so unexpectedly, that the man was found superintending the building of a small boat in an outhouse. Of course, he did not get his whiskey, nor did he ever again attempt the favour of drinking his favourite liquor at the rate-payers' expense.

But the pauper may have a friend at the Board, and this brings us to the question, "Who are the members composing these Boards?" The qualification is a property one, and the office is elective. Yet so low is the qualification, that many of the poor on the roll have cousins or other relatives seated there as representatives of the ratepayers, who naturally look with a jealous eye to the rights of the poorer scions of the family who grace the roll. The really independent and capable members are in a hopeless minority, and their votes are little more than a protest against the prevailing opinion; which protest they occasionally think of sufficient importance to ask to have recorded, though more frequently they absent themselves from pure disgust from the meetings, where their opinions are sure to be overborne. These are chiefly the *ex officio* members, and they in the North, generally speaking, are the only members who can afford to be independent, or to give an impartial vote. Thus the majority is left to itself, and often, in pauper causes, men sit as judges not only on cases in which they are strongly interested, but on which they have already formed a fixed and one-sided opinion. They are not open to conviction. Moreover, it cannot well be otherwise. Men whose minds never entertained an abstract thought in their lives, whose ideas, bounded by the glen in which they live, are as narrow as their lochs, are scarcely to be expected to find themselves suddenly endued with thinking power or liberal ideas. They are too intent on pleasing the laird or the laird's factor to give an impartial consideration to anything displeasing to these local magnates. To vote against the laird (*anglicè* landlord) is a freedom that might be bought too dear, while the factor or agent might resent the liberty even more bitterly. Besides, a following of kith and kin claim his patronage for a share of the parochial purse, and he must not compromise their interests by expressing an opinion or giving a vote contrary to the wish of the great men aforesaid, whose nod means much to him.

These, then, are some of the considerations that prevent the Boards from giving a fair and unbiassed hearing to the questions in dispute before them, and these absolutely disqualify them from sitting as Courts of Appeal, and render it necessary that some higher Court should at least hold them in check, and that without the necessity of an expensive appeal to process of law. For here, too, the advantage lies with the Boards, inasmuch as they are spending other people's money, and are too apt to follow the amiable example of our old friend Lord Dundreary in giving a ship for a bottle of hair-wash, because the funds they spend, like his ship, are not their own. They may be good enough men in their respective walks of life, and doubtless are straightforward and honest in their private transactions; but in that capacity there is none of the official importance which so frequently demonstrates that a little power in hands unaccustomed thereto is a dangerous thing, and any risk incurred is really and truly at their own peculiar hazard. This, we say, alters the whole complexion of affairs, and hence the greater circumspection in private matters.

Nor is their want of reasoning powers any greater disgrace to them than if they, being farmers or fishermen, did not know how to build a house or make a pair of shoes, never having learned these respective trades; but it clearly incapacitates them from sitting on questions of intricate jurisprudence; in cases, moreover, to which the Board is simply a contracting party. How is it to be expected that thinking power should

suddenly appear? It must be acquired or developed by a laborious process, at least among the many. It is a something that has to be learned, and where have they had the opportunity of learning it? Their interests, their habits, their traditions, alike unfit them to act as judges at all. The Boards might be rather regarded as a Court of Registration, under cover of which the fiat of the local magnate goes out to the parish.

Again, the object contemplated appears to be not to get the work imposed by the Legislature done in the best manner possible, but to get it done somehow, as cheaply as possible, no matter who pays so that they do not; for in reality the work must be paid for in some shape, and by some one. But, if the parish do not pay, the man who has to make up the deficit is the doctor, since, in addition to his proper share of the rates, he has to supply much out of his own pocket for the parish's paupers, and does work which assuredly is not paid for out of the rates. It is one thing to be charitable; it is quite another thing to be compelled—alone of the entire parish—to be so. The salaries, perhaps fair at the time they were originally agreed on, became miserably unfair—the number of paupers remaining the same—as the cost of living advanced. The price of all labour has risen, intellectual amongst the rest. Why should this remain stationary? It is paying too much for the exercise of human feeling. It is being charitable at a cost ruinous to the giver.

THE PROCESS OF INFLAMMATION.

How little we know of morbid processes in general, is strikingly illustrated by the apparent impossibility which pathologists find in coming to something like unanimity regarding the nature of the changes which constitute inflammation. If we review the medical literature of the last thirty years, we find a succession of doctrines taught regarding this cardinal question, which, so far from supplementing each other, find their *raison d'être* respectively in the assumption that previous observations were unreliable. Nor is the question more settled now than it ever was. It would be possible to find, even at the present time, pathologists whose opinions represent any one of the views which have been held regarding the source of one of the most constant products of the process, the pus-corpuscle. The latest researches of Cohnheim bring us back to the opinions of William Addison and Waller, the long interval between the German and the English observers having seen the origin and almost universal acceptance of the well-known theory of Virchow.

A series of papers by Dr. George Thin, which are concluded in the *Edinburgh Medical Journal* for April, form one of the latest contributions to the subject. That observer has followed in the footsteps of most of the latest German writers in selecting the inflamed cornea as an object of study, and he endeavours to apply the results which he has obtained, not only in explaining the phenomena of inflammation, but in accounting for much that seems contradictory in the writings of contemporary authorities.

Dr. Thin takes up a new and original position at the outset. He states that the observations of Cohnheim, Stricker, and others, have been erroneously interpreted, because the structure of the normal tissue is not understood; the histology of the cornea being a subject on which the most eminent anatomists still hold opposite opinions. Dr. Thin's own views on this matter form a key to his explanation of the appearances produced by inflammation. The laminae of the cornea he believes to be composed of parallel bands or bundles. These bundles are covered by flattened cells as by an epithelial sheath. The laminae themselves are invested by a thin membrane covered by layers of larger flattened cells, analogous to those designated by many histologists as endothelial or epithelioid. Between the bundles are to be found parallel chains of minute spindle-cells, with their processes; and between the laminae are cells with large nuclei, and numerous delicate thread-like processes, which the author, to distinguish them from the others, terms stellate cells. The corneal laminae

are not applied to each other with equal closeness throughout, but recede from each other in such a way as to form a network of spaces capable of enlargement by distension, the separation of the laminae being greatest at the points where the stellate-cell is found, its position being indicated by a large nucleus which is easily demonstrated in the cornea. The spaces between the bundles (the corneal tubes of Bowman) and the network of interlamellar spaces (*Saft-Kanälchen* of Recklinghausen) contain a certain quantity of lymph-fluid derived from the blood-vessels in the adjoining tissue. The processes of the stellate cells pass through the laminae and amongst the bundles, and bind them into a coherent texture.

When the cornea is inflamed, there is serous distension of the spaces between the bundles and lamellae, and reagents finding their way into these channels more easily than in health, the very difficult demonstration of the cells which cover them is facilitated. The nuclei of the spindle-cells so change that they become susceptible of staining, and are visible in their characteristic parallel chains. The nuclei of all the cells divide into several pieces, and the processes of the stellate cells stain dark with chloride of gold solution, being seen as a delicate varicose anastomosing network. In health these processes are not stained by gold, Dr. Thin regarding the appearance described and figured as the cornea corpuscles by Rollet and those who followed him as being produced by a deposit of metallic gold in the interlamellar network. (Dr. Thin adopts without reserve Schweigger-Seidel's rejection of the "cornea-corpuscle" of Rollet and others of the Vienna school.)

When the inflammatory change has been propagated by continuity to the conjunctival blood-vessels the vascular wall is weakened, and there is an escape of blood-plasma and colourless corpuscles into the adjoining tissue. These corpuscles pass along the lymphatic spaces in which the nerves lie and between the lamellae, and alone constitute the pus-corpuscles found in the tissue when it is inflamed.

But there is another series of changes which can be traced in the cornea. The breach in the wall of a vessel may be widened until the whole blood-current finds its way into the interlamellar or interfascicular spaces. Organisation of coagulated material on the surface of the current forms the first step in the formation of a new vessel, and a lining epithelial membrane is formed by a development of colourless corpuscles which adhere to its surfaces. He further believes that all new cellular growth which result from inflammation is produced by development of the colourless corpuscles, the "ground-substance", so-called, being formed from the plasma.

Dr. Thin admits, with Virchow and Stricker, that the cell-nucleus divides when a tissue is inflamed, but differs from those pathologists in believing that the division is only one stage in the death of the cell. The cells figured by Stricker as being produced by proliferation in the cornea, he states, can be recognised as cells which exist in the normal tissue, but which have been brought to light in the inflamed tissue by the nitrate of silver solution (the reagent used by Stricker) passing between the lamellae. The alleged conversion of stellate into spindle-cells he explains in a like manner by the latter form of cell having hitherto escaped notice, except when the tissue was inflamed.

He agrees with Cohnheim in believing that the pus-corpuscles seen in the inflamed cornea are invariably colourless blood-corpuscles, and that they are never produced as a product of a stimulus applied to a cell in the tissue, but differs from him in believing that the cell-nucleus undergoes in inflammation a process which may be rightly described as division. But as he connects no vital process with this division, believing neither in proliferation nor in endogenous cell-development as factors in the origin of pus, the difference is not an essential one.

The spindle- and dagger-shaped bodies which have been attributed by one set of observers to proliferation, and by another to a peculiar arrangement of colourless blood-corpuscles, Dr. Thin believes to be simply the spindle-cells he has described made visible *in situ* as a result of inflammation.

To sum up the result of an important part of these observations in few words, Dr. Thin rejects the theory by which a cell in inflamed

tissue is supposed to "react" or undergo changes which are supposed to be peculiar to "young cells", and especially emphasises as unwarranted the conclusions that have been drawn from the division of the nucleus in support of such views. The swelling of the cell and the division of the nucleus he believes to be invariably the forerunners of cell-death and never of cell-growth; and a pus-cell is invariably a colourless blood-corpuscle which has lost its vitality.

M. AUGUSTE EHLMANN of Strassburg has left a million of francs to the hospital of that city, to found a convalescent home.

THE next meeting of the German Association of Naturalists and Physicians is to be held in 1877 at Munich.

THE *Sanitary Record* states that the artificial compound of animal fat, which was manufactured and sold in Glasgow as butter, is now being offered for sale under the names of "butterine" and "margarine".

IT is reported that the plague has broken out in the army of Abdul Kerim Pacha, in consequence of which the Turkish commander has been compelled to change his positions before Alexinatz every three days, and to burn the tents and huts occupied by his troops.

THE first meeting of the American Gynaecological Society was, we learn from an American contemporary, to be held in New York, on September 13th, 14th, and 15th. Twenty papers were promised; and among the contributors were Dr. Matthews Duncan, and Dr. Robert Barnes.

THE prevalence of cholera in Jumnoo and Cashmere is likely to alter entirely the plan of the Viceroy's tour. The disease is abating somewhat at Sealkote and Jamnoo; but four hundred and fifty cases were reported in Sreenuggur during the week ending September 6th. The resident advised visitors to leave the valley.

YELLOW FEVER, in an epidemic form, has broken out at the seaport of Brunswick, in Georgia. Six hundred persons are reported to have been attacked.—There were thirty-six yellow fever interments in one day at Savannah, on Thursday week last, being nine more than on any previous day. Great consternation prevails there, as the fever increases in violence.

THE proceedings of the International Medical Congress of Philadelphia seem to have been interesting and successful. The English medical men present appear to have been received with very great hospitality and courtesy; high official positions being assigned to all who came accredited as "delegates" from any English society. The total number of medical men present appears, however, only to have amounted to 434; a remarkably small number even for a great national congress, seeing that, at the Edinburgh meeting of the British Medical Association, 1,200 members were present, and at the London meeting nearly 2,000.

WE are obliged to defer to our next number the publication of our Philadelphia correspondent's letter respecting the proceedings of the Philadelphia Congress, owing to its late arrival.

THE Hospital Council (*Consiglio degli Istituti Ospitalieri*) of Milan has resolved to entrust the midwifery service of the city to two obstetric specialists, who are to attend cases to which they may be called by the midwives or the district medical officers.

TYPHOID FEVER IN PARIS.

OUR Paris correspondent writes:—The epidemic of typhoid fever which has committed such havoc in Paris within the last two months is on the decline, for the mortality from this cause, although still enormously high, has been for the week ending September 21st only sixty-one, instead of seventy-eight and eighty-two for the three

weeks previously. Nothing is known as to the origin of the present epidemic; it has not been confined to any particular locality, and has, as usual, principally attacked the new arrivals from the provinces or from abroad. There is, however, one peculiar feature of the epidemic that has been brought to my notice, and that is the absence, in the majority of cases, of the rose-coloured papules characteristic of the affection. The French physicians are very sceptical as to the water-theory of the etiology of typhoid fever, though they are somewhat inclined to accept that advanced by Dr. William Budd, that the disease is derived from the excreta of a patient affected with the fever. It is considered to be of an infectious character, becoming contagious only under special circumstances. The treatment is for the most part expectant, and nothing new, save the German treatment by cold bath, has been introduced for the cure of this affection.

SMALL-POX IN THE GREAT NORTHERN HOSPITAL.

ON the 24th instant, two cases of small-pox were discovered in the Great Northern Hospital. Both cases were male—an adult and a boy—occupying beds in different wards. Both had been admitted on the 21st instant. The character of the disease being recognised, they were within three hours despatched to Homerton. The other occupants of the wards were revaccinated at once, bathed, provided with fresh clothes, and sent to their homes during the afternoon; the cases occupying the other wards being sent away later. The building is now empty, and in process of disinfection. Before being reopened, it will be whitewashed afresh throughout. It is to be hoped that these prompt measures will serve to protect this useful hospital, which stands in the centre of the district in which small-pox is now prevalent.

"SPIRITUALISM."

THE performances of Mr. Slade at his guinea stances of "spiritualism", which have been the subject of public correspondence, will be investigated early next week in a London police-court. Mr. Slade has, we hear, been summoned for fraudulent pretences, at the instance of Professor Ray Lankester. The summons is returnable on Tuesday next, and Mr. George Lewis has been summoned from abroad to conduct the prosecution.

THE SALE OF POISONS.

REFERRING to the omission of due precautions by chemists in the registration and sale of poisons, Mr. G. E. Corrie Jackson, Medical Officer to St. James's, Westminster, writes to us:—I was called upon lately to visit a man whom, on my arrival, I found to be dead. On searching a cupboard in the room, I found a bottle containing nearly half a gallon of laudanum, simply labelled "Tr. Opii P. B." There was no "poison" label upon it, or anything to denote whence so large a quantity had been obtained. Death was caused by opium-poisoning, and the probable dose had been about half a pint. About a month previously, the same man nearly poisoned himself by an overdose of hydrate of chloral. On that occasion, I found nearly four ounces of that substance in his apartment.

THE SHEFFIELD TOWN COUNCIL AND THEIR MEDICAL OFFICER OF HEALTH.

MANY of our readers have probably seen the paper by Dr. Griffiths which was brought before the last meeting of the British Medical Association, an abstract of which has been printed in the JOURNAL. The Sheffield Town Council took exception to many passages in the paper, some of which were, perhaps, somewhat unguarded; and, after several of the members had used most violent language, passed a resolution to the effect that they "felt it to be right to express their high dissatisfaction upon having heard the remarks addressed by its medical officer of health before a meeting of the British Medical Association". No notice was given to Dr. Griffiths to be present at the meeting, nor was any opportunity given him of replying or of explaining the passages objected to. To show the spirit in which the opposition was

conducted, we will quote a passage from the speech of one member, as reported in a local paper: "He did not say that Dr. Griffiths was a fool; but he had been very unwise, indiscreet, and censorious, and he was more fitted for confinement in a lunatic asylum than to be at large". After the resolution was passed, a letter was sent to the Local Government Board, to which a reply has been received to the effect that the Board "disapprove of Dr. Griffiths' indiscreet remarks", and "trust that they will not be repeated"; but it does not contain any reference to the language which we have just quoted. It has been well known for many years that the Local Government Board have opposed the medical branch of the department, and have appointed legal inspectors to medical appointments; but we were scarcely prepared for the letter which has now been sent. When we bring to mind the aphorism of the Earl of Beaconsfield regarding the importance of sanitary work, we certainly were not prepared to see the sanitary department of his Government take a step which must do very much to retard sanitary progress. If the right of free discussion and criticism on sanitary matters is to be taken away from medical officers of health, the administration of the Public Health Act must be crippled, and the advancement of public opinion retarded. The medical profession has lately made itself heard and its power felt as regards the Vivisection Bill; and, if similar repressive measures to those we have just mentioned are to be brought to bear on those members who have devoted themselves to the ill-paid and onerous duties of medical officers of health, it is nearly time to make its opinion heard again.

SAXON PUMPS AND HOLY WELLS.

AT a meeting last week of the Guardians of the Drogheda Union, in reference to a sanitary recommendation of the medical officers and the engineer, which would necessitate an expenditure of £30, one of the guardians (Mr. McKenna) spoke in very strong language against a general disposition at the Board of sinking, what he termed, "Saxon pumps in all their holy wells". He proceeded to say, that their venerated wells, blessed by the saints, were places of resort for the people to say their prayers at, but they were fast disappearing; for, whenever a complaint was made in a district about want of water, down went a Saxon pump, and the holy well could not be utilised for the purposes of prayer. The Chairman sympathised with the speaker, and considered that the pumps were of no use to the poor, and only an expense to the public rates. It would be difficult to find more characteristic evidence of the enlightenment of local sanitary authorities in small rural districts. The Chairman's impatience at "complaint about want of water" fitted him well to sympathise with the horror of Saxon pumps and the preference for polluted surface wells. But it is rather hard that the administration of the Public Health Acts should be lodged in such hands.

ASSAULT ON A "DOCTOR".

A RESPECTABLE-LOOKING young man, giving the name of Joseph Cunningham, was charged last week at Bow Street with assaulting one Thomas Edward Hall, assistant to Dr. Godfrey of Judd Street.—The prosecutor said he was a surgeon, and assistant to Dr. Godfrey. He knew the defendant through his coming to see the "doctor". He himself had nothing to do with him. On Friday, as he and a friend were leaving Judd Street, they were set upon by the defendant and two others. They were knocked down and most violently assaulted. Defendant was pulled away from witness by the crowd.—Cross-examined by Mr. Abrams: "Dr." Godfrey's name was not in the English list, but it was in the American. Witness himself was not a qualified surgeon. He knew nothing about the defendant having been swindled out of £3:15 for pretended medicines by Godfrey. Defendant came very often to the shop to see Godfrey, but the latter had been "out of the way" lately, and could not see him. His behaviour on those occasions was that of a wild Irishman.—Mr. Abrams put in a pamphlet, which he said had been handed about the streets, although it was

of a most indecent nature. A copy of it had got into the hands of the defendant, who, unfortunately for himself, was induced to go and place himself under the "treatment" of this quack. Instead of getting himself better, he found himself worse; and he found they had been giving him antimony. (Some of this was produced in court.) He grew enraged, and asked that some of the money (£3:15) that he had paid should be returned to him.—Mr. Flowers said he might almost as well ask a lawyer to return his fee.—Mr. Abrams said that no doubt the lawyer dipped deep into the pocket, but still he did not ruin the system and shatter his client's health. He had told his client that, although he had been shamefully treated, still that did not justify the assault. It could merely be urged in extenuation.—Mr. Flowers said it was a scandalous thing that men like Godfrey, with no degree at all in this country, should be allowed to practise at all. These men ruined, for aught that was known, the constitutions of many young men. Still, that did not justify the assault; and, therefore, defendant must pay a fine of 40s., or, in default, be imprisoned.

THE PECULIAR PEOPLE.

JOHN ROBERT DOWNES, a labourer of Woolwich, was tried last week, at the Central Criminal Court, for the manslaughter of his child Anne Downes. The prisoner belongs to the sect known as "Peculiar People". The child was ill of scarlet fever; and, in accordance with the tenets of the sect, the elders prayed over the child and anointed it with oil; but, from conscientious motives, no medical treatment was resorted to, and the child died. The prisoner had already been tried on a like charge, when he was warned, and the law was explained to him. An elder, who was called as a witness, had also, it appeared, been tried for manslaughter under similar circumstances. The prisoner was found guilty, and was sentenced to three months' imprisonment, without hard labour.

BABY-FARMING.

UNDER the Infant Life Protection Act of 1872, no person is to receive for hire more than one child under a year old, for the purpose of nursing it apart from its parents, except in a house registered by the local authority, the applicant being a person of good character; the registration to remain in force for a year only. The Metropolitan Board of Works, the local authority for the metropolis, report that, during the year 1875, in their whole district, the total number of houses registered was only five, and they were only authorised to receive eleven infants. The superintending architect observes in his report that, until this Act be amended, it seems impracticable to obtain any satisfactory observance of its provisions regarding registration of nurses. It may be observed that the defects of this Act are mainly its limitation to cases where two or more children are taken to nurse. The defects of the Act are chiefly due to the efforts of Mr. Illingworth and Mr. Jacob Bright, who strongly opposed the more rigid forms of legislation which were suggested to the Select Committee, whose report led to the framing of the Act. Nevertheless, the Act is so far operative that it is believed that the practice of "baby-farming" on a large scale is practically extinct in the metropolis and in great towns.

AMBULANCE WORK IN SERVIA.

THE *Daily News* correspondent with the Servian army appears to watch with interest the proceedings of the Ambulance Societies. He complains much of the tardiness of the National Aid Society, which he charges with having superseded other agencies without taking up their work with energy. He speaks with great praise of the work done by Mr. McKellar and his surgical colleagues on behalf of the Special Aid Committee of the Knights of St. John, and of the work of the Russian ambulance. In one of his most recent letters, he writes:

"The Russian ambulance are in the inn at the cross roads; they have not had in all a hundred wounded; and now they are sleeping all about, waiting for the chance of further fighting, and, therefore, more work. I go into one of the bedchambers in hope of obtaining a little quiet to write a telegram. On one bed is a Russian surgeon; on

another lies the young lady in the top boots ; another doctor is on the table, and two are on the floor ; the gentleman on the table rolls off and joins his comrades on the floor, mademoiselle curls herself up again, the surgeon-major recommences the snoring which I had interrupted, and I get on nicely with my telegram, thanks to their civility. The Russian ambulance always are civil, and always also well to the front. I have seen them over and over again under shell-fire from which the Servian troops recoiled.

"At Rashan, we find another ambulance, the English ; the original six surgeons recruited by six more. They are resting now after that splendid seven days' work of theirs up at Alexinat, than which no better work ever was done by surgeons on a battlefield. They have established a rough kind of mess in the corner of one of the inns, and occupy two empty rooms in one of the houses of the village ; some sleep on straw, others sling Ashantee hammocks among the trees in the orchard and sleep in the beautiful moonlight. They are employing their leisure now in doctoring the children of Rashan, where the medical art appears to be at a very low ebb, and, in consequence, they have obtained the summit of village popularity. But I must say they are a bloodthirsty set of young fellows—of course, in a professional way. They are out for their holiday, and wish to gain as much professional practice as possible. So they sigh for more battles, and hard ones, long for difficult operations—the new comers have not yet blooded their instruments—and hanker after 'interesting cases'."

FRENCH PHARMACEUTICAL STATISTICS.

ACCORDING to recent statistics, quoted in the last issue of the *Bulletin Commercial*, there are at the present time in France 2,121 *pharmaciens* of the first class and 4,089 of the second class, being a total of 6,210 *pharmaciens*. Ten years since, in 1866, there were 2,457 of the first class and 3,346 of the second, or altogether 5,803 *pharmaciens*. Next to the department of the Seine, in which alone there are 820 *pharmaciens* (495 first class and 325 second), the departments having the highest number of pharmacists are the Bouches-du-Rhone, Gironde, Nord, Seine-Inférieure, Seine-et-Oise, Var, and Haute-Garonne. Between the 1st of January, 1803, and the 1st of January, 1876, the superior schools, the medical juries, and the preparatory schools of pharmacy, have conferred no fewer than 16,650 degrees of *pharmaciens*, of which 6,462 have been of the first class, and 10,180 of the second. On the average, there is now in France one *pharmacien* to 10,000 inhabitants and a territorial area of 2,000 hectares.

POISONED WELL-WATER.

A CORRESPONDENCE of some importance to holiday-makers is published in the *Morning Advertiser*. "A Sorrowing Parent" sends a letter, written by a son of his, who died from the results of drinking water contaminated with sewage while at lodgings which he had taken up the Thames for the purpose of boating exercise. He discovered that the water used for domestic purposes in the house where he lodged (at Thames Ditton) had been taken from a well which had been closed two years before and lately reopened. His physician advised his removal to Herne Bay ; but here it was his ill-fortune to go to one of those lodging-houses which, instead of using the water supplied by the waterworks, take their supply from wells, and he never recovered. His London physician, who had attended him throughout his illness, stated in his medical certificate the cause of death as follows : "Primary (1) blood-poisoning, with typhoid symptoms, produced by drinking contaminated well-water at Thames Ditton ; (2) typhoid (relapse)."

INDISCRIMINATE MEDICAL CHARITY AND PAUPERISM.

A CORRESPONDENT of the *New Orleans Medical and Surgical Journal* for September makes some remarks on the abuse of medical charity, from which, though they have little novelty, we reproduce some extracts as containing much that is true.

"It is no late discovery that good people are apt to make mistakes in the methods chosen for carrying out their benevolent wishes, for it is hard, in any plan of charity, to discriminate between the deserving and impostors. This well-recognised general principle has failed of due recognition, as regards medical relief, in all communities, and probably no plan could be devised which would obviate imposition on the one

hand, and undue hardship on the other. But it is certain that the fear of the latter, or some other consideration of less importance, leads to grave abuses, of which the medical profession are the chief sufferers, and very few are actual gainers.

"Indiscriminate relief is open encouragement to pauperism, and the best system cannot guard against imposition.....When people ask gratuitously what they are able to pay for, they voluntarily enter the list of paupers, and signify that the world owes them a living, whether they work for it or not. It is probable that general pauperism most commonly begins with the acceptance of gratuitous medical relief, from which the habit easily grows.

"But one of the worst features of medical pauperism is the fact that large numbers of people, who might obtain relief from hospitals or charitable associations, levy their exactions on private practitioners. If this were done in the name of charity, there might be some excuse ; but these people profess to be able and willing to pay, and, like Micawber, act as if their promises cancelled the debt. So, indeed, they would, if promises had any intrinsic or convertible value. A value they have, indeed—to the maker—for they purchase relief from a troublesome visitor. This is something positively worse than pauperism, though a natural outgrowth of it. In plain language, it is dishonesty ; and, with the same candour, I declare that physicians encourage it, by weakly tolerating the imposition. Some of these people are too genteel to acknowledge pauperism by seeking the public relief, to which they may or not be entitled, and, therefore, resort to private practitioners, changing doctors as often as their credit is exhausted.

"It is a correct general principle, that our enjoyments are valued according to their cost, and it is eminently true of advice. Gratuitous advice, when unsolicited, is positively offensive, and, when asked for, is taken or rejected, according to the judgment or caprice of the recipient. It is common practice, among a certain nationality, to go around from one practitioner to another, to obtain 'the opinion' of each one ; but the advice, of course, is never paid for. Can any reasonable person doubt that the advice of one physician, suitably paid for, would be worth vastly more to the patient than the several prescriptions fraudulently obtained ? For it is to be noted that respectable physicians refuse to supplement each other's advice in this way, whereby all are deceived as well as cheated.

"The résumé of the above conclusions in brief is this : that the facilities for obtaining medical relief have been stretched to an extent which brings serious loss and needless trouble to physicians, which induces first special and then general pauperism among large numbers, who would otherwise preserve their self-respect and independence ; which renders medical services dirt-cheap, and consequently contemptible and worthless. Here, then, is a paradox, whose truth may now be claimed : that the interests of the public and of the profession alike require the creation of obstacles, in the place of facilities, for obtaining medical relief."

PROPAGANDISM IN FRENCH HOSPITALS.

THE *Daily News* correspondent telegraphs :—It is reported that M. Nervaux, the Director of Public Charities in Paris, anticipating a vote of censure from the Municipal Council for abetting the intolerance and propagandist ardour of nuns in the Hospitals Beaujon and Cochin, has resigned his place. There is great probability that, if the Sisters of Charity do not confine themselves to their duties of nursing the sick, their services will be dispensed with in those hospitals which are supported by municipal funds. The exposure by Professor Desprez of their controversies with invalids enervated by disease has called forth many other statements corroborating his allegations. The patients in the Hospital Beaujon have been made the butt of their animosity, for causing their relations to supply them with the *Rappel* and the *Sicle*. A sick man a short time ago protested against the confiscation of his journal. A nun then said, "You want war, and you shall have it". She was as good as her word. Her victim preferred running the risk of dying at home to being cured in the hospital where she was.

NATIONAL PREDILECTIONS.

DURING the summer session of 1876, 780 ordinary and 194 extraordinary pupils attended the medical classes in the University of Vienna. An examination of the official table shows some remarkable facts as to the preference of the natives of the several provinces of Austria for various callings. Thus, in the Medical Faculty, of the 780 ordinary

students, no fewer than 309 are entered as coming from Hungary; the provinces next in order being, Galicia, with 74 students; Lower Austria, 71; Bohemia, 68; and Moravia, 53. On the other hand, in the Juridical Faculty, the order is: Moravia, 295; Lower Austria, 258; Bohemia, 232; Hungary, 163; Galicia, 96. In the Philosophical Faculty, Moravia again comes first, with 165; Lower Austria has 102; Bohemia, 97; Silesia and Hungary, each 52. The preponderance of Hungarians in the medical classes is thus very marked. Of the 194 extraordinary students in the Faculty of Medicine, 33 were Americans, 11 Swiss, 11 Russians, and 8 English. Here also, Hungary and Lower Austria give the greatest number among the Austrian provinces; the former supplying 17 and the latter 13 pupils.

RECENT URBAN MORTALITY.

DURING last week, 5,668 births and 3,146 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living: in Newcastle-upon-Tyne the rate was 15; Sunderland, 15; Hull, 16; Leicester, 17; Nottingham, 18; Plymouth, Leeds, London, Bradford, and Brighton, 19; Glasgow, 20; Norwich, Birmingham, Portsmouth, Edinburgh, and Bristol, 21; Manchester and Sheffield, 23; Liverpool, 24; Dublin, 25; Wolverhampton, 27; Salford, 29; and Oldham, 30. The annual death-rate from the seven principal zymotic diseases averaged 3.6 per 1,000 in the twenty English towns, and ranged from 0.7 and 1.1 in Plymouth and Hull, to 8.7 and 9.4 in Salford and Wolverhampton. In Portsmouth, 13 more fatal cases of scarlet fever were recorded, raising the number since the beginning of the year to 317. Small-pox caused 14 deaths in Manchester and Salford (including 5 in the Monsall Hospital), 8 in Liverpool, and 11 in London. In London, 2,423 births and 1,280 deaths were registered. Allowing for increase of population, the births exceeded by 108, whereas the deaths were 56 below, the average of the week. The annual death-rate from all causes, which, in the eight preceding weeks had steadily declined from 29.5 to 16.7 per 1,000, was last week equal to 19.1. The 1,280 deaths included 11 from small-pox, 7 from measles, 48 from scarlet fever, 6 from diphtheria, 16 from whooping-cough, 37 from different forms of fever, and 45 from diarrhoea; thus to the seven principal diseases of the zymotic class 170 deaths were referred, against numbers declining from 669 to 171 in the eight preceding weeks. These 170 deaths were 132 below the corrected average number, and were equal to an annual rate of 2.5 per 1,000; this zymotic rate ranged from 1.4 in the west, to 4.3 in the east groups of districts. The deaths referred to each of these seven zymotic diseases were below the corrected average. The 37 deaths referred to fever exceeded the number in any week since January 1875, and were but 3 below the corrected average; 8 were certified as typhus, 24 as enteric or typhoid, and 5 simply as fever. The deaths referred to diseases of the respiratory organs, which during the five preceding weeks had ranged between 130 and 148, rose last week to 221, and exceeded the corrected weekly average by 71. The Asylum District Fever and Small-Pox Hospitals at Homerton and Stockwell, contained 314 patients on the 23rd instant, of which 58 were under treatment for fever, 133 for scarlet fever, and 101 for small-pox. In greater London, 2,917 births and 1,521 deaths were registered, equal to annual rates of 35.5 and 18.5 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 15.8 and 2.0 per 1,000 respectively, against 19.1 and 2.5 in inner London. At Greenwich, the mean reading of the barometer last week was 29.89 inches. The mean temperature of the air was 57.5 degs., or 1.6 degs., above the average. Rain fell on three days of the week to the aggregate amount of 0.29 of an inch.

SCOTLAND.

THE authorities of Burntisland have determined to proceed with the Dour water scheme with all possible speed.

ON Sunday morning, the wife of a contractor in Greenock gave birth to four children, all daughters, one of whom was still-born. The mother and three surviving infants are reported as doing well.

TYPHOID fever is reported to be very prevalent in the parish of Blantyre, and a number of deaths have occurred. The outbreak is attributed to the defective water-supply and the unsanitary condition of the parish generally.

AT the Sheriff's Court, Glasgow, a farmer was last week fined in the heavy penalty of £10, or, failing payment within fourteen days, imprisonment for forty days, for selling cream adulterated with skimmed milk. The adulteration was stated, by the city analyst Dr. Clarke, to be to the extent of 73 per cent.

FIFE AND KINROSS ASYLUM.

AT a meeting of the Fife and Kinross Lunacy Board, the medical superintendent's annual report was read. It stated that there were in the asylum on July 31st, 267 patients, being an increase of one over 1875. During the past year, 73 patients were admitted, 61 discharged, and 11 had died. The superintendent was of opinion that whatever might be the experience of other counties or districts, it was evident that in Fife and Kinross, during the past seven years, insanity had not been on the increase. Alcohol had been more or less directly the cause of the insanity in 25 per cent. of the male cases. Of the 61 patients discharged, 36 had recovered. Eleven deaths had occurred, but the mortality among the females was the smallest since the asylum was opened. The report recommended the building of cottages for married attendants, as a permanent staff of officials would be a benefit to the asylum.

ANDERSONIAN UNIVERSITY.

AT a quarterly meeting of the Andersonian University of Glasgow held on the 22nd ult., the finances were reported in a satisfactory state. It appeared from the minutes, that a Bill, to be brought next session before Parliament, was being framed with the view of incorporating the institution, and we believe that it will provide for an alteration of the name, besides several important modifications in the constitution. The candidates for the vacant Chair of the Practice of Medicine, were Dr. M. Charteris and Dr. D. Campbell Black, and, on a vote being taken, thirty-six were in favour of the former, while the latter received five votes. On the directorate having been completed by the election of one trustee in the Tradesman's Class, and two in the Manufacturer's Class, the meeting adjourned.

DEATH OF DR. LAYCOCK.

WE deeply regret to announce the death of Dr. Laycock, Professor of the Practice of Medicine in the University of Edinburgh and Physician to the Queen in Scotland. Dr. Laycock had been in failing health for some months past, and was unable to conduct his psychology class during the past summer session. He became gradually weaker, and died on September 21st of pulmonary consumption. We publish in another column a biographical notice.

HYDROPHOBIA.

A CASE of hydrophobia occurred last week at Graham's Town, Falkirk. The patient was a man twenty-two years of age, who was three months ago bitten by a dog, but the wound was of so trifling a character that he suffered nothing from it at the time. Last week, the arm became swollen and painful, and very soon the usual symptoms of the malady appeared and ran their fatal course.

ALLEGED CONTRAVENTION OF THE VACCINATION ACT.

ON the 4th instant, in the Dumfries Sheriff's Court, Aeneas Macaulay, physician and surgeon, Longtown, Cumberland, lately residing at Langholm, was charged with contravention of the Vaccination Act by having, at various times since May 1872, fabricated and delivered to Mr. R. M. Rome, Registrar, certificates of having successfully performed vaccination, no such operations having been performed. There were eleven charges in the indictment. The accused pleaded guilty. The Procurator Fiscal, acting, he said, on instructions from Crown

counsel, asked Sheriff Hope, before moving for sentence, whether he would consent to impose a fine instead of a term of imprisonment. The Sheriff, however, would give no opinion—remarking that he had never heard of such an extraordinary procedure in his life: whereupon the Procurator Fiscal, still acting on his instructions, intimated that he would not move for sentence. The Sheriff, in discharging the accused, spoke of the mode of action pursued by the Crown authorities as a “mockery of a court of justice”.

NEW HOSPITAL AT GREENOCK.

THE foundation-stone of a new asylum and poorhouse at Greenock was laid on the 12th ult. by the Earl of Mar and Kellie, with full Masonic ceremonial. This building, when finished, will be one of the most extensive and certainly the most perfect of its kind in Scotland, and is estimated to cost over £100,000. The present poorhouse and asylum in the centre of the town has long been inadequate; and about two years ago it was decided to build a new poorhouse capable of meeting the growing wants of the town, and along with it an extensive asylum, which would serve the needs not only of Greenock and Port-Glasgow, but of the whole of the lower ward of Renfrewshire. The site fixed upon is about a mile from Greenock, and commands a charming and extensive view of the valley of the Clyde. The building will consist of four distinct sections; viz., poorhouse, asylum, hospital, and administrative department. The ground to be covered by the entire parochial premises is fully four acres. The asylum will be two storeys in height, with 290 feet of frontage, having a finely designed tower in the centre. The hospital will be divided into two parts, one for the treatment of common diseases, and the other for the accommodation of cases of contagious disease and as probationary wards. Accommodation will be provided at present for altogether seven hundred and fifty inmates, for the classification of whom ample provision will be made. The ceremony was attended by a very large assemblage of townspeople.

IRELAND.

FEVER IN LURGAN.

AN outbreak of fever to an alarming extent has taken place in the district of Ballynaganick. At present there are twenty-one cases under treatment in hospitals, the average for the past season being only about three.

PHARMACEUTICAL SOCIETY OF IRELAND.

THE following members of Council retire in October, but are eligible for re-election: Dr. George B. Owens (Lord Mayor), Dr. Aquilla Smith, Mr. V. Bourke, Dr. Frazer, Mr. W. Goulding, M.P., Mr. J. T. Holmes, Dr. Whitaker. The Examiners also retire, being elected for one year, but can be re-elected, and may act for five consecutive years.

OPENING OF STEPHEN'S GREEN AS A PUBLIC PARK.

A RESOLUTION was passed at a special meeting of the Corporation of Dublin, held upon last Monday, to the effect that, as the Commissioners of the square have refused to treat with the Corporation, that application be made to Parliament in the next session, for an Act to enable the Corporation to purchase by compulsion the interests of the Commissioners in Stephen's Green, to dissolve the said body of Commissioners, to extinguish the rent payable to the Corporation by a lease granted in 1814, and to confer on the Corporation powers to acquire lands, levy rates, etc., for the conversion of the green into a public park for the recreation of the inhabitants of Dublin. In consequence of the way the generous offer of Sir Arthur Guinness was received by the Municipal Council—first accepted, and then the resolution of acceptance rescinded—the feeling in Dublin, and, we believe, in London, is antagonistic to the Corporation of Dublin, and we are confident that the proposed transfer of the green to that body will meet with the most strenuous opposition.

THE CHAIR OF MEDICINE IN THE UNIVERSITY OF EDINBURGH.

FOR the vacant Chair of Medicine in the University of Edinburgh, the names of Dr. Sanders, Dr. Haldane, and Dr. Grainger Stewart are mentioned. Should Dr. Sanders be a candidate, we believe that the general feeling of the University and the profession in his favour would go far to secure him the post, as he is considered to have peculiar fitness for its duties and specially high professional claims.

THE REPRESENTATION OF THE UNIVERSITIES OF GLASGOW AND ABERDEEN.

IT has been already made known that a large and influential meeting of graduates of the Universities of Glasgow and Aberdeen was held at Willis's Rooms on September 27th; the Rev. Dr. Donald Fraser in the chair. Considerable discussion ensued respecting the various Liberal candidates, and, after the names of Mr. Freeman and Dr. Richardson had been withdrawn, on account of the objection which they not unnaturally felt to encounter the very heavy expenses of a contest, a show of hands was taken, when four were held up for Mr. Anderson Kirkwood and twenty-two for Dr. Farquharson. We learn, however, that the subcommittee of the joint universities appointed to choose the Liberal candidate, met on Wednesday at Perth, and unanimously selected Mr. Anderson Kirkwood as their champion in the approaching battle.

Under these circumstances, the medical graduates at whose instance Dr. Farquharson allowed himself to be nominated will probably feel that there is little use in pushing their claims. We imagine that, in consequence of this decision, the seat may be considered to be virtually lost to the Liberal party. A professional man in the independent position of Dr. Farquharson, having a good county position, able to carry on the contest without financial assistance, and having considerable local influence in Aberdeenshire, as well as large professional support irrespective of politics, might have retrieved the position for that party. He would have won many Conservative votes among his own profession, who would have found in him a candidate of excellent capacity and good judgment, sound business habits and public spirit—the qualities which have gained for him general esteem in the Guards, at Rugby and in London, and would have guaranteed his future public career. The union of either political party with the medical profession would have secured a tolerably certain preponderance at the poll; and, in this case especially, Dr. Farquharson would have had a good chance of securing a large support among moderate men of both sides; and thus, with Dr. Farquharson as their candidate, the Liberals might have run Mr. Watson hard, and possibly secured a success for themselves. They can now, we believe, hardly expect any such result.

HABITUAL DRUNKARDS.

A MEETING of the Society for Promoting Legislation for the Control and Cure of Habitual Drunkards was held on September 22nd, at the Charing Cross Hotel. The Society has been formed with a view of following up the action initiated by the British Medical Association and the Social Science Association.

Dr. A. CARPENTER, who was voted to the chair, said they had met for the purpose of endeavouring to promote the formation of a Society for furthering legislation for the control and cure of habitual drunkards. “Great events from little causes spring”, and he hoped that great results would ensue from that meeting, small as it was. That there was a necessity for further legislation on the subject had been amply proved. The report of the Select Committee of 1872 had recommended a certain course of legislation; but the report of that Committee had not, as yet, met with any response from the House of Commons. But, besides the evidence laid before that Committee, they had the testimony of the whole medical profession as to the necessity that did exist for legislation upon this subject. Such restraint as he had advocated was abso-

lately necessary, and the question arose why it should not be carried out. To attain this end, it was better that a society specially devoted to such a purpose should be formed. The proceedings of the promoters of the Society had been supported by observations that had been made by different periodicals, and he might specially refer to an article on the subject in the *BRITISH MEDICAL JOURNAL*. The course of action they proposed was the formation of a society which would have for its objects the promotion of legislation in the direction indicated in the petition of the British Medical and Social Science Associations. The way in which the public looked at the matter would be somewhat difficult to overcome; but, when the facts were put before them in a proper light, he thought there would be few obstacles to an alteration in the law. He deprecated the practice of sending persons to prison repeatedly for drunkenness, because they were treated as criminals for what, in the case of habitual drunkards, was a mania. They came out uncured of their propensity for drink. They ought instead to be sent to proper places, where they could be detained until they were cured; and to get a law passed to attain this end was the object of the Society they were now inaugurating.

Dr. HARDWICKE, Coroner for Central Middlesex, moved: "That this meeting, being convinced of the necessity for further legislation in regard to habitual drunkards, hereby constitutes itself into a Society for the attainment of this object." He said the public had no idea of the enormous amount of disease and death produced by drunkenness that was revealed in coroners' courts such as that over which he presided.

Mr. HARRY CHUBB seconded the resolution, which was carried.

Mr. W. WOOD moved, and Dr. N. KERR seconded, a resolution to the effect that the Earl of Shaftesbury be requested to accept the post of President of the Society.

The resolution was adopted.

The next resolution requested the following to act as Vice-Presidents of the Society: The Archbishops of Canterbury and York, the Bishops, the Deans (including the Very Rev. the Dean of Bangor), Cardinal Manning, Sir T. Watson, Bart., Vice-Admiral Sir W. King Hall, K.C.B., and such other gentlemen as the Executive Committee might select.

An Executive Committee was appointed.

Dr. Carpenter consented to act as Treasurer to the Society; and other and formal resolutions concluded the business of the meeting.

SMALL-POX IN ISLINGTON.

THE epidemic of small-pox which now prevails in a part of the parish of Islington arose and spread under circumstances which are worth attention. Although the first case which has shown itself in this part of London, after an interval of many months' immunity, occurred forty-two days since, and although fresh cases have since shown themselves daily during the past month, it is within ten days only that the epidemic has passed the limits of a very small, though densely populated, district. This district is bounded on the east by the Caledonian Road, on the north by the North London Railway, on the west by the York Road, and on the south by Bingley Street. These boundaries, not themselves infected at first, include an area of about two hundred square yards. It is trisected from north to south by parts of the streets Bemerton and Pembroke, and divided from east to west by the streets Lyon, Gifford, Clayton, Freeling, and Storey. There being no way through this district to its western boundary, and it being enclosed on the north by the railway embankment, it is not used as a thoroughfare by the general public. It contains about four hundred and fifty houses, of which the majority show three storeys above ground; almost all of these have underground basement-rooms; the remainder have but two storeys above ground, and are all (with the exception of a kind of court called Cardale Street) provided with underground basement-rooms. These basement-rooms are in all cases underlet and occupied by separate families. The inhabitants are of the two lowest classes of the community; that is to say, labourers and the like, and costermongers and persons having no definite occupation. Intermixed are a few skilled artisans. Upon a moderate computation, each house averaging three families, the total number of persons occupying the four hundred and fifty houses is 8,500. The condition of these houses is bad. With the exception of the north end of the west side of Pembroke Street and Cardale Street, they are all old. Many of them—for example, the north end of Bemerton Street and the south end of that half of Pembroke Street included in this district—have for several years been in such a state of disrepair as to be scarcely fit for habitation. The epidemic arose, therefore, in a district overcrowded, poor, and dirty.

Pembroke Street is divided on its west side by a plot of waste ground. This has at intervals been more than once enclosed; but no hoarding has long escaped conversion into firewood, and upon this space, therefore, has for several years been deposited the rubbish of the neighbourhood. Large quantities of garbage and house-refuse have been thrown there, as well as the usual complement of dead animals. But, in addition to these ordinary materials, it has been no unusual thing, during the past three or four years, to see a fire lighted on this space, upon which some neighbour has sought to destroy articles of bedding. More often still the same kind of articles has been thrown there during the night and left to rot. The poor do not part with their beds or bedding but upon some kind of compulsion; and it therefore seems probable that these things may have been cast out because infected with disease. About seventy days ago, a hoarding was erected around the space, and building operations commenced upon it. It is next to this space, separated from it only by a little road eight or ten feet wide, that the house in which the first case occurred stands. This house is a comparatively new house, apparently clean and in good repair. It has no basement. The ground-floor is used as a grocer's shop and dwelling-place; the two upper floors by lodgers. There have been no changes in the inhabitants of this house for two years past.

The history of the first case is clearly given. The patient, a boy aged 11, who has never been vaccinated, in the early part of this year worked at a wood-yard. Twelve weeks ago, he was removed from his employment and sent to school, where he attended regularly until the vacation. During that period, he is said by his mother never to have left the immediate neighbourhood. On his holidays beginning, he became nurse to his little brothers and sisters; and it is certain that, for three weeks previous to his illness, he was never out of the street in which he lives. Forty-two days ago, he fell sick. Twenty-eight days ago, his eldest brother, aged 14 (vaccinated), was attacked and died, the former recovering. Then the youngest, aged 2 (unvaccinated), was seized, and died quickly; and, about the same time, an adult lodger fell sick and soon died. The mother reports that these children were attended by an unqualified person until recently practising in this neighbourhood, who took such measures as were practicable to isolate the first case, but who objected to his patient's removal, and made no suggestions as to revaccination of the other members of the household. No revaccination, at all events, was effected. A careful inquiry has failed to discover any case prior to that here called the first, or any occurring between it and the second. Soon after the latter was seized, many cases appeared in the adjacent houses. In all, five cases occurred in this house, of which four died.

The first case of this epidemic appears, then, to have occurred in an unvaccinated person, who is not known to have been in contact with any case of small-pox; nor to have been in any place where he was likely to come in contact with such a case, for none has occurred in this part of London for many months; and who was attacked by the disease about thirty days after a piece of waste ground next to which he lived, and upon which he played, was first broken up for building purposes, and upon which, for some years past, disused bedding has been cast away. Further, the incubative stage of small-pox being from ten to thirteen days, and seldom exceeding or falling short of this period, it seems likely that the second case arose from the first. Lastly, it is possible that the epidemic, which spread with alarming rapidity, was fostered by the omission of ordinary precautions, in the first place, and then by the overcrowded and dirty condition of the neighbourhood.

On the 21st instant, a report upon the outbreak was laid before the Board of Guardians by Dr. Wilkinson, medical officer for the ward in which this district is included. He refers to twenty-one cases, being all which, up to that date, had been brought under his official notice. But, in all probability, the total number of cases in the care of various practitioners up to that date was not less than eighty. Nevertheless, it was observed, during the discussion of this report, that, at the meeting of the Board on the 14th instant, their inspector of vaccination informed them that no case of small-pox had been brought under his notice. It is to be noted that, of the twenty-one cases referred to, nine only were removed to Homerton, with arrangement. Compulsory powers of removal exist, of which the sanitary authority may take advantage (Public Health Act, sec. 124). It is there provided that any person suffering from infectious disease, and not having accommodation, may be removed upon the certificate of a legally qualified practitioner by a justice's order wherever there is a suitable hospital within the district of the local authority, or within a convenient distance of such district, at the expense of the local authority. Various considerations have to be entertained before acting upon compulsory powers; but the present instance appears to have been one in which prompt measures of this kind might have effectually arrested an epidemic which is now widespread and

serious. In the meantime, such persons as consent are removed with commendable speed by the parish authorities. A letter, dated the 23rd instant, and signed by the clerk to the vestry, has been forwarded to the medical men practising in the parish, in which their co-operation in reporting and isolating fresh cases is requested; and the affected streets have been dressed with carbolic acid. It is probably not more than ten days since the first case occurred outside the district described; but, in certain directions, many fresh cases are now met with every day.

THE BRUSSELS EXHIBITION.

[FROM A SPECIAL CORRESPONDENT.]

III.

THE peculiar aroma of Russia leather which pervades the Russian Section and its precincts gives it, it must be allowed, at least one marked feature. I fail, however, to find anything there which would lead me to suppose that Muscovite ingenuity had been directed to the study of anything beyond the very elementary portions of either hygiene or sanitation. Architectural plans, designs, and models for the ventilation and heating of such buildings as barracks, hospitals, churches, and dwelling-houses of all kinds, are forthcoming in abundance, and so are plans for house-drains and sewers: showing an evident desire on the part of the Russian Committee to have the country as well represented in this respect as possible; but these require no further notice at my hands than the expression of my astonishment at their primitiveness and backwardness.

Even in her other exhibits, Russia lags behind her competitors. Her ambulance *matériel* is represented by a clumsy ambulance-wagon and medicine-cart, and an army *fourgon* transformed in a somewhat impracticable manner to serve the double purpose of *fourgon* and ambulance-wagon. Rude surgical instruments and field-panniers, bad imitations of English models, and a few suits of peasants' clothing manufactured from skins.

Dr. Melnikoff of Moscow exhibits a bullet-extractor which, for rudeness of design, it would be difficult to match. Had it existed in the time of the learned Scultetus, I believe it would have even then been condemned.

In a long list of articles of very average merit, it is pleasant to be able to recognise one which stands out prominently as deserving of unqualified praise. I now allude to a goods wagon transformed on M. Zavodovski's system, so as to render it suitable for the transport of sick and wounded. It is pretty generally known that goods wagons are wholly unsuited for such purposes without special adaptation. Their powerful springs do not yield to so insignificant a load as that of a few wounded men. They must, therefore, be considered as devoid of elasticity; hence all concussions and oscillations are naturally conveyed direct to disabled occupants, greatly, of course, to the augmentation of their sufferings. But, notwithstanding their unsuitableness, unadapted goods wagons are the wagons in which the victims of war, of railway accidents, etc., are nearly always transported. Fifty per cent. of the carriages forming the trains which convey troops to the front is made up of goods wagons. These cannot be allowed to return empty, so into these the wounded and sick must be put. M. Zavodovski has done a good service to his country, and humanity, by discovering a simple, efficient, and economical plan of carrying out the required transformation, and so lessening the evils resulting from vibration and concussion.

Briefly, his system is this. Four hooks are driven in each side of the wagon at points not far from the roof, and at not quite the length of a stretcher distant from each other. Four cables are then stretched across the wagon, and secured to the hooks; from each cable four strong ropes are let down each pair of ropes, with loops at the proper height from the floor to take the handles of two stretchers. Suspended in this fashion on two tiers of stretchers, shocks are completely broken before reaching the eight sick or wounded men, for which number only by this system the carriage is adapted.

The gear for eight men costs only £3 12s., and the apparatus can be got into position or removed in less than ten minutes, thus leaving the interior of the carriage again free for the transportation of goods, ammunition, horses, etc.

In the Austrian Section, everything exhibited, save the hospital train and the ambulance train of the "Teutonic order", is of secondary importance. The great effort of the country seems to have been strained to make each of these as complete in details and as perfect as possible.

In this there can be no difference of opinion; they have succeeded

admirably. The hospital train has already been described at length in your daily contemporaries. To this, I consider, I need not here refer. The Teutonic order is a civilian order fully recognised by Government. Upon it, in war time, devolves the duty of supplementing the peace establishment of the Army Medical Department with the necessary increment with which it must then be provided. The war establishment largely exceeds the peace. How to obtain, where necessary, train, and maintain the supplement with least expense to the country, are questions upon the consideration of which almost every European country but England is at the present moment engaged. It could not be expected that any government could maintain a war establishment in peace time. The cost would be enormous, and there would be no field for the employment of this body, a large army in itself.

The Teutonic order endeavours to solve the question for the Austrian army. It enrolls and trains the required *personnel*; it constructs and maintains the required material, so that the moment an Austrian army corps is directed to mobilise, the Teutonic order engages, and is able to hand over to the commander of the army corps, the supplement complete in all its details required to put the Army Medical Department of the army corps on a war footing.

In England, we have a Red Cross Society with a credit of £80,000 at its back. Appeals hitherto have been made in vain to this society to undertake some such task as the Teutonic order—a corresponding society—has undertaken for the Austrian army. As private appeals to our Red Cross Society to take action have proved useless, I ask, is it not for the nation, who subscribed so liberally towards the fund, now to intimate to the Council of the Society its wish to have the money expended in the furtherance of some practical scheme, still urgently needed to perfect the organisation for the relief and care of its wounded soldiers in war time?

Those who delight in machinery will be most gratified with the Belgian Section, and mechanical adaptations for the comfort and relief of the sick are likewise there to be seen in wild profusion.

No. 374, the exhibit of *Personne* of Brussels, is in every way excellent of its kind. It comprises wheeled chairs for invalids, an operation-table, and a mechanical bed. The mechanical bed is nothing more nor less than an ingenious apparatus, consisting of an iron framework mounted on little wheels, two windlasses and a webbing stretcher connected with the windlasses, by which an invalid can be not only raised in bed for the purpose of having his linen changed, wounds dressed, or when requiring turning from side to side, but also, in an exceedingly easy and simple manner, can be moved from bed and seated in an easy chair, placed in a bath, or moved back again to bed by one attendant, without ever once requiring to be touched by the attendant's hands during any one of these operations.

The several appliances relating to miners' lamps, dresses, models of miners' houses, and plans for ventilating mines, are worthy of all praise; and Dr. Ruborn of Seraing exhibits an excellent report on miners' diseases, their causes, nature, and treatment.

M. Waurocque's model of his apparatus for lowering and raising his workmen deserves also a passing notice.

No. 209 is a stand belonging to the Belgian Association for the Inspection of Boilers. In this stand are exhibited the defective portions of several worn out boilers, showing the manner in which incrustations form, the lines of unequal tension, and other interesting points in connection with boilers. Almost every person owning a boiler in Belgium contributes a small sum yearly to the Association; for this his boiler is inspected on purchase, and periodically afterwards by competent persons, and repaired at a very moderate charge when repairs are required. I am informed that boiler accidents in Belgium are extremely rare, and this, in great measure, is attributed to the surveillance of this excellent private company.

But the two objects in the Belgian Section which will strike an English visitor more forcibly than all others are perhaps (1) the "fourgon de secours", or railway accident-wagon, constructed and maintained by Belgian railway companies for the sole purpose of aiding those who, by accident, collisions, etc., may at any time be injured on their lines; and (2) the excellent plans and model of the *collecteurs* of Brussels, showing the manner in which the sewage of the city is removed to a distance, and how engineering difficulties of a more than ordinary description have successfully been overcome.

As to the first, a "fourgon de secours", or accident-wagon, as I venture to style it, is kept at each of the principal Belgian railway stations; of these there are twenty-five. The instant an accident is reported in the vicinity of the station, the accident-wagon and a few goods wagons are despatched to the spot, so that the victims may receive without delay everything that the necessities of their cases may demand. The wagon is built in three compartments; one contains jackscrews, crowbars, and other implements required for the removal

of *débris* from off the sufferers; a second in the centre is for the guard; and the third forms a sort of sick bay. It is provided with fixtures for the suspension of two stretchers with severely injured men, a stove, cooking utensils, and a little medicine-chest. The idea, I think it will readily be conceded, is not a bad one for our adoption in England, where railway accidents of all kinds are of such common occurrence. Those who are given to perusing the Board of Trade returns will find that, in the first quarter of the present year, 300 deaths are reported as having occurred on their lines by the several railway companies, and 1,500 cases of injury; and still, *mirabile dictu*, we are unable to boast of any organisation for the relief of the sufferers, not even of one such as this little country is possessed of.

No. 147 in the catalogue refers to the plans and models relating to the drainage of Brussels. From a sanitary point of view, these are of exceptional interest. Since the completion of the sewage-works in 1872, the mortality of the city has shown a permanent decrease of two per 1,000, and it is now confidently asserted by the municipal authorities that the Bills of Health of Brussels will bear comparison with those of the healthiest cities in Europe. This may be perfectly correct; but, at the same time, I feel bound to relate that, notwithstanding this improved sanitation, the visitor's nose is saluted at every turn with odours which appear to be equally as concentrated as those which existed in the halcyon days before the sewage-works were ever thought of.

Topographically, Brussels, with a total population of 325,000 persons, occupying about 40,000 houses, or an average of eight persons to each house (in London, I believe, the corresponding average is seven, and in Paris thirty), is built on the steep side and base of a promontory watered by the tortuous little river Senne, an affluent of the Scheld. Including *faubourgs*, the land built on covers a total superficies of 5,625 acres. The city may be divided into two parts: the higher or more elevated portion, occupied by the wealthy, and the low-lying or more populous. The former is from 130 to 240 feet above the bed of the river, with a rainfall of about twenty-eight inches, which occasionally, in heavy showery weather, reaches four inches in the twenty-four hours. It can easily be conceived how necessary it would be, in any scheme for the drainage of the city, to give free escape to this large fall of rain-water. This, however, was by no means the only or the greatest difficulty which had to be encountered by the engineers. The periodical inundations of the Senne, the dead level of the lower parts of the city, and the corresponding stagnation in the sewers and in the river—these had one and all to be met and dealt with. A word or two more will suffice to explain how this has been done.

The river has had a new and rectilinear bed dug for that portion which traverses the city. Two *collecteurs* of considerable size have been constructed, one on either side of the river, and following its course. These below the city end in a common *collecteur*, which passes Vilvorde to reach Eppenghem, where a sewage-farm is at the present moment being laid out for the utilisation and purification of the whole of the sewage of the city.

The house-drains and sewers no longer empty themselves into the river, but directly into the *collecteurs*, the thorough cleansing of which is provided for not only by the passage of a van-wagon, a sort of dredge (model), but also by a special provision in the shape of sluice-gates between the river and each *collecteur*, which admit of the latter being flushed from time to time as occasion may require.

The *collecteurs* and Senne, as an afterthought, have been vaulted over so as to form a splendid broad boulevard, which reaches from the Gare du Midi to the church of St. Augustine. A fountain, a market-house, and an exchange of a handsome design have been constructed on this street, and trees have also been planted, all of which conduce in no small degree to the characteristic ornamentation of the city.

PRIZES IN THE MEDICAL SCHOOLS.

The following are lists of the successful candidates for prizes in the various Schools during the Session 1876-77.

ST. BARTHOLOMEW'S HOSPITAL. *Lawrence Scholarship and Gold Medal*, and *Brackenbury Medical Scholarship*, R. H. A. Schofield; *Brackenbury Surgical Scholarship*, W. P. P. Senior; *Scholarship in Anatomy, Physiology, and Chemistry*, G. Cates; *Open Scholarship in Science*, C. P. Lukis; *Profraternit Scientific Exhibition*, A. C. Dismore; *Trafford Exhibition*, T. Kinson; *Kirk's Gold Medal*, A. G. Williams; *Bentley Prize*, F. J. Verrall; *Hichens Prize*, and *W. R. Price*, F. H. Cradlock; *Practical Anatomy*, Senior: *Foster Prize*, G. Cates; 2. W. Graham; 3. C. B. Lockwood; 4. C. J. Bamber and M. Prickett; 6. G. P. Sylvester; 7. I. C. Binsfield; 8. Allen Dingley; 9. G. W. P. Dennis; *Practical Anatomy, Junior*: *Treasurer's Prize*—C. Shepherd; 2. A. J. Wharry; 3. H. C. Nance; 4. W. Outhwaite; 5. G. H. Baring; 6. C. F. Cuthbert; 7. A. Franklin; 8. A. A. Boutby; G. L. Pardon, and K. Townsend.

CHARING CROSS HOSPITAL. *Summer Session, 1875*.—*Botany*—Silver Medal, W. Webb; Certificates, H. E. R. James and John Brown. *Materia Medica*—Silver Medal, H. Hoole; Certificate, Jno. Brown. *Midwifery*—Silver Medal, H. R. Whitehead; Certificate, D. Colquhoun. *Forensic Medicine*—Silver Medal, H. R. Whitehead; Certificates, W. B. Hodgson and D. Colquhoun. *Pathology*—Silver Medal, W. R. Whitehead; Certificate, D. Colquhoun. *Practical Chemistry*—Silver Medal, A. D. Leahy; Certificate, John Brown. *Comparative Anatomy*—Silver Medal, W. Cattle. *Winter Session, 1875-76*. *Llewellyn Scholarship*, £25, D. Colquhoun; *Golding Scholarship*, £15, H. Hoole. *Senior Medicine*—Silver Medal, H. R. Whitehead; Certificates, D. Colquhoun and Arthur Greawood. *Junior Medicine*—Bronze Medal, John Brown; Certificate, W. W. Webb. *Physiology (Senior)*—Silver Medal, John Brown; Certificates, A. D. Leahy and H. Hoole. *Physiology (Junior)*—Bronze Medal, C. Curde. *Anatomy (Senior)*—Silver Medal, A. D. Leahy; Certificates, W. W. Webb and John Brown. *Anatomy (Junior)*—Bronze Medal, H. G. Jacob; Certificates, W. H. Day and H. E. Garrett. *Chemistry*—Silver Medal, S. Nockolds; Certificate, W. H. Day.

ST. GEORGE'S HOSPITAL. *William Brown £100 Exhibition*, Mr. H. Blake; *William Brown £40 Exhibition*, Mr. Dunbar; *Brackenbury Prize in Medicine*, Mr. Dunbar; *Brackenbury Prize in Surgery*, Mr. E. B. Turner; *Sir Charles Clarke's Prize*, Mr. Cones; *Brodie's Prize in Surgery*, Mr. Wynn Webb; *Dr. Acland's Prize*, Mr. Dunbar; *Henry Charles Johnson's Prize*, Mr. F. Wadham; *Treasurer's Prize*, Mr. E. B. Turner; *Thompson Medal*, Mr. F. L. Robinson; *Third Year's Proficiency*, Mr. C. Turner; *Second Year's Proficiency*, Mr. F. Wadham; *First Year's Proficiency*, Mr. C. Branson.

GUY'S HOSPITAL. *Treasurer's Gold Medal for Medicine*—William Reynolds. *Treasurer's Gold Medal for Surgery*—Richard Bevan; *Proxime accessit*, W. P. Reynolds. *Third Year's Students*—George A. Wright, First Prize, £40; Peter Horrocks, Second Prize, £35; James Harry Poland and Charles Gross, Certificates. *Second Year's Students*—Edward J. Morley, First Prize, £35; Gordon B. W. Messum, Second Prize, £30; Henry O. Stuart, Richard J. Bryden, Wm. A. Phillips, Wm. D. Hartley, and Richard W. White, Certificates. *First Year's Students*—Leonard C. Woodridge, First Prize, £50; Wm. H. White, Second Prize, £45; Frederick E. Jones, £10 10s. (presented by one of the Governors); John S. Crook, William Whitworth, Jas. T. Brett, Harold E. B. Flanagan, Joseph Hodson, and Henry H. Austin, Certificates. *Entrance Examination in Classics, Mathematics, etc., October 1875*—Leonard C. Woodridge, First Scholarship, £60; Wm. H. White, Second Scholarship, £30; James T. J. Morrison, Certificate.

KING'S COLLEGE. *Winter Session, 1875-76*. *Warriford Prizes*—Thomas F. Clarke; Arthur G. Blomfield and Edward A. Snell, equal. *Leathes Prizes*—A. G. Blomfield and E. A. Snell, equal. *Telford Medal*—E. A. Snell. *Diversity*—Theodore F. Adolphus, Second Year; Frederic H. Norvill and John F. W. Silk, First Year. *Anatomy*—Valentine Matthews, Prize; Llewellyn F. Cox and Robt. E. Clithrow, Certificates. *Physiology*—T. F. Clarke, Prize; V. Matthews and T. F. Adolphus, Certificates. *Practical Physiology*—T. F. Adolphus, Prize; V. Matthews and L. Cox, Certificates. *Chemistry*—V. Matthews, Prize; T. F. Clarke, Certificate. *Medicine*—Edgar Thurston, Prize; Frederick Willcocks, Certificate. *Clinical Medicine*—E. A. Snell, Prize. *Surgery*—Fredek. De Caux, Prize; Henry S. Michell and Frederick Willcocks, Certificates. *Clinical Surgery*—Martin Gaisford, Prize. *Forensic Medicine*—Harold G. Taylor, Prize; F. T. Hebb, Certificate. *Materia Medica*—T. F. Clarke, Prize; J. F. W. Silk, Certificate. *Todd Prize for Clinical Medicine*—E. Thurston. *Clinical Medicine*—Wm. P. Tritton, Prize. *Clinical Surgery*—F. Willcocks, Prize. *Tanner Prize*—F. Willcocks, Prize. *Practical Chemistry*—John Davidson, Prize; Norman Dalton and Richard A. Billard, Certificates (equal). *Botany*—N. Dalton, Prize; Denis McDonnell and J. Davidson, Certificates (equal). *Obstetric Medicine*—Thomas W. Coffin, Prize; Theodore F. Ensor and Richard E. Schlesinger, Certificates (equal). *Pathological Anatomy*—Fredek. Willcocks, Prize. *Practical Physiology*—Robert Brokes, Prize; Denis McDonnell and Frederick T. Hebb, Certificates. *Comparative Anatomy*—No Prize awarded.

LONDON HOSPITAL. *Clinical Medicine*—£20 Scholarship, Mr. E. Berdoe. *Clinical Surgery*—£20 Scholarship, Mr. W. A. Berridge; Honorary Certificate, Mr. A. Bennett. *Clinical Obstetrics*—£20 Scholarship, Mr. A. Bennett; £5 Prize to Student who has attended most Midwifery cases for the Hospital during the year, Mr. C. Couzens. *Dresser's Prizes*—£15, Mr. H. C. Wilson and Mr. J. L. Burchell; £10, Mr. H. L. Pardy and Mr. B. H. J. Gardiner; £5, Mr. A. S. R. Oxley and Mr. E. C. Warren. *Entrance Science Scholarships*—£60, Mr. Lichtenstein; £40, Mr. E. H. Fenwick. *Buxton Scholarships*—Not awarded. *Human Anatomy*—£20 Scholarship, not awarded. *Anatomy, Physiology, and Chemistry*—£25 Scholarship, Mr. J. T. Fox; Honorary Certificate, Mr. A. S. R. Oxley. *Special Certificates awarded to Medical Assistants for Six Months' Service*—Messrs. S. D. Clippingdale, R. Atkinson, S. H. Fisher, H. Palmer, E. Berdoe, and W. Stewart; for *Three Months' Service*—Messrs. J. Mulhall, D. V. Rees, P. M. Richards, L. F. Mahoney, J. E. G. Sykes, H. T. Batchelor, and J. Gregory.

ST. MARY'S HOSPITAL. *1875*: *Open Scholarship in Natural Science*, Mr. R. N. Hormazdji; *Exhibition in Natural Science*, Mr. K. W. Millican; *Egson Scholarship in Natural Science*, Mr. H. W. Yate; *Scholarship in Classics and Mathematics*, Mr. G. H. Hill. *1876*: *Scholarship in Pathology*, Mr. T. G. Lithgow. *1875-76*: *Scholarship in Anatomy*, Mr. A. B. Prowse. *Prosectors*, Mr. W. W. Edwards and Mr. G. H. Hetherington. *Summer Session, 1875*.—*First Year*: *Materia Medica and Botany*—Prize, Mr. F. A. Cox; Certificates, Messrs. W. W. Edwards, J. C. N. Nichod (Materia Medica and Botany), and J. Enright, W. J. C. Nourse, W. Pearce (Botany). *Practical Chemistry*—Prize, Mr. R. N. Hormazdji; Certificates, Messrs. W. W. Edwards, W. J. C. Nourse, and M. A. Smales. *Second Year*: *Midwifery*—Prize, Mr. J. B. Coumbe; Certificate, Mr. W. E. Luscombe. *Medical Jurisprudence*—Prize, Mr. J. B. Coumbe; Certificate, Mr. J. S. Scriven. *Winter Session, 1875-76*.—*First Year*: *Anatomy and Histology*—Prize, Mr. W. H. T. King; Certificates, Messrs. J. E. Lane and H. B. Runnal (Anatomy and Histology); A. Baird, D. A. Fraser, and C. F. Seitz (Anatomy), and F. St. G. Mivart (Histology). *Chemistry*—Prize, Mr. E. O. Wight; Certificate, Mr. R. N. Hormazdji. (First in Examination, but disqualified for Prize as Scholar in Natural Science). *Second Year*: *Anatomy and Physiology*—Prize, Mr. H. Hetherington; Certificates, Messrs. A. J. Bisdee, H. Pearce, and M. A. Smales. *Third Year*: *Medicine*—Prize, Mr. J. B. Coumbe; Certificate, Mr. E. Downes. *Surgery*—Certificates, Messrs. J. B. Coumbe and F. Downes. *Pathology*—Prize, Mr. J. B. Coumbe; Certificate, Mr. E. Downes. *Third and Fourth Year*: *Clinical Medicine*—Not yet decided. *Clinical Surgery*—Prize, Mr. C. J. R. Owen; Certificate, Mr. H. Snowden.

MIDDLESEX HOSPITAL.—*Braderip Scholarships*—1. Frederick Bellaby; 2. Thos. James. *Governor's Prize*—Frederick Bellaby. *Clinical Prize*—W. C. Storer Bennett. *Medicine*—R. C. Thomas. *Surgery*—T. F. Pearce. *Pathological Anatomy*—Frederick Bellaby. *Practical Surgery*—Frederick Bellaby. *Anatomy*—John Hartley. *Physiology*—H. B. Mason. *Chemistry*—J. T. James. *Dissections*—W. Clay Jones. *Midwifery*—John Hartley. *Medical Jurisprudence*—L. Hine. *Materia Medica*—J. T. James. *Botany*—J. T. James. *Practical Chemistry*—J. T. James. *Practical Physiology*—E. R. Cree. *Psychological Medicine*—Thomas Jackson. *B.A. Medical Society's Prize*—Wm. Stevenson, W. C. Storer Bennett, and Wm. Walker. *Entrance Scholarships*, October 1875—1. J. H. Martin; 2. C. Williams. *Certificates of Honour: Medicine*—F. Bellaby, A. R. Davis, Thomas James, L. Hine, Thomas Jackson. *Surgery*—H. B. Mason, Thos. Jackson. *Practical Surgery*—Thomas James. *Anatomy*—R. M. Webster, E. A. Fardon, L. Hine, A. McAusland, J. T. James, Thomas Jackson. *Physiology*—E. A. Fardon, J. T. James. *Practical Physiology*—J. T. James. *Chemistry*—J. C. Morison, L. Matheeson. *Practical Chemistry*—J. M. Rogers, J. Royston, W. E. Alden. *Midwifery*—Thomas Jackson, Leonard Hine, A. McAusland, Wm. Davies. *Forensic Medicine*—T. Jackson, A. McAusland. *Materia Medica*—W. A. Hornibrook, W. E. Alden, C. E. Thompson. *Botany*—W. A. Hornibrook. *Public Health*—T. Jackson. *Psychological Medicine*—L. Hine.

ST. THOMAS'S HOSPITAL.—*Summer Session, 1875*.—*Second Year's Students*—C. E. Sheppard, £15 and Certificate; G. B. Longstaff, £20 and Certificate; F. H. Weekes, £5 and Certificate. *First Year's Students*—J. Shaw, £15 and Certificate; W. E. Woodman, £10 and Certificate; H. Castle, £5 and Certificate; S. J. Taylor and S. A. Crick, Certificates. —*Winter Session, 1875-76*. —*Entrance Science Scholarships*—H. A. H. Fenton, £60; T. D. Savill, £40. *First Year's Students*—T. D. Savill, William Tite Scholarship and Certificate; A. Newsholme, £20 and Certificate; Takaki Kanehiro, £10 and Certificate; C. A. Ballance, A. Purkiss, and Ho Kai, Certificates. *Second Year's Students*—S. J. Taylor, Musgrove Scholarship, £40, and Certificate; J. Shaw, £20 and Certificate. *Third Year's Students*—G. B. Longstaff, £20 and Certificate; C. E. Sheppard, £15 and Certificate; F. H. Weekes, £10 and Certificate; E. H. D. Gimlette and F. W. Giles, Certificates. *Physical Society's Prizes*—E. H. Jacob, Third Year's Prize and Certificate; C. E. Sheppard, Second Year's Prize and Certificate; D. S. Davies, First Year's Prize and Certificate. *Prosectors*—S. A. Crick and R. H. E. Knaggs, Prizes and Certificates. *Resident Accommodations*—Walter Edmunds, S. W. J. Joseph, G. F. Rossiter, and C. C. Smith, Certificates. *House-Physicians*—C. H. Newby, G. E. Rossiter, Walter Edmunds, H. P. Potter, and S. W. J. Joseph, Certificates. *House-Surgeons*—H. P. Potter, H. H. Clutton, and C. H. Newby, Certificates.

UNIVERSITY COLLEGE.—*Winter Session, 1875-76*.—*Surgery*: Gold Medal, H. Cane; 1st Silver, Francis J. Davies; 2nd Silver, Frank S. Goulder. Certificates—4. equal, W. R. Nicholson, C. J. Watson; 6. W. M. Hope; 7. H. R. Dale; 8. David Jones; 9. W. Gristock; 10. James Hudson; 11. J. Thoresby Jones. *Physiology*: Gold Medal, W. S. Tuke; 1st Silver, equal, W. W. Colborne, J. R. Salter, K. R. Smith, Angel Money; Certificates—6. N. S. Whitney; 7. H. R. Heather Bigg; 8. L. C. Ponsford; 9. W. R. Parker; 10. equal, Reginald Pratt and S. H. Henty. *Anatomy*: Gold Medal, J. Stanley N. Boyd; 1st Silver, William Banks; 2nd Silver, D. J. Williams. Certificates—4. J. Fulford; 5. K. R. Smith; 6. F. W. S. Culhane; 7. A. A. Lendon; 8. J. E. Bullock; 9. Bilton Pollard; 10. C. B. Hill; 11. C. M. Maxwell; 12. S. E. Duncan; 13. D. F. Dymott. *Junior Class*—Silver Medal, C. J. Bond. Certificates—2. V. A. H. Horsley; 3. P. E. Shearman; 4. R. Pratt; 5. F. H. Saunders; 6. A. E. Pernewan; 7. W. H. Neale; 8. J. F. Easmon; 9. W. D. C. Williams; 10. H. M. Murray; 11. R. S. Walton; 12. G. B. Wray; 13. John Rees; 14. George Serjeant; 15. F. W. Mott; 16. A. E. Buckell; 17. James T. Mitchell. *Chemistry*: Gold Medal, F. L. Teed; 1st Silver, A. J. Harries; 2nd Silver, Ernest A. Parkyn. Certificates—4. W. Chisholm; 5. equal, J. A. Voelcker and R. S. Walton; 6. P. E. Shearman; 7. R. T. Plimpton; 8. equal, Denis W. Donovan and Charles E. Cassall; 9. James Norrie; 10. P. N. Bose; 11. J. G. Ashley; 12. Ernest W. Farmer; 13. equal, D. E. Anderson and D. W. Buxton; 14. equal, A. E. Garrod, W. G. K. Barnes, and Chas. J. Bond; 15. equal, G. E. Twynman and A. Northcott; 16. equal, P. R. Griffiths, S. A. Russell, J. A. Ogilvie, and Hector Lange. *Medicine*: Gold Medal, T. C. Rogers; 1st Silver, equal, K. R. Kirtikar and J. S. Bury. Certificates—3. F. Budler; 5. L. M. Buckell; 6. S. H. Burton; 7. equal, A. E. Broster and W. M. Hope; 9. James Hudson; 10. H. F. Bailey; 11. Howard Cano. *Practical Physiology*: Gold Medal, J. R. Salter; 1st Silver, H. R. Heather Bigg. Certificates—3. equal, Alfred Hinde, K. R. Smith, and A. A. Lendon. *Comparative Anatomy and Zoology*: Gold Medal, A. Atmaram; 1st Silver, R. B. Yardley; 2nd Silver, T. A. Colfax. Certificates—4. James Isaac Paddle; 5. Thomas Bolton; 6. J. Campbell Oman; 7. A. H. N. Lewers. *Clinical Medicine: Fellows Medals*—Gold, L. Martin Buckell; Silver, Frank Perry. *Junior Class; Fellows Medals*—1st Silver, A. E. Broster; 2nd Silver, J. S. Bury. Certificates—3. W. H. Blake; 4. F. S. Goulder; 5. W. J. Frankish; 6. equal, C. F. Budler and W. M. Hope; 7. Peter Cooper; 8. James Hudson; 9. equal, B. B. Joll and E. J. Thompson. *Bruce Medal*—Francis J. Davies. —*Summer Session*.—*Pathological Anatomy: Filiter Exhibition*—G. C. Henderson; Silver Medal, Richard S. Miller. Certificates—3. F. L. Benham; 4. K. R. Kirtikar; 5. H. R. Dale. *Practical Chemistry (Senior Class)*: Gold Medal, J. A. Voelcker; 1st Silver, A. J. Harries; 2nd Silver, J. P. A. Gabb. Certificates—4. Wm. Banks; 5. W. R. Parker; 6. equal, A. A. Lendon and William S. Tuke; 7. equal, W. M. Lory and D. Duncan; 8. H. M. Murray; 9. equal, J. E. Hine, L. C. Ponsford, and N. S. Whitney; 10. equal, P. E. Shearman, J. I. Paddle, and T. W. Mott. *Junior Class*: Gold Medal, H. M. Murray; 1st Silver, C. E. Cassal; 2nd Silver, Wm. Chisholm. Certificates—4. F. B. M. Wornitz; 5. equal, C. Eardley-Wilmut, A. Northcott, and R. E. Roth; 6. equal, W. G. K. Barnes, C. J. Bond, R. S. Walton, J. T. Hyslop, and E. F. Greenhill; 7. equal, A. Atmaram, A. W. Dingley, E. W. W. Farmer, John Hodgkin, G. C. Adams, M. F. Sayer, and L. C. Parkes; 8. equal, J. R. Day, C. Downing, George Serjeant, and Thomas Bolton; 9. equal, Jas. Norrie, S. H. Henty, G. E. Twynman, A. E. Wigg, A. Warburton, G. H. Whitelegge, J. M. Biggs, S. J. Hickson, and James S. M'Donagh; 10. equal, T. A. Colfax, Jas. T. Mitchell, W. M. M'Q. Clapp, and Josiah Beddo; 11. equal, F. M. Holman, A. E. Garrod, S. M. Howard, P. R. Griffiths, and A. E. Pernewan. *Materia Medica and Therapeutics*: Gold Medal, Angel Money; 1st Silver, P. E. Shearman; 2nd Silver, F. W. Mott. Certificates—4. John E. Hine; 5. equal, George Serjeant and Alfred E. Wigg. *Midwifery (Senior Class)*: Gold Medal, Henry E. Spencer; Silver, F. L. Benham. Certificates—3. T. K. Rogers; 4. John S. Joule; 5. Henry F. Hann; 6. C. F. Budler; 7. H. R. Dale; 8. Lewis Fabien; 9. J. E. Yoshida. *Junior Class*: Silver Medal, W. D. C. Williams. Certificates—2. J. E. Neale; 3. W. Gristock; 4. C. M. Maxwell; 5. T. Buxton. *Medical Jurispru-*

dence—Gold Medal, John S. Goule; Silver, C. F. Budler. Certificates—3. F. L. Benham; 4. T. E. MacGeagh; 5. James Hudson; 6. C. M. Maxwell; 7. Boyd B. Joll; 8. equal, H. Yoshida and John Fulford. *Botany*: Gold Medal, S. H. Henty 1st Silver, Mark F. Sayer; 2nd Silver, L. C. Ponsford. Certificate—4. A. Atmaram. *Hygiene and Public Health*: Silver Medal and 1st Prize, W. Gristock. Certificates—2. equal, Boyd B. Joll and F. S. Goulder. *Ophthalmic Medicine and Surgery*: Silver Medal, James Ryley. Certificate—2. Lewis Fabien. *Mental Diseases*—Prize and Silver Medal, T. K. Rogers. Certificates—2. equal, W. V. Harvey, L. Fabien, and T. E. MacGeagh.

WESTMINSTER HOSPITAL.—*Entrance Scholarships*—1. A. Mercer Davies; 2. No award. *Mr. Davy's Prize for Practical Anatomy*—G. H. Butler and G. Gubbin, equal. *Exhibition in Anatomy and Physiology*—A. Mercer Davies. *Scholarship in Anatomy and Physiology*—T. Capell and T. G. Munyard, equal. *Frederic Bird Medal and Prize*—J. L. Jaquet. *Chadwick Prize*—Wm. J. Foster. *Class Certificates: Junior Anatomy*—1. A. Mercer Davies and G. Gubbin. *Junior Physiology*—2. G. Gubbin and A. Mercer Davies. *Chemistry*—1. Mercer Davies; 2. A. J. Verrall. *Senior Anatomy*—1. T. Capell, Horace Elliott, and Thos. G. Munyard, equal; 2. George Shaw. *Senior Physiology*—1. George Shaw; 2. Horace Elliott. *Histology*—1. Thomas G. Munyard; 2. T. Capell, Horace Elliott, and G. Shaw, equal. *Junior Surgery*—2. Thomas G. Munyard. *Senior Medicine*—1. W. J. Foster. *Senior Surgery*—1. Wm. J. Foster; 2. George Eliot.

BRISTOL MEDICAL SCHOOL.—*First Year's Prize*, John C. Heaven; *Second Year's Prize*, not awarded; *Third Year's Prize*, Cecil Henderson; *Prize for Practical Anatomy*, Ernest Blacker. —*ROYAL INFIRMARY. Supple Medical Prize and Gold Medal*, William G. H. B. Marsh; *Supple Surgical Prize and Gold Medal*, John K. Guy; *Clark Prize*, Cecil Henderson. —*GENERAL HOSPITAL. Guthrie Scholarship*, T. Chalmers Norton; *Clarke Scholarship*, Edward M. Knapp; *Sanders Scholarship*, not awarded.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—*Winter Session*.—*Third Year Subjects* (Medicine, Surgery, and Pathology)—Mr. J. Wigglesworth, Silver Medal; Mr. Rose, Bronze Medal. *Second Year Subjects* (Advanced Anatomy and Physiology)—Mr. T. M. Porter, Torr Gold Medal; Mr. C. E. Steele, Bronze Medal; Mr. T. Bickerton, Certificate. *First Year Subjects* (Elementary Anatomy and Physiology, and Chemistry)—Mr. R. Bredin, Bligh Gold Medal; Mr. A. Meeson, Bronze Medal; Mr. A. Rich, 1st Certificate; Mr. McPherson, 2nd Certificate. *Summer Session: Junior Subjects* (Botany, Materia Medica, and Practical Chemistry)—Mr. Hayward, Silver Medal; Mr. Meeson, Bronze Medal; Mr. Rich, 1st Certificate; Mr. J. G. Brown, and Certificate. *Comparative Anatomy and Zoology*—Mr. R. Honeyburne, Prize; Mr. R. Prothero, Mr. C. E. Steele, and Mr. J. G. Brown, Honorary Certificates. *Histological Prize*—Mr. Dempster and Mr. Holmes, equal. *Royal Infirmary Clinical Prizes*—Physicians', Mr. Hughes; Surgeons', Mr. Wigglesworth. *Students' Debating Society's Prizes*—1st Essay, Mr. Wigglesworth; 2nd Essay, Mr. C. Steele; Clinical Reports, Mr. Twinem.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—*Winter Session, 1875-76*. *Anatomy*—Medal and 1st Certificate, A. M. Goyder; and Certificate, W. T. Sweet. *Dissections*—Medal and Certificate, A. M. Goyder. *Physiology*—Medal and 1st Certificate, A. M. Goyder. *Chemistry*—Medal and 1st Certificate, J. R. Dodd. *Surgery*—Medal and 1st Certificate, M. Malvin; 2nd Certificate, G. R. Moore. *Medicine*—Medal and 1st Certificate, J. B. Emmerson; and Certificate, Wm. Le Page and G. R. Moore, equal; 4th Certificate, M. Duggan. —*Summer Session, 1876*. *Chemistry (Practical)*—Silver Medal and 1st Certificate, H. T. Bowman; 2nd Certificate, A. Snowden; 3rd Certificate, J. R. Dodd. *Botany*—Silver Medal and 1st Certificate of Honour, J. R. Dodd. *Materia Medica and Therapeutics*—Silver Medal and 1st Certificate, J. R. Dodd; 2nd Certificate, W. J. Smith. *Midwifery*—Silver Medal and 1st Certificate, C. J. Sutherland; and Certificate, T. G. Ainsley. *Medical Jurisprudence*—Silver Medal and 1st Certificate, C. Green. *Pathological Anatomy*—1st Certificate, T. G. Ainsley; and Certificate, C. Green; 3rd Certificate, M. Malvin. *Practical Physiology*—Silver Medal and 1st Certificate—T. C. Squance; and Certificate, J. R. Dodd; 3rd Certificate, R. R. Jones.

ASSOCIATION INTELLIGENCE.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of this Branch will be held at the Town Hall, Woburn, on Friday, October 13th, at 3.30 P.M.; H. W. SHARPIN, Esq., President, in the Chair.

Dinner at the Hotel at 5.30 P.M.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate at once with Dr. Bryan.

An excursion to Woburn Abbey is proposed at 1.30 P.M.

J. M. BRYAN, M.D.

W. MOXON, Esq.

Honorary Secretaries.

Northampton, September 19th, 1876.

THAMES VALLEY BRANCH.

A MEETING of the above Branch will be held at the Board Room, Richmond Infirmary, at 5 o'clock, on Wednesday, October 18th, 1876.

A paper will be read by Dr. Thorowgood; and a discussion will then take place on the Treatment of Burns.

There will be a dinner afterwards at the Greyhound Hotel at Seven o'clock. Charge, 7s. 6d. each, exclusive of wine.

Those who intend to be present at the dinner are requested to send word to the Honorary Secretary as soon as possible.

F. P. ATKINSON, Honorary Secretary.

Surbiton Road, Kingston-on-Thames, Sept. 27th, 1876.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 18th day of October next, at Three o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, W.C., September 27th, 1876.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Red Lion Hotel, Dulverton, on Thursday, October 5th, at Five o'clock: FREDK. FARMER, Esq., President.

Full particulars by circular.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, September 18th, 1876.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

THE next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 12th, at 4 P.M.; Dr. C. HOLMAN in the Chair.

The following communications are promised.

1. Mr. Durham: A Paper.
2. Mr. Maunder will exhibit three patients recently submitted to Osteotomy of the Femur.
3. A Case of Hydrophobia, by Mr. R. Steele, with notes by Dr. Dyce Duckworth.
4. Missed Labour in a Cow, with Delivery after use of Barnes's Bags, by Mr. Hawker and Mr. R. Steele.
5. A *Résumé* of a Year's Practice in the Reigate Cottage Hospital, by Dr. Walters.
6. Two Cases of Fracture of both Thighs, by Dr. Flood and Dr. Holman.

Dinner will be provided at the White Hart Hotel at 6 P.M. Tickets, exclusive of wine, 6s. a head.

JOHN H. GALTON, M.D., *Honorary Secretary.*

Woodside, Anerley Road, S.E., September 20th, 1876.

BORDER COUNTIES BRANCH.

THE autumnal meeting of the above Branch will be held at Whitehaven, in the Board Room of the Whitehaven and West Cumberland Infirmary, on Friday, October 20th, at 1 P.M.

Gentlemen intending to read papers, or to be present at the dinner, are requested to give notice to the Secretaries.

RODERICK MACLAREN, } *Honorary Secretaries.*
JOHN SMITH, }

Carlisle, September 26th, 1876.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

THE sixty-first meeting was held at the National Hospital for Scrofula, Margate, on Thursday, September 7th; Dr. PITTOCK of Margate in the chair.

After partaking of luncheon, hospitably provided by the Governors of the Institution, the wards of the hospital were visited, and much pleasure expressed with all the arrangements of the place, and great interest shown in the practice of the different surgeons.

Conjoined Meeting.—At the suggestion of Dr. MONCKTON, the President of the Branch, it was unanimously agreed that a conjoint meeting of the members of the East and West Kent Districts of the South-Eastern Branch should be held at Rochester on November 24th; and that Dr. Monckton be requested to take the Chair.

Excision of the Knee.—Mr. TREVES read a paper on Excision of the Knee-joint, with the description of a new mode of performing the operation. He gave brief notes of eight cases in which he had performed excision, all of which were successful, while one succumbed to pyæmia.

Mechanical Force and Amputation.—Mr. REID communicated a paper on some relations of mechanical force to the question of amputation in injuries to the extremities. The chief object of the remarks was to show what an important bearing the weight, velocity, directions of force, and character of the implement had in determining the degree

and extent of injury, not only when doubt arose about saving limb and life, but also in the election of the part through which amputation should be performed. Although these qualities of matter had been extensively applied in estimating the effect of gun-shot wounds, especially in the new projectiles used in modern warfare, yet they scarcely seemed to receive the emphasis they deserved in the ordinary severe accidents of civil life. Several cases occurring in the practice of the Canterbury Hospital were quoted to illustrate the principles advocated.

Dinner.—The members, to the number of eighteen, afterwards dined together under the Presidency of Dr. PITTOCK, at the Cliftonville Hotel.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF DUBLIN.

HENRY KENNEDY, M.B., President, in the Chair.

Exomphalos.—Dr. ATTHILL showed a specimen of this malformation in a still-born fœtus of five months. The intestines and the abdominal viscera were contained in the sac. The very large left lobe of the liver completely overlapped the equally small stomach, which lay behind it.

Papilloma of the Bladder: Protracted Hematuria.—Dr. A. W. FOOT exhibited a specimen of villous tumour, or papilloma of the bladder, from the body of a man, aged 65. It occupied the usual, according to Rindfleisch the invariable, situation of such tumours, the *trigonum vesicæ*, springing from a base of irregular outline about two inches broad by two inches and a half long. It had involved and occluded the orifice of the right ureter, which was impervious to the finest probe; this ureter was so dilated as to equal in breadth parts of the contracted colon in the same subject. The right kidney was expanded with retention cysts, and its parenchyma was much atrophied by the pressure of its distended pelvis, infundibula, and calyces. The capacity of the bladder was increased; its mucous membrane, of a pale cream colour, was more or less bathed in pus from recent cystitis. Viewed under water, the papilloma exhibited a pale, soft, shaggy structure, protruding about half an inch from the mucous surface. There was a second sessile condylomatous-looking growth, of the size of a fourpenny-piece, above and to the outer side of the orifice of the left ureter. A piece of one of the tufted processes of the larger growth was found to be principally composed of fusiform and spindle-shaped cells, studded with oil-droplets, and covered with numerous pigmentary particles. Dr. Foot also exhibited the anus and rectum of the same subject, which presented in a marked degree the pathological features of chronic hæmorrhoids. The anal aperture was occupied by rings of transverse rugæ, studded with rounded protuberances and fungoid tumours; the lining membrane of the rectum was thrown into prominent bluish longitudinal folds streaked with plexuses of varicose capillaries. An incision into the anal protuberances showed calyciform phlebotomies filled with blood-clot: into the longitudinal rectal folds, a spongy tissue, the pores of which were formed of the lumina of the dilated veins, the septa by their coalesced walls. For thirty years, the man, who led a sedentary life as a solicitor's clerk, had suffered from piles, which frequently bled, often for a fortnight at a time. Three years before his death, the piles ceased bleeding; and hæmaturia came on, and continued, with the exception of an interval of two months, to within a week of his death. He came into the Meath Hospital a month before his death, because of painful and frequent micturition, which had not previously attended the hæmaturia. The urine was as dark as porter, and showed hosts of blood-corpuscles. There was neither œdema, dyspeptic symptoms, or lumbar pain; no evidence of renal, or vesical calculus of purpura, or enlarged prostate. The diagnosis was considered to lie between villous tumour and hæmaturia vicarious to the habitual discharge from the hæmorrhoidal veins. Much difficulty ensued from the coagulation of the blood in the bladder after the use of styptic and astringent medicines. Neither washing the bladder with a large double catheter, nor the use of the aspirator-catheter, nor oval suction of the catheter removed sufficient clot to relieve the urgent symptoms. Dr. Foot attempted the digestion of the blood-fibrine by injecting the bladder with a solution of pepsine, 20 gr.; dilute hydrochloric acid, ʒij; tincture of opium, ʒj; warm water, 4 oz. This, though it occasioned much smarting, was followed soon by the easy passage of much softened coagula. Cystitis resulted, probably from the amount of instrumental interference; and the urine, retaining its porter colour, became alkaline, ropy, and foetid. These symptoms subsided under the use of salicylic and benzoic acids, and the urine regained its usual odour and acidity, lost its hæmorrhagic character, but exhibited a deposit of pus-cells. The piles at once again

began to protrude and bleed, forming large, irreducible, oedematous tumours, which were relieved by leeching and puncture. While the patient was hopeful of his restoration to health, rigors, and vomiting suddenly occurred, followed by rise in pulse, temperature, and respiration, and soon afterwards by an apathetic and drowsy state, and he sank in fifty hours after the appearance of this febrile movement. The amount of subcutaneous and visceral fat the corpse presented, and its very muscular condition was singular, considering the very protracted hæmorrhages to which he had been accustomed.

Aneurism of Aorta, with Aortic Regurgitant Disease.—Dr. J. W. MOORE exhibited the enormously large heart and the thoracic aorta of a man, aged 29, who died in the Meath Hospital on April 6th. The deceased had suffered from rheumatic fever twelve years ago, since which time he had been subject to a beating of the heart. His family was healthy; his wife died five years ago—a circumstance which led him into habits of intemperance. He often took ten pints of beer a day as “opening medicine”. A year before his fatal illness, he contracted venereal disease, having a chancre, but no sore-throat. He complained of “catching cold” in January last, when a troublesome cough set in. Early in February, he was admitted to hospital. He then presented all the physical signs of aortic regurgitation, with extreme hypertrophy of the heart, especially on the left side. A double murmur was audible at the base—the second murmur was musical, and was heard even in the posterior tibial artery. There was also a systolic apex murmur. The area of precordial dulness was much increased, particularly towards the left—the transverse measurements of dulness being five inches and three-quarters at the level of the nipple, and five inches and a half at the level of the sixth rib. Vertically, in the left parasternal line, the dulness extended eight inches, commencing two inches and a quarter below the clavicle. But this area was not uniformly dull, for a transverse band of comparative clearness separated the true precordial dulness from a second region, corresponding to the second and third ribs, throughout which the sternum was dull. A second area of visible pulsation coincided with this, and a double murmur was clearly audible in the same situation. The diagnosis was aneurism of the ascending aorta, aortic regurgitation, and resulting hypertrophy and mitral incompetency. On February 9th, the patient complained of great headache. On the 22nd, the second centre of pulsation was much less remarkable. On the 25th, his feet began to swell. On March 6th, cedema of lower lobe of left lung; on March 7th, systolic apex murmur had become musical, and was intensified; on March 9th, there was dulness on percussion over bases of both lungs posteriorly; next day, tenderness over, and enlargement of, liver. On March 14th, he had excessive dyspnoea, rapid increase of anasarca of the lower extremities without albuminuria [urine scanty, high coloured, turbid, and strongly acid], and spots of purpura on the legs and thighs. On March 20th, there was slight ascites. The dropsy increased, the heart failed, the pulmonary cedema spread, and the man died on April 6th. Every chamber of the heart was filled with “black-currant jelly” coagula. Partly fibrinous clots passed into the pulmonary artery and the aorta from the ventricles. The heart, for most part freed from clots, weighed two pounds one ounce and a half. Its chambers were all dilated, and there was considerable hypertrophy of the ventricular walls. The mitral valve was widely dilated, and its curtains were fringed with fibrinous deposits (apparently recent, as if “whipped” from the blood). There was extensive disease of the aortic valves. Half an inch above them, a globular aneurism, its sac filled with soft clots, and the size of an orange, sprang from the anterior wall of the aorta. This vessel showed specks of atheroma, and was besides the seat of a more recent attack of endarteritis deformans, the *intima* being thrust up by an underlying cell-proliferation, and the lining membrane of the vessel being readily detached.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

JOSEPH COATS, M.D., Vice-President, in the Chair.

Ulceration of Œsophagus and Cancer of Stomach.—Dr. ALEXANDER ROBERTSON presented the parts removed from a man, fifty-four years of age, who had suffered for eight months from difficulty in swallowing; the food seemed to be caught in two places, one half way down, and the other at the stomach; latterly a bougie could not be passed into the stomach. He presented the aspect of one suffering from malignant disease. A large globular tumour was found growing from the posterior wall of the cardiac orifice; about the middle of the Œsophagus, a large circular ulcer, with several small ulcerated patches, were found, and these had constricted the passage to a considerable extent.

Stricture of Œsophagus and Abscess.—Dr. ROBERTSON also showed

a very marked case of stricture of the Œsophagus, near its lower end, scarcely admitting a crow-quill. Above this, a small abscess was found firmly adherent to the pleura of the lower lobe of the left lung and to the aorta; there was some ulceration, and pus had escaped into the left lung. A bougie had been tried during life, but of course it failed to enter; Dr. Robertson thought this attempt to pass instruments might have something to do with the formation of the abscess, although no injury had been done so far as known at the time. The patient was a woman, thirty-one years of age; the symptoms had lasted six months.

Intraocular Sarcomatous Tumours.—Dr. THOMAS REID showed four eyeballs with intraocular tumours; and presented also microscopic sections.—CASE I. A man, aged 50, shown to the Society last session (BRITISH MEDICAL JOURNAL, April 10th, 1875), had had, apparently for about twelve months, a tumour in the ciliary region of the left eye; and, as it began to increase, the eye was enucleated in July 1875. On making a vertical section of the eye, after hardening in chromic acid, the tumour was found to occupy the lower half of the anterior chamber, involving the corresponding part of the iris and ciliary body, and extending backwards in the choroid as far as the equator of the eyeball; it was covered by the retina, which was separated as far back as the optic nerve entrance, but was otherwise unaffected. The tumour had evidently originated in the ciliary region. It was tolerably firm, and of a dark brownish appearance, consisting mainly of round cells in a fibrous stroma, with a slight admixture of fusiform cells. No recurrence has taken place as yet (twelve months).—CASE II. The right eye was removed from a man, aged 45, about eighteen months ago. There was great exophthalmia, and there were staphylomatous protrusions in the anterior segment of the ball, without actual rupture of the coats; the eye measured about an inch and a half in length, and one inch and three-quarters in breadth. On making a section of the hardened eyeball, the cavity was found to be completely filled with a whitish pulpy mass, having in its centre a more solid and pigmented tumour, about the size of a filbert. There was no remnant of the choroid in any part. On microscopic examination of both the hard and soft parts, the tumour had the characters of a round-celled sarcoma. Six months after the operation, the patient returned with a fungous tumour occupying the alveolar process of the superior maxillary bone; and the patient died in five months thereafter, without any return of the disease in the orbital cavity.—CASE III. A male child, aged eighteen months, was admitted to the Eye Infirmary, in May 1874, with acute inflammation of the right eye and exophthalmos; the anterior chamber being filled with blood, no ophthalmoscopic examination could be made. The disease had appeared three months previously, and had been treated locally by stimulants and astringents without benefit. Cancer of the eyeball was diagnosed, and enucleation was carried out in the course of a week, under chloroform. On removal of the ball, the orbital cavity was found filled with cancerous matter, the greater part of which was also removed. On examining the eyeball, a tumour was found to have penetrated the sclerotic behind, and to communicate with the cancerous mass in the orbit. A month later, the tumour recurred in the orbit, but no further interference was advised, and the child died in October following. On further examination, after hardening, the cavity of the vitreous body was seen to be filled with a tolerably firm whitish substance, communicating, through a narrow opening, with similar structure enveloping the sclerotic. Under the microscope, the tumour was found to be a round-celled sarcoma with a fibrous stroma.—CASE IV. A man, aged 65, was admitted, in September 1874, complaining of dimness of vision in the right eye; and, on ophthalmoscopic examination, separation of the retina on its outer aspect, near the equator, was seen; there being no congestion or symptoms of irritation of any kind, the existence of a tumour was not suspected. In August 1875, the patient returned, having suffered for a month with acute pain in the eye, associated with staphylomatous protrusion in the upper and outer aspect of the ball, the pupil was dilated, and there was a glaucomatous appearance; slight exophthalmos existed. Tumour of the eyeball was now diagnosed. The patient's health, hitherto tolerably good, had now become slightly affected. Although, on examining the liver, some enlargement, hardness, and slight nodulation were detected, it was determined to enucleate. On removing the eye, the orbit was found to be filled with cancerous matter, the greater part of which was removed. On examining the hardened eyeball, the cavity of the vitreous body was found to be filled completely with a deeply pigmented structure, which, under the microscope, showed the usual characters of melanotic cancer. The patient died six months later, the disease having recurred. No *post mortem* examination was made.—Dr. Reid said that, in Cases I and III, the disease appeared to be of local origin; while in Cases II and IV, the eye seemed to be involved in a secondary way, or, at least, this local disease was coincident with a more serious

constitutional affection. In Case 1, the history and development of the tumour pointed to its being less malignant in its nature, or, at least, of slower growth. This view was so far confirmed by the non-recurrence of the disease, and the microscopic examination showed it to differ less from the normal structure of the choroid than in the other cases.

SOUTH OF IRELAND BRANCH.

W. J. CUMMINS, M.D., President, in the Chair.

Specimens.—Dr. R. ATKINS exhibited the following specimens. 1. The prepared left hemisphere of the human brain, with the convolutions differently coloured and lettered, illustrating their topography, together with a corresponding index of reference.—2. A cholesteatomatous tumour, enclosed in a fine capsule from the pia mater at the beginning of the fissure of Sylvius, of the right hemisphere of the human brain. The tumour, as large as a filbert-nut and rough and nodulated, had been found accidentally in a lunatic suffering from chronic brain-wasting, and had produced no special symptoms during life.—3. The condyles and half the shaft of the left femur affected with suppurative osteitis, causing the almost total destruction of the bone; the specimen was taken from the body of a lad, who had died in the Cork Lunatic Asylum of the disease, having suffered from it for three months. The lad was highly strumous, and had had disease of the bone in the same situation on a previous occasion, which had got well.

Uterine Rheumatism.—Dr. O'FLYNN read a paper on uterine rheumatism. After expressing his opinion that this affection was more common in women after labour than was generally known, in consequence of its liability of being confounded with other diseases incidental to the parturient state, he mentioned the scanty notice which was taken of it in the standard works on obstetrics, and then proceeded to detail the symptoms in an acute case, as observed in several by himself. The pains are paroxysmal, and recur at regular intervals; they generally only attack a portion of the uterus, such as the cervix, fundus, right or left side; but they are migratory, and change from one part to another. They have also a tendency to attack the joints; and in the interval between the paroxysms there is exquisite tenderness. During a paroxysm, the uterus seems to form a tumour in the hypogastrium, and there are sour-smelling perspirations; the patient is generally unable to move; and the lochial and mammary secretions are normal. There is more constitutional disturbance in hysteria, and the pain is not paroxysmal like the rheumatic pain, and the affection may be distinguished from severe after-pains by the fact that in the intervals between the latter pressure is borne without any suffering. Dr. O'Flynn advocated the alkaline plan of treatment, having used it successfully in several cases which he narrated; and concluded by asking the question as to the effect of the disease on the progress of labour, whether it impedes the contractile power of the uterus, or whether it can be enumerated as one of the causes of lingering labour.

Puerperal Disease.—Dr. W. J. CUMMINS read a paper on puerperal disease. He alluded to Dr. Priestley's late work embodying the recent discussion at the Obstetrical Society as embracing all that is now known upon the subject; and stated that Dr. Priestley adopts Dr. A. Farre's definition of puerperal fever, viz., "a continued fever communicable by contagion occurring in women after childbirth, and often associated with extensive local lesions, especially of the uterine system". To this Dr. Cummins thought the following words should be added, "sometimes sporadic, but generally epidemic", as bearing practically on what has been well termed "the burning question" as to the duties of the medical man in carrying on obstetric practice when zymotic diseases and puerperal fever are rife. The great majority of authorities who spoke at the discussion referred to denied the occurrence of a specific puerperal fever coming on only in puerperal cases, but the annals of medicine afford undoubted evidence of the epidemic character of puerperal fever at definite epochs. Dr. Cummins stated that his experience of puerperal fever was in accordance with the generally received opinion that it is epidemic. Putting aside the question in what epidemic influence consists, he asks what is the nature of this in puerperal fever, is it not something specific? and, moreover, is it not a specific influence peculiar in lying-in women, and something which men or non-puerperal women do not take, however exposed to its influence? and from this it follows as a logical sequence, that medical men must exercise more caution during epidemic seasons than at other times. Dr. Cummins next alluded to the fact that students dissecting or engaged in *post mortem* examinations do not convey the disease to midwifery patients during non-epidemic periods; and concluded by detailing his own experience relating to contagion, and the method which he adopted in disinfecting himself when attending zymotic diseases and midwifery cases at the same time.

CORRESPONDENCE.

REPRESENTATION OF THE UNIVERSITIES OF ABERDEEN AND GLASGOW.

SIR,—Will you allow me a little space to say a word regarding the candidature for the representation of the Universities of Aberdeen and Glasgow?

I think it would probably be for the advantage of the profession, and of the public interests attaching to it, that a member of the profession should be returned; although I do not think that it is so plain that it would be so as at a first glance would be supposed.

The subject of Poor-law medical relief is one, the reform necessary in which calls for judicious and "expert" treatment; and only one who has been personally concerned in Poor-law medical relief administration under the existing faulty arrangements, and knowing their faultiness, can be an "expert" qualified to give illustration and advice.

But, will you allow me to put in a word regarding another question, on which "expert" and rational legislation is as much required, and perhaps more so, and which has claims on the attention of an University constituency, the construction and administration of the Army Medical Department? We have had, sir, a number of red-hot theorists at work for some years back altering, amending (?), and disintegrating our service, and bringing the very name of "Royal Warrant" into disrepute. We have no one to speak for us in such a manner as to illustrate to outsiders our difficulties and hardships, which are of such a nature in general that outsiders can understand but very little of them without able illustration and argument. We need a man who is such an "expert" as to be able to do all this, and who is at the same time of so mature, judicious, and manly a form of mind as to be able to offer practicable counsel and propose honourable measures. We have few men in the Department possessing all this qualification—perhaps there are few elsewhere—but, still, I believe we have one or two; and, if not, there are surely some in the profession at large of such calibre of mind and capacity of sympathy combined as to fit them for being more reasonable and successful advocates on our behalf than we have yet had to speak for us.

Dr. Farquharson is spoken of; he is a doctor; he is a landed proprietor; he is a Liberal; he is an Aberdeenshire man, though not, I think, an Aberdeen University man; he has been some years in the Guards. And this last qualification is the one which unfits him most of all for taking any part regarding army medical reform. He would, on this subject, speak with the received authority of one who has been an "army surgeon", and he would be utterly unqualified to impart, from his own experience—at home with the Guards—any knowledge whatever of the most ordinary form of life and duty in the Department at large throughout the general service abroad and at home, which is most perfectly unlike life and duty as he has seen it with the Guards.

Dr. Richardson's name was mentioned in the BRITISH MEDICAL JOURNAL of last week. But I have not seen it stated on which side Dr. Richardson's political principles range themselves.

While there is yet time, however, might it not be well to ascertain if any other eminent and able member of the profession would allow himself to be brought forward, such as Professor Maclean (Netley), Dr. Murchison (who has served in India), Mr. Simon, Sir Henry Thompson, etc.?

Begging you will excuse my thus having trespassed on your time, allow me to sign myself

A CONSERVATIVE VOTER AND ARMY MEDICAL SUFFERER.

* * * On the subject of Dr. Farquharson's knowledge and views of army medical reform, our correspondent is entirely in error. Dr. Farquharson retired many years since from the Guards; he is especially well informed as to the wants of the Army Medical Service; he is an active member of our Parliamentary Bills Committee; he has been for many years one of the most active and useful agents in promoting army medical reform, and has been repeatedly chosen by the most active reformers in the Service as their mouthpiece, in communicating their grievances and devising methods of improvement. No man has, indeed, rendered better service, or is more trusted by the army medical officers generally.

OAKUM-PESSARY.

SIR,—I beg a little space to answer the letter of Dr. Edward Tilt in the JOURNAL of Saturday last on my communication about the oakum-pessary.

I must ask Dr. Tilt to re-read my communication; he will then find

that he has slightly misread or misunderstood my statements. I distinctly stated that I was indebted to Dr. Copeman of Norwich for the original idea of using tow; and I only said that the oakum might be applied by the patient herself; I did not say "as easily as by her medical adviser".

As to the cases chiefly benefited by this treatment, they are those of prolapsus more or less complete. I used the phrase "cases requiring support" advisedly, as this treatment is more applicable to them than to those where there is any flexion or version to be dealt with.

I am very happy to give this further explanation of what might, perhaps, have been more explicit; my motive was to save space in the JOURNAL.—I am, etc., HERBERT M. MORGAN, L.R.C.P.

Lichfield, September 26th, 1876.

OBITUARY.

FRANCIS SIBSON, M.D., F.R.S.,

VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

THE intimation of the sudden death of Dr. Sibson, which was conveyed in our columns last week, will have been read by all with acute regret; and to the pain which this sad event has inflicted, is added the shock of news which is altogether surprising and unexpected. A few weeks since, at Sheffield, he was present in all the strength of his active manhood; as busy, as energetic, as earnest, as hearty, and as kindly as ever. His fresh and cheerful bearing, his warm and affectionate greeting, his ever ready sympathy and help, and his entire devotion to the public interests of the Association, made him as prominent and esteemed a figure at this as at all our meetings for many years past; and he left the meeting to take a customary holiday in Switzerland in all the strength and hopefulness of his nature, which did nothing, either of play or work, by halves.

It was at the close of his holiday, and on the very day that he had telegraphed home announcing his immediate return, that his life suddenly ended. He had entered the lavatory of the hotel, and was found there prone on his face, having fallen forward insensible. Shortly afterwards he died. There was no *post mortem* examination, and the immediate cause of death was not, therefore, ascertained with certainty. It appears, however, to have been due to the rupture of a large aneurism in the neighbourhood of the heart. On more than one occasion during the last year or so, Dr. Sibson had suffered from symptoms of serious disturbance of the circulation: numbness and pain in the left arm, enlargement of the axillary region, and two attacks of syncope. He had complained also of cerebral disturbance, rendering him temporarily unfit for work; but, after short periods of rest, had recovered. He does not appear to have consulted any medical friend as to the cause of these symptoms, not even those to whom he had occasion to mention them. His habits had for many years been very active, and even athletic. He took long and active exercise with great regularity every morning in Hyde Park, was steadfast in the use of dumb-bells, and would often carry an iron bar while walking fast, and actively exercise his arms swinging the bar as he walked. He retained his activity to the last.

Dr. Sibson, who was 61 years of age at the time of his death, was born near Maryport in Cumberland. He received his general education in Edinburgh, and also a portion of his professional education. While there, he had the opportunity of witnessing a number of the cases of cholera which occurred in that city during the epidemic of 1831-32.

Respecting his early professional life, Mr. White of Nottingham writes to us: "Dr. Sibson distinguished himself in his student's career at Edinburgh, and afterwards at Guy's and St. Thomas's Hospitals, at the latter of which he gained the good opinion, amongst others, of the late Dr. Hodgkin, by whose interest mainly he obtained the appointment at Nottingham, and to whom Sibson was, thirteen years afterwards, indebted for a large share of his introduction to London practice. Dr. Sibson was resident surgeon to our hospital for thirteen years (1835 to 1848), during which time he not only performed his duties in a manner which gained for him the highest esteem of all connected with the hospital (as evidenced by a valuable testimonial presented to him on leaving), but he pursued his investigations connected with the physiology and pathology of the organs of respiration, which resulted in his valuable papers on the Position of the Internal Organs in Health and Disease, published in the *Provincial Medical and Surgical Transactions*, 1844; the Mechanism of Respiration (*Phi-*

losophical Transactions, 1846); and those on the Movements of Respiration in Health and Disease, published in the *Medical Gazette* in 1848 and 1849. During this time, also, in conjunction with the late Mr. Waterton of Walton Hall, Dr. Sibson made a series of experimental observations of the effect of the woollen poison, which added much to the knowledge of its action which we then possessed. During the time of his residence in Nottingham, he was an incessant worker and a most accurate observer; and I need not tell you how his genial disposition endeared him to a very large number of friends, amongst the survivors of whom his recent loss is most keenly felt."

Dr. Sibson graduated as M.B. of the University of London in 1848, and as M.D. in the same year. His name appears fifth (out of eight) in the honours list in medicine at the M.B. examinations, having before it, among others, the names of Habershon and Wilks, and next after it that of Savory. At the M.D. examination, he took the gold medal for his commentary upon a case in medicine. Very few men would be equal to the feat of grasping the great range of subjects involved in passing the whole series of examinations required for the degrees of the University of London in the same year; and to have done so (while in practice) with such great distinction, competing against the pick of the best men working in the regular course in the London schools, affords an indication of his remarkable industry and intellectual power.

Dr. Sibson filled the position of Examiner in Medicine, and in June 1865 he was appointed a member of the Senate on the nomination of Convocation. He always took a keen interest in all matters relating to the University, and was constant in attendance at all important meetings of the Senate and its Committees.

Dr. Sibson became a Member of the Royal College of Physicians in 1849, and a Fellow in 1853. In 1853, he delivered the Goulstonian Lectures; in 1870, the Croonian Lectures on Aneurisms of the Aorta; and in 1873, the Lumleian Lectures. Dr. Sibson's services to the College were continuous and untiring. He was for several years Secretary to the College Committee on Classification of Diseases, and the complete Nosology ultimately published owed much to his untiring and unsparing editorial and secretarial care. Shortly after its appearance, he was presented with a valuable piece of plate by the College, appropriately inscribed. He was also for many years Curator of the Pathological Museum of the College, and recently a Censor. He had at heart the best interests of the College, and was often heard advocating them at the meetings of the Fellows.

He was elected a Fellow of the Royal Society in June 1849, after having contributed two important papers to the *Philosophical Transactions*; one being on the Mechanism of Respiration in Man and Animals. In 1872, he was elected a member of the Council of the Society, and served assiduously for the usual period of two years. At the time of his death, he had been for some years, along with Captain Douglas Galton, Treasurer of the Royal Society Club, in the promotion of the prosperity of which he took an active and cordial interest; and Dr. Sharpey writes to us: "The kindly feeling he entertained towards all its members was cordially reciprocated. He was rarely absent from the dinners, which he greatly contributed to enliven and render attractive."

On the establishment of St. Mary's Hospital in 1851, Dr. Sibson was elected, with Dr. Alderson and Dr. King Chambers, on the staff of physicians. When, some years later, a medical school was formed in connection with the hospital, he became one of the lecturers on Medicine. Previously to this, he lectured for some time on the same subject at Mr. Lane's School adjoining St. George's Hospital. In 1871, after twenty years of devoted service as a hospital physician and clinical teacher, he retired from office in compliance with a regulation of St. Mary's Hospital, and was appointed consulting physician. He also received from his present and former pupils a testimonial expressive of the high esteem in which they held him.

Dr. Sibson's first important contribution to medical literature was a paper on the Changes induced in the Situation and Structure of the Internal Organs under varying circumstances of Health and Disease. An abstract of this paper was read, with demonstrations, at the annual meeting of the Provincial Medical and Surgical Association at Leeds in 1843; and the paper itself was published in volume xii of the *Provincial Medical Transactions*. It presents evidence of the same elaborate care and accuracy which characterised all Sibson's labours. In the preparation of this essay, Dr. Sibson used, for sketching the position of the organs, a framework which had been suggested to him by his friend the late Dr. Thomas Hodgkin, to whom, in his writings, he acknowledges his indebtedness for much valuable instruction in pathology. Other contributions of Dr. Sibson were: a paper on Pericarditis, published in the *London Journal of Medicine* for October 1849, in which he described the effects of distension of the pericardium on the position of

the heart and other organs; a paper on the Position of the Viscera, the Configuration of the Body, and the Movements of Respiration in Chest Disease, read before the Westminster Medical Society on April 21st, 1849; a paper on the Falling in of the Chest during Inspiration in some Diseases of the Chest, read before the same Society in December 1849; one on Pericarditis, read before the Medical Society of London in October 1853, in which he pointed out the value of pressure as an aid to diagnosis by increasing the intensity of the friction-sound; one on the Form of the Chest in Health and Disease, read at the annual meeting of the British Medical Association in 1856; and a Lecture on the Influence of Distension of the Abdomen on the Heart and Lungs, published in the BRITISH MEDICAL JOURNAL for August 2nd, 1873.

Dr. Sibson's last contributions to medical literature were his two Harveian Lectures on Bright's Disease in Relation to the Heart and Arteries, in the autumn of 1875. The MSS. of these lectures it was his intention to place at our disposal for publication in this JOURNAL. He retained them during the summer for the purpose of completing their revision; but they were intended for publication in our pages during the months of October and November, and we trust to have the opportunity of so publishing them. They were lectures of great ability, and founded upon laborious research.

The work, however, which had most actively occupied the last years of Dr. Sibson's life was the preparation of two monographs on Pericarditis and Endocarditis for Dr. Russell Reynolds's *System of Medicine*. To these he had devoted infinite pains, and had protracted their preparation over a period of upwards of three years. They were nearly complete in proof at the time of his death, and will shortly appear in the forthcoming volume.

Dr. Sibson appears to have become a member of the Provincial Medical and Surgical Association in 1843, the year in which he read his paper at the Leeds meeting. At the annual meeting at Worcester in 1849, he moved a resolution to petition Parliament on the subject of secret poisoning by arsenic, and was appointed a member of a Committee (of which the other members were Sir Charles Hastings, Mr. Fuge, Dr. Hodgkin, Dr. Toogood, and Dr. Tunstall) to co-operate with the Pharmaceutical Society in preparing a series of resolutions concerning the sale of arsenic. In the work of this Committee, Dr. Sibson took an active share; and the result of its proceedings was the passing in 1852 of the Act regulating the sale of arsenic. At the meeting in Worcester, Dr. Sibson delivered the Address in Physiology, taking as his subject the Causes which Excite and Influence Respiration in Health and Disease. This address was published in the *Transactions* for 1850, vol. xviii. In 1854, he was nominated, under the then existing régime, a member of the General Council of the Association. In the animated discussions which took place in this and the following year regarding the proposed change of the name of the Association from "Provincial" to "British", and the alterations in its constitution, Dr. Sibson was at first one of those who regarded the proposal with apprehension; but he subsequently gave his cordial assent and co-operation in adopting and carrying into effect the new constitution. In 1861, and again in 1864, 1865, and 1866, he was chosen by the Metropolitan Counties Branch as a member of the General Council of the Association; and in 1866, on the death of Sir Charles Hastings, was elected President of the Council for three years. On his retirement from this office, he was appointed a Vice-President for life of the Association. At the annual meeting in Dublin in 1867, the honorary degree of M.D. was conferred on him by the University of that city. At the meeting at Newcastle-on-Tyne in 1870, Dr. Sibson read the Address in Medicine, the subject being the treatment of rheumatism and gout, illustrated by elaborate statistics of a large number of cases. On the same occasion, the honorary degree of LL.D. was conferred on him by the University of Durham. At the annual meeting in London in 1873, he was President of the Section of Medicine.

As a member of the Committee of Council, both as President of Council and, after 1869, a Vice-President of the Association, Dr. Sibson was most regular in attendance. It was at his suggestion that, in 1874, the proposal was made to apply a portion of the funds of the Association in grants for scientific research. At the first meeting of the Scientific Grants Subcommittee, he was appointed Chairman, and held that office up to the time of his death.

Dr. Sibson was one of the earliest members of the Metropolitan Counties Branch, and in 1863 was elected President. During his year of office, the Branch exerted itself to obtain an improvement of the regulations affecting the medical service of the army; and with this object deputations of its members waited on the Secretary for War (Lord De Grey and Ripon), the Duke of Cambridge, and Dr. Gibson, the Director-General. It fell to Dr. Sibson, as President, to take an

active part in these deputations; and it was soon evident that the part which he took in the matter was not merely that of one who felt himself bound to perform an official duty, but of one who felt warmly on the subject. When the condition of the army medical officers was in the same year (1864) brought before the general meeting of the Association in Cambridge, he was appointed one of the members of a Committee to consider what steps should be taken in the matter.

The news of Dr. Sibson's sudden death will affect with a sense of personal loss more men than would perhaps be similarly affected by the death of almost any other man in the profession. There was in Dr. Sibson much that attracted the affection of a very wide circle. He had very broad and wide-spreading sympathies, and a combination of qualities, virtues, and aptitudes, which are very rarely found together, and which fit their possessor to render great service to his fellows. The moral basis of his character was firmly laid in the strongest and most enduring rectitude of principle; he had a great love of goodness, a great hatred of all that was bad and mean; and a firm and abiding resolve to shape all his life by the rule of right doing. But he was neither puritanical in his associations, nor unjustly disdainful of weakness in others. There are many instances which we know of his life-long kindness and patience towards men, whose faults of character and action sorely tried his merciful consideration. He utterly abhorred self-seeking, and he believed in work far more than in words. He was so profoundly interested in the very intricate questions of medical anatomy and diagnosis, which were his life-long study, that when most actively engaged in them—and he was so engaged up to the last moment of his life—they never for a moment quitted his thoughts. From early morning till the late hours of night he gave every leisure moment to the elaboration of the particular subject in hand. No man was more intense in his devotion to the subject of his work; nor could any well be more patiently laborious in the collection of materials. The dissections upon which he founded his great work on *Medical Anatomy* were of the most minutely accurate and laborious character. He was never satisfied with anything less than the very nearest approach to absolute certainty and mathematical exactness which he could anyhow attain. He spent numberless hours, day after day, and year after year, in the post mortem room and the clinical ward, to establish even small facts upon numerically adequate data; and his minuteness and conscientious fastidiousness in the mode of depicting anatomical structures were the despair of successive artists. When he undertook any research, neither time, trouble, nor the lavish expenditure of hard-earned funds ever turned the balance against the determination to put forward only strictly reliable data. This patient accumulation of data; this wealth of detail; this laborious and even laboured exactness of description, characterise all his work. To many, they made much of his best work even repellent. He had a mind which loved analysis; which dealt easily with masses of facts and figures; and he had the conscientious desire always to marshal his data for subsequent examination by others, as well as to state his bare conclusions. None can have read the text of his *Medical Anatomy* without fully appreciating the enormous labour to which it testifies; and the same quality marks his various lectures and addresses. It is a very high merit; but to the many it is not attractive, and probably prevented his writings from ever being fully appreciated by any but those students of the subject who could be sustained by an enthusiasm somewhat like his own, and go through great masses of fact in order to estimate the value of the conclusions based upon them. A more dogmatic and facile method of statement would no doubt have made Dr. Sibson's work more popular; but for such popularity he never strove.

The same qualities marked him as a hospital physician and teacher. Indefatigable in investigation of his cases; minute, laborious, and detailed in diagnosis; enthusiastically interested in the physical diagnosis of the maladies of the chest-organs, which were his special subjects of investigation, Dr. Sibson was deeply beloved and respected by the intelligent students who alone were worthy to learn from him, and who alone could give the time and attention necessary to appreciate his teaching. His vigorous and emphatic elocution, his conscientious study and development of all the parts of medicine, made his lectures extremely attractive to all who were not repelled by his determination to exhaust the subject which he treated, and the eagerness with which he plunged into the most technical details.

As a lecturer at Mr. Lane's School and at St. Mary's Hospital Medical School, Dr. Sibson had always good classes and many strong admirers and excellent disciples. Even those who could not bring themselves to follow him into the inner mysteries of physical diagnosis, in which he revelled, acknowledged the vigour of his teaching, and admired the philosophic enthusiasm of the man. He had, too, always with his students the real popularity due to his recognition by all as "a good fellow." With successive generations of medical students

that phrase means a great deal; and Sibson, or "Sibby", as he was more commonly and affectionately called, was always described as "a really good fellow"—a little too hot, some thought, on the subjects of "auscultation and percussion", but still a really good fellow. In the intercourse with students, his real kindness of heart, his unflinching sympathy and prompt willingness to render assistance to any friend or to any good object, came very prominently into action. Every one of his students could rely on his personal friendship for them; he felt the relationship to be one which involved a *bond fide* claim on his kindness, and he never failed to respond to that claim; and to this many students, helped, befriended, and cheered in sickness, trouble, and times of discouragement, are ever ready to testify.

Dr. Sibson had considerable administrative power, and a warm interest in the public affairs of his profession. He never aimed at attaining any unduly preponderant influence in any institution to which he was attached; but his natural aptitude for business, his mastery of principles, his quickness in marshalling figures, and his clear perception of right principles of action, rarely allowed him to remain inactive in the affairs transacted around him. In his early career at Nottingham Hospital, he effected great improvements in the business management of the place; and both in the school and hospital to which he was attached in London he rendered valuable administrative services.

In the British Medical Association, Dr. Sibson was for many years a prominent figure, and it would be hard to name any man who has rendered better service to the Association, who had a more single-minded and enthusiastic devotion to its interests, or who was more justly and widely esteemed by its members. While it was still a provincial association, he enriched its *Transactions* by contributions of great scientific value; and, as reader of an address in Physiology and of one in Medicine, he twice contributed valuable papers. As the first President of the Committee of Council after Sir Charles Hastings, he established valuable precedents, which cannot be too rigidly followed, and which have never been deviated from without injury to the Association. Hospitable, laborious, conciliatory, and courteous, he abhorred self-seeking, and advocated always the most open acceptance of suggestion and criticism, and the most rigid attention to order in business. The great meetings at Oxford, Dublin, and Leeds, which did so much to establish and enlarge the *prestige* of the Association, owed much to his influence; and, although subsequent events alienated from its councils Stokes, Acland, Paget, and other friends of that date, Sibson's personal influence always contributed to maintain in their minds, and that of others of the leading members of the Medical Council individually, friendly relations with the Association and its governing body. His loss will be greatly felt in the councils of the Association. The debt which the Association owes to him was in some measure returned; for the great personal confidence which the country members felt in his ability and character first laid the foundation of his successful practice as a consulting physician in London. Commencing late in life practice in the metropolis in the highest department of his profession, backed by no great school, detesting the advertising practices which some have found an easy path to practice; little careful to exact good fees; liberal in his expenditure and generous in his charities,—Dr. Sibson attained to a very remarkable success in the course of his less than twenty years of metropolitan experience. This was wholly founded upon his solid work and considerable powers; upon the great confidence of his provincial brethren, and the esteem which he universally acquired from those who knew enough of him to discern below a profuse courtesy of manner the qualities of sincere uprightness, high principle, and hearty kindness, which were the central core of his character.

His life and character afforded a high, useful, and encouraging example; his professional works will always retain an unalterable value as records of patiently observed facts in the anatomy, pathology, and physiology of disease; and his memory will long be held dear by a large body of his professional brethren.

THOMAS LAYCOCK, M.D.,

PROFESSOR OF THE PRACTICE OF MEDICINE IN THE UNIVERSITY OF EDINBURGH; PHYSICIAN TO THE QUEEN FOR SCOTLAND; ETC.

ON September 21st, there passed away in Edinburgh one of the most voluminous writers, ingenious thinkers, and hardest-workers in our profession. Dr. Laycock, the erudite Professor of the Practice of Medicine in the University, died of pulmonary consumption at his house in Walker Street, Edinburgh, on that day. He had been unable to attend to his professional duties for about five months, his disease being a fresh outbreak of phthisis, with which he had been threatened twenty years previously. At that time, his life was pronounced to be

a most precarious one by several of the best men in London, but he seemed to have quite recovered. In 1866, he had his left leg amputated by Mr. Spence for disease of the knee-joint, and, for a time, his life was in the utmost danger, while his sufferings were most intense. Ever since then he has been somewhat of an invalid, but active and hard-working as ever. In April last, he caught cold on a railway journey; the old mischief in his right lung seemed to have been roused into fresh action; he began to cough, and to suffer from dyspnoea and vomiting after meals, and those symptoms steadily increased in spite of treatment. His strength was utterly prostrated at the last, but mentally he was quite clear, and as fond as ever of speculating about his own symptoms and sensations and his favourite medical questions. The *post mortem* examination showed old disease of both lungs, with a considerable amount of recent tubercular degeneration all through the right. The brain showed some atrophy, the convolutions were exceedingly numerous, and it weighed forty-eight ounces. He was sixty-four years of age.

Dr. Laycock was the son of a Wesleyan minister, and was born on August 10th, 1812, at Witherby in Yorkshire. At fifteen, he was apprenticed to Mr. Spence, surgeon, of Bedale. He afterwards studied at University College, London, and then, in 1833, went to study in Paris under Louis, Velpeau, and Lisfranc at La Pitié. After his return, he was appointed Resident Medical Officer of the York County Hospital; and, in 1839, he took his M.D., *summa cum laude*, at Göttingen. He was appointed Physician to the York Dispensary in 1841, Statistical Secretary to the British Association in 1844, Lecturer on the Theory and Practice of Medicine at the York School of Medicine in 1846, and, in 1855, he attained the crowning point of his professional life, by being elected Professor of the Practice of Medicine and Clinical Medicine in the University of Edinburgh, succeeding Dr. Alison in the Chair of Cullen. He taught there and practised as a consulting physician up to his death, with the exception of the session 1866-67, while he was suffering from the knee-joint disease and the effects of the amputation, when the late Dr. Warburton Begbie lectured for him in the Practice of Physic Course, and Dr. W. A. F. Browne in Medical Psychology; and the summer session of 1876, when Dr. Clouston, who had, since 1873, been associated with him in the latter course, and in the clinics at the Royal Edinburgh Asylum took his place with the assistance of Dr. Murdoch Brown. He was an F.R.C.P.E. and F.R.S.E., and Physician to Her Majesty for Scotland. He was chiefly consulted for nervous diseases, but his practice was never extensive in Edinburgh.

Dr. Laycock began to contribute to medical literature at a very early period of his professional life, and continued to do so unceasingly ever since. Anything like a list of all the papers and works he wrote could not possibly come in time. It is sufficient to say that they numbered over three hundred; and are to be found in almost every medical journal and periodical published in this country. His first paper was On the Acid and Alkaline Reaction of the Saliva, published in the *London Medical Gazette*, in 1837; and his last was On Reflex Automatic and Unconscious Cerebration, in the *Journal of Mental Sciences* for January and April 1876. He translated Prochaska's *Nervous System*, and Unzer's *Principles of Physiology*. He published his *Nervous Diseases of Women* in 1840; his *Principles and Methods of Medical Observation and Research* in 1856; and his *Mind and Brain* in 1860. Many of these went through more than one edition, and each new edition always contained much new matter—in fact, was generally rewritten throughout.

On considering this work of a man who has contributed so much to medical literature, the questions that naturally arise are: What has he done for medical science? What discoveries will be associated with his name? What generalisations has he made? We think that those questions can be answered in Laycock's case very satisfactorily now; and that, a hundred years hence, they will still be capable of being answered to his lasting fame. We shall place his work in what we think the order of its importance. The doctrine of the reflex functions of the brain, which he was the first to formulate in 1844 (*British and Foreign Medical Review*, January 1845), has slowly but steadily acquired a strength of belief that now places it among the accepted laws of brain-physiology. It threw a flood of light on many obscure points—and all points were then obscure—in brain and mind function and disease. It has been extended by Carpenter, and admits of still further extension. His next most important work, we think, may be reckoned to be the series of facts, generalisations, and speculations, contained in his work on *Mind and Brain*, in regard to the connection of mental power and deficiency, evolution and decay, peculiarity and disease, with the molecular changes in the encephalon and with states of brain. No one can say that his attempt to correlate consciousness and organisation, in all their myriad phases, was a completely

successful one; but few physicians will now deny that Laycock's point of view is the true one; that his whole governing idea is that of the genuine medical philosopher; and that the very attempt was a noble and a masterly one. The mere labour of collecting and arranging the facts was gigantic; and we believe that, if his lucidity had been equal to his depth, and his power of exposition equal to his thinking, his book would have marked an epoch alike in physiology and in psychology. It will ever remain a landmark in the region of the contact of mind with organised living matter. His work on *Hysteria and Obscure Nervous Diseases* will, we think, stand the test of time. It brought some order out of absolute chaos. His observations and hypotheses as to the effect of the brain and nerve-centres in the causation and regulation of animal temperature in health and disease, of nutrition, of anasarcas, of rheumatic and gouty inflammations, and in diseases generally, were both highly original and practical. He did much to make trophic centres in the brain real to medical men. His theories of diathesis and their applications to disease were most original, and brought into notice facts of importance to the practitioner. His theory of limited "vascular areas" in the brain corresponding to certain functional areas, and of the general correspondence between this development in embryo of the great nerve-centres and the great vascular tracts in the brain, have received much confirmation from the investigations of Heubner and Duret. His theory as to the division of the brain into the three systems of the basilar corresponding to animal life, the middle to sensorial-animal, and the higher to the intellectual and inhibitory functions of man, no doubt, contains much truth. His theory of the functions of the cerebellum being that of storing up and giving out, in a regulated way, supplies of *vis nervosa*, is highly ingenious. He was one of the first to apply the doctrine of evolution to the development of the nervous centres in the animal kingdom and in man; and indeed, in one of his early papers, he foreshadowed the evolution theory. His speculations as to "organic memory", and its hereditary transmission, are well worthy of study. And the last, but not least, of his achievements which the space at our disposal will allow us to mention, are his labours and writings in regard to public health. His papers on the Development of a General Law of Vital Periodicity and of the Return of Epidemics, on the Vital Statistics of England, and the Public Hygiene of Great Britain, and his Report of the Sanitary Condition of York, were of the greatest importance to the science of hygiene at a time when it was struggling and unheeded. They clearly showed that Laycock was no mere theorist. Looking at Dr. Laycock from a psychological point of view, he was a man of immense and unceasing industry, both in reading and thinking, of wide grasp, and of great mental ingenuity. His was a speculative and philosophical mind, with a strong tendency to look into the reasons of things, to think about everything, and to generalise in regard to everything he thought about. This was, in other respects, his weak point, for he could not help coming to general laws in regard to his facts, whether they admitted them or not. In his lectures on fever, he had every pyrexia to which a name had ever been given all marshalled in genera, and species, and groups, just like a botanist with his plants. He was systematic and orderly in his work, in his reading, and in his storing up of facts, of which he was a close observer and collector. The daily newspapers contained for him many facts illustrating medical psychology, which were duly cut out and put in their proper places. The medical press always contained cases illustrating his theories or suggesting others. His cases in hospital were always suggesting new ideas, and, above all, his reading of medical books—and we believe he was the best read man in English, German, and French medical literature in his profession—was ever bringing new ideas, and adding to his facts.

As a teacher, we must admit that Laycock did not always reach or interest the average medical student. He was, however, highly suggestive to the more thoughtful in his classes, and his teaching influenced them permanently throughout their lives, often giving a direction to their studies. He did very much for the teaching of mental diseases in the University of Edinburgh. He originated a summer course of lectures on "Medical Psychology and Mental Diseases", and had often as many as forty students. Many men took to asylum life in this way. His class was the nest from which many of the Northern Asylum superintendents took their fledgling assistants.

Personally, he was a man rather under the middle size, with a beautifully shaped head and very well cut features, of the "Neuro-arthritis diathesis"; as he described himself, with rather a cold manner, giving the impression of being somewhat egotistical, and not sufficiently alive to the feelings and *amour propre* of others. But, to those who knew him better, he was a genial companion and friend. He was a widower since 1869, and leaves a son and daughter; the former, Mr. G. L. Laycock, took his M.B. degree in the University of Edinburgh in August last.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE Parish of East Dereham has been constituted a Local Board and Urban Sanitary Authority by the Local Government Board, in compliance with a resolution passed at a meeting of owners and rate-payers on March 23rd.

THE Okehampton Board of Guardians have received a letter from the Local Government Board, intimating that they are prepared to invest the authority with urban powers for the towns of Chagford, North Tawton, and Hatherleigh.

THE HORSHAM BOARD OF GUARDIANS.

WE are requested to state that the remarks attributed to Mr. Bedford in the comments on the proceedings of the Horsham Board of Guardians in last week's JOURNAL (page 418), were not made by him. Mr. Bedford's position, as Clerk to the Board, precludes him from having a voice in their proceedings.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 21st, 1876.

Bennett, Arthur, Stawell, Victoria, Australia
Rule, George Frederick Henry, Elgin Crescent, Notting Hill
Todd, Howard James McCheary, Kennington Road, Lambeth

The following gentleman also on September 14th and 21st passed their primary professional examination.

Clitherow, Robert Edward, King's College
Elliott, Horace, Westminster Hospital
Hodge, Arthur, University College

MEDICAL VACANCIES.

THE following vacancies are announced:—

BELGRAVE HOSPITAL FOR CHILDREN—House-Surgeon. Applications on or before October 10th.
CLAYTON HOSPITAL, Wakefield—House-Surgeon. Salary, £120 per annum, with residence, etc. Applications on or before September 30th.
HEWAHETA, Island of Ceylon—Medical Officer. Salary, 5000 rupees per annum. Applications to the Committee, Gonomy Deltota, Ceylon.
HULL GENERAL INFIRMARY—House-Surgeon. Salary, £105 per annum. Applications on or before October 1st.
LEEDS PUBLIC DISPENSARY—Assistant Resident Medical Officer. Salary, £80 per annum, with board, lodging, and washing. Applications on or before October 14th.
NORTH DEVON INFIRMARY, Barnstaple—House-Surgeon. Salary, £100 per annum, with board, lodging, and attendance. Applications on or before October 10th.
ROTHERHAM HOSPITAL—Assistant House-Surgeon. Board, lodging, and washing. Applications to the Honorary Secretary.
ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum, and apartments. Applications on or before October 7th.
STOCKWELL SMALL-POX HOSPITAL—Temporary Assistant Medical Officer. Salary, £3 per week, with board and lodging. Applications on or before October 6th.
SUNDERLAND INFIRMARY—Junior House-Surgeon. Salary, £60 per annum, with board and residence. Applications on or before October 21st.
TOXTETH PARK TOWNSHIP—Assistant Medical Officer for the Workhouse.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BROWN, A. G., F.R.C.S. Ed., appointed Aural Surgeon to the London Hospital, *vice* W. Rivington, F.R.C.S. Eng., resigned.
DIXON, James D., M.R.C.S., appointed Junior House-Surgeon to the Newcastle-upon-Tyne Infirmary, *vice* G. Mickle, M.B., resigned.
EMMERSON, J. B., M.R.C.S. Eng., appointed Resident Surgeon to Memorial Hospital, Jarrow, *vice* W. K. Hefferman, L.K.Q.C.P.I., resigned.
HASTINGS, George, M.D., appointed Physician to the Westminster General Dispensary, *vice* W. Domett Stone, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

DOLMAN.—On September 18th, the wife of *A. H. Dolman, M.R.C.S. Eng., Derby, of a daughter.

OBSTINATE VOMITING IN PREGNANCY.

SIR.—I find in this week's JOURNAL a request by Quærens for suggestions as to the treatment of a case of obstinate vomiting in pregnancy. Did I know his name and address I would write to him on the subject; but I feel sure that if he will adopt the method I have published in the JOURNAL of May 25th, 1875, he will be rewarded by the recovery of his patient. Should he resolve to try the plan I advise, I trust he will favour me with the result, and should he desire any further particulars I shall be happy to communicate with him.—I am, etc.,
Upper Close, Norwich, Sept. 16th, 1876. E. COPEMAN, M.D.

SIR.—In reply to Quærens, I beg to say I have given oxalate of cerium in doses of ten grains. It is best given in thick mucilage, or barley-water, and may be repeated every four hours. Why not try Dr. Copeman's plan of dilating the os uteri with the finger? Dr. Copeman's success in these cases has been astonishing.—Yours,
March, Cambridgeshire, September 17th, 1876. W. EASBY, M.D.

SIR.—Quærens has pretty well exhausted the ordinary remedies for vomiting. He states that his patient is probably pregnant. If so, the vomiting is reflex, and its origin is in the uterus. Let him try bromide of potassium in scruple-doses three times a day; put a mustard-blister over the stomach for a few minutes every night at bed-time, and give the patient milk in quantities of not more than three ounces at once, often and at repeated intervals. A few drops (ten) of laudanum might be given with each dose of the bromide.—I am, etc.,
September 16th, 1876. J. M. F.

SIR.—In reply to Quærens, I beg to state that I have frequently used oxalate of cerium, and never found it fail in cases of pregnancy. It generally relieves the sickness in a very short time. I use it in three-grain doses, repeated every three hours, if necessary. Has Quærens ever tried two-drop doses of chloroform made into a mixture with mucilage? I have known it check obstinate sickness when the usual remedies have failed.—I am, sir, yours truly,
September 15th. W. W. HARDWICK, L.R.C.P. Ed.

SIR.—I should strongly advise Quærens to use oxalate of cerium in obstinate vomiting in pregnancy. I have used it for several years with marked results. I give two grains every four hours, placed on the tongue and washed down with a little cold water.—I remain, yours, etc.,
Reaford, September 15th, 1876. C. E. HERN ROGERS.

SIR.—I would suggest to Quærens that, the act of vomiting being induced by the state of pregnancy, the organ, the cause of the disturbance, should be attacked, and not the sympathetic organ the stomach, in this a weakly subject. To attain this end, I would either inject morphia over the region of the uterus, or introduce a medicated pessary *per vaginam* at suitable intervals; a warm aromatic or stimulant, associated with a mild aperient, if necessary, as a nerve agency, to the offending stomach; little fluid; rather strong extracts of meat, void of fat, and other light diet, as the patient can bear; if possible, open-air drive or exercise every day punctually. It is in such abnormal cases that medicines get into disrepute.—I am, sir, yours obediently,
410, Brixton Road, S.W., September 1876. E. POPE.

SIR.—Quærens has called attention to this obstinate complaint in last week's JOURNAL. I have at present a similar but less severe case under observation; and, apart from operative procedure, with its attending risks and prejudices (I refer to dilatation of the os, as pointed out by Dr. Copeman, cauterization by Dr. H. Bennet, and leeching by Dr. Clay of Manchester), I have found careful dietetic treatment most efficacious. Bismuth and hydrocyanic acid having failed, I relied on brandy and water (about a tablespoonful of each) being given when the sickness, retching, and feeling of syncope threatened. Should the sickness only occur at bed-time, one ounce of brandy in the form of punch is most serviceable; and, if administered while the patient is undressing, it will prevent the sickness, create a comfortable glow, and encourage sleep. In my case, the sickness was worse at bedtime, at tea (5 P.M.), and when attempting to get up in the morning. Breakfast in bed, and the recumbent posture for two or three hours afterwards, ward off the morning attack, and the patient could afterwards dress for an early dinner, and enjoy some solid food and a glass of mild bitter ale. She has substituted cocoa for tea and coffee, and seldom has anything but a breakfast-cupful of the former, and some fried ham or bacon and dry toast to the morning meal; only cocoa and dry toast at 5 P.M. A little cold meat, with bread and beer, is enjoyed at 9 P.M., provided it is followed up with the brandy, as indicated. The patient is now ten weeks pregnant.

My patient related the case of a lady friend whose sickness remained throughout pregnancy, and that "she owed her life to brandy." It is evident that, the disorder being reflex and nervous, we can only relieve the symptoms by operative interference or the partial production of anaesthesia, one effect of the above-named stimulant in conjunction with rest and a select dietary.—Your obedient servant,
September 15th, 1876. A. M. W.

P.S.—Another troublesome symptom in the above case is a "spasmodic cough," in some way resembling "whooping cough."

SIR.—In your number of September 16th, 1876, a correspondent (Quærens) asks, through the medium of your columns, for some suggestions with a view to the cure of a case of "obstinate vomiting in pregnancy" under his care. I would recommend to him the perusal of some excellent remarks on this subject in Dr. Gually Hewitt's work on *The Diseases of Women*. It is a trite axiom that the first step towards the cure of a disease is to know what the disease really is, and Quærens has surely some better foundation for his diagnosis and the consequent treatment than the only one he assigns—viz., Mrs. X's suspicion—seeing that after three months there are several well-marked "signs and symptoms of pregnancy." Quærens seems to have tried all the usual remedies of our *British Pharmacopœia* in such cases, except ipecacuanha and oxalate of cerium, both of which I have heard the late Professor Simpson of Edinburgh recommend in grain-doses, several times daily. I have had several severe cases of this kind—once, indeed, in which death from exhaustion seemed imminent; but I think it often happens in such cases, as in many others, that "when things are at the worst they mend." As Quærens does not appear to have used either solid opium, the Battley's liquor opii sedatives, or the hypodermic injection of morphia, I would advise a cautious trial of these means. In addition to the nutritive substances which he has been giving, I would recommend Quærens to try, in very small quantities, the best whisky and water, finely minced tender grouse, mutton, or beef, with the addition of a few grains of the best pepsine; and to supplement the food given by the mouth, by the administration of small nutrient enemata, composed of the usual ingredients, with the addition of some starch and laudanum, or Battley's solution, and a little pepsine wine. Perfect rest in the recumbent position must be enjoined, and food and stimulants should be given in very small quantities, fre-

quently repeated, so as to be diffused over the gastric mucous membrane, and thus to prevent their accumulation in the stomach, and their consequent indigestion and rejection. In fact, some cases are so severe and protracted as to require the same treatment, in the way of rest and regimen, as that recommended by Dr. Foster of Birmingham for gastric ulcer; and some may even require, on the principle of choosing the less (?), the induction of premature labour—a proceeding attended with such risks, from loss of blood and other evil consequences, as would, in addition to the already exhausted state of a patient, greatly lessen her chance of recovery.—Yours faithfully,
Lochalsh, N.B., September 19th, 1876. GEO. DUNCAN, M.D.

SIR.—The case described by Quærens in your issue of the 16th instant closely resembles one I have recently had under my care.

Mrs. Y. Z., aged 33, in her third pregnancy, was then advanced two months. Her constitution is delicate; she is also nervous and hysterical. Her bowels were irregular, and vomiting persistent, with short abatements, attended with violent retching, food being ejected soon after administration, followed by great depression, loss of strength, etc. I have adopted the following treatment with success, others having failed: R. Acidi hydrocyanici dil. m. xx; tinct. val'erianæ ʒij; tinct. calumbæ ʒij; aquæ mentha piperita ad ʒvj; a sixth part being taken three times a day, either alone or in a little iced water, should the stomach be found too irritable to retain the dose. A pill was also given night and morning, composed of cerii oxalat. gr. iij; morph. hydrochlor. gr. ½; bismuthi albi gr. i. The bowels were kept in regular action by a simple enema or coated aperient pills, when considered necessary. A mustard-poultice was applied over the lower part of the abdomen an hour or two before rising in the morning for a few days, then twice a week, and at last discontinued. The diet consisted of milk and lime-water, until she was better able to take food. All alcohol and malt liquor were and still are discontinued, as well as pastry and tea.

The treatment was continued for six weeks, with gradual improvement in health daily. She is now in her fifth month, and getting on remarkably well.

I am induced to send these notes, the case of which I speak having been one occasioning much distress and anxiety.—I am, sir, yours, etc.,
Dartmouth, Sept. 19th, 1876. F. ADAMS DAWSON, M.D.

SIR.—In answer to Quærens' letter concerning the use of oxalate of cerium in obstinate vomiting in pregnancy, I have found it answer when other means had failed, and now, as a rule, give it as my remedy, and in very few cases has it failed—if not to check it entirely, to give marked relief. The dose given in Smith's *Visiting List*, from Squire's *Companion to the British Pharmacopœia* of 1867, is one to two grains; but I have found this quantity not sufficient, and give three to four grains in a little milk twice a day, at the same time giving one drop of hydrocyanic acid in a teaspoonful of water three times a day. With the above treatment, I always advise a little milk and a dry biscuit to be taken in bed before attempting to rise.—Yours truly,
Sunderland, September 25th, 1876. THOS. F. HORGWOOD.

P.S.—Can any one inform me to what symptoms an over-dose gives rise, and what is the smallest dose which has produced any ill effects?

CHRONIC PNEUMONIA.

SIR.—If Enquirer would try strapping with adhesive plaster, and banded from the toes to the knees, giving tincture of perchloride of iron and tincture of nux vomica internally, I think he will find it the best treatment. I shall be happy to give him any other information he may require.—Yours, etc.,
Preston, September 23rd, 1876. ARTHUR T. HARRY KERR.

A CORRESPONDENT, who signs himself "Anonymous only in Friendship," is reminded that no notice whatever can be taken of anonymous communications; moreover, his remarks are unintelligible.

PROFESSIONAL ETIQUETTE.

A. B. and C. D. are on friendly terms, and practise in the same town. A. B. goes away for a fortnight, leaving his practice and patients in the hands of C. D. During the absence of A. B., one of his best patients (a lady) falls down and receives an injury of the knee; and on A. B.'s return, the lady's daughter calls to say that her mother prefers C. D. to continue attending her for this time. Was C. D. acting in accordance with professional etiquette in doing so?

Ans. Probably yes, at the spontaneous desire of the patient or friends; but he should communicate the fact to A. B.

MR. HUTCHINSON'S ADDRESS.

SIR.—I have read with much pleasure the letter of Philaethes in your JOURNAL of September 16th, and write to say I should much like to marry an amiable lady doctor who can earn £500 per annum, which, with my £250, would make us quite comfortable.—Yours,
AN ARDENT LOVER.

P.S.—Will you kindly ask Philaethes who is to keep an eye on Sarah Jane talking to the militia corporal at the back door, or to reprove Mary for putting boiling water into the children's bath before the cold, when wife and I are both engaged at tedious primiparous cases?

ABNORMAL PLACENTA.

SIR.—On July 15th, I was called to Mrs. W., a primipara. After a tedious labour, she was safely delivered of a male child. The placenta followed in due course, with the membranes; but, on examination, I found, to my surprise, that the bag of the membranes was not connected with the placenta, but the membranes came off from the umbilical cord about two inches from its placental attachment. The placenta was entirely outside, and free of the membranes. I have not heard of a similar case.—I am, etc.,
Wimborne Minster, September 1876. C. H. WATTS PARKINSON.

AN ADVERTISEMENT.

SIR.—The advertisement alluded to by Mr. Woodforde in last week's JOURNAL, formerly appeared with great regularity in the *World* newspaper, and I drew the attention of the editor to it. He immediately stopped its future insertion; and if all respectable papers would follow the example of the *World*, men of this class would find their main source of revenue cut off. The licensing bodies and the Medical Council are powerless to deal with cases of this kind; and we pay five guineas for the distinction of seeing our names in the *Register* side by side with others: which may at any time be found in the advertisement-columns of the weekly press, and especially in country papers.

If Mr. Woodforde care to apply to "Mr. Williams," he will find that that gentleman does not confine his attention to epilepsy alone; the "vital renovator" and the "universal pill" are stated to possess such wondrous virtues, that to establish a city of health it should only be necessary to provide for the regular and systematic dosing of the inhabitants by "Mr. Williams."—I am, etc.,
September 25th, 1876. D.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to **Mr. FOWKE**, not later than *Thursday*, twelve o'clock.

CHLORIDE OF LEAD AS A DEODORISER AND DISINFECTANT.

SIR,—The letter of Chemist in the *JOURNAL* of Sept. 2nd may be supposed to carry weight with those who read your *JOURNAL*, but are not specially engaged in his department, especially when backed by your own approval; therefore, I doubt not that you will allow me to answer it as shortly as possible. As an old laboratory pupil of Professor Daniell, working with my old friend Professor Miller in experiments on electricity, in constant association with Wheatstone and Faraday, I learned to examine nature with care and self-mistrust, and to value accuracy, truth, and system, in all physical and chemical work. And, though the last thirty-five years of my life have been devoted to the practical labour of an absorbing profession, I have ever pursued the study of my early life, and made it, as far as I could, applicable to medical practice. I can assure you and your correspondent that all his objections to the use of lead have been carefully considered by me. They have been made the subjects of direct and careful experiments, and I have given the public the benefit of the results, but not till I had, during many years, satisfied myself that the conclusions arrived at were satisfactory and true, and submitted them to the examination of scientific chemists of modern work. I have no pecuniary advantage to seek, and am now beyond the time of life that reputation is a matter of desire.

Chemist asserts very authoritatively that the use of lead must be wholly condemned, without giving any experiment to prove that his condemnation is anything more than known opinion, based upon the fact that chloride of lead is a fixed indiffusible substance (which adjectives I take to be convertible terms); but he ignores the fact, that sulphide of hydrogen is neither fixed nor indiffusible, but a gas obedient to physical as well as chemical laws. The mountain would not go to Mahomet, but Mahomet went to the mountain, and so it is in the domain of physics: the diffusible gas can be made to go to the fixed indiffusible solution. I assert that it will do so. The experiment is easily tried; and if the rough experiments on a large scale fail to convince him, let Chemist (who, I presume, has a laboratory and proper apparatus) take a long glass cylinder, graduated on the upper end, place a plate of glass, and dip the lower end in a pneumatic trough with water, and fill the cylinder with a mixture in definite proportions of sulphide of hydrogen and air; let it stand till the gas-mixture is perfectly still; then add a saturated solution of lead-chloride to the water in the trough, and observe the rapid disappearance of the gaseous mixture, which will be shown by the sizing of the water in the cylinder; ascertain its measure, and he will get the quantity of the sulphide of hydrogen absorbed, and see whether it does not correspond to the quantity in the mixture. Care must be taken that the mixture of the gases should be in perfect equilibrium: there should be no more water in the trough than is absolutely necessary for the experiment. The water should be drawn off and replaced by lead-chloride solution. Let Chemist try the experiment with a solution of nitrate of lead, and he will find it fail; moreover, he would introduce lead in a form that would be dangerous, and lead to all the results he prophesies for lead-chloride. As to expense, nitrate of lead may be procured from Bais Brothers, Jewry Street, at sixpence a pound. Thirty grains are sufficient for any ordinary purpose. I dare say other wholesale chemists will supply it on the same terms. Surely the one hundred and fifty-sixth part of sixpence is not a sum so large as to be a consideration. Such an objection is futile. Chloride of lead may be more cheaply procured for ought I know; but the objection to it so produced is, that being very insoluble, it would take a great deal of trouble to obtain a definite or saturated solution in the absence of heat and distilled water: it would be wasted. Chemist omits one important condition of its preparation from galena, which is, that the hydrochloric acid must be boiling. This leads me to infer that he has never made the chloride in his own laboratory. I should advise him to do so. I fail to see the logical sequence of his argument, that because the lead-stamping mills poison the fish and human beings, and therefore lead-sulphide must do so, seeing that lead-sulphide has nothing to do with the matter. Lead-stamping can have no connection with lead in the form of chloride or sulphide, except it may be incidentally and in a very small degree, and so far would extenuate the evil.

The advantage of the use of lead-chloride, as I have prescribed it—viz., 36 grains of nitrate of lead in two pints of water, and 120 grains of chloride of soda in three gallons of water, poured together and allowed to settle—is, that you get a definite saturated solution, easily made in town or country, wherever wanted, containing no more lead than is necessary to decompose fetid gas, not poisonous, for it cannot pass the bowel without being converted into a sulphide. The lead-sulphide, if pure (which in my solution it would be), is perfectly insoluble, except in strong nitric and boiling hydrochloric acids, and reducible only at a heat of 600 deg. Fahr. It cannot be absorbed by animal or vegetable matter, and is, notwithstanding Chemist's contradiction, as inert as powdered charcoal. It is precipitated as soon as formed; and if it escaped into the rivers, it would perhaps be washed down by strong streams to the estuary, where it would lie as black mud, but with this advantage over the present mud-deposits, that instead of giving off fetid gas at low water, where the sun shines upon it, it would remain fixed as the sand and shingle.

Chemist shuts me up with a quotation from Dr. Parkes; but he will find that it is quite beside the question, as I have not touched upon the question of poison-gases. Dr. Parkes is a very high authority, and deserves every respect and consideration; but facts are more to be relied upon than opinions, and I have only to say that carbolic acid is a very disagreeable thing to smell, almost as much so as fetid gas. Its vapour in large quantities is very poisonous. I have met with several cases in practice, in which I have traced serious symptoms to its use, which have vanished when the carbolic acid was removed. I can vouch for an instance in which seventeen valuable horses were poisoned by its vapour; and more than one instance has occurred, not under my own observation, of its having destroyed whole packs of hounds. It is destructive to most vegetable and insect life, but we have no evidence that it can be relied on to arrest contagion.

My object at first was to eliminate fetid gas from the atmosphere of sick rooms and hospital-wards. There can be no objection to dipping a towel in the clear solution and hanging it up anywhere in a room. This is done by many medical practitioners throughout the kingdom, and I have never heard of a failure. Surely it would be more wise to try so simple an experiment, and I have only to ask this of your readers.—I am, sir, your obedient servant,

R. H. GOLDEN, M.D. Oxon., F.R.C.P.,
late Physician to St. Thomas's Hospital and the *Dreadnought*.
United University Club, September 8th, 1876.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ALCOHOLIC BEVERAGES.

SIR,—It is frequently my lot, as a district visitor, to witness (as is the case with all those engaged in this useful work) the deplorable effects of intemperance in the homes of the working-classes. I strongly advocate total abstinence, but am told by many that they are "not strong enough to do without beer"; and in some instances I have seen how the moderate drinker has become in this way the immoderate one. I wish to know if any other drinks for a working man can be substituted for beer or cider? Secondly, what is the quantity a healthy working man ought not to exceed as his daily allowance? Thirdly, do alcoholic drinks promote or assist digestion? Fourthly, is it safe for a drinker of alcoholic stimulants to leave them off at once? I appeal for a professional reply to these questions, in order that I may feel that I am armed with satisfactory authority.—Yours, etc.,
September 18th, 1876. A DISTRICT VISITOR.

TREATMENT OF RESPIRATORY AFFECTIONS

SIR,—I should esteem it a favour if any of your readers would kindly inform me in your next issue, where I could obtain information regarding the treatment of affections of the respiratory passages by inhalation of emanations from the pine-forests of Switzerland, etc.—Apologising for troubling you, I remain, yours truly,
September 1876. INQUISITOR.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; The Harrogate Herald; The Dumfries and Galloway Standard; The Glasgow News; The Buxton Advertiser; The Wexford Constitution; The Yarmouth Independent; The Islington Gazette; The Manchester Courier; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, &c. have been received from:—

Dr. C. J. B. Williams, London; Dr. J. E. Morgan, Manchester; Mr. G. W. Callender, London; Mr. R. H. Meade, Bradford; Mr. H. Burdett, Greenwich; Dr. Joseph Rogers, London; Dr. J. C. Hall, Sheffield; A. B.; Mr. E. Brown, Llanbister; Mr. Ceely, Aylesbury; Mr. Arthur T. H. Kerr, Preston; Mr. Rowland Coombs, Bedford; Dr. Shettle, Reading; Dr. Syson, Huntingdon; Dr. Uhler, Maryland, U.S.; Mr. Thurston, Ashford; Mr. Emmerson, Jarrow; Dr. Johnston, Bolton; Mr. Hardwicke, Rotherham; Vindex; Dr. J. Milner Fothergill, London; The Registrar-General of England; Mr. Alfred W. Moore, London; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Saundby, Birmingham; Dr. Norman Kerr, London; The Registrar-General of Ireland; Dr. Edus, London; Dr. Wilkinson, London; T. L., Sheffield; L.K.Q.C.P.I.; Mr. W. K. Treves, Margate; Mr. Lucas, Neemuch, India; Dr. Wilberforce Smith, London; The Secretary of Apothecaries' Hall; Mr. G. Eastes, London; The Secretary of the Royal Microscopical Society; S. M., A. M. D.; Mr. W. H. A. Jacobson, London; Enquirer; Mr. Robert W. Ellis, Bristol; Our Edinburgh Correspondent; M.D.; Mr. W. Douglas Hemming, London; Dr. J. Ashburton Thompson, London; Mr. J. J. Gorman, Malton; Dr. Goodchild, Warwick; An Old Member; M.B.; Mr. W. W. Reeves, London; Dr. C. Chadwick, Tunbridge Wells; Dr. Davison, London; Warning; Our Paris Correspondent; Junius; Mr. Teevan, London; Mr. O. Schallert, London; Our Dublin Correspondent; An Associate; Dr. J. T. Arlidge, Newcastle-under-Lyme; Mr. W. Hay, Hull; The Secretary of the Obstetrical Society; Dr. Rabbagliati, Bradford; Dr. Andrew Clark, London; Mr. George Field, London; Mr. G. E. C. Jackson, London; Dr. F. P. Atkinson, Kingston-on-Thames; Dr. Roderick MacLaren, Carlisle; Mr. N. A. Scott, Gloucester; Mr. Hyde Houghton, Dudley; Dr. Charles Aldridge, Plympton; Mr. Townsend, Cambridge; Dr. Bentley, King's College; Mr. Nettleship, London; Mr. Charles Mackern, London; Dr. George Duncan, Lochalsh; Dr. Clouston, Edinburgh; Dr. Wiltshire, London; The Silicated Carbon Filter Co.; Dr. Egan, Dublin; B.A.; Dr. E. J. Wilson, Cheltenham; Mr. H. M. Morgan, Lichfield; Dr. F. M. Pierce, Manchester; Mr. W. J. Brown, Newcastle-on-Tyne; Dr. Walters, Reigate; Conservative Voter and Army Medical Sufferer; Mr. Francis Bateman, Whitechurch; Mr. Daniel Gibson, Hull; Inquisitor, Manchester; M.B., Loughborough; Mr. Thos. Cantton, Mullingar; Dr. Braidwood, Birkenhead; etc.

BOOKS, &c., RECEIVED.

On Tracheotomy. By W. Pugin Thornton. London: J. and A. Churchill. 1876.
The Harveian Oration. By the late Edmund A. Parkes, M.D., F.R.S. London: J. and A. Churchill. 1876.
Operative Surgery. By Christopher Heath, F.R.C.S. Part iii. London: J. and A. Churchill. 1876.
Sanitary Work in the Smaller Towns and in Villages. By Charles Slagg. London: Crosby, Lockwood, and Co. 1876.

INTRODUCTORY ADDRESS

DELIVERED AT

THE MEDICAL SCHOOL OF THE LONDON HOSPITAL,

*At the Opening of the Session, 1876-77.*BY ANDREW CLARK, M.D., F.R.C.P.,
Senior Physician to the Hospital.

GENTLEMEN,—I occupy this place to-day by the desire of the College Board, to bid you welcome to the London Hospital; to offer to you who are beginning, and to you who are resuming your studies, some words of counsel as to their management; and to express the hope that you will here worthily qualify yourselves for your future work in life, and that hereafter you will so do that work that you will maintain, as in times past your predecessors have maintained untarnished, the name and fame of this beneficent institution.

Twenty-two years ago, this College was opened by Dr. Little, then senior physician to the hospital, and now a member of its executive committee. That event was an important epoch in the educational history of the school. And now that we have touched another epoch, it will certainly be interesting, and it may not be unprofitable, to look back along the time which has passed; to note the more important changes which have marked its passage; and to observe whether they have tended to help or to hinder the work of healing the sick, of increasing our knowledge of disease, and of grounding our students in the principles and practice of our art.

Let us, in the first place, examine the hospital. Special departments have been instituted for the study and the treatment of diseases of the eye, the ear, the skin, the throat, the teeth, of venereal diseases, and of diseases of women and children. Modern instruments for the investigation as well as for the treatment of disease have been added without stint to the hospital armamentarium. A new *post mortem* theatre has been built and furnished with every appliance for study, for demonstration, and for research. Acknowledging the fact that hospitals exist not only for the reception of patients, but for the advancement of knowledge and the education of medical men, the governors have, from time to time, met with enlightened liberality the financial needs of the College. The addition of the Alexandra Wing in 1866, and of the Grocers' Wing in the present year, has made the hospital the largest in the metropolis. And now, with its eight hundred beds and its yearly tale of more than forty thousand out-patients, with its dense and busy population around, and the great port of London at hand, there can never be lack of abounding means for studying, in all their variations and degrees, the accidents, the disorders, and the diseases of mankind.

Turning now to the College, and the educational work which it regulates, we shall observe that, although the changes of the last twenty years are here less striking than those which have happened in the hospital during the same period, they are neither less numerous nor less important. For the most part, they consist in giving a more practical turn to the teaching of the students, and in making easier for them the difficulties of learning.

The College building has been enlarged. A reading room has been given to the students. The contents of the museum have been rearranged and catalogued. A gallery of models and drawings of skin-diseases has been added. The teaching of every chair has been supplemented by a class for demonstration and working. There have been originated courses of instruction for the application of chemistry, of the microscope, the laryngoscope, and of the ophthalmoscope, to the diagnosis of disease. Lectureships have been established on special classes of diseases. Particular wards with exclusive teaching have been set apart for clinical instruction. Examinations have been organised to test, and prizes have been created to reward, the progress of the students in their studies. Arrangements have been made by which every student attached to the hospital is expected, and will soon be required, to take a share in the work done within its walls. And, lastly, scholarships have been instituted in order to encourage a high preliminary training in general knowledge, and to foster diligence, thoroughness, and accuracy in clinical work.

Such are the chief changes which have been effected in the hospital and in the College during the last twenty years; and, reviewing them with as much critical impartiality as can be expected in one who has been concerned in them, and making allowance for the antagonistic

views with which some of them may be regarded, it must be admitted that, in the main, they tend to promote the attainment of the objects for which these institutions exist. But it is not pretended that those changes have yet enabled us to achieve an entire success. It has been felt and confessed that there is still room to make our education more efficient and complete, and to adjust our ample means with more exactitude to the varying wants and capabilities of individual students. We have, therefore, effected recently an important and crucial change in the constitution of the College. Upon conditions which need not now be specified, because they cannot now be here discussed, its management, hitherto conducted by the staff, has been transferred to a College Board, composed in greater part of representatives of the governors chosen from the House Committee, and, in lesser part, of representatives of the staff and of the teaching body elected by the Medical Council. In fact, for a definite time of trial, with power at the end thereof to ratify or to terminate the engagement, the College has been "taken over" by the hospital; and, in virtue of their subsidies to educational work, the governors will have a ruling majority at the new Board. To its deliberations the medical element will bring its technical knowledge, its educational experience, and its high responsibilities to the profession; the lay element, its larger leisure, its business habits, its freedom from the disturbing influences of professional jealousy, and its moral obligations to the interests of the hospital, and the well-being of society, which there it will virtually represent. From their united counsels we expect fresh accessions of administrative strength, unity of plan and of action, a closer supervision, and, therefore, a more efficient working of our educational machine; and, lastly, a higher kind and larger measure of educational success.

It is obvious that the working of this new constitution is necessarily beset by great perils; and, did we not believe, as we do, in the sincerity and in the zeal of those engaged, we should justly fear lest the partial counsels of merely personal interests or of party intrigue should prevail over broader and juster views. Happily, we are without grounds to justify indulgence in such fears. Happily also, if the scheme should fail—if, contrary to our expectations, loss, and not gain, should be the issue of the trial—we can still return to our former state, and resume our work upon the ancient lines.

But, whilst reckoning thus our gains, our losses must not be overlooked. They are neither few nor light; and it is only the strong vitality of the hospital organisation which has enabled us to refill the gaps which time has made and to show now so little of its scars. Of the staff of twenty years ago, only one remains to connect the active list of that day with the active list of this. Some, by length of service, have been promoted to the ease and dignity of the consultative office. Others have turned aside into different spheres of work. Death has had his share. And here gladly would I recall the names and services of those who helped to make, and in their time maintained, the reputation of the London Hospital, and whose names and services ought never to be forgotten in this place. But time will not permit me now to dwell upon this subject, and I must limit myself to a brief notice of one who, in the prime of life and at the height of his activity, has been taken recently and suddenly from amongst us.

For over thirty years, Dr. Letheby was lecturer on chemistry in this College. Full of his subject, lucid, and orderly in his thoughts, a fluent speaker, gifted with the power of popular exposition, an admirable experimenter, and abounding in illustrations of the applications of chemistry to medicine and to the domestic arts, he was, and he was justly, one of our most popular and successful teachers.

One of the first to bring to light the prevailing practice of systematic food-adulteration, to set forth the injurious influences exercised by certain modern manufactures upon health, and to point out the consequences and the remedies of our noxious gas-supplies—an accomplished chemist, an acute medical jurist, an admirable sanitarian, to whom we owe numberless improvements and contrivances in almost every department of public health—Dr. Letheby, although standing high in the estimation of the public, never received from the profession that full recognition of his merits which he had fully won. Dr. Letheby had made few original investigations; but certainly they are not the only measure of a man's usefulness to his College or to the community. If he was outspoken, we must not forget the respect which is due to a fearless independence. If he had enemies, is there not reason to suspect the sincerity of him who has none? If he erred in judgment, where is the man that is infallible? If he had weaknesses many and faults many, where is the human excellence which is greatly privileged from them? Making full allowance to his detractors, we can still say of Dr. Letheby that he was an able and an honest man, a loyal colleague, a true and genial friend, a benefactor to this College, a successful promoter of the applications of knowledge to the practical business of life, a valuable servant to the public—and

that his memory deserves, here at least, some more lasting expression of gratitude than this that I can offer it to-day.

The profession which you have chosen is one of the noblest, the most important, and the most interesting of all those occupations to which the highest human endeavours are turned. But it is also the most self-denying and the most arduous. Exacting the largest internal sacrifices, it returns the fewest external rewards. Neither wealth nor rank waits upon its longest or its best services; and he who is not prepared to find in its cultivation and in its exercise his chief and sufficient recompense has mistaken his calling and should retrace his steps. To prevent and to cure disease, to prolong life and to put back death—these are the broad objects of our art. Thus stated, how narrow they seem! and yet, when we penetrate their meaning, how vast are the interests which they are found to cover, into what conditions or relations of human life do they not enter! The well-being of the individual, as it is affected by development and education, by the regulation of labour and the formation of habit, by the discipline of the emotions and the control of the will; the continued existence of society, made increasingly difficult by growing complexity in the conditions of civilised life; and even the safety of the State, in so far as it may be imperilled by the ravages of epidemics, the evil effects of manufactures upon the health of crowded populations, and the improper hygiene of fleets and armies,—are all more or less dependent upon obedience to laws which it is the business of our art to discover and proclaim.

But medicine not only involves vast interests, it establishes, and for its existence it must maintain, and for its progress it must continue to multiply, the most intimate relations with every other form of knowledge. There is none into which it does not lead us; none with which it does not necessitate some degree of acquaintance; none which does not lend it aid. Nor is the entire domain of the physical sciences sufficient for its needs and purposes. With the facts of the mental and of the moral worlds it seeks as close and it holds as necessary a relation. And thus, throughout the whole realm of Nature to its utmost bounds, Medicine lays down its lines of inquiry and establishes its channels of communication. It is the metropolis of the kingdom of knowledge, and we are the privileged denizens thereof. Here we are brought face to face with the mysteries of nature, of life, of man, and of the Eternal which enfolds them. Here, in the light collected from every lamp of science and converged into a focus upon them, we may discuss the loftiest problems which can engage the human intellect. And here, in the seeking after truth, and in the doing of good, we may open for ourselves sources of interest and of happiness greater and more enduring than any other that the world can supply.

In feeble and broken outline, such is the art of Medicine, and such are the relations which it maintains; and, as year by year it grows in importance and increases in influence, our responsibilities become more numerous and solemn. * Even in a moderate sense it is neither a short nor an easy duty to discharge the obligations herein imposed, and in the highest sense it is impossible—our knowledge and our power of using it being both, although unequally, inadequate. For Medicine, with all its teachings and appliances, is still an imperfect art, in which the known suffers restriction from the unknown; and, for all the light which has been cast upon it, it is still burdened with errors and superstitions, still blind to the modes and measures of its ignorance, distracted by false aims, and shackled by imperfect methods. But to these external difficulties, which time will take away, we must add others, which seem to be inherent and ineradicable. It is true that here, as elsewhere in Nature, there is in like conditions an unalterable uniformity of action; and that in proportion to our knowledge of exclusive successions of actions is our power of controlling their direction, when it is capable of control, and our freedom from error. But the conditions in which Nature acts under the phenomena of health and of disease admit of such infinite variations from such minute disturbances that, in the midst of a constantly moving equilibrium of multitudinous forces essential to the life of every organism, the causal relations of things or states are with the utmost difficulty caught and demonstrated. There is, too, in at least one region of Nature, a sense in which this absolute and eternal uniformity of action must be denied; for although, from the standpoint of logic, it may be held that the *causal nexus* exists unbroken throughout the universe, from the standpoint of medicine it may also be held that it is certainly interrupted in man. Logic is neither the exclusive test nor the final measure of truth; and there are conditions in which strictly reasoned conclusions must suffer refutation from empirical observation. In the mystery of the human will—in the play of thought which connects the visible with the unseen—in the emotions which agitate the human breast—there is an element of disturbance which, in the phenomena of

disease, is almost always in action, and which, in the calculations of causality, can never be precisely estimated.

Again, in studying the history of pathological actions, we can sometimes observe that a certain malady recurring from time to time in the same individual, in apparently the same conditions, assumes new characters and a different quality of action under the influence of differentia so subtle as to elude the narrowest scrutiny. Even our advancing civilisation creates its difficulties, as the human organism perforce responds to its progressively changing environments. The nervous system, cultivated in every direction, strained, excited, hurried by the baleful exigencies of modern life, assumes an almost fresh relation to the other parts of the body, recasts its solidarity, and not only alters the complexion of accustomed diseases, but engenders new and puzzling disorders. Hence, it sometimes happens that the accumulations of experience become valuable only for their suggestive uses and their personal discipline. On fresh occasions, still far too frequent, our knowledge must be discovered and our practice framed anew; and our desire to help, fettered by the fear that we may harm, falls short both of its object and its end.

Nor should we here overlook those difficulties of medicine which lie in the personality of its cultivators. Inaccurate and insufficient observation, ignorance of the collateral knowledge necessary to a just interpretation of facts, narrowness of view, the substitution of names for ideas, lack of accuracy and method in setting down results, the confusion of things accidental or accessory with things essential, the disturbing influences of desire, the bias of preformed opinion, hasty and erroneous generalisations; these are all difficulties which seriously hinder or misdirect the progress of medicine; and they are difficulties from which no intellect, however trained and disciplined, is wholly free.

But this is not all. I cannot conceal from you that besides these and other difficulties to which I have not adverted, affecting the cultivation of medicine as a science, you will have to suffer many grievous drawbacks in the exercise of medicine as an art. If it is one of the noblest of professions, it is also one of the most difficult; if it is one of the most arduous, it is also one of the worst remunerated; if the sacrifices demanded of it are the greatest, the rewards returned to it are the fewest; if it is sometimes the most praised, it is often the most abused; the homage occasionally rendered to its aims is neutralised by the bitter sarcasms launched at its achievements; and its highest success can be secured only by the sacrifice of almost everything which lies beyond the pale of professional life. Too often you will find the public with which you have to deal selfish, exacting, impatient, fault-finding, credulous, and ungrateful. Expecting from you wonders which it is impossible to perform, it will deny you the merit due to skilful knowledge and conscientious care. Ignorant of the course of disease, it will credit some quack, seeing a case at its close, with the good which you yourselves have done. Too ready to depreciate services exacted at unreasonable times, it is prone to consider our success accident and our failure ignorance and mismanagement. It will be pleasant enough when recovery accompanies your work and sunshine fills the house; but when death comes, then, too often unable to recognise in it the will of Heaven, it sees in it, or chooses to see in it, only the fault of the physician.

Nor are the dealings of the State with the profession much more just or much more generous. We are not like publicans—those ardent promoters of health, morality, and happiness—a numerous and powerful body which can turn the tide of political battles or decide the fate of cabinets, and whose interests therefore at any cost must be conciliated. We are still political nobodies, to whom nothing is to be conceded which can possibly be denied. We are even without a social or civil status, except such as we may possess accidentally in virtue of our academic degrees. Thus we, who as a body give gratuitously to society the largest services, receive from the State in return the least consideration. Our formal remonstrances remain too often unheeded, and the recommendations of our official representative have been on several occasions either ignored or opposed. All its regulations for civil and military service are framed on the principle of securing the cheapest rather than the best material; and thus whilst the profession is straining every nerve to raise the educational and personal qualifications of its members, the State is practically, if not intentionally, undermining its efforts.

All these and many other drawbacks we must continue for the present to endure. Nor have I any hope of their removal until the profession becomes more loyal to itself and more active in the assertion of its just rights; until every member of it feels, and acts as if he felt, that upon his own efforts, as much as upon the efforts of any other person, the future position of medicine will depend. When we are sufficiently represented in Parliament, and upon the Privy Council, and when we have a Minister of Health, who shall be also a member of the Cabinet,

we shall probably take our just place beside the other professions in society and in the State.

But all such considerations, whilst they forbid us to expect perfection in our art, require us to aim at it, that we may reach the utmost limits of possible improvement. Happily they are yet beyond the range of human vision; and to bring them within it, the distance to be travelled over is practically unmeasurable. Here then is room for almost endless pursuit, and for almost endless progress; and surely on the earth there can be no higher satisfaction for man, than when, having undertaken a noble work, he finds himself day after day advancing therein.

As I have said a little while ago, medicine is advancing with rapid strides in every direction. The whole field of work has been enlarged; freer communications with bordering sciences have been established. New lines of inquiry have been opened; fresh interests have been created; unthought-of agencies have sprung into importance; unexpected problems are pressing for solution; and the hum of a busy and fruitful activity has been pervading all its ranks and filling the air around. The discoveries of the last twenty years surpass in number and importance those of the preceding century; and to-day we are so full of the promise of others that it would seem as if the immortal Descartes was not dreaming but prophesying when he said, that, if ever it became possible to perfect mankind, the means of doing so would be found in the medical sciences.

We need not go far a-field to find the causes of this great and happy change. In the readier diffusion of knowledge through more numerous bodies of investigators, in truer aims and correcter methods, in the disregard of scientific creeds, and in greater readiness to revise our opinions and recant our errors—in limiting the points and simplifying the conditions of particular inquiries, in more delicate instruments, in finer and exacter calculations, and, above all, in the greater number of more skilfully conceived and carefully executed experiments upon animals, we shall find the main secrets of the progress over which we now exult.

When we cast our eyes along the past to mark the manner in which medicine has advanced in the later periods of its history, we observe that the scientific army has never moved with more than one leader at the van. In the beginning of the century it was chemistry which led the way and carried on the work; and when chemistry was exhausted morbid anatomy took its place. To morbid anatomy succeeded histology; to histology, pathology; and now in the forefront, we see experiment, young in command but skilful in strategy and successful in conquest.

It is to experiment, in some shape or other, that we owe the bulk of our recent gains: and for at least a generation to come it is to experiment, assisted by chemistry and physiology, that we shall have to look for the most substantial additions to our knowledge of the nature and treatment of disease. The importance of experiment, indeed, cannot be overrated; for through it we shall often have to look for the criteria of uncertain doctrines, the solution of unsettled problems, the organisation of fresh inquiries, the annexation of outlying truths, the discovery of unknown facts and laws.

But experiment has also its other side; and, disregarding its inherent difficulties, which are neither few nor slight, it is beset with dangers, which must be watched with a jealous eye and guarded against with a firm hand. By the prestige of precision, often unmerited, which they carry with them, experiments sometimes cover the most flagrant errors and give currency to false or inadequate generalisations. Even when every precaution has been taken to secure precision and accuracy in every particular, it cannot safely be inferred that the results of certain experiments upon animals will be identical with those which would happen in man submitted to like conditions; nor, without other authority, would it be justifiable to use those results in the explanation of physiological or therapeutical facts. Let me pause to give you a single illustration. The insertion of a thread-seton into the neck of a guinea-pig produces what is alleged to be, and what in some respects resembles, although I do not believe it to be, acute tuberculosis. Now, I shall not insinuate that this experiment is barren in its bearings upon human pathology, because the insinuation would be unjust; but I contend that it cannot in any special and important sense be applied to it. For either a seton in the neck of a man will not produce tuberculosis, in which case the point of the experiment is broken, or else if it does, then, from what must be the frequency of its occurrence, the absence of symptoms, and the certainty of recovery, acute tuberculosis in the human subject, thus induced, cannot be a disease of any moment. For what practical physician would accept this as a just account of the acute tuberculosis with which he is familiar? Surely there could be no greater abuse of experiment and of language than to identify the tuberculosis of the seton with this tuberculosis, which, sudden in its

origin, febrile in its character, profound in its constitutional effects, and rapid in its course, ends always, or almost always, in death.

It is in the facts of such an appeal as I have just made that we shall find the only sure means of protection from the dangers of experimental pathology. For, however numerous may be the results of experiment, however important may seem their bearings upon the progress of science, they will be of no avail to medicine, and it will not be safe to use them in its service until they have been filtered through the checks and counterchecks of clinical experience and have responded to the tests and counter-tests of clinical trial.

Connected with this subject, there is one other consideration which must for a few moments engage our serious attention. Experiments cannot be performed upon animals without the infliction of suffering; and we, whose lives are spent in its relief, ought not to be indifferent to this painful and inevitable fact, nor regardless of the solemn responsibility which its existence imposes upon us. I rejoice to believe that we are not; and that, as a body, we have never transgressed the limits set to our inquiries by the order of Nature, the exigencies of human suffering, and the sanctions of wise and good men. But of late a large part of the public has thought otherwise, and the right of experiment upon animals has been called in question and angrily denied. In consequence of the circulation of statements, either exaggerated or false, a tumult of emotion has swept over the public mind, its powers of reasoning and its sense of justice have been alike disturbed; and, on the plea of an outraged humanity, there has arisen an hysterical outcry for action which has precipitated the Government into a hasty and repressive legislation.

To me this seems one of the saddest things that has happened in this country for generations; and, as it is certain that inquiry cannot move with much useful freedom in fetters, I confess to the fear that the progress of medical knowledge will be seriously interrupted, that medical education, crippled at home, will seek refuge abroad, and that England, from lack of courage, disloyalty to the rights of science, will lose her place in the intellectual hierarchy of the nations. But these fears may be ill-founded; and it may eventually happen that the legislation which now threatens to impede will only regulate and protect. In any case, laws having been framed and guarantees given to prevent the possible recurrence of "experimental atrocities", it might be justly expected that, whilst we were conforming in good faith to the conditions imposed upon us, our adversaries would leave us undisturbed. But rumours of a contrary character fill the air, and I am informed that means are being collected for a fresh crusade; that no quarter will be given; and that no peace will be concluded until the liberty of experimental inquiry is unconditionally extinguished.

It is hard to understand the reasons of such a passionate antagonism, and still harder to believe that it has no other foundation than the desire to protect inferior animals from unnecessary suffering. For, if this be so, why do our antagonists confine their warfare within such narrow limits? The infliction of suffering for ulterior ends, everywhere manifest in Nature, now adjusting the balance of nations or establishing the autonomies of peoples, pervades the whole structure and relations of civilised life. What is all the suffering inflicted by all the vivisectionists of all the world in comparison with those hecatombs of suffering which political experimenters have inflicted upon mankind in their attempts to settle the question of the balance of power in Europe. Are the sufferings of men of less account than the sufferings of brutes? Or is their blood less precious? Are the countless woes of countless human hearts to be reckoned but as dust in the balance against the wounds of guinea-pigs and frogs? Why is it, then, that the assault is not coextensive with its object? Or, if it is the plan of our assailants to defeat their enemies in detail, why have we been made the first and bitterest objects of attack? It is not from wantonness, nor is it for ease or pleasure or gain, that we make the subjects of our experiments to suffer. It is assuredly for the advancement of science, and it may be for the good of mankind. Surely, the love of knowledge is as true a human desire as the love of sport, and, whilst the fruits of this die with the individual and his interests, the fruits of *that* live for ever in growing uses to the race.

If this question is reopened, it must no longer be confined within the narrow limits which our adversaries desire. Discussed with judicial calmness and impartiality, in the full light of its relations to the facts of Nature, to the sentiment of benevolence, and to the rights of inferior animals as they are qualified and conditioned by the exigencies of human knowledge, and of human suffering, we shall neither gainsay the wisdom or justice of the discussion, nor shall we refuse to abide by its conclusions. But if it be otherwise; if hostilities are to be renewed on the old lines with the old tactics; if again the freedom of experiment upon animals is to be the sole object of attack, then I trust that every member of this great profession and every thoughtful man

beyond its pale will have the courage to make this cause his own, and will offer to threatenings of fresh legislation such an united, earnest, and implacable opposition, that the statute book of England shall never again be sullied by penal enactments against the just liberties of men. The highest heritage of humanity is in our keeping—all the past and all the future conspire to keep us loyal to the sacred charge; and at whatsoever cost of whatsoever kind, we must hand down the right and the freedom of inquiry unmortgaged to future generations.

But I have wandered so far from the highway of my subject as to forget that you are still learners; and that it is only by your continued patience in learning that you are yourselves to become the practitioners, the teachers, and the investigators of the coming generation.

Your curriculum is crowded with subjects; and when you turn from their number to your few short years of study, any efforts that you could make to master them seem hopeless. But the hopelessness is on the surface only. For, when you resolutely grapple with the subject, you begin, with the help of good counsel, to find that there is a certain attitude of mind and a certain method of work, which enable you to get over all the ground and to gather by the way enough for your present needs and something for your future uses.

There are three great divisions of your curriculum, to each of which you must carry in an especial manner untiring diligence and the exercise of your highest powers. They are physiology, including anatomy; pathology, including morbid anatomy; and clinical work, including therapeutics. I say nothing of physics, of chemistry, or of *materia medica*, or of botany, or of zoology. They have their use and place; but neither is sufficiently high to require notice here and now.

Physiology is the chief foundation of rational medicine. For disease, the penalty paid for conscious or unconscious violation of physiological laws, is neither an essence nor a thing. In the beginning, at least, it is but a series of alterations, mostly in mere degree of physiological states. In their evolution, no new laws are brought into operation, nor is the character of those already existing altered. It is only the conditions of action which are changed; and, however different from those of health these results may seem, physiological laws preside as truly over the growth of a tubercle, as over the development of a tongue. Hence it follows, that the true and complete understanding of disease is to be reached only through mastery of the statics and dynamics of health, and that there can never be a great physician who is not at the same time a good physiologist. Throughout the past, every forward movement of physiology has marked an epoch of improvement in the science and art of medicine. And, even to day, the seemingly barren question of germ-development has, in respect of wound dressing, revolutionised the practice of surgery throughout the world. Let me take for illustration a case of indigestion. The practical man, as he loves to be and with exquisite irony is sometimes called, considers whether the attack is asthenic or sthenic, congestive or irritable; and, calling to mind the remedies for these respective conditions, he attacks the one in fault with anti-phlogistics, or sedatives, or tonics; and, if eating or drinking be worthy of special notice, with full diet or with low. The mere anatomist, claiming to be, *par excellence*, the man of science, endeavours with great form of procedure to determine the particular gastric tissue which is structurally at fault; and, localising the malady with marvellous precision in epithelium or gland, in blood-vessel or nerve, in connective-tissue or muscle, he proceeds, with a different working hypothesis, to use somewhat the same means of cure. Last of all comes the physiological physician, who is as empirical and anatomical as either, and more physiological than both. Believing that the malady is due to some violation of the conditions of healthy digestion, he investigates the manner of their fulfilment. Is the dietary too liberal or too restricted? Is the food proper or improper? Does the patient drink too much or too little liquid, at too high or too low a temperature? Are the meals too far apart or too near? Does the patient waste his saliva, and yet indulge his taste for starchy messes? Is his urine loaded with gravel, and is he nevertheless clinging to beer? Is the stomach halting, because defrauded of its rightful share of nerve-force by undue work and worry? Does want of free elimination keep the blood impure with waste, and the secretions foul with decomposing stuff? Proceeding after this manner, the physiological physician discovers where the conditions of healthy digestion are incomplete or broken, and, then by some simple suggestion, he recalls the patient to physiological obedience, and often without help from drugs relieves him from his trouble.

Give the strength of your minds, then, to physiology: first, in the dissecting-room, that you may master completely the relations of parts and organs to each other; next, in some quiet corner, with your microscope and reagents, that you may learn the minute structure and chemical relations of tissues and organs; afterwards, in the laboratory

with your teacher, and in solitude with your book, that you may comprehend the whole functions of organism in life and health; and, lastly, in the wards, where you will exercise and strengthen your new-got knowledge in the physiological thinking-out of disease.

In studying histology, remember always to proceed from the more simple to the more complex tissues; and, in every tissue, to investigate the earlier before the later stages of growth. Development is the only complete solvent of the residual obscurities of physiological inquiry. In making yourselves acquainted with function, have a quick regard to your future work; and give especial thought to the circumstances which disturb, and when disturbed, to the circumstances which restore, the physiological equilibrium. It is by virtue of this knowledge that, as practitioners, you will be at once scientific among the empirical and empirical among the scientific.

Pathology will make you acquainted with diseased structures, and with the conditions under which they arise and live. It is the science of diseased actions; but it is still in a sense physiological and to be studied after the same manner. It conveys to the mind ideals of the states with which we have to deal, unfolds their relations to each other and to the organism, explains their course and tendencies, and, if it does not supply us with therapeutic power adequate to our knowledge, it preserves us from inflicting injury, and teaches us when we may confide in the healing power of nature, and when, and in what manner, we must have recourse to art.

To learn morbid anatomy you must often be in the *post mortem* room; to learn pathology you must often be in the wards; and to learn their mutual relations and uses, you must often pass between the two, and connect by thoughtful synthesis what you see and hear in life with what you see and handle after death.

Here let me remind you that the object of these studies is not to make you mere physiologists or pathologists: it is, with sufficient general knowledge and culture, to make you practitioners of medicine. Hence, your next and chief place is the wards; your next and highest work clinical. To it all other work and culture, of whatsoever kind, must be secondary; for medicine will neither share her supremacy, nor suffer a rival near her throne.

Be much in the wards. Confine your study to a few cases at a time, and work them out thoroughly to the end. Deal with each case as if it were the only one you had. Adopt an uniform plan in the examination of your cases and pursue it exhaustively throughout every part of the body. Neglect no means, chemical, mechanical, or instrumental, which may reveal otherwise unattainable knowledge of your patient's condition and help you to the discovery of his disease. Above all things, practise yourselves in the habit of minute, precise, discriminative, methodised observation: without it, nothing good can be done; with it, nothing ill. Make your notes, and write your descriptions at the time of observation. Record them in the fewest words and in the simplest terms. Avoid hypothetical phrases; and to severe precision of thought join literal fidelity of expression. In each case, endeavour to form, not a mere verbal diagnosis, but such a diagnosis as will cover and explain the facts of the patient's condition, and let your reasons for it be stated at length. Watch with a questioning mind the administration of drugs, and in the events which follow, take heed lest you set forth as their effects phenomena which belong only to the period or progression of the disease. That you may know hereafter in what conditions you are to act, and in what to refrain from acting, and that you may possess some just criterion for measuring the effects of drugs in the cases which you may employ them, seize every opportunity of becoming familiarly acquainted with the course pursued by acute and chronic affections uninfluenced by any but the simplest hygienic means. Observe the new associations and relations of diseased states in every case, and study with special care the procession of events which brings the endurance of the organism to an end. When death terminates your case, follow it to the deadhouse. Compare the results of the necropsy with the course of your clinical observations, and with the interpretations which you have put upon them. Consider wherein you have erred, and then with the courage which marks every lover of truth, set down your errors, naked as they are, for future warning and guidance.

As in this way you become familiar with the coarser, you will make acquaintance also with the finer manifestations and distinctions of disease. You will learn how often permanent pathological changes grow out of long-continued little disturbing things, and how greatly all of them are influenced by trivial changes in the conditions of the atmosphere and of the soil. You will discover how to distinguish structural from functional affections which so often assume their guise, and to discriminate between maladies arising accidentally in the healthy and apparently similar maladies which are the inevitable outcomes of long-continued textural decay in sickly people. You will note how different

often are successive examples of the same disease, and you will cultivate the faculty which in each case will enable you to decide how much belongs to the malady and how much to the man. You will pursue the personality which you have isolated, and ascertain how the course of its disorders is influenced by inheritance, by type of constitution, by mental and moral peculiarities, and by physical habits and occupation. At last, you will become personally interested in your patients, and then, out of the sympathy which you give to them, as well as out of the knowledge which you get from them, you will gather your first experiences of the precious gift of healing power.

But, however well it may be done, or however long-continued, this hospital clinical work will not only leave imperfections, but will even suggest faults in your knowledge which only the experience of private practice can make good.

In hospital you miss the wider information accessible in private practice—that knowledge of personal habits, surroundings, antecedents, and family tendencies which often make clear things otherwise hopelessly obscure in the nature and course of disease.

In the next place, your hospital experience will dispose you to make much more gloomy than is necessary the prognosis of organic disease. As you walk along the wards and note case after case, in which heart, or lung, or kidney is diseased, and learn that each will soon end in death, a habit of fatal prognosis attaches to the name instead of the stage of the malady, and hereafter you transfer to the private patient at the beginning of an illness the experience you have gained from the hospital patient at its close. There is, therefore, perhaps some ground for the opinion that the prognostics of hospital physicians are unreliable. Assuredly, the prognosis of disease, as it is commonly taught in the schools, is much too grave, and requires to be remodelled on a more favourable foundation. You will find it anything but a satisfactory proceeding to receive the apologies of patients for being alive years after you have, with unhesitating confidence, condemned them to die.

Thirdly, you will be here in peril of forming false judgments of the true position of drugs in the treatment of disease. Many of our patients, before admission, have been for years fighting with their maladies, until at last, unable to fight any longer with them, or with work, they take reluctant refuge in the hospital. And, as drug after drug is tried for their relief, seldom with good, and often with ill effect, and as day after day the disease, despite of all that is done, pursues its natural course unhindered to the end, you begin to believe in the fatality of disease, and, doubting all curative power in drugs, you commit yourself at last to the therapeutic nihilism of the day. But this is a false and paralysing conclusion, which, as it seems to me, has a closer alliance with indolence, imperfect observation, the habit of incredulity, and a certain defect of judgment, than with the vaunted enlightenment which is claimed to be its founder.

When I reflect upon the true nature of disease, when I am told that, in some of the acuter forms, its characteristic phenomena result from the action upon the organism of poisons for which antidotes are expected to be found; when I see that, in many of its chronic forms, it is but the result of a long-continued petty violation of some simple physiological condition; when I find that, by the action of certain agents, with sufficient time, similar states may be artificially induced and afterwards removed; when I observe that rational therapeutics as now cultivated upon a physiological basis, is not only overtaking and correcting the results of empirical observation, but also deductively discovering new remedies; and when I remember that, in order to influence the character of nutritive processes, drugs are still frequently administered in an unphysiological manner, and not, as mostly they ought to be administered, in small doses, at short intervals, over long periods, I cannot but believe that it is not an inexorable necessity, but an ever-yielding ignorance which hinders the increase of our therapeutic powers.

These, then, are the three divisions of your curriculum which are chiefly to occupy your attention; and the best means of making the results of it fruitful and permanent are *reading, discussing, and doing*. Let me say a word or two concerning each.

Read the best books, and only one, or at most two, on each subject. Read slowly, thoughtfully, and critically; and be sure that you have mastered one sentence before you begin another. Never skim the surface, nor skip from place to place. More than half the difficulties of students, and indeed more than half the battles of *savants*, spring from superficial and disconnected reading. Commit to writing in a notebook the pith of every important paragraph. Test your reading by observation, and occasionally your author's conclusions by placing yourselves in an attitude of literary antagonism to them. Do not read too long at a time; and when your brain rebels, submit and stop. Take in no more material than you can easily digest: it is worse than useless to put upon the fire more coals than can be burned.

Discuss with and frequently examine each other upon the subjects of your studies. Rightly conducted, this habit will rouse you from indifference, sustain your interest, and excite your emulation. If it will reveal your weakness, it will also increase your strength. It will teach you how to give ready expression to your ideas; what to keep and what to cast away. And whilst it will cherish in you the ingenuousness which acknowledges defeat, it will inspire you with the courage which makes its renewal improbable. But it must be rightly conducted with singleness and sincerity of purpose for mutual help. If other and lower motives enter into your discussions, there will come forth only wasted time, contentions, and bitterness.

But before reading or discussing comes *doing*. You may read and discuss hereafter; but, if ever you are to learn the manipulations necessary to the exercise of your art, you must learn them now. Few things can be done by the help of mere descriptions, and fewer still can be done well. You must see to do, and you must do often to become skilful in doing. One of the great advantages of this hospital is, that here everyone has unfailing opportunities for practical work and counsel at hand to guide him in its performance. Leave nothing undone, then, that you have the chance to do. Never be ashamed of doing badly what you are determined to do better. And, whether it is dressing a sore or setting a fracture, analysing urine or examining the chest, looking into the larynx or tapping a pleurisy, do it as often as you can and always with all your might.

And now for the gaining of the knowledge necessary to the earliest exercise of your art, and for the training of the hand and the judgment to use that knowledge aright, you will have here, as I have said, abundant opportunities and skilful guidance. But neither these nor any conceivable external aid will suffice without your own co-operation in the work; and just in proportion to the share which you take in it will be the worth and the endurance of your future success. And this necessity for self-education need cause you no discouragement; for, although in carrying it on you must meet with many difficulties, you will find none which may not be overcome without greater effort than is just necessary to increase your strength for fresh encounters. Your hindrances will become thus your helpers. Special gifts are not essential to your progress. Nor will the issues of your endeavours turn upon robust health, or superior abilities, or exceptional opportunities, or powerful interest, or a favouring fortune. Doubtless, these are precious advantages. But, without them—nay, in despite of the reverse of them—there is in every one of you a somewhat which, if you choose to cultivate it, will more than compensate for almost every disadvantage, and will bend the most adverse circumstances to your uses. But it is now that this somewhat is to be cultivated; it is now only in the pliability, the plasticity, and the passion of youth that you can practise the discipline and form the habits essential to its development and preservation. This is the discipline of self-denial, the sacrifice of the lower to the higher nature. Every idle moment which you redeem, every weak indulgence which you refuse, every evil habit which you conquer, every disturbing temptation which you resist, will form a step in that sacred stair which alone conducts you to the highest life. And as you mount thereon over your slain desires, a nobler prospect will meet your view, a higher enjoyment will fill your hearts, larger ends will come within your reach, a greater power will nerve your arm. And thus it comes to be that, by loving interest in your work and by patient diligence in following it; by observing, handling, asking, contending; by taking at second-hand no knowledge which you can get at the fountain-head; by the thinking out of things for yourselves; by submitting to no ignorance which books or teachers can remove; by knowing no shame in asking or being informed; by recourse to physical amusement as a necessary relaxation, and not as an engrossing occupation; by making the best rather than the worst of the circumstances in which you are placed; by a just deference to authority in matters which must be accepted on the testimony of experience; by independence tempered with humility, and by resolution tempered with caution—there is no knowledge which you may not acquire, there are no methods which you may not master, there is no professional position which you may not achieve.

Yet one thing more. I am now old enough to claim the privilege of reminding you, before we separate, that professional knowledge and practical dexterity, the habit of observation and the faculty of judgment are not the sole objects of the highest education. Unquestionably they are indispensable. But more than half their value will be lost if you miss the influences which your studies ought to exercise in developing that spirit of sacrifice, sincerity and faith, which should rule your ways and works in life, and be the lustre of all your days; that spirit which will keep you at all times loyal to your work even at the cost of recompense, of comfort, or of health; which will prevent you from covering with the cloak of professional sanction the weak in-

dulgences or the vicious habits of your patients; which will enable you to resist the sacrifice of your convictions to the tyranny of dominant opinion, or the seductions of popularity; which, keeping you conscious of your own infirmities and errors, will make you candid and generous to the infirmities and errors of your professional brethren; which will teach you "to admire without envy", and to suffer without bitterness; and which, lifting you above the highest region of human interests and passions, and showing you how human freedom, like a "swimmer shaping his course in the stream which carries him along", is but a limited activity in the hands of overruling power, will place you in filial relations to the Eternal Mind.

This is the spirit which you should strive to cultivate in yourselves, as one of the most precious results of the knowledge which you will acquire, and of the discipline which you will practise within these walls. This is the spirit which will redeem you from failure and be your sure support in every time of trouble. Wealth may fail, friends may fail, you yourselves may fail, but this spirit, living and fructifying in you, will never fail. In the hurry, the turmoil, and the conflicts of life; in fears that might dismay, and amid calamities that might overwhelm, it will abide with you and it will fill your hearts with the peace which passeth understanding—the peace which the world cannot give.

MEDICINE IN 1876:

BEING

AN INQUIRY INTO THE EFFECTS OF EXPERIMENTAL RESEARCHES ON THE PRINCIPLES AND PRACTICE OF MEDICINE.*

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GENTLEMEN,—We are to-day commencing another session. Many whom I see before me are now entering upon the battle of life. Each one of you has chosen for himself his future career. Commercial pursuits and a business life have no attraction for you. You have resolved to devote your lives to one of the learned professions. But, though your choice has been made, I feel persuaded that, to many of you, the selection of a calling has been no easy matter. It is difficult, at the age of eighteen or nineteen, to decide on that sphere of usefulness which will prove most congenial in after life. In choosing a calling we are beset by difficulties. In selecting such a profession as that of medicine, each one has doubtless asked himself this important question: "Is the step I am taking a wise one? Is the profession with which I am associating myself a mere empirical art, founded on no generally accepted or trustworthy principles, or is its teaching based on a vast collection of well-established truths, the outgrowth of many independent but collateral sciences?" I will endeavour to solve the doubts that have arisen in your minds. The question you have asked yourselves I will strive to answer for you. Does, then, medicine rest on such sure foundations that both we, who have long been engaged in its practice, and you, who are to-day commencing its study, can feel satisfied that the ground under our feet is really secure?

In considering this subject, I do not propose, even in a cursory manner, to follow the progress of medicine through successive ages. Such knowledge you may acquire in the pages of an encyclopædia. If you study the history of the healing art, as taught by the Chaldeans, the Greeks, the Egyptians, the Romans, or by the priests of the middle ages (the great expositors of the laws of health and of disease in those days), you will find that, for upwards of three thousand years, everything connected with the principles and practice of medicine was dark and uncertain. Theories were propounded, and for a time accepted; but as they rested on no sound scientific basis they were soon forgotten, to be replaced by other theories equally erroneous, and, as guides to practice, equally misleading. Particular methods of treatment were pursued for a season, then fell into disuse, frequently to be again revived at a later period. Nor could it be otherwise. So long as everything bearing on the structure and functions of the different organs and tissues of which

our frames are composed was either veiled in obscurity, or very imperfectly understood, no sure progress could be made.

Among the ancient physicians the symptoms of disease were noted with extraordinary care. No more careful observer of clinical phenomena ever lived than Hippocrates. But, in the days of Hippocrates, the significance of the nerves and arteries was altogether falsely interpreted. No practical advance could be made in the science of medicine while the arteries were looked upon as air-containing tubes. Yet these views were held by many, even in the most enlightened days of ancient Greece. Such ignorance, however, was not destined to last. Slowly, it is true, but still surely, the mechanism and relations of the component parts of the body were severally mastered. The anatomist commenced the work. By his labours the ground was cleared for other investigators. His task has been a long and tedious one; but he has nobly accomplished what he set himself to perform. Indeed, so thoroughly has it been carried out, that I believe we may with truth assert that, in the domain of human anatomy, we appear now to have reached a vantage ground. During the last fifteen or twenty years, comparatively little has been added to our store of knowledge in this direction. Indeed, the coarser structures which enter into the composition of our frames seem almost thoroughly worked out. Hand and eye have apparently gone as far as it is possible for them to go. Every muscle, every nerve which the eye can discover, the dissecting blade has followed out until it becomes lost in the surrounding tissues. In the thorough knowledge of anatomy, which has been bequeathed to us by many devoted and trustworthy observers, we possess immense advantages over those who have preceded us. Indeed it is to this knowledge that we are indebted for the important advances effected in surgery, no less than in other departments of practical medicine.

Nor is it alone in human anatomy that we seem at the present day to have reached a secure resting place. In morbid anatomy, likewise, our progress has been no less sure. Here also the unaided eye has pushed its researches as far almost as is permitted by the nature of the inquiry. We are thoroughly familiar with diseased structures, with the granular kidney, the cirrhotic liver, the fatty heart, and the degenerative changes observed in the blood-vessels. Each and all are readily recognised, and, were we dependent on our unassisted senses, it is questionable whether in this direction our knowledge could be much more extended. But no such limitation is possible. Though science for a time baffles her votaries, she still loves to reward them. When the eye failed to see, and seemed to exclaim "thus far can I go, but no further", other sciences came to the rescue. Histology took up the search. When objects no longer produce sufficiently large images on the retina, the microscope is required for their examination. When nerves and arteries grow so small that they are altogether lost in the surrounding tissues, the microscope opens out to our bewildered vision boundless fields of research. Of all optical instruments, this is the most perfect and complete. Of late years, its application to medicine has been immensely extended. In the present day every student has his microscope, and is instructed in its use. Through the labours of histologists, many questions, till lately clouded in obscurity, have been satisfactorily worked out. Twenty-five years ago, little was known regarding the relation of the ultimate nerve-fibres to muscle; little also concerning the mode of origin of nerve-fibres in nerve-centres; little of the structure of the capillary vessels; little about the minute anatomy of the lymphatic system; little regarding the minute structure of the muscle tubes. These questions have now all been investigated. Though the information acquired be not in all respects so definite and exact as it doubtless will become, yet much has been garnered in the storehouse of knowledge.

In other directions, also, medicine has been aided by the allied sciences. Chemistry has shed a vast flood of light on subjects which, until comparatively lately, were but little understood. The coagulation of fibrin, the forces which regulate the filtration and diffusion of fluids through membranes, the specific constituents of the various secretions, the chemical processes which occur in muscle, the processes also which regulate the digestion of our food, have all been worked out with the most elaborate care, and have all more or less directly contributed to the advancement of medicine. But though in these, and in many other ways, our stock of knowledge has been increased, there is one science to which we, as practitioners of the healing art, are more especially indebted. I need scarcely tell you that I refer to physiology.

Two hundred and fifty years ago, Harvey, in discovering the circulation of the blood—in demonstrating that the liquid flesh in our bodies passes from the heart by the arteries, and returns again to the heart by the veins—unveiled to our forefathers the most momentous discovery (in its bearing on medicine) that the world has yet seen. This discovery, so convincing when explained, so shrouded in obscurity before it was brought to light by the great magician, has proved the very

* Opening Address at the Owens College School of Medicine, October 2nd, Session 1876-7.

foundation-stone, not alone of physiology, but of everything bearing on practical medicine. For the secrets it has opened out to us, we are, in a great measure, indebted to experiments on living animals. Nearly two hundred years later, Sir Charles Bell, also by experimental researches, taught us that the anterior roots of the spinal nerves are nerves of motion, and the posterior roots are nerves of sensation. It is difficult to over-estimate the value of these two great discoveries—the one mapping out for us the devious wanderings of the blood, the other tracing the paths by which sensations are conveyed to the centres capable of receiving them, and those also by which the behests of the brain are transmitted to the muscles. Thus Bell did for the nervous system what Harvey had before achieved for the vascular. They expounded to us the principles of that great reign of law which governs the life and movements of the animal creation. These heroes of science were both Englishmen. We may well feel proud of our countrymen for the legacies of knowledge wherewith they have enriched us.

But if credit be due to Englishmen for laying the foundation of human physiology, it is to foreigners that we are peculiarly indebted for the goodly proportions of the superstructure. It is in the laboratories of the Continent that methods of exact research have been most assiduously cultivated. Consider for a moment what has been done by Claude Bernard, Brown-Séquard, and the distinguished band of German investigators, who have, of late years, directed to physiology that spirit of indomitable energy, that determination in overcoming difficulties which, in former days, they expended in the elucidation of history, of philology, and of the abstract sciences. Appreciating the importance of exhaustive research, many of these men have devoted to some fractional department of physiology the concentrated labour of a life-time. What these investigators have done, the student may learn from such works as Hermann's *Physiology*, admirably translated into the English language by my colleague Professor Gamgee; who, not content with giving a faithful rendering of the original, has simplified much that in the German version is less happily expressed. The perusal of this and similar works will convince the most sceptical that, if medicine is ever, in the true sense of the word, to assume the rank of an exact science, it is through the portals of physiology she must hope to enter on that proud position. Richly, indeed, have the labours of the last twenty or twenty-five years been rewarded. How extended is our knowledge regarding the innervation of the heart! We now know that there are nerves whose function it is to quicken the heart's action; and again, that there are other nerve-fibres which cause that organ to contract more slowly. Consider also how much experimental investigations have taught us concerning a distinct class of secretory nerves, the vaso-motor nerves, and the duality of the vaso-motor system. In some portions of the system, as we have now learnt, these nerves run in the spinal cord; in others, in sympathetic trunks. It has been discovered, not only that there is a common central organ for the vaso-motor nerves, but where that organ is situated. The nerves also which regulate the respiratory movements, and the influence they severally exert, have been carefully studied. To the muscular system also much attention has been paid. The independence of muscular irritability has been satisfactorily proved, while the mechanism of muscular contraction is more thoroughly understood.

Nor are these the only triumphs achieved of late years by means of the experimental researches which have added lustre to the teachings of physiology. Pathology also has made important gains. On many of those morbid processes which characterise the course of disease, fresh light has been shed. When Cohnheim proved by ocular demonstration that, under certain conditions, the white corpuscles separate themselves from the current of the blood, and traverse the walls of the vessels within which they are enclosed, a new vein of research was opened out, rich in the ore it is destined to yield. The significance of such a discovery is only realised when its extended bearing is fully understood. Its import and value are but slowly appreciated. We now know that not alone the white corpuscles, but the red also, may insinuate themselves through the tubes which usually confine them; and, by their intrusion on parts not destined to receive them, upset the harmonious working of the economy. Since this comparatively simple fact was observed, we can comprehend at least some of the sources from which the cells, that accumulate so rapidly during the process of inflammation, are derived. We can understand also how septic irritants may be conveyed to distant parts of the system, and there produce their fatal results. There are, moreover, some grounds for believing, with Dr. Classen and other observers, that it is to cell-emigration, rather than to cell-division, that we must look for the origin and development of those malignant growths which are popularly recognised under the name of cancer.

So, again, when Villemin, in 1865, produced tubercle artificially in animals previously healthy, he threw open to succeeding explorers end-

less avenues of research. Indeed, the experimental results already obtained seem to show that secondary tuberculosis may have its origin simply in some inflammatory affection. But whether the infective substance in tubercle is elaborated within the body, or introduced from without, is a question which, though at present undecided, will doubtless ere long be definitely solved. When we reflect that one-fifth of the death-toll exacted of this country is levied by the tubercular class of disorders, we can appreciate the significance of investigations directly tending to set bounds to their ravages; and feel convinced that the practical bearing of such researches must prove of the very utmost moment to suffering humanity.

The important discoveries in physiology and in pathology to which I have called your attention have all, in a greater or less degree, resulted from experiments made on living animals; and are of the utmost possible value to the medical practitioner, and through him to the general public. They are valuable, not alone for their direct results, but for those also that indirectly flow from them. In many respects, they are rather to be looked upon as suggestive than exhaustive. The examination of the vital phenomena presented by the tissues, and the investigation of their properties, demand, as many of you are aware, the most delicately constructed instruments and the utmost precision and nicety in their use. It is, therefore, satisfactory to feel that these inquiries are at the present day exclusively entrusted to those who, by a laborious preparation, no less than by great natural aptitude, are specially qualified for the work. Nothing is done in a careless or haphazard manner; but system and method regulate the minutest details of the laboratory. Still, however carefully these observations are conducted, we are forced to admit that some suffering is necessarily inflicted on the brute creation; but in this country, at all events, as has been conclusively shown, our physiologists, in their treatment of animals, have proved themselves humane and tender-hearted men. There has been no useless waste of life, no wanton prolongation of pain. Wherever sensibility can be blunted, the methods specially adapted for securing this happy result are sedulously applied.

We must all regret that, in the pursuit of knowledge, any pain, however slight, should be inflicted even on the humblest animals. Still we daily see that, in the economy of nature, a vast amount of suffering is everywhere inflicted by the stronger upon the weaker. Were the brute creation endowed with the same tender sensibilities which prevail among civilised beings, the whole span of their lives would be haunted with a dread of coming evil, and a reign of terror would mar the happiness of every living creature. But, though much suffering undoubtedly does exist, the beasts of the field enjoy for the most part a contented and happy existence. There is amongst them neither the anticipation of coming evil, nor the retrospect of that which is past. They live in the present, and reckon not of the violent death in store for them. The dog chases the cat and would tear her to pieces; but she baffles her pursuer, and contentedly purrs over her safety by the fireside. The cat, again, gladdened for years by the sweet melody of the bird, no sooner sees the unwary prisoner emerge from its cage, than she compasses its destruction. The bird, rescued from danger, celebrates its escape by renewed outbursts of song. We find, in fact, that among many animals the taking of life is a very law of existence. Even though hunger be satisfied, death is inflicted, often apparently from the mere instinct of destruction. Mankind, too, is responsible for much of the suffering to which the lower animals are subjected. Fishes, beasts, birds, and reptiles are not alone killed, but at times slowly tortured. The fish caught on the night-line must wait for morning to be relieved from his pain. The rabbit held by the unyielding spring of the steel trap, spends weary hours in mortal agony. The feathered fowls, whose plumage is ruffled by the unskilful sportsman, linger for days ere death releases them; and even the worm, threaded alive upon the hook, may be conscious of his miserable fate. In these and numerous other ways, needless pain is wantonly inflicted for comparatively small results. Had a little more ingenuity been expended in the slaughter of these creatures their deaths might have been painless. Man, indeed, is a gainer by their destruction. In their death they minister to his convenience, to his pleasure, to his health; still, the sacrifice of the animal is not here followed by any important consequences. Individuals are benefited and amused; the mass of mankind are in no way bettered.

Such a remark, however, is in no way applicable to that infinitesimal quota of suffering inflicted by the physiologist in his quest after discoveries that may be useful, not alone to the human family, but to every species of animal. He trifles not with the existence of the meanest reptile, but he feels that can he but discover the laws which regulate the growth of tissue, the repair of injured structures, or the production of disease, the sacrifice of a single life may prolong the years and ease the miseries of countless thousands.

I have directed your attention to this subject because I think it important that you, who are to-day associating yourselves with the medical profession, should be able to join us with clean hands and a good conscience, satisfied that, as humane men, you can approve of the methods by which the science of medicine has been advanced. That those who have carried on these investigations have, as a rule, evinced sentiments of humanity towards the lower animals, it is impossible to deny. Many of them have felt reluctance in carrying on the most important researches, because they occasioned a certain amount of pain. But how have these disinterested labours been appreciated by those whose infirmities they were intended to relieve? How have the persons benefited by chloroform, and ether, and chloral, and nitrite of amyl rewarded the men who, in many cases, endangered their own lives, and in more than one instance actually perished themselves, that they might assuage the sufferings of others? Such persons greedily avail themselves of the balm that ministers to their pain, while they scruple not to vilify the hand that won their relief. In this free land, where freedom, alas, is too often abused, many people, well-meaning, doubtless, but fussy and self-opinionative, hesitate not to denounce in the severest manner the men to whom science is so deeply indebted. By banding together and making the question of vivisection a political watchword, they succeeded in putting such pressure on the Government of this country, that a Royal Commission was appointed specially to investigate the "practice of subjecting live animals to experiments for scientific purposes". Among the members of that Commission were several distinguished statesmen, and at least one name well known to science. After a protracted inquiry into the whole question, these Commissioners came unanimously to the conclusion, "That it is impossible altogether to prevent the practice of making experiments upon living animals for the obtainment of knowledge applicable to the mitigation of human suffering or the prolongation of human life"; and, again, "the greatest mitigations of human suffering have been in part derived from such experiments". They further expressed the opinion, that "a general sentiment of humanity on this subject appears to pervade all classes in this country". If, then, it was apparent, even to men of no scientific attainments, that such experiments are of the greatest value; if it was shown, moreover, that they are at the present time carried out in an humane and merciful manner, why was it deemed necessary to inflict on the great profession of medicine such an insult as that to which it was subjected by the provisions of the Bill introduced into the Upper House by the Secretary of State for the Colonies? Mankind had benefited by these researches; misery had been relieved, science advanced, no charge of wanton cruelty could be brought home to the experimenters; and yet, forsooth! these men were to be dogged and baffled in their beneficent labours by the common guardians of public order as though they were cock-fighters or bull-baiters. The second reading of this Bill, modified somewhat, it is true, but still most objectionable in its enactments, was carried through the House of Commons on August 9th. The next day, the last of the session, the Cruelty to Animals Bill was hurried through Committee, and, on the 15th, received the Royal assent—as sorry a piece of legislation as has been turned out of the House of Commons for many years. Introduced, doubtless, for party purposes, it was altogether unworthy of a strong government.

You are aware that this question has excited a very general feeling of indignation in the medical profession. If any men have a prescriptive right to consider themselves the special guardians of our common humanity, those men are the physicians and surgeons of England. During the still hours of night, while the followers of other callings enjoy their well-earned repose, the hard worked disciples of *Æsculapius* keep their weary watch by the sick man's pillow, and render him succour with no grudging hand. Their motto is "Work, not talk". They have no leisure for the seductive harangues of plat-form oratory.

I feel persuaded that many of our lawgivers must feel that their conduct in the matter of this Cruelty to Animals Bill has been, to use the mildest expression, somewhat inconsistent. As English gentlemen, they are generally familiar with the phases of cruelty inseparably associated with a sportsman's life. A large proportion of them, at stated periods of the year, indulge in the time-honoured custom of killing game. They hunt and they shoot; but, in a day's sport, every creature that is shot at is not necessarily killed. The wounded, likewise, claim our sympathies. Could the maimed survivors of some lordly *batue* respond to the roll-call and compare experiences with the rabbit or the dog experimented upon by the physiologist, it is possible that the balance of suffering inflicted might rest with the man of the gun. Others of our senators, staunch patrons of the turf, who close the halls of St. Stephen's that their undivided attention may be given to the Derby, must be aware that the sharp edge of the spur, driven

into the flank of the sorely pressed steed, occasions as keen a pang as is inflicted on the web of the frog by the needle of the physiologist.

In making these remarks, I am especially anxious that my opinions on this subject should not be misinterpreted. As a keen sportsman myself, I should be the last man to interfere with the recreation of others. But I do think, in reference to this matter, a certain amount of mawkish sentimentality appears to possess the public mind. The Commissioners who tested the whole subject of vivisection, found that at least one distinguished physiologist, though devoted to sport, abandoned the pastime from his conviction of its cruelty. So long as we find our experimenters actuated by such feelings as these, we may, with the most complete confidence, entrust to their keeping the lives of our dumb animals.

I have told you that, by experiments made on living creatures, medicine, viewed as a science, has been rendered much more exact. Has the practice of the healing art advanced in an equal ratio? Those who are acquainted with what has been done in the domain of therapeutics, must admit that here also great progress is everywhere apparent. I freely admit that the morbid processes undermining the health of our patients are oftentimes of so desperate a character that we are baffled in our efforts to cure their disorders. Still, thanks to modern discoveries, we can now treat them on rational principles. The strange vagaries (if I may be allowed to use the expression) in practice which characterise the history of medicine in past ages, will not be repeated in the days that are coming. We now know that there is a nerve whose special function it is to retard the heart's action; and we know, also, that certain remedies (belladonna, for example) exercise a direct influence on this nerve. Possessed of such knowledge, we can at all events treat some forms of exalted cardiac action in an intelligent manner. Again, we have learnt by experimental researches that nitrite of amyl influences the vaso-motor nerves, and relieves the tension of the small blood-vessels. By acting on this system of nerves in those frightful maladies angina pectoris and asthma, we unlock the spasm and relieve the sufferer from his distracting torments. The nature of epilepsy and diabetes, those widespread scourges of our kind, has of late been satisfactorily gauged, and the treatment of their manifestations is necessarily more hopeful. So, again, the influence exerted by particular drugs on the specific secretions of some of the more important glands has proved a most valuable guide to our practice. We now know how to stimulate these organs, and we know also how their action may be restrained.

But there is no direction in which our progress as scientific physicians has been more remarkable than in the way we deal with the heightened temperature of the human body. In health, as most of you are aware, the temperature is almost constantly the same. When fever assails us, however, sundry processes which go on in the system tend to the production of heat. If the temperature rise only two or three degrees, the various organs no longer fulfil their functions in a normal manner. Sundry subjective symptoms, thirst and lassitude and headache, are all liable to supervene. When the rise in temperature is more considerable, not only are pulse and respiration greatly accelerated, but we observe also a marked alteration in the secretions, grave functional disturbances of the brain, and a tendency to divers local congestions. But the bodily heat, we will suppose, continues to increase until 105 deg., or even 106 deg., or 107 deg. are registered on the thermometric scale. With such a temperature, life cannot long be maintained. Many organs in the body rapidly undergo parenchymatous degeneration. Their cell-elements are changed, often completely destroyed. The heart participates in these morbid changes; it becomes soft, and is easily torn. Finally, the excessive action of the hot blood leads to cardiac paralysis and certain death. To such cases, in former days, no efficient assistance could be rendered. The very ablest physician was compelled to stand by with folded arms, powerless to save. We now know that, can we but succeed in bringing down the temperature, recovery is possible. How may this happy result be accomplished? Simply by immersing the sufferer in cold water whenever the blood-heat rises above a certain point. The clinical investigations of Bartels, Jürgensen, Liebermeister, and many others, have shown "that, in the majority of patients, thoroughly cold baths may be used without danger as often as may be necessary; that is, as often as the temperature in the interior of the body may again have risen beyond a certain limit". Great results can only be obtained by controlling the temperature of the patient both by day and night. From four to eight baths in the twenty-four hours, have usually been required; but, in severe cases, as many as twelve may be necessary. By this method of treatment, the mortality from typhoid fever has been reduced in one hospital on the Continent from 25 to 7 per cent., and in another from 15 to 3 per cent. I am well aware that cold water has long been looked upon as a valuable remedy in a great variety of

disorders. But, in former days, the mode of its application was more or less empirical; now its use is based upon the teachings of science. Pathology has shown us that the danger of fever consists in the deleterious influence of a high temperature on the tissues. Medical thermometry has taught us when the treatment should be applied, and when also it may be most appropriately repeated. Other remedies also enable us to contend successfully with that increase of temperature which is so symptomatic of fever, and, at the same time, so fraught with danger. Quinine has long been looked upon as one of the most valuable preparations contained in the *Pharmacopœia*. It is only of late, however, that we have mastered some of its more remarkable properties.

Twenty years ago, the man who administered quinine at the height of an attack of fever did not frame his prescriptions after the orthodox teaching of the day. We now know that, even in the most acute cases of fever, very large doses of this remedy may be administered with the happiest results, the temperature being at once sensibly lowered. Other preparations, such as alcohol, digitalis, and veratrum, act in a similar manner; they all lower the blood-heat.

The remarkable advance which distinguishes every department of medicine is conspicuously apparent in surgery. It is difficult at the present day to realise how miserable may be human existence without the timely succour of the surgical art. But turn for a moment to the classical writings of the ancient authors, where the joys and sorrows of daily life are portrayed with simple yet striking fidelity. Some of you, I doubt not, are familiar with the *Philoctetes* of Sophocles. Philoctetes, as the legend goes, while rashly treading upon consecrated ground, was bitten in the foot by a venomous snake. The wound festered, and so offensive became the sloughing sore, and so harrowing were the sufferer's cries of agony, that his very presence was loathed by his fellow-voyagers. By the advice of the wily Ulysses, he was landed while asleep on the desert isle of Lemnos, and there left alone in his misery. Here, for nine weary years, he was afflicted with excruciating torture, and made the very rocks and caves re-echo with his howls and lamentations:

“ἀπόλωλα, τέκνον, κοῦ δυνήσομαι κακὸν
κρῖναι παρ' οὐτὶν, ἀττατὰ διέρχεται,
διέρχεται, δούστηνος, ὃ τάλας ἐγώ.
ἀπόλωλα, τέκνον, βρῦκομαι, τέκνον, παπαί,
ἀπαππαπαί, παπαππαππαππαππαπαί.”

At times, indeed, exhausted by the bitterness of his woes, he sank into a death-like slumber, thus enjoying a brief respite from anguish.

The unbefriended condition of this poor outcast teaches us how terrible may be the consequences of even a trivial accident when no skilled hand is there to succour. The Greeks, we know, were no poltroons, no faint-hearted race of men. Philoctetes, too, as the armour-bearer of Hercules, was familiar with the stern realities of a warrior's life; yet even he, by the intensity of his woes, was forced to indulge in the wildest manifestations of unrestrained grief. Had his birth but been postponed for three thousand years, how different had been his experience. Chloroform, disinfectants, and the elaborate appliances of modern surgery, would have taught him that even pain itself is amenable to science.

Having thus referred you to the past, let me now turn to the present. Many whom I see before me are more familiar than I am with the brilliant achievements that have of late years added lustre to surgery. You are well aware how valuable has been the discovery of the antiseptic method of treating wounds. For the introduction and working out of that mode of treatment we are indebted to an Englishman—Professor Lister. The reception accorded to our distinguished countryman by the teachers and students of medicine in many of the great cities of the Continent must have convinced the most sceptical how widely appreciated are the doctrines Mr. Lister has laboured to promulgate. You, who have been educated in this school, have enjoyed special opportunities of studying the practical application of this mode of treatment. In the Manchester Infirmary, antiseptic surgery has been carried out for the last seven years with scrupulous care, and with the utmost assiduity, by the able professor of surgery in this college. Mr. Lund, with the single exception of Mr. Lister, has bestowed more time and thought on the practical application of this discovery than any man living. You are yourselves, therefore, in a position duly to appreciate its effects.

In Germany also, surgery, like the other departments of medicine, has chronicled some remarkable results. In 1869, Dr. Simon determined upon removing the left kidney in a case of ovariectomy, in which one of the ureters had been unavoidably severed. The operation was a daring one, and well might he pause ere he grappled with his task. Before proceeding to execute his purpose, he felt it his duty to perform

a considerable number of experiments upon animals, partly with a view of discovering how far the remaining kidney would take upon itself a double function, partly to measure the risk to which he was subjecting his patient. As the result of these experiments proved satisfactory, he considered himself warranted in venturing upon the hazardous operation. His perseverance, his skill, and his courage were rewarded by the most complete success. He had the satisfaction of seeing the afflicted sufferer under his care permanently and thoroughly cured. Some dogs, indeed, had unfortunately been sacrificed, but an useful life had been rescued from protracted suffering and from a miserable death. Only last year, an accident similar to that which befell Dr. Simon's patient occurred in the practice of Professor von Nussbaum of Munich. Though familiar with the investigations of Simon, Nussbaum felt satisfied that, in the reduced state of his patient, so severe a shock as extirpation of the kidney would in all probability prove fatal. He, therefore, conceived the idea of affording relief by the formation of an artificial ureter. The reasons that decided him to adopt this procedure, the manner in which he effectually carried it into practice, and the difficulties he overcame, you will find fully detailed in the medical journals. This operation was performed on November 10th, 1875, and was crowned with the most complete success. It marks a distinct era in the history of surgery.

But there is another direction in which the art of the surgeon has of late years proved powerful to save. In 1873, Professor Billroth of Vienna, in a case of malignant disease, ventured to remove the whole of the larynx. The man whose life he thus prolonged was able by an ingenious apparatus both to speak and to swallow. In this case, Billroth was led to undertake the operation by the success which attended at least some of Dr. Czerny's experiments on dogs. Had Czerny not demonstrated that the life of an animal may be maintained even though the whole of the larynx be extirpated, Billroth would not have felt himself justified in undertaking so critical a venture. Hence we see that, by experiments on animals, at least two most important operations have quite recently been introduced into the practice of surgery. Those who know how intensely painful are many of the affections of the kidney and larynx, and who know also by bitter experience how frequent are the occasions on which these organs are attacked by incurable disease, will admit that the knowledge that they may be completely extirpated, and success attend the operation, must exercise a most important influence on the development of modern surgery. Will any surgeon, after this, be bold enough to assert that surgery has not been advanced by experimental researches?

In the foregoing remarks, I have endeavoured to show that, in every department of medicine, we may observe unmistakable signs of activity and progress. In entering the medical profession at the present day, you enjoy opportunities denied to the men of a former generation. Various instruments and appliances render the diagnosis of disease very much more easy and, at the same time, far more exact. In the sphygmograph, in the laryngoscope, in the ophthalmoscope, and in the clinical thermometer, you possess instruments which can assist you in mastering many difficult medical problems. The sphygmograph measures for you with far more accuracy than the most practised finger the force of the heart and the tension of the arteries. It tells you, therefore, in reading you cannot mistake, when sinking nature may be resuscitated by the needed stimulant. The laryngoscope enables you to explore the hidden recesses of the larynx and windpipe. It discloses to you the nature of the disorder, the seat of the disorder, and the spot to which your remedy may advantageously be applied. The ophthalmoscope also, if you but familiarise yourselves with its use, will unravel for you many complicated skeins in the phenomena of disease. It will reveal to you those remarkable changes in the optic nerve which throw so much light upon the pathology of nervous affections. It will tell you when morbid growths are encroaching on the brain, and even help you in localising their site. By its aid, you may discern the degenerative changes which assail the retina, and thereby gauge the ravages of disease in distant parts of the system that are concealed from your view. In the thermometer also you possess an instrument which will afford to you the most valuable and exact information. In many disorders, typhoid fever for example, the tracings of the thermometer not only record certain morbid changes, but actually define the very nature of the malady.

You may, then, feel assured that the profession you have chosen is one to which the best energies of your lives can profitably be devoted. Master conscientiously the precepts of medicine, and labour to carry those precepts with you into action, then, indeed, the allotted days of each one of you will be usefully spent. You will thus find yourselves prepared for any emergency which may hereafter beset you, and will, to a greater extent than the members of any other calling, alleviate the sufferings of your fellow-men.

I have told you that, in proportion as you master the principles and practice of your profession, you will be competent to distinguish every form of disease; and you will be able to treat the ailments of humanity on rational principles. In former times, nothing more was required at your hands. In our day, however, modern society demands of you more extended attainments. You are not only expected to recognise illnesses, and to treat every individual case after the most approved fashion, but it is also your special mission to cure the outbreaks of epidemic disease. The members of our profession are everywhere looked upon as the trusted exponents of the laws of health. Many of you must prepare to serve your fellow-countrymen hereafter as officers of public health. Surely there is no way in which a well-educated and intelligent man can be more usefully engaged than in discharging the duties of this responsible office. For, in spite of our boasted education and the increased facilities for acquiring information enjoyed by us in this latter part of the nineteenth century, it is lamentable to observe how gross is the ignorance of the masses regarding all sanitary questions. Hence it is from you that guidance will be sought. Believe me, there are at our door many social and sanitary questions which will, at no distant day, inevitably demand attention. These questions must be solved, and in their solution you will play a prominent part.

Remember that, as a nation, we are every year separating ourselves more and more from a residence in the country and from rural pursuits, and are congregating together in the large towns. Hence our mode of life is constantly becoming more artificial, and, at the same time, more unnatural. In such a state of society, the tendency to disease is immensely increased, and the difficulty of coping with its inroads proportionately heightened. Alcohol, syphilis, and vitiated air are the breeders and propagators of constitutional maladies; while overcrowding and ignorance are, in a great measure, responsible for the so-called infectious diseases. Still, these latter disorders can all, in a greater or less degree, be prevented. By an efficient system of vaccination, small-pox, the most repulsive of them all, may well nigh be blotted out of the register of deaths. The ravages of scarlet fever, diphtheria, and kindred varieties of sickness, may be much reduced by timely and strict isolation; while cholera and typhoid fever may be circumscribed and stamped out by the thorough disinfection of the excreta. But if such results are to be achieved, diseases must be registered as well as deaths. For the prevention of contagious affections, death-registers are of little value; the information they give comes too late. When the epidemic is well set, when its roots and fibres have spread in divers directions, we may study its growth and progress in the bills of mortality; but, if we would deal with it effectually, we must crush the venom in isolated cases. Here only are we masters of the situation.

The Manchester and Salford Sanitary Association have well shown how such a work may be practically accomplished. To the reports of that society the public are indebted for much valuable information bearing on this subject. But such a system of disease-registration must be compulsory, and extend over the length and breadth of the land.

There are other diseases also which, if not altogether preventable, are in the present day better understood. We now know that consumption is peculiarly prevalent in certain districts and localities in this country; while in other places again heart disease, rheumatism, and cancer more especially flourish. These localities have of late been carefully mapped out, and their distinctive peculiarities studied and analysed. The differences thus noted are not attributable to blind chance; but depend on laws which, in part at least, have been determined. The aspect, the geological conformation of the land, the subsoil water, the altitude, the hydrometric state of the atmosphere, the prevailing winds, all exert an influence, and what that influence is we are now beginning to understand. The bearing of these discoveries on public health must prove very important. When, for example, certain families manifest a marked proclivity to such affections as consumption, cancer, or heart-disease, we ought, wherever practicable, to counsel removal to districts where these diseases but seldom occur. Thus we may reasonably hope, in course of time, to eradicate that hereditary predisposition to the malady which is so potent a factor in its propagation.

There is another subject bearing on hygiene which especially demands your study and attention. If human beings are to enjoy health and live profitable lives, they must be supplied with a breathable atmosphere. Nearly two thousand years ago, Virgil told us in his *Georgics* that, if vines are to flourish, they must be planted in straight drawn lines. Each tree would thus obtain an equal allowance of soil and of air. Similar rules should be followed in the construction of towns. Man cannot thrive without his due allowance of air. We are assured, indeed, that eighteen hundred cubic feet of air are amply sufficient for the sick poor in our large hospitals; though, it is needless to add, much depends on the quality of the atmosphere in which the building stands. We are not told, however, what number of persons may, with

safety to health, be packed away on every acre of land in our large towns. Some sanitarians believe they have solved this problem by storing together whole hecatombs of beings in dwellings six and seven storeys in height. In this way, it is said that twelve hundred, or even sixteen hundred, persons may enjoy a healthy existence on a single acre. Still, we may well ask ourselves: Do not such human warehouses encroach on the vested rights of their neighbours? Do they not consume more light and more air than the area they occupy entitles them to use? Are the light and the air in the more lowly dwellings surrounding them in as wholesome a state as before their erection? These are questions which require to be solved. We can readily believe that isolated buildings of such colossal height may, if scattered over a large city, prove sufficiently healthy; but we can hardly conceive that a populous town could safely be constructed after this model. At all events, one hundred thousand persons could scarcely be domiciled on eighty acres of land. Still, much would depend on situation; much, moreover, on the density of the population in the neighbouring district. Towns surrounded by the open country may be more thickly peopled than those encircled by other cities. For the reasons I have urged, we can readily understand that, though at one time the central portions of many of our large towns were airy and healthy, they are now barely inhabitable. Streets, fairly wide for a population of five or six thousand persons, are mere alleys in a city peopled by two or three hundred thousand souls. Yet, these unsavoury quarters of our towns are permitted to remain, and to serve as the breeding grounds and nurseries of epidemic disease. Should we not, then, impress upon those who are responsible for the public health, that the older parts of our great towns must be razed to the ground, and rebuilt on sounder principles, if wholesome habitations are to be secured for the masses? Moreover, regulations relating to the height and width of our streets should be far more stringent than they are at present, width being in all cases directly proportioned to height.

The whole question of the pollution of the atmosphere requires to be vigorously dealt with by those in authority. More consideration must be directed to the chemical constitution of the air we breathe. Air, taken from different quarters of our crowded cities, like the water supplied by the London water companies, should be frequently tested, and the results published. In this manner we might hope to measure the influence exerted on life by the various noxious ingredients with which it is impregnated. Chemical tests, however, are not sufficient alone for our purpose. Information likely to prove useful might, I believe, be obtained from plants. Trees, as we know, utilise the products of the animal body. They reduce the water, the ammoniacal salts, and the carbonic acid; rearranging their radicals, they store them up in their own tissues, while they give back to the air the greater portion of the oxygen. From the air the animal obtains its much needed supply. Hence, as we see, plants and animals are mutually dependent the one on the other. In our crowded cities, however, nature is too often thwarted in endeavouring to carry out her immutable laws. Trees and shrubs are looked upon as intruders, and are not permitted to grow. Hence the air, after being breathed by the animal, is not reduced by the plant. Respired again and again by densely packed masses of human beings, and contaminated by other impurities, it becomes so thoroughly vitiated as, in many instances, to prove actually poisonous to almost every kind of vegetation. In the influence exerted by a tainted atmosphere on different varieties of plants, we possess, I believe, a gauge of the comparative salubrity of different localities—a gauge of which we might avail ourselves as a test of aerial contamination. Whenever we find, for example, that trees will not thrive, there, we may be very certain, it is impossible for human beings either to enjoy a healthy state of existence. Different impurities in the atmosphere act upon different kinds of plants; hence small enclosures, containing trees and shrubs of an accepted standard of hardihood, planted in a soil of uniform composition, would, I feel persuaded, demonstrate at least some of the effects of a polluted atmosphere both upon animals and man—effects which no chemical tests, however delicate, could ever analyse. Not only the air would thus be tested, but the influence of light and of the sun's rays on development and growth would be strikingly indicated.

Residence in the town, as we all know, never can prove so conducive to health as when life is passed in the green fields of the open country. Still, even in a city, life may be more prolonged and existence more tolerable than it is at the present day among the generality of the population. Some interesting statistics, regarding the physical condition of the Jews, have lately been published by Dr. Hough and others. From these records, it appears that this remarkable nation, though almost entirely a town-dwelling race (for only two per cent. of the Jews follow agricultural pursuits), are very much more healthy than the average populations among whom they are settled, both on the Continent and in this country. In London, for example, the average dura-

tion of the life of the Jew is forty-nine years; of the Christian it is only thirty-seven years. Hence it appears that the life prospects of the Jew are nearly twenty-five per cent. more favourable than those of his Christian fellow-townsmen. The vitality so characteristic of the descendants of Abraham can be traced to very simple causes. In their sobriety and cleanliness, both domestic and personal; in the care they bestow on themselves and on all dependent upon them; and in their forethought and prudence, we find the true explanation of their remarkable longevity and superior resistance to disease. These statistics concerning the Hebrews are fraught with instruction to every Gentile nation among whom they dwell. The Christian labours for the conversion of the Jew. May not the Jew, in his turn, well desire the reformation of the Christian?

I will assume, then, that you are well content with the promises held out to you by your profession. Are you equally satisfied with the school you have selected? Many young men are impressed with the notion that every department of medicine may be most profitably studied in the great metropolis. Are there valid grounds for this opinion? Where, I would ask, do you find laboratories and appliances better calculated to aid you in your work than those contained in these buildings? What London students can boast of a library equal to that which is accessible to you? Here, too, the most important chairs connected with medical education are held by professors whose undivided energies are devoted to your instruction. The best portion of their day is not set apart to the exacting requirements of private practice, but is bestowed on you. The "scarcity of subjects" also, which often retards the London student in his course of anatomy, is never experienced by you. Moreover, the manner in which you have acquitted yourselves in the various examinations for which you have competed, plainly testifies that the young practitioner educated in this College can challenge conclusions with the youth trained in any school in the country.

Nor need you look alone to the present—the future also is full of hope. There are good grounds for expecting that, before many years are past, this College will obtain its charter, and thus be raised to the more exalted rank of a northern university. You are aware that this question has of late been mooted in the public press. Many weighty organs of public opinion have treated the project with a considerable degree of favour, while distinguished men of science have extended to the scheme their hearty approval. Whenever this change does come, as come it assuredly will, the medical faculty of our future university must be of paramount importance. In no country in Europe has the medical profession been so persistently slighted by the national universities as in England. Moreover, these learned societies, though doubtless well fitted for abstract subjects of study, are altogether unadapted for such a calling as medicine. In comparatively small towns, like Oxford and Cambridge, practical surgery and clinical medicine never can be successfully cultivated. The scattered population of a midland county, engaged in agricultural pursuits, supplies no extended scope for the surgeon's art. The University of London, as a degree-conferring Corporation, has doubtless, by the varied range of its examinations, stimulated many in the pursuit of knowledge. But the whole London system is more analogous to the Oxford and Cambridge Middle Class Examinations than in harmony with the accepted signification of the word "university". In the one case, a degree is conferred on the successful competitor; in the other, a certificate. But neither the recipient of the degree, nor he on whom the certificate is bestowed, derives his education from the university which rewards him. In a new university such an anomaly would never be repeated. No university is worthy of the name which, while defining its own curriculum, does not also provide an adequate staff of able professors, complete courses of instruction in the various faculties, and ample facilities for the prosecution of original research.

An university in the North of England would prove a great boon to many of you. Residing as you do within easy reach of Manchester, the severance of home ties and home associations would not be required for the successful prosecution of your university course. Your period of instruction would thus be prolonged, and, at the same time, rendered very much more complete. You would then be enabled to affix to your studies that coping stone which many of you now find it impossible to obtain. I have lectured in this school for the last fourteen years; during that time, I have enjoyed ample opportunities of estimating the industry and intelligence of the students whom it has been my privilege to address. My experience, therefore, is considerable; and that experience teaches me that many of our ablest and most diligent young men are unable to obtain university degrees. Students who have gained prizes, and distinguished themselves at the competitive examinations, have expressed their regret at being prevented, by want of means, from pursuing their studies for an additional year in Scotland or in Ireland; for, remember, that nine-tenths of the medical degrees held in this coun-

try have been obtained beyond the Tweed or on the other side of St. George's Channel. Had the relatives of such meritorious students resided within easy access of an university, their case would have been widely different. At the present time, young men without means are compelled to limit their aspirations to the membership of the College of Surgeons or to the licence of the Apothecaries' Hall. Yet, a degree does tell in after life, not only in the competition for public appointments, but in the less ambitious struggle of every day work. It certainly does seem a crying injustice that the fortunate possessor of one of these easily obtained degrees should, in later years, be preferred to his less wealthy, though often more talented, fellow-student. This injustice can be remedied only by the establishment of one or more universities in England, where the course of study shall be practical and thorough; and where degrees shall be conferred upon those only who have earnestly qualified themselves to deserve them.

History teaches us that the nations which attain greatness are those that wisely avail themselves of their opportunities. Individuals also, if they would leave their mark behind them, must be on the alert to profit by the occasion. What is true of nations, and what is true also of men, is equally applicable to cities and to towns; they likewise have their day, when, if only they appreciate the significance of passing events, they grow prosperous and renowned. The enterprising among their citizens amass wealth; the studious and literary cultivate their taste for learning and for the arts; while the poor are cared for in their seasons of sickness. The town in which this College stands—this city of Manchester—has, on the whole, been alive to its opportunities. It has grown rich and populous. Its Exchange is the largest in the whole world. Manchester is the acknowledged commercial nucleus not alone of the five hundred thousand persons who dwell immediately around its City Hall, but of four or five millions of the most industrious and most enterprising inhabitants of these islands. In former days, the political agitation which had so important a bearing on the destinies of this country originated in this town, and from here radiated to every village in the land. At the present time, political agitation is at a discount; politicians search, and search in vain, for a party rallying cry. But, if politics are lulled in slumber, social changes and domestic reforms are urgently needed. Above all, facilities for the acquisition of knowledge—in a word, a higher system of education—must be provided for the great middle class of this country, who form the very backbone on which the whole fabric of modern society is supported. It is to the advancement of such an enlightened system of education that Manchester should now devote her energies and a portion of her wealth. As she has been the political centre around which, in former times, the great towns of the north of England rallied, and on which they rested, as she is now the commercial centre, so let her for the future aspire to become the intellectual centre. If she have these aspirations, and would fain desire to press onward in the paths of mental activity, let her be mindful that she has in this College a secure trying-ground. Here the arts and sciences have taken root; here they have flourished for a quarter of a century; and here, if fostered and encouraged, they will attain to still more goodly proportions. If these sentiments be the sentiments of the people of Manchester, let us all endeavour, each according to his capacity and means, to promote the interests and extend the influence of the Owens College. The corner-stone of our future University is already laid. Let our motto, as fellow-citizens, be, "Union is strength". Let us remember henceforward that every stone added to the superstructure will hasten the proud day when the name of "Owens College" shall be merged in the yet nobler title of "The University of Manchester".

THE PHOSPHORUS PILLS OF THE BRITISH PHARMACOPŒIA.

By G. OWEN REES, M.D., F.R.S.,
Consulting Physician to Guy's Hospital.

THERE has lately been much discussion on the best method of compounding pills with phosphorus, and, among other plans, there is one proposed from the laboratory of Messrs. Savory and Moore, in a communication made to the *Pharmaceutical Journal*. It is there stated, that the phosphorus pills of the *British Pharmacopœia* are apt to become sufficiently hard to escape solution during passage through the alimentary canal. The above fact was observed by me in the case of a gentleman who had my prescription dispensed by Messrs. Savory and Moore, and who brought me the pill, retrieved from his stool, quite round, hard, and unaltered. I had previously used phosphorus pills made at Messrs. Savory's establishment by a process which produced an easy soluble pill, and had done so with great advantage in

cases of neuralgia and of diabetes mellitus, and I am sincerely glad that the imperfection of the *British Pharmacopœia* pill has been so early shown.

Among the propositions made for modifying the present pill, I find the suggestion that soap should be added to the mass to render it more soluble. This I trust will not be done, as the alkali in the soap will form a compound with part of the phosphorus; and, to say the least, render the preparation uncertain in strength. I shall be glad if you can find room for this note in your JOURNAL, as the *Pharmaceutical Journal* does not reach the hands of the profession generally.

CURE OF A LARGE IRREDUCIBLE FEMORAL HERNIA BY OPERATION.*

By JOHN CHIENE, F.R.C.S. Edin.,
Assistant-Surgeon, Edinburgh Royal Infirmary.

MY object in reading this note of the cure by operation of a large irreducible femoral hernia, is to illustrate the value of antiseptic treatment in a class of cases on which surgeons, as a rule, hesitate to operate.

I might have detailed several examples of irreducible herniæ, both inguinal and femoral, which I have had under observation, and in which I have used palliative measures, following the rules laid down in surgical text-books. Such cases are by no means rare; and, as all present have, I doubt not, had ample experience of examples, I will pass at once to the narration of the case in which I operated successfully for the relief of the irreducibility.

A. R., aged 43, domestic servant, was admitted to the clinical surgical wards of the Edinburgh Royal Infirmary on May 24th, 1876, suffering from a large swelling in the right groin, which had existed for four years. It had gradually increased in size, and seldom gave much uneasiness except after severe exertion. She had never been able by pressure to reduce its bulk, and says that it had rapidly increased in size of late. She was now unable for her work as a housemaid, and was anxious that something should be done for her relief; all palliation had failed to prevent its increase. She had always enjoyed excellent health.

There was now a fluctuating tumour in the right inguinal region, measuring vertically six inches, transversely four inches. It occupied the greater part of Scarpa's triangle. On palpation, it was partly fluid and partly solid. It was either an irreducible femoral hernia or a cystic tumour. Pressure made no diminution in its size. As the history gave no assistance in coming to a conclusion, the swelling was punctured on May 25th with a fine trocar and cannula under antiseptic spray. Eleven ounces of a clear straw-coloured fluid were drawn off. It was impossible to remove all the fluid. After its withdrawal, hard masses were distinctly felt, which were either hardened masses of omentum or solid portions of a cystic tumour. Pressure was applied by means of cotton wadding and an elastic bandage. The fluid, on examination, was highly albuminous, and the sediment consisted of bodies similar to white blood-corpuscles.

The fluid having reaccumulated, chloroform was administered on June 4th, and an incision made in the long axis of the tumour as far as possible from the middle line, so as not to interfere with the antiseptic management. The cyst was then easily separated from its connections, except in the region of the crural canal, where the existence of a distinct neck showed that the case was one of hernia. The sac was then laid open, and the hard masses previously mentioned exposed to view. They were found to be condensed masses of omentum, adherent to each other and to the inner surface of the sac wall. In consequence of inflammatory changes and adhesions, none of the contents could be returned into the abdominal cavity. The omentum, as it passed into the sac, was firmly adherent at the neck anteriorly; posteriorly, there was a communication with the peritoneal cavity; and, by dragging on the omentum, more could be withdrawn from the abdomen. There was no bowel in the sac, and no strangulation of its contents. The masses of omentum were now carefully separated, and the adhesions to the inner surface of the cyst cut across after ligature. The pedicle of the omentum was then ligatured in small portions by ligatures of chromic-acid gut. In all, fifteen ligatures were applied. The sac was then cut away, and carefully stitched with chromic-acid gut over the remains of the omentum. Two drainage-tubes were then inserted, and the wound stitched with catgut. Protection was applied over the wound, and a large sponge squeezed dry out of one to forty carbolic lotion laid over the protective to soak up the discharge. The usual antiseptic dressing was then ap-

plied, which was kept in position by an elastic bandage. The operation was performed under the spray.

The patient's progress was uninterrupted. The pulse never rose above 80, and the temperature was once 101 deg. on the day after the operation; it then sank to the normal. She never had any uneasiness in the wound. One drainage-tube was removed on the fourth day, the other on the eighth day; on the eleventh day, the superficial stitches were removed. On the twenty-first day, the wound was firmly healed. A small hard lump was then to be felt in the region of the crural canal. This was, in all probability, the remains of the sac. There was no impulse on coughing. She went to the Convalescent Hospital on July 3rd, one month after the operation. She was supplied with a weak Salmon and Ody truss, which she is to wear as a precautionary measure. Six weeks after the operation, she expressed herself as perfectly well. There is now nothing abnormal at the seat of the operation, and no impulse whatever on coughing.

REMARKS.—Percival Pott says, of irreducible herniæ, that "such cases are capable of no relief from surgery but the application of a suspensory bag". These words, written many years ago, still express the opinion of the majority of surgeons. Lawrence says "an irreducible hernia may be left in great measure to itself". Birkett, in Holmes's *System of Surgery*, says "irreducible crural rupture, of course, requires a hollow pad, whether epiplocele or purely entrocele". Palliation in one form or other is at present the rule in surgery; and in Syme's words we may sum up the treatment of such cases: "By strict attention to the state of the bowels, by abstinence from all violent exertion, and by the support of a bag truss"; it is preferable to palliate the complaint "than to endanger life by trying to effect a radical cure with the knife".

Irreducible herniæ contain either bowel or omentum, or both bowel and omentum. The case I now record contained omentum only. I am aware that in some rare cases it may not be possible to complete the operation if the irreducibility be due to adhesions between the sac and the bowel, so firm that they cannot be overcome. The patient should, therefore, be informed of this possibility, because the exact nature of the contents cannot be foretold with certainty. The probability, however, of such adhesions is, I believe, comparatively rare as the primary cause of the irreducibility, which, as a rule, is due to an increase in the size of the omentum, and to its condensation following inflammatory attacks and to inflammatory thickening of the neck of the sac; causes which can be relieved by such an operation as I now propose. In those cases in which the operation cannot be completed, the necessary exploration with antiseptic precautions can be performed with such safety that I believe it justifiable in all cases in which the hernial tumour interferes with the usefulness of the patient, and in which the usual means by evacuations, starvation, and long continued rest in bed have had a fair trial without success.

The importance of being able to cure by operation such cases has a very important bearing in relation to insurance. No cautious medical man will recommend for insurance anyone suffering from irreducible rupture; if these cases can be cured by operation with safety, then many will submit to the operation in order that their lives may be accepted at the usual rates, a matter often of great importance to their families.

The result of this case encourages me to give the method further trial. Mr. Syme, in speaking of irreducible hernia, says: "Operations have occasionally been performed, but their almost uniformly fatal result ought to deter all prudent surgeons from repeating such attempts." These words, I beg to submit, have, by the use of antiseptic precautions, lost their significance; and I trust that I have shown that a change will soon be accomplished in the treatment of irreducible hernia.

ON A NEW METHOD OF CURING PHYMOSIS.

By G. DE GORREQUER GRIFFITH, M.D.,

Senior Physician to the Hospital for Women and Children, Vincent Square.

SOME years ago, a patient came to me with a very slight stricture of the foreskin. I did not then perform any of the usual operations, but dilated the aperture in the prepuce by means of a forceps something like the ordinary uterine dressing forceps. The pain was very trifling.

My next patient was a young schoolmaster who had contracted gonorrhœa or balanitis, or both together, I was unable to decide which, as the preputial orifice was so small that I could not see that of the urethra for some time, and till I had subdued the inflammation. Then through the exceedingly narrow opening in the foreskin I got a glimpse of the entrance of the urethra. It was of importance to him to get well quickly as he was about to be married, but he had a very

* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

great horror of the knife. I cured his more urgent affection, and then proceeded to open up the os preputii; not as I had done before from the outside inwardly, but from within outwards. Making the patient stand in front of me, I grasped the penis with the fingers of both hands, and partly by retracting the foreskin, partly by projecting forwards the glans penis, I commenced this wedge-like dilatation, and soon had the satisfaction of seeing an area of surface around the mouth of the urethra. This procedure I repeated every other day, and, in a fortnight, the phimosis was quite cured, so as not to be likely to return. He married, and has become the father of two children; and, when I recently examined him, there was not even any approach to contraction—he has, in fact, remained perfectly cured. This patient had never before had any part of the glans uncovered, except the very mouth of the urethra.

The third case came under my notice in July 1876. The young man, eighteen years old, had never been able to get the skin back at all. He had just contracted a very severe discharge, attended with a good deal of inflammation and swelling. Having cured him of these, I then treated him for the phimosis, which was quite as light as in the second case I have recorded, and, at the fourth sitting, I had the pleasure of being able to uncover the entire glans penis. I had adopted the plan of making him inject some oil under the foreskin on each occasion previous to his coming to consult me. With this patient I used the recumbent posture, because the pain was more severe than in the former cases, but then the treatment was much more rapid. Under chloroform the dilatation might be even more rapid—effected, perhaps, in one, or at most two, sittings, especially if we did not mind splitting the mucous lining of the prepuce; but I prefer producing no rent or crack, but simple dilatation.

SPINDLE-CELLED SARCOMA OF OMENTUM.*

By P. M. BRAIDWOOD, M.D., Birkenhead.

THE interest of the following case depends in part on the absence during life of characteristic symptoms and signs, and in part on the rarity of the pathological lesions discovered after death.

Miss P., aged 46, stated that she never (as far as her memory went) had required medical advice till she summoned me on February 7th. During last summer, she felt she required change of air, and went to the country for some weeks; but, with this exception, she never complained of ill health till a day or two before I saw her. When visited, I found her very emaciated, but her sister said she had always been extremely thin. She complained of "wandering" pains in the abdomen, not very acute, and described as shooting through to the back. Her pulse was rapid and wiry; her temperature was not very high; she had not an anxious look. During the course of the three weeks I attended her, till her death on February 27th, the principal symptoms she presented were—irregular action of the bowels; very red, but not dry tongue; considerable thirst; rapid, very weak, and wiry pulse; gradually increasing debility; sleeplessness; vomiting of brownish acid fluid, which changed, shortly before death, to dark grumous fluid; and, on palpation of the abdomen, pain (but not extreme) was felt, and a round tumour, not movable, was detected in the umbilical region. She sank gradually, seemingly from inanition.

Necropsy.—About forty hours after death the abdomen was examined. On opening this cavity, its walls were felt firmly adherent, by old and recent lymph, to the subjacent viscera. A thick layer of new material, in part inflammatory, was seen to cover the entire surface, and to mat together the various coils of the intestine, the stomach, and liver; at the sides and posteriorly, the various viscera were found to be free. This thick layer, on section, presented the naked eye appearance of cancerous omentum. There was a considerable amount of serum in the abdominal cavity. On separating this cancerous mass from the liver, some greenish pus was squeezed out of the gall-bladder, and, as it flowed, it floated out certain hard dark bodies, which proved to be biliary calculi. Having removed with care the gall-bladder and common bile-duct, these were seen to be greatly distended by biliary calculi, which were embedded in pouches formed by lymph in the interior of these cavities, and were surrounded by greenish foetid pus. Altogether, there were found about two hundred biliary calculi, varying in weight from fifty grains to three or four grains, and most of them beautifully faceted. The hepatic tissue was firm and anæmic, and the hepatic capsule was thickened. The kidneys, uterus, spleen, and other organs were healthy. A portion of the omentum, prepared by Messrs. A. C. Cole and Son of Liverpool for microscopical examination, showed the tissue to be transformed into spindle-celled sarcoma.

* Read before the Lancashire and Cheshire Branch.

REMARKS.—Modern pathology has given birth to no offspring which has proved more attractive to the students of pathological histology than is the group of neoplasia included under the generic term sarcomata. From Virchow, the pioneer in the study of tumours, to the youngest contributor in our weekly medical journals, all have striven to describe an uniformity in the features, both of the true children and of the bastards, as well as a consanguinity of appearance between that tumour (sarcoma), "consisting of tissues belonging to the developmental series of connective-tissue substances", which do "not go on to the formation of a perfect tissue, but to peculiar degenerations of the developmental forms"; and that other class (cancerous or malignant tumours) whose clinical history is coeval with that of pathology.

Of all the six varieties into which Billroth (*Surgical Pathology and Therapeutics*, 1874) divides sarcomatous tumours, the spindle-celled is the least likely to be found affecting the omentum. That eminent pathologist states that "spindle-celled sarcoma is composed of closely packed, usually thin, elongated spindle-cells, so-called filament cells, i. e., a fibrous tissue, whose development has not advanced beyond the production of spindle-cells". He, moreover, states of this class of growths, that they are generally encapsuled, that they rarely occur on free surfaces, that their more ordinary seat is the muscles, fasciæ, and cutis. They develop generally in persons strong and well nourished, often in particularly healthy and fat persons. In the case narrated, it will be observed that, on the contrary, spindle-celled sarcoma affected a free surface; was not encapsuled; infiltrated a tissue more cellular than fibrous in its developmental homology; and that the patient, though she seems never to have ailed much, yet did not enjoy robust health, and was in fact very emaciated.

I have searched in vain to discover in books or journals an analogous case, either as regards the peculiar pathological lesion which occasioned death, or as regards the very large number of biliary calculi found after death, and which appear to have accumulated without occasioning any marked disturbance.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

BIRMINGHAM.

Thoracic Injury: Emphysema.—A youth, aged 14, had his left arm torn off by machinery. In the only piece of tissue that remained connecting the limb with the trunk, ran the brachial artery, so that hæmorrhage was moderate. The lung substance could be felt through a wound in the left side of the thorax; there was emphysema of the trunk, and, after the application of a bandage, the face also became emphysematous. The lad could speak and was sensible, had not much cough, and, though the breathing was at first difficult, it became easier; he lived nineteen hours. On section, there was found a laceration across the middle of the upper lobe of the left lung; the organ itself was collapsed, and the cavity full of dark blood; the third and fourth ribs were fractured.

Cerebro-Spinal Meningitis.—For some months past, the number of cases of this malady has been such as to amount to an epidemic in Birmingham and the neighbourhood. Dr. Johnston argues that it is correlated with pneumonia and also with purpura, both of which diseases have been more than usually prevalent, and he finds in the "rheumatic diathesis" a common link. In adult cases, no one remedy has been proved of service, unless it be morphia by injections—the iodides, bromides, belladonna, and ice-bags, have had fair trial without more than temporary benefit. One case recovered under moderate mercurialism, and amongst children recoveries have not been rare. Some cases have run the recognised acute course in ten to fourteen days; others have been unusually prolonged to six or eight weeks, with remissions. They have simulated at first variola, or more markedly rheumatic fever, with herpes on face, violent pains in head, spine, and joints, sickness, sweating, and later, retraction of head; stiffness and spasm of muscles, delirium or semicomatose; often discharges from ears. *Post mortem* have rather corroborated older knowledge than taught new; the membranes being found adherent, lymph generally at the base of the brain and the upper cord, and congestion of the nerve-substance, without exudation corpuscles or evidence of cerebritis.

Spinal Sclerosis.—The following are brief notes of a case of this

rare malady recently under Dr. Heslop. A labourer, aged 22, after exposure, got pain and spasmodic movements in the legs, and, later, in the upper extremities. He remained fairly well during perfect rest, but, on rising, or extending arms to grasp, got general shaking, like that of paralysis agitans; could not hold a cup without spilling; on attempting to walk, staggered, and set the feet wide apart; there was giddiness, but not more so on closing the eyes. Sensibility, electro-contraction, and reflex movements were normal in the upper extremities, but impaired in the lower; pupils normal; no severe pain in the limbs, nor constriction of the abdomen; a systolic cardiac *bruit*; the urine contained phosphates. Zinc phosphide in one twenty-fifth of a grain doses was ordered. The man improved to some extent during a few months in the hospital, but, being attacked with small-pox, had to leave before definite conclusions could be drawn.

Hæmatocle: Peritonitis: Operation.—The following is a striking instance of the value of incision and removal of clot in suitable cases. A married woman, aged 24, having had four children, the last one eighteen months old and recently weaned, got acute pain whilst working hard during the first day of a period; the same night noticed a "lump" at the right side of the abdomen. She kept about for a fortnight, when the pain became too severe, and was accompanied with rigors and sickness. On admission, two or three weeks later, there were dulness and hardness from the right iliac fossa to the left groin, along an irregular line, with, at one point, so hard and projecting a part as to suggest to some the presence of a fetus; several times daily acute attacks of violent pain occurred. In the evening, pulse and temperature were at about 100 respectively. At the end of a week's rest and opiate treatment, the boundary of the hardness was extending, the patient more suffering, and the local peritonitis more marked. An aspirator-needle was then passed *per vaginam* into the hard mass, which filled Douglas's pouch, but a little clotted blood only was withdrawn. It has been noted by Dr. Parry, in his essay on *Extra-Uterine Pregnancy*, that aspiration in such cases is not always harmless, and two days afterwards the evening temperature was 103; the pulse 140. There was evidence of very acute though localised peritonitis, and the patient lay in a most critical condition. After consultation, Mr. Clay made a free incision, and evacuated a quantity of foetid, dark, grumous blood, and syringed out the cavity with Condy and water. Morphia was continued in large doses, as much as a quarter of a grain every four hours. In a few days, all evidence of peritonitis passed away; the morphia was replaced by quinine, and later by salicylic acid (ten-grain doses), internally, and the same disinfectant, mixed with charcoal, was insufflated as a local antiseptic. The patient is now convalescent.

Jaundice: Depressed Circulation.—In a case of this kind, when the pulse was slow and the heart rendered irregular, apparently by the circulation of bile-products, Dr. Foster remarked that belladonna, in ten to fifteen drop doses, had proved very useful as a stimulant, rendering the heart's action regular again. He had had similar results in cases of depression from digitalis.

Slow Pulse (Cardiac Disease ?)—In a man under Dr. Russell's care, the pulse has never been more than 34 per minute during the ten months he has been under observation, nor, according to his own account, for the last five years. Until recently, there have been no other symptoms; but he has now attacks of pain, apparently of nerve origin, and referred to the epigastrium. There is a systolic *bruit* over the cardiac region, loudest over the tricuspid. No remedy has altered the peculiar pulse.

Dilatation of Stomach.—In a case which is due probably to pyloric obstruction, Dr. Russell has tried salicylic acid as an antizymotic in eight-grain doses. Marked amendment has followed, the distension being reduced and the vomiting stopped, though *sarcinæ* were still present in matter withdrawn from the stomach. The syphon-tube was used, but not with satisfaction, on account of the patient's irregular eating.

Ergot in Paraplegia.—In a marked case dependent on myelitis, Dr. Foster had found benefit from ergot. Sensation improved, the zone of feeling extended lower, and the amount of twitching lessened. In the course of a few months, however, a relapse occurred.

Diabetes: Treatment.—For a man, aged 25, in whom "worry" seemed the main cause of the malady, Dr. Foster had prescribed salicylic acid in ten-grain doses, but without definite result. Codeia was afterwards given in quarter-grain, and afterwards half-grain doses, to the extent of six and even eight grains daily, producing some amount of drowsiness. The diet was restricted to the usual extent, and, in two or three weeks, the man had gained weight and a normal temperature, "boils" had become better, and he passed less urine; at the same time, the amount of sugar passed was increased, so that any real improvement must be reckoned doubtful.

"Aneurismal Diathesis."—A man of about 30, having had two popliteal aneurisms, one cured by flexion, the other by ligature, about eighteen months ago, has developed another aneurism within the last three months at right sterno-clavicular articulation, with marked symptoms of dyspnoea and stridor, the larynx being pushed to the left side. Iodide of potassium in moderate doses had not relieved, and the patient declined galvano-puncture. This operation, in another case of thoracic aneurism under Dr. Foster and Mr. Goodall, had given excellent results for a time. It had been performed three times with two needles and six or eight cells, and the pulsating tumour had quite consolidated, and very severe suffering had been relieved. The man going out, however, for a few days, and using his arms freely, death occurred suddenly from rupture of the sac.

Chorea: Treatment.—Observing some cases of this malady with Dr. Heslop, he remarked that, though formerly he preferred arsenic, he had been better satisfied recently with either iron, or zinc, and bromides; but medicines were not always necessary, and he was often content with obtaining satisfactory answers to three questions; viz., as to sleep, as to purgation, and as to nutriment.

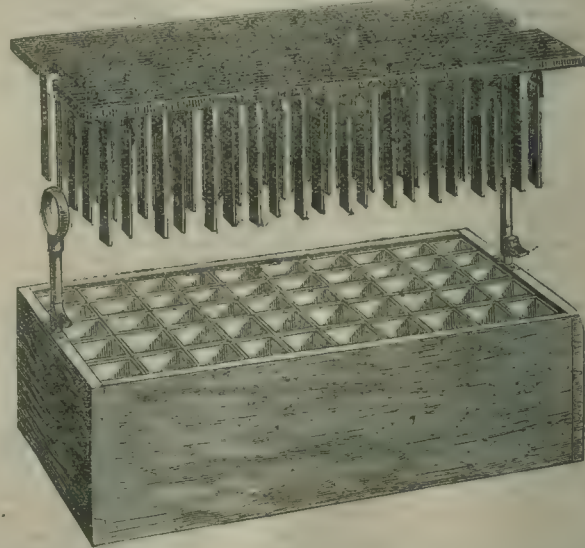
Chloride of Ammonium.—The same physician was accustomed to use chloride of ammonium in chronic Bright's disease as a "deobstruent", and thought well of it.

Sulphide of Calcium.—Mr. Solomon had found this remedy of considerable service in cases of chronic vascular keratitis (commonly known as strumous), especially when accompanied with evidence of impaired circulation, as cold extremities. He used the small doses recommended by Dr. Ringer, ordering one grain in half a pint of water; one to four drachms to be taken frequently; in larger doses, it was apt to disorder the stomach; was injurious in acute cases, and, in "sanguine" people, acting as a stimulant.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW CONSTANT BATTERY.

MESSRS. MATTHEWS have sent us for inspection a new constant battery, which is constructed on Smee's principle, and resembles in some respects the one manufactured by Messrs. Weiss and Son. It is, however, considerably lighter than Weiss's, which arises from the circumstance that the troughs containing the charge of diluted sulphuric acid are not of porcelain, but of wood coated with a waterproof material; and this greater lightness constitutes an advantage where the battery is



used in outdoor practice. The price is also less than that of Weiss's instrument, being only £7 for fifty cells; and another recommendation is, that the initial cells of the battery, upon which the greatest strain

falls in other batteries, need not always be used in this one, as one may, for instance, commence with No. 25 instead of with No. 1. The current furnished by this battery is not so constant as that given off by Daniell's or Stöhrer's; but, on the whole, Messrs. Matthews's instrument must be pronounced a very good one. The cells and plates, as depicted above, are contained in a mahogany case, with drawer for accessories, of the requisite solid.

ABSTRACTS OF INTRODUCTORY ADDRESSES

DELIVERED AT

THE METROPOLITAN* AND PROVINCIAL SCHOOLS,

On OCTOBER 2nd, 1876.

ST. THOMAS'S HOSPITAL.

THE Introductory Address was delivered by Mr. FRANCIS MASON, Senior Assistant-Surgeon and Lecturer on Anatomy at the Hospital.

After some prefatory remarks, the lecturer said he was unwilling to draw any invidious comparison between the work done at this and at other hospitals, when there was so much evidence that all were working so nobly for the general good of mankind; but, in reflecting on the antiquity of the hospital and in contemplating the names of the many eminent physicians and surgeons who in former years laboured so gloriously in its suit and service, he had no difficulty in finding a suitable theme for consideration. He then gave a brief but interesting account of the rise and progress of the hospital. It was one of the royal hospitals, and was established as an almshouse in the eleventh century, on the site of the present Charing Cross-railway at London Bridge. He then referred to the fact, that the distinguished anatomist and barber-surgeon Cheselden was a pupil and afterwards was appointed surgeon to the hospital in 1719. Alluding to Cheselden as a barber-surgeon, he stated that in the eleventh century medicine was entirely in the hands of the clergy: for example, William the Conqueror was attended by a bishop and an abbot, and the surgeons to King Henry VI were barbers and his physicians priests. The barbers were, indeed, originally introduced to surgery by the priests, whose heads they shaved. He then referred to the relic of the barber-surgeon as seen at the present day, in the pole which is observed outside the hair-dressers' shops, where they profess "easy shaving". The pole represents the staff which the patient grasped in order to accelerate the flow of blood in the operation of venesection. The stripes, red and blue, which decorate it, are symbols of the venous and the arterial blood, and the white line indicates the bandage that was applied to arrest the hæmorrhage. He then spoke of the Act of Parliament passed in 1714, by which the barbers and surgeons became two distinct corporations. On the separation, the barbers retained the old Hall, books, paintings and records, and thus the surgeons were left homeless and without property: they even had to borrow money to build a hall in the Old Bailey, on the site of the present Sessions House, and subsequently they removed to their present abode in Lincoln's Inn Fields. Reverting to Cheselden, Mr. Mason stated that the celebrated John Hunter was one of his pupils, and that Dr. Edward Jenner's grand discovery of vaccination was first performed in London by Mr. Cline, senior, at St. Thomas's Hospital, in 1798. Mr. Mason then referred to other illustrious men who had been connected with the hospital, including the names of Dr. Richard Mead, Sir Astley Cooper, Dr. Mark Akenside (the poet), the renowned Dr. John Lettsom, and others, men who have proved themselves benefactors to science and mankind, and whose self-reliance, industry, and perseverance all might well emulate. Both Mead and Cheselden, said the lecturer, attended Sir Isaac Newton, and "won golden opinions of all sorts of people"; but by no one was their talents more appreciated than by Pope the poet, who referred to them in the following complimentary terms:

"Weak though I am in limb and short of sight,
Far from a lynx, and not a giant quite,
I'd do what Mead and Cheselden advise,
To save these limbs and to preserve these eyes."

Addressing himself then more especially to the pupils who were commencing their studies, he reminded them that the student should at once be imbued with the all-prevailing truth, that there is no royal road either to learning or to success in the medical profession. Money might assist to a certain extent, but it was of little value to further the

progress of science without the closest application and persevering and sustained industry. Work was all-important in every calling. "We listen", he said, "with rapt attention to the learned divine; we marvel at the brilliant oratory of the illustrious statesman; we gaze in wonderment on a historical picture, in which all the details, with appropriate costumes, are depicted by the artist with the utmost accuracy and precision; we admire the actor, who 'holds as 'twere the mirror up to nature', and places before us the characters of England's mighty dramatist with vigour and truthfulness, representing the 'very age and body of the time'; but such conquests were not won, such triumphs were not achieved, without incessant labour and unflinching perseverance."

The lecturer then referred to the labours of John Hunter, of Michael Faraday, and of Harvey, the discoverer of the circulation, and impressed upon his hearers the importance of being self-reliant, and of being accurate in their work. Truthfulness and good principle, purity of motives and prompt decision, were imperatively demanded for success in any walk of life. Great wealth and high honours, although open to all, were, he said, practically given to few in our profession; yet he expressed his own honest opinion that there was no calling in which a fair competence is so speedily acquired as in the medical profession.

"Let me add, in conclusion", said Mr. Mason with much earnestness, "to all who are now studying here, that whether your life be a success or a failure, I confidently hope you will never lose sight of the moral influence and discipline inculcated at this hospital. In life's campaign, you will necessarily meet with many vicissitudes to impede your progress, and you will have to contend with and conquer numberless difficulties; yet when the fiery fight is o'er, and you bear away the emblem of your victory, you will, I feel sure, look back in your leisure moments with pride, reverence, and thankfulness, to your alma mater, gratefully remembering the happy days you have spent here, and recognising with intense satisfaction the many life-long friendships that you have had the opportunity of forming."

UNIVERSITY COLLEGE HOSPITAL.

THE Introductory Address was delivered by Dr. H. MAUDSLEY, Professor of Medical Jurisprudence in University College.

The lecturer commenced by stating that he thought he might most fitly use the occasion to endeavour to satisfy his hearers that they had made a good choice of a profession for their life's work. This he would do by pointing out the intrinsic nobility of their direct function as healers of disease, the excellence of the method of medical study as a means of intellectual and moral training, and its fruitfulness in benefits to mankind, and the grandeur and the reach of its aspirations for the future. There was no profession which, looking to the higher aims of it, afforded so many and constant opportunities of doing good in the hourly routine of its work, and no profession, therefore, which so little needed extraneous titles of honour to give it dignity and respect. So far from regretting, as some did, that peerages were not conferred upon it, he was glad that they were not, for he feared that there would not be the strength of mind to reject them; that a pitiful social ambition might cause the simple nobility of the vocation to be spoilt by decorations which had their origin in, and belonged properly to, a childish stage of human progress.

He went on next to show how well the training through which the student must go was adapted to make the most of his intellect. He was brought into direct contact with the facts of Nature from the first, had to advance step by step in the practice of observation and reflection from more simple to more complex phenomena, using the lower as a ladder by which to mount up to the higher, and so learned to make the order of his ideas conform to the order of Nature. That was real instruction; moreover, it was instruction at first hand. Coming to his work with a fair knowledge of mathematics and physics, he proceeded to the study of chemistry, and passed on thence to the study of physiology; so he laid deep and firm the groundwork for the study of the disorders of the structure and functions of the body and mind, which was his ultimate special work. A knowledge of the simpler and more general science was an essential prerequisite to the study of the more complex and special science. It was impossible to enter the chamber of the mind without going through the antechamber of the body; impossible to understand the body without understanding the physico-chemical processes which lay at the foundation of physiology. To proceed in this way, was to train the mind systematically in conformity with the order of Nature through patient observation and careful induction, to know Nature by becoming her servant and interpreter. And, to know man finally through Nature, of which he was the present culmination, the thorough knowledge of his environment and of those

his relations to it which constitute his life, must be the foundation of a scientific medicine. Prevision for the purpose of action was our aim here as in other sciences; and observe in order to foresee, and foreseeing, to modify and direct; gaining a knowledge of the phenomena of life in order to make ourselves master of them, just as we gain a mastery over physical nature through a knowledge of physics and chemistry. Formerly it was the practice to treat the body as if it were an entirely independent kingdom, without regard to its essential relations with what was outside it, and to try to drive out the enemy which was supposed to have taken possession of it by pills and potions, as barbarous nations do by charms and ceremonies. Now, however, all this was changed. Through recognition of the relations of the organism to its environment, we had risen to a conception of the prevention of disease—the great purpose of medicine, which it was earnestly prosecuting at the present time. It was probable we should attain earlier and larger success in preventing the diseases of communities than in curing the diseases of the individual. To show what encouraging success had already been gained, several diseases were enumerated which, very fatal two hundred years ago, were now harmless or extinct, and others which would probably soon be almost extinct. One might, without being absurdly hopeful, foresee a time when the occurrence of epidemic disease would be felt as a gross reproach to the community, and there would be comparatively little for the practitioner to do in the treatment of particular diseases.

To some, this prospect might appear fancifully bright, and it might be said that from the beginning men had, through the unrestrained indulgence of their passions, engendered disease, and, however pure their surroundings, would go on doing so; that, were a clean sweep made of all disease from the face of the earth to-morrow, they would breed it afresh before to-morrow's to-morrow. No doubt, as constituted and trained at present, they would. But it must be the aim of the medical science of the future to give them such an exact knowledge of their own nature and relations as will teach them to know and conform to the laws governing health and development, which they now violate habitually in ignorance and indifference. This was to be done by the patient and steadfast application of the method of observation and induction which had been so successful in the subordinate sciences, to the highest phenomena of man's nature—his thoughts, feelings, and conduct. The problem was the same here as in the lower sciences, to observe in order to foresee, and to foresee in order to modify and direct, and the method was the same. It could not be doubted scientifically that a process of evolution had gone on in Nature, and that man, as he now is, is a product of the past carrying on this process in his progress to a higher purpose in the future; he must, as a part of the order of Nature, be studied by the same positive method as the rest of Nature. When the origin and development of his higher nature was investigated by observation and induction, it was seen that the highest faculties of his mind had not been implanted ready-made in his nature at any period of its history, but had been the slowly won results of the accumulated experiences of the race transmitted by hereditary action. The problem to-day was no longer the schoolman's vexed question of the origin of evil, but a question of the origin and growth of good. And our plain duty was to search and find out the laws which have been at work in this process of human evolution and to continue it—to carry on by deliberate method, with conscious purpose, what has been going on through past ages irregularly and blindly. It was truly amazing what recklessness men exhibited in regard to the power which they had over their own destiny, acting entirely as if they had no responsibility in the matter. In face of constant observation of the important modifications in the constitution and character of animals which were effected by selective breeding and training, and of positive knowledge of hereditary action in human development and retrogression, it was the rarest thing in the world to take the least thought in marriage of the ills which might be entailed upon children. Disease was propagated as if disease were a supernatural affliction which arose and spread by no natural laws. Men behaved in relation to the laws which govern human evolution very much as primeval savages behaved in relation to the laws of physical nature, were content with superstitions where they ought to get understanding, and put up prayers where they should exert intelligent will. It was an immediate task of medical inquiry to find out exactly the laws of heredity, mental and bodily, in health and in disease, and to apply the knowledge to promote the welfare and progress of mankind. Its large function in the future was indeed to discover those laws which have been in operation through the past to make man the superior being which he is, and to determine future action in intelligent conformity with them; not only to cure disease of body and mind, as it had aimed always to do, but to prevent disease, as its larger aim was now, and to carry on the development of his nature, moral, intellectual, and physical, to its highest reach. Clearly they had chosen

a profession which yielded the fullest gratification to high aims and the largest scope to good work.

In pursuing the course of scientific inquiry indicated, one cannot well help coming into collision with some of the prejudices and traditions of mankind. It is not possible, for instance, to prosecute the physiological study of mind to its furthest reach without shaking the metaphysical notions of it, and with the fall of these notions other notions closely bound up with them may totter to their fall. But, if this must be, we shall do well to acknowledge it more in sorrow than in anger. Let us not rush with eager clamour to the work of destruction; it behoves us as products of the past who will one day ourselves constitute the past, to deal gently and even reverently with it; we cannot break with it if we would, nor should we if we could; the very language which we use we owe to the slow acquisitions of generations which have preceded us; we cannot pity or despise them except in words for which we are indebted to them. As he who has been the best son is in turn the best father, so the generation which guards with respect the good which there is in the past and puts gently aside that which is effete will make the most stable progress in its day and transmit the best inheritance to the generation which follows it. One may esteem science sufficiently without feeling sympathy with the aggressive delight with which some persons accentuate its hostility to expiring beliefs: a scientific discovery is only a means to an end. The cultivators of science seem oftentimes to forget that its end must be constructive; that, after analysis must come synthesis; that all the analytical work in the world will leave matter in a chaotic state until the constructive spirit shall organise the incoherent results and make them serve for a higher social development. The problem is to make straight in the future a highway over which mankind may pass to a higher life. The philosopher, the poet, and the moral teacher have not been rendered superfluous by science; on the contrary, it will have need of them to attain to its own perfect working to the bettering of man's estate; and it may well seem to some that the time has come now when its manifold scattered and somewhat anarchical results should be penetrated by the synthetic insight of the philosopher, be embodied in forms of beauty by the poet's imagination, and utilised by the moral teacher to guide and promote the progress of mankind. So long as man sees splendour in the starry heavens, beauty in the aspect of Nature, grandeur and glory in self-sacrifice, so long will he feel that his brief conscious life is but a momentary wavelet on the vast ocean of the unconscious; that there is in him something deeper than knowledge, which "cometh from afar", and which the laboured acquisitions of science will ever fail to satisfy.

ST. MARY'S HOSPITAL.

THE Introductory Lecture was delivered by Dr. WILTSHIRE, Joint-Lecturer on Midwifery and the Diseases of Women and Children.

Dr. Wiltshire, after having expressed the pleasure he felt that the public part of the work of his life was carried on amidst friends whose uniform kindness encouraged and stimulated him, referred to the loss they had sustained in the deaths of Dr. Sibson and Mr. Gascoyen, to whose memory he paid a well merited tribute of respect. Turning to the object of their meeting, he stated that the work of medical education was of a solemn character, and that, rightly to appreciate the value of medical studies, it was necessary to understand what were the aims and objects of medicine, and the relation it bore to other callings. It was only by judicious comparison that the true proportion of things could be estimated, and it was the want of, or neglect to use, the comparative faculty that brought so much trouble on communities and individuals. Their first aim and paramount duty was to prevent disease, and, failing that, to cure or relieve it.

The two great branches of medicine were, then, preventive medicine (hygiene) and curative medicine. In the former, the relations of the profession, as a body, were with the state; in the latter, they were with individuals and were personal. In both departments, the profession had done much. In public health, they had been the pioneers and almost the sole workers, though they were the only losers by promoting healthiness. Great triumphs undoubtedly awaited them in the noble field of sanitary science. In curative medicine, while the future was also great, they were able to point to past achievements with pride and satisfaction. The progress their professional knowledge was making every year was immense, and had been especially great during recent times. He lamented that the benevolent work of the profession had been so gravely misrepresented and science hindered by recent agitation respecting vivisection; and he demonstrated the injustice of the accusations brought against the profession as a body, no doubt in ignorance, by many whose generous sympathies had been misled. He claimed for the members of his own calling no less tenderness of feeling

than other persons possessed, with which was coupled a greater knowledge of, and at least equal sympathy with, human suffering, which was in amount stupendous and in character awful.

Dr. Wiltshire next pointed out how great an influence on the welfare of mankind, especially town-dwellers, the preventive branch of medicine was capable of exercising. In its fullest development, it was capable of making mankind healthier in body and in mind. The tendency to sin, vice, and crime might, therefore, be diminished by attacking it at its inception; for the hereditariness of moral defects was as abundantly clear as the inheritance of proclivities to physical disease. What each one of us was morally and physically was very much the product of ages; still we were powerfully influenced by our environments, and, being thus susceptible, it behoved each generation to pay great attention to all that affected our mental and physical well-being, so that as clear a bill of moral and physical health as possible might be handed down to posterity. Lord Beaconsfield's celebrated phrase, *Sanitas sanitatum omnia sanitas*, embodied objects which, in future years, must become the care of statesmen; for a healthy and vigorous population formed the most valuable wealth of the state. The curative branch of medicine, which engaged the energies of the bulk of the profession, afforded scope for the exercise of the noblest qualities, and to stand by the bedside of the sick and sorrowing, not idly, but helpfully, both able and willing to relieve, was as great a privilege as it was an abiding pleasure. The study of medicine and the many sciences that were ancillary thereto greatly illuminated the mind; they exerted a corrective influence on the judgment, and enabled us to survey and contemplate life and its environments from a lofty sphere. Above all, they engendered a love of truth, and that for its own sake. Dr. Wiltshire believed there was a noble future in store for medicine. This had been recognised by a distinguished statesman, Mr. Gladstone, in his recent address to the students of the London Hospital. In the future, certain municipal laws would have to be ordained in accordance with the teachings of science.

The Mosaic code had done much for the Jews, and similar hygienic laws, expanded and corrected by the light of science, might, under Divine guidance, still do much to promote the healthiness of all the nations of the earth. Illustrations of the importance to society of both the preventive and curative branches of medicine, which in practice were closely interwoven, were given.

Dr. Wiltshire then addressed words of welcome to the fresh men, of exhortation to the advanced students, and of counsel to those who were about to embark in practice. He entreated all of them to work earnestly and honestly, to observe carefully and closely, and to reflect upon their observations; to leave nothing undone in order to become masters of their calling; and, lastly, remembering the dignity, the responsibilities, and the sacredness of their profession, to practise it only as high-minded and honourable gentlemen, taking care that its fair fame was not sullied in their keeping, and that they did not pursue it in a mercenary spirit.

WESTMINSTER HOSPITAL.

THE Introductory Address was delivered by Dr. W. H. ALLCHIN, Senior Assistant-Physician to the Hospital.

Referring to the fact that two of the largest schools had recently seen fit to discard the customary "Introductory," the lecturer considered that it had become necessary to put forward any plea there might be for its continuance. Quite willing to say "Away with them," if they could be shown to be harmful or useless, he maintained that, if productive of good or in any degree necessary, they should be continued. And good he was of opinion they do bear, not perhaps to older men, who are past being susceptible to words of welcome or encouragement, but to the younger ones, often fresh from school, and requiring something that shall be a silent infelt stimulus to them in facing their work; such a stimulus judicious words might be. On another and equally important ground is the annual address to be recommended. Within the past few years, the questions of general interest to both the public and the profession have considerably increased in number, and opportunities are of necessity demanded for the treatment of such questions from the professional point of view. Such an opportunity is afforded by the present ceremony, and none the less conveniently so that the public have come to look for utterance on this occasion.

The actual subject-matter of the address was the position of the healing art as a saleable article, the character of those who purchased it, and the qualifications of those who practise, *i.e.* sold, it. The practice of medicine, which has for its object to prevent, to cure, or to alleviate bodily suffering, differs in a most marked manner from any other scientific pursuit which intimately concerns the community in the

extremely uncertain foundations on which it is based; and this uncertainty is due to the changing and progressive character of the many sciences which form the groundwork of the profession. The more indefinite an art is, the more does it rely on the natural capabilities of its exponent. Medicine being so thoroughly of this character, a grave responsibility is thereby imposed on the practising of it. Imperative is it that, through no deficient knowledge on the part of the doctor, the too small need of relief he is able to extend is diminished. An additional claim for as complete excellence as possible on the part of the medical man is the attitude of the public in respect towards himself and his art. This attitude is one of almost absolute ignorance with an equally blind confidence; the former unavoidable from the very nature of the subject, the latter demanding all his care lest he abuse it. With an all-demanding public, asking, in their ignorance and trust, for impossibilities; with a growing art vastly deficient in power to the forces with which it copes. Strongly does it insist that the practice of that art should be of the very best that is possible, that he may make up, as far as may be, in himself for the imperfections of his calling.

In considering how far the average doctor is equal to the demands made upon him, there are many things to be taken into account. His natural fitness and the circumstances which may have determined his entering the profession, how far his course of education is suitable, and whether the examinations are the best that can be devised. There can be no doubt but that many enter the ranks of medicine without any thought of their natural capabilities, but simply look to it as a means of livelihood, and, so far, do but little to elevate the general standard of the profession, however successful they may be in their individual practice. Many of them spend the minimum time in the schools, and certainly are not so good as they might be made. So far as the education is concerned, there is no doubt, in the opinion of the lecturer, that the period devoted to systematic study is far too short. It is less rather than more than it was forty years ago, since when the subjects have more than doubled in extent and been largely added to in number. As the direct result of this high pressure imperfect work comes "cramming," without which it is almost impossible to pass the various examinations for a diploma within the expected time. The evils connected with the examinations, apart from their determining, to a very great extent, the period of study, such as their multiplicity, their incompleteness as tests of knowledge, and, lastly, their having come to be regarded as ends rather than means to the acquisition of knowledge and mental culture. On all these grounds, the lecturer was of opinion that the question of how far the average doctor is equal to the demands made upon him is not altogether so satisfactory as might be wished. He put forward this with all due consideration and deference, the more especially as the remedy, as would seem recently to have been proposed by Dr. Farre, for the dearth of doctors is a lowering of the standard of education. Finally, the lecturer could not help thinking that the unworthy treatment in honours and in pay received at the hands of the public by the majority of the profession would not be submitted to so quietly did the profession feel more conscious of its worth, and did the public not regard us as not so good as we might be.

MIDDLESEX HOSPITAL.

THE Introductory Address was delivered by Dr. G. H. EVANS, Assistant-Physician to the Hospital.

After a few preliminary remarks, he commenced by comparing the course of the medical student to that of a traveller along a road, straight at first and easily followed, provided along its course with establishments where travellers would be furnished with merchandise of various kinds and instructions how best to dispose of it. This portion of the road ended in turnstiles, where tolls had to be paid, which gave admission to an open country, with roads more or less plainly indicated, leading in various directions; from which roads each traveller might choose that which seemed most likely to lead him to a good market for his wares. After a few words on the subject of the selection of the ultimate road, he proceeded to give some advice as to the conduct of the students during the course thus described—laying great stress on the necessity, during their hospital education, that they should take every possible opportunity of doing practical work: "There is," he said, "not one of the subjects with which you have to make yourselves acquainted with which can be learned only from books and lectures; but you must, in the case of every one of them, familiarise yourselves with the practical application of the principles laid down in books and lectures." He especially urged upon them the importance of making themselves well acquainted with their fellow-men. "Remember," he said, "that, in the exercise of your profession, you will have to treat individuals, not diseases; that in no case in which you may be called

upon to attend will you find a cut and dried method, or a hard and fast rule of treatment available. You will have to exercise your own judgment on each individual case; and you will be guided by the knowledge and experience you will have acquired of your profession and of your fellow-men." Here he took occasion again to urge them most strongly to make themselves well acquainted with various descriptions of cases by frequenting the out-patient rooms and the wards.

Speaking of their actual entry on a professional career, he suggested that, in all probability, there was a brighter prospect for the coming members of the medical profession than had been open to those of the preceding generation; that their services were likely to become better appreciated for their value with regard to the public, as well as with regard to private individuals. He quoted some observations made by the late Lord Herbert of Lea, in 1860, to the effect that it was not by any means to the interest of the medical man in civil life to prevent disease; that it was only the sick man who sent for the doctor, not the man who was well; and compared with this statement Dr. De Chaumont's words, in 1875, that we had then the spectacle of hundreds of educated gentlemen, who, as officers of health or public analysts, were profitably devoting the whole of their time to that very duty which, fifteen years ago, his lordship thought so unpromising a branch of our art. Further, he quoted recent statements of Earl Beaconsfield and Mr. Gladstone to similar effect. He then shortly described some of the changes which had taken place in the direction of improving the position of the medical profession; how the state had gradually and slowly been recognising the value of medical science, in the prevention as well as the cure of disease, that recognition having been first evinced in the appointment of a medical member on the General Board of Health in 1848. "Since that time," he said, "an immense amount of good work for the public has been done, initiated and superintended until very recently by Mr. John Simon, whose masterly and noble efforts, though rather frequently hampered by what we may perhaps call unappreciative administration, have succeeded in starting the science of public health on a sound and firm basis." He then reminded his hearers that there was yet much to be done; and that all the medical profession could, in one way or another, contribute to the advancement of sanitary knowledge.

He then made some observations on the alleged (in some quarters) inferiority in social status of the medical as compared with other professions. He considered that, where this opinion existed, it was probably due to unfair comparisons between the members of different professions. He admitted, however, that there were instances of individual deterioration in some cases, where want of means, want of opportunity of mixing in good society, and other causes, had combined to drag a medical man in general practice in a provincial town down to the social level of the tradesmen who formed the majority of his clients; "and undoubtedly," he said, "the unwillingness of the public to appreciate properly, and remunerate sufficiently, the services of medical men, has had a good deal to do with the difficulty experienced by some members of our profession in keeping themselves clear from some of the lowering influences to which I have alluded." He then, in support of his theory that the profession had not really to any extent deteriorated, referred to the numbers of men who were working unselfishly, conscientiously, and honestly, with very little substantial reward; believing that there is no profession in which so much good unpaid work is done, by men who can ill afford to give their hardly-gained experience for no return but the satisfaction of knowing that they are benefiting their fellow-creatures.

He then urged that, if any improvement were required in the members of the medical profession, it must be done by increasing the number of well-educated gentlemen in that profession—defining well-educated as having had a good general education, not by any means confined to the acquisition of technical professional knowledge; and, with this view, suggested that many medical men commenced their practice too soon; and that an ordinary university career was an extremely useful preparation for a course of medical study, as giving, at all events, some of that knowledge of men and things in general which was so essential to the education of a medical man.

His further advice to the students consisted in bidding them not to consider that their education is completed when they start in practice, seeing that our education is never completed; he bade them take every opportunity of getting information from the cases they attended, and from the recorded experience of others; saying: "Give your whole undivided attention to every case that is brought before you, and do not leave it till you have really satisfied yourself that you have ascertained all that is to be ascertained about it. Give your skill and experience as freely to those who cannot afford to remunerate you, as to those who can and do. Always bear in mind that you have to keep up your own reputation and that of the noble profession to which you

belong; treat every one with whom you come in contact with the courtesy and kindness with which you would like to be treated yourself; and, even supposing that you do not meet with much substantial reward, you will yet have the satisfaction of feeling that you have done your duty fearlessly, honestly, and unselfishly.

In conclusion, he made a few remarks on the loss the medical school and the hospital had sustained in the death of Mr. Campbell De Morgan. "A few months ago, there passed away from amongst us one who, for some forty years, had adorned, aided, and supported this hospital and its medical school; one, whose skill and varied acquirements had earned for him the admiration and respect of a far wider circle than that of the medical profession; and whose kindness, whose gentle simplicity, whose intense sympathy with and thoughtfulness for his fellow-creatures, had necessarily endeared him to all who came in contact with him. He was always ready to bring his remarkably clear and accurate judgment to bear on any difficult question which might come before him, as we who were in the habit of meeting him in the board-room of this hospital have very good reason to remember. He is gone; but his memory remains. Let us, by making use of and following as nearly as we can the noble example that he has left us, endeavour to cause his loss to be less severely felt; and his influence, as far as possible, perpetuated amongst us."

ST. GEORGE'S HOSPITAL.

THE Introductory Address was delivered by Dr. BLANDFORD.

After welcoming the students, the lecturer said that, inasmuch as his connection with the hospital was due to a special subject, it seemed right to say something with regard to this subject in the present address, and to call their attention to the great group of nervous disorders which must more and more engage the attention of medical men as the nervous system is more and more specialised and developed. According to the last report of the Commissioners in Lunacy, there were under restraint in the asylums and workhouses of England and Wales on the first of January last, 64,916 patients, and, as 4,909 were discharged recovered, and 4,592 died, there must have been during the year upwards of 74,000 insane persons under care and treatment. This number represents the last result and outcome of the various nervous diseases—of nerve-degeneration. A vast number are incurable before admission. We cannot cure their degenerate nervous system. It is for the medical men of the future to arrest and prevent this degeneration. The causes of it are, some of them, beyond our reach as medical men, though in our social capacity we may aid in reducing them. Such are—bad and insufficient food, bad air, unwholesome habitations, injurious occupation, or the total want of occupation and education. Other causes concern us more nearly. Much depends on the health of the mother previous to the birth of the child. A great demand made upon the nervous energy of a woman at this time must affect the offspring. Idiocy is popularly and rightly often ascribed to fright; and spring. Not only a sudden shock or fright, but a long-continued strain may bring harm to a child. Women who combine the bearing of children with the anxieties and responsibilities of callings which, as a rule, are undertaken by men, are likely to see the effects in the progeny. Another fertile cause of nerve-degeneration is intemperance, chiefly, though not exclusively, alcoholic. Although it is not now the fashion to drink to excess in public, as our grandfathers did, it is a fact that there is a large amount of secret drinking, not only amongst men, but also among ladies, while the habits of drinking among the lower classes have probably increased, owing to the higher rate of wages. It is sometimes said that the medical profession encourage and promote habits of drinking by the administration of stimulants. This charge is often made rashly and recklessly, but it behoves us to be careful how we order stimulants to nervous, hysterical, or hypochondriacal persons; and we should discourage in every way the habit of resorting to drams and "pick-me-ups", or such stimulants as opium and chloral. The great source, however, of nerve-degeneration is inherited taint. Not merely idiocy and insanity, but epilepsy, neuralgia, chorea, and hysteria, may be the result of transmitted nerve-disorder. There are some sources of this disorder which are unavoidable and accidental, but men and women can help by marrying when they have had attacks of insanity, or when their families are tainted through and through with the disease. It is for the medical man to oppose the marriage of such people—at any rate, not to sanction it. Where he may not consider himself justified in absolutely forbidding the marriage of a nervous person, he may advise that such an one should not marry another like himself; above all, that he should not marry a relation. There is a popular notion that matrimony is good for nervous people, especially girls; this is erroneous, the supposed good being counterbalanced by much evil. The longer we study man-

kind, the more we shall appreciate the influence of an inherited organisation, whether for good or evil, and we ought to do all we can to arrest the spread of unhealthy organisms. Looking at the outcome of all this nerve-degeneration, we see it in idiots of all degrees, in the precocity of the weakminded, and in the insanity of boys and girls who become insane at an early age without apparent cause. We see it in many people who, without becoming actually insane, are peculiar and eccentric, and imitate at a distance the various forms of insanity, some being sanguine and speculative, others gloomy and desponding, others suspicious and irritable. Then there are the hysterical, and those suffer from what Sir James Paget calls *neuro-mimesis*, or nervous mimicry, imitating both medical and surgical ailments. Another class are the hypochondriacs, the prey of quacks. Their disorder is only a form of melancholia. Neuralgia is also a variety of nerve-degeneration, and is due to defect of nerve-power. Another form is epilepsy. Last of all is insanity. The study of this is now not a metaphysical investigation into the nature of the mind, but a study of brain-disorder, one which opens a wide field for the student, whether he elects to take up the chemistry, the anatomy, or the physiology of the organ.

KING'S COLLEGE HOSPITAL.

THE Introductory Address was delivered by Dr. E. B. BAXTER, Assistant-Physician to the Hospital.

The lecturer referred to certain changes that had occurred in the constitution of the medical staff. He then proceeded to urge upon the students the necessity and importance of acquiring a scientific habit of mind rather than the mere acquisition of a certain number of facts and theories during the first few years of a student's life. He dwelt at length upon the three stages of scientific method—(1) observation, (2) hypothesis, (3) verification. With regard to the qualities necessary for observation, he said that they were technical skill, accuracy, discrimination, and curiosity. The second stage required imaginative power, and the third required the same qualities as the first, together with caution and impartiality. Dr. Baxter then proceeded to show that the same qualities as those required in the process of scientific discovery were habitually exercised in the practice of medicine and surgery. In conclusion, he referred to the present exaggerated system of competitive examinations as it affected the interests of medical education. Competitive examinations, he said, were now upon their trial, and those present might probably live to see the day when their evils ceased.

CHARING-CROSS HOSPITAL.

THE Introductory Address was delivered by Dr. MITCHELL BRUCE, Assistant Physician to the Hospital.

The lecturer referred to the present system of medical education, preliminary and professional. With respect to the first, it was urged that the standard of admission is so low that a number of young men are permitted to begin their studies totally unfit to prosecute them with any hope of being licensed. It was shown by statistics that no less than twenty per cent. of registered students never become practitioners; and that, beyond the cases otherwise accounted for, the majority of those who thus fail are rejected as unfit by the examiners. The chief cause of this failure, he said, was not lack of industry or want of opportunity, but simple incompetency. Such being the case, the General Medical Council were charged with the responsibility of annually admitting hundreds of young men to study medicine who were doomed to certain disappointment and its results. The obvious remedy was to raise the entrance standard, and thus diminish the whole number of students without lessening the number that would certainly pass. Dr. Bruce found the cause of rejecting really good students in the "abuse of the tutorial system". The present system of "practical cram" did not teach a man to think; and the result was the deplorable amount of hasty and ill-considered matter produced, and too frequently published by the professional papers. As a remedy for all this, Dr. Bruce urged the students to learn anatomy and physiology more in their scientific aspect; and, at the expense of part of the time at present spent in the dissecting-room, to pay more attention to lectures and sound literature, and to the practical application of these sciences in the wards. Above all, he insisted upon the necessity of the student being more independent in his work—of his using his own eyes and intellect, and keeping clear of the professional "coach". What was wanted in the medical profession was thoughtful men and thinking capacity. Sufficient education was the sole qualification necessary for admission to practice, and the country properly insisted upon this before a licence was granted; for medicine watched over all other professions, and over the whole community, and it was its glory that its members exercised their intelligence

for the good of those who could not pay for it. It was no exaggeration to say that those who directed medical education in England held in their hands the health and happiness of the generations that were to come.

SHEFFIELD MEDICAL SCHOOL.

THE Introductory Address was delivered by Dr. W. THOMAS, Lecturer on Practical Physiology and Histology.

In commencing his address, Dr. Thomas expressed the opinion that the custom of delivering introductory addresses should not be discontinued. "The young student, to whom everything connected with the profession appears strange, who has perhaps left his home for the first time in his life, and is separated from parental or other control and left upon his own resources, is now told what sort of a profession he has adopted, the subjects he has to learn, and the best way of obtaining sound knowledge of those subjects. The old student is reminded of his former days, probably pleasant ones; and that he is still, and ever will have to remain, a student, if he wish to be successful. Friends are reminded of the difficulties medical men have to contend with, and the relation which the medical profession bears to the public."

In giving some advice to the new students, he said: "You must, more especially at first, beware of those agreeable students who are fond of enjoyment, ready at all times to accompany you to places of amusement, but never ready to work with you; always talking of examinations, but never passing one. If you once give way and accompany them, you are apt to follow their example and become chronic students. Many students, I find, work hard during the first year and show great promise, but degenerate during the second year, and at the end of the second winter session know but little more than they did at the end of the first. They come into contact with the lazy seniors and assume their habits. I should like every first year's man to remember that, if he once give way, he will find it very difficult to give up his old habits and resume work; and every senior man to keep in mind how he may injure a junior for life by enticing him from his work, and thus laying the foundation for a future life of laziness and perhaps intemperance. The medical student of the present day knows much less of the routine of the life of a medical man than the student of the past who had served an apprenticeship. He has but just left his school or university; but, on the other hand, he probably has the advantage of having received a more sound preliminary education, and has a better trained mind, with which he can address himself with vigour and diligence to the practical details of his profession."

Having given a brief sketch of the rise and progress of medicine, he said: "Why has the knowledge of medicine made such progress in later years? Because medical men found out that true progress could not be made by attending to symptoms and watching the effects of medicines, and paid more attention to structural anatomy, physiology, and animal experimentation, than they had hitherto done. These experiments are performed for the purpose of examining, either for original research or for demonstration to students, the processes of life, the administration of poisonous or dangerous drugs for therapeutic or medico-legal purposes, and the artificial production of disease, to observe its progress and discover the means of preventing, mitigating, or curing the effects of the same or similar diseases in men and animals."

After referring to some of the results of experimentation in physiology, Dr. Thomas alluded to the outcry against so-called vivisection, and said: "None more utterly abhor unnecessary cruelty than medical men; and the moral sense of medical students is different from what it has been represented, as they keenly resent the infliction of any unnecessary pain. Although physiologists and teachers in schools simply perform experiments for the sake ultimately of benefiting mankind, although they inflict but very little pain when compared with that occasioned by agriculturalists, farmers, trappers, and sportsmen, whose business or pleasure involves the wholesale infliction of pain, yet a Bill was brought forward which imputes to them a disposition to cruelty which would be disgraceful to civilised men; but, owing to the strenuous efforts of the profession, which acted so unanimously, important modifications were made, and, as the Act now stands, the prosecution of science by those who are competent is not retarded, and cruelty to animals which might be inflicted by the incompetent is prevented. Let us hope that this protection which is accorded to animals who are put to pain for the advancement of science will be extended to all cases where pain is inflicted unnecessarily."

Addressing the senior students, the lecturer said: "Keep in mind that every case is worthy of attention, and that it is better for you to thoroughly examine a few cases, to take notes of those cases, and then read a description of them at home, than superficially to examine a

number. Before you start in practice, think well, consult some of your old medical friends; be not in too great a hurry to start. This, probably, is the most serious step that you have to take in life, and your whole career may depend upon your judgment. Your first years will be anxious ones; you will have serious cases under your care, and, from want of experience, will feel uncertain as to the probable termination of your cases. Try to be careful in your diagnosis, for you will find that, if what you have named diarrhoea turn out to be, in time, typhoid, your reputation in that quarter is ruined, for a time at least. Members of other professions are forgiven, but not those of ours. A barrister or solicitor may lose his case and be thought none the worse of; a young curate may preach his first sermon, which may not be of the best, and may be nervous, but he receives all the more encouragement; but let a medical man have a case which terminates unfavourably, and he will find that he will be 'traduced by ignorant tongues'; there will be found plenty ready to blame, and but few to defend. The voice of the declaimer is louder than that of the defender. You will be called upon to perform acts of charity, and perhaps may become attached to some public institution. See that the recipient of your charity is in real want, and at the public institution take care that you do not rob the working man of his self-dependence by being too ready to give your aid gratis to those who can well afford to pay, and thus pauperise the public and injure the younger members of our profession.

The remainder of the address was occupied with remarks on sanitary science, the influences and services of the medical profession, the necessity of hard work, etc.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BASFORD.—This report is in one respect a model one, as it takes up one subject in particular, and gives all the information regarding it which the medical officer had collected. This subject is a very important one—viz., that of infant mortality; and the results obtained prove incontestably that a very large proportion of the deaths of young children are caused by neglect or something worse. The total number of births in 1875 was 1,913, of which 97 were illegitimate, affording a birth-rate of 42.93 per 1,000 population; whilst the deaths were 1,044 in number, which was equal to 23.55 per 1,000. Some of these were registered under unusual names, such as alcoholism, bilious fever, intemperance, etc. There were 314 deaths of infants under one year, or 16.41 in each 100 births; yet the rate varied very greatly, for amongst the legitimates it was 15.47, and amongst the illegitimates no less than 34.02, per 100 births. There were also 45 deaths registered without being certified or an inquest having been held, so that the registrars of this district seem to encourage the practice of allowing infants and others to die without proper medical aid. Mr. Whitgreave gives some very useful tables of the occupations of persons who died from phthisis and some other diseases; and the age, sex, and place of deaths from enteric fever, which were 42 in number. As regards the infantile mortality, he states that 173 died during the first six months of life, and 141 in the second six months; that, out of the 314 who died in the first year of life, 14 only belonged to the middle classes, and of the remainder no fewer than 150 were the children of coal-miners, 31 of framework-knitters, 17 of labourers, 16 of domestic servants, 4 of housekeepers, and 20 illegitimates, occupation not stated. Mr. Whitgreave truly observes, concerning those who were allowed to register deaths without certificates, that, if they had been "Peculiar People", coroner's inquests would have been held, and the parents probably sent to trial; but, as it is, the poor avail themselves of the facilities afforded by the registrars "to hide per chance murder, and very rarely indeed anything better than criminal negligence or ignorant poisoning by patent medicines". It is to be hoped that a copy of this Report has been sent to the Registrar-General; and that he will give, if he have not done so already, more stringent instructions to the registrars. The medical officer attributes many of the deaths to drunkenness of the mothers, and to want of knowledge and of proper house-accommodation; as well as a good many to inherited weakness; and concludes this part with a series of suggestions for reducing infant mortality. There is appended to the medical report another from the inspector, who is also surveyor, in which it is stated that during the year there were 879 nuisances abated, 277 of which arose from defects in structural works; that considerable lengths of drains and sewers were constructed, and the existing sewers in many respects improved; but that many of the private connections had been badly made, for want of notice to the sanitary authority. As regards nuisances, he referred to a row consisting of 150 dwellings, for which there were only three dilapidated privies, and these were without doors and coverings.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 7TH, 1876.

THE PLAGUE.

It is not easy to understand the precise value of the news which, about a week ago, was distributed by ordinary press telegrams throughout Europe, that plague had broken out among the Turkish forces in Servia. The information came from a Servian source, not the most likely to be accurately informed on the subject, and it has not yet been confirmed. Its credibility, moreover, was hardly strengthened by the suggestion of a correspondent, who wrote from private information on the subject, that plague had probably been conveyed into Servia by troops coming from the Asiatic dominions of Turkey. The seat of recent prevalence of the disease in these dominions, namely, Bagdad and the adjacent district, is far too distant from Servia to admit of such a supposition without some indications of the transmission of the disease on the way. The most enthusiastic contagionist would hesitate to accept the possibility of the infection of plague being carried, in a latent form, by troops on the march, from the banks of the Tigris to the banks of the Morava. We might, indeed, very well dismiss the news without further consideration, as one of many signs of the excited and disordered state of public feeling at the seat of war, were it not for the phenomenon of the recent redevelopment of plague in several of its former haunts. Plague, before its disappearance from Europe, was last observed in the provinces of Turkey bordering the Danube; and it may be that the disease has again shown itself here, as it lately showed itself in Northern Africa (Benghazi), and along the courses of the Tigris and Euphrates in Mesopotamia. Hence it must not be too hastily concluded that the news of plague from Servia is a mere product of popular alarm, founded upon rumours of fatal disease prevalent among the badly provided Turkish forces opposite Alexinatz. We must wait for further news; but, pending their reception, it may be well to glance briefly at the present state of the question regarding plague.

When last we referred to the subject, the active spread of the disease in Mesopotamia had, for the time being, virtually ceased; but anticipations were entertained at Bagdad of a wider manifestation of the malady in the coming year (1877). The appearance of plague in South-western Persia, at Shuster, and its reported appearance at Sakkyo, in Persian Kurdistan, tended to give probability to this anticipation.

The outbreak in Shuster appears to have been brief, but fatal. The report of an outbreak in Sakkyo is now stated, on the authority of agents of the Turkish General Sanitary Administration sent to the town to investigate the matter, to be erroneous. The disease which had given rise to the alarm of plague there is believed to have been small-pox. If this be true, it furnishes an instructive illustration of the extent to which the alarm of plague is spreading in the East, that so familiar a disease as small-pox could be confounded with the pestilential malady. To the extent that Sakkyo may be removed from the list of recently infected places, the prospect of more widely prevalent plague next year in the Asiatic dominions of Turkey and in Persia is improved; but still the prospect is held to be sufficiently gloomy to call for the International Sanitary Conference to which we referred not long ago. Late information from Constantinople gives reason for the belief that, notwithstanding the present state of things in Turkey, and the absorbing national interests at stake there, the projected conference may still be

looked upon as a possible event. The conference, it is suggested, should be held in Constantinople; and its functions would be limited solely to the question of the protection of Europe from plague. We must assume that this project took form before the outbreak of the Servian war and the grave political complications which have arisen out of it. Whatever the danger of plague, assuredly Turkey is in no condition to become the protector of Europe from the disease, and Constantinople is no place to devise the rules for protection. We infer that these things are meant from the experience of the International Sanitary Conference of 1866, held at Constantinople, to consider means for the protection of Europe from cholera. This conference was practically convened to consider the measures which should be required from Turkey to keep cholera in future out of Europe, and a conference as to plague held under like conditions could hardly have any other meaning. But, even assuming that Turkey was free from war and from the difficulties which now almost threaten her existence, Constantinople would be no proper place to hold a conference on plague. Plague, unlike cholera, is an almost unknown disease to the present generation. The written and traditional knowledge which we possess regarding the disease was gathered at a time when we were not able to distinguish it so clearly as now from the cognate disease, typhus; and when typhus itself was not distinguished from other and very different continued fevers. It is possible to have now a clearer insight concerning the mode of dissemination of plague, and the recent outbreaks of the disease have furnished precious information on this subject. A conference will be simply mischievous if it do not provide, in the first place, for securing the help of the most distinguished pathologists in Europe; and this, we imagine, would be impossible away from Berlin, Vienna, Paris, or London. Turkey and the eastern states of Europe are steeped in the traditional fear and notions of plague, and they have rushed blindly into traditional measures for the arrest of the disease. It is lamentable to know that the extremist follies of land, river, and sea quarantine have been perpetrated in the East during the recent prevalence of plague in Mesopotamia, regardless of their manifest futility, and with the approval of the representatives of the great European nations sitting with the Ottoman General Sanitary Administration. The traditional practices as to plague have been carried out by this administration as if knowledge had stood still since the last great prevalence of the disease in Europe and the Levant. Obviously, Constantinople is no fitting place for the calm discussion of questions relating to plague. If, as is not unlikely when the present disturbed state of things in Eastern Europe comes to an end, it should be held desirable that plague should become a subject for an international conference, let us hope that the seat of the conference will be in one of the great western cities, and not in Constantinople.

ANÆMIA.

THIS is one of the commonest of the affections which the medical man is called upon to treat, and is frequently obstinate and intractable. That it should be so unamenable to treatment in the cases of the anæmia of advanced kidney-disease and of cancer of the stomach, is intelligible enough; but, in other instances, the persistency of the affection is due, doubtless to a great extent, to the inefficiency of the treatment adopted; and that, again, depends chiefly on the imperfect diagnosis first made. Anæmia has several distinct causal associations; and on the proper appreciation of these relationships the success or failure of the treatment usually rests. It is not sufficient in all cases indiscriminately to pour in iron and to suggest a careful diet. The tendency for the management of cases to fall into a routine plan of treatment, is best shown in the well known fact that amenorrhœa has not rarely been treated vigorously by drugs for several years; and then it has been discovered that the patient had atresia vaginae, and a surgical operation alone could bring about the desired end.

In estimating the different factors in any case of anæmia presented to him, the practitioner must bear in mind the several chief causes of

that state. There may exist but one cause; or there may be, and in women commonly are, several factors in action. The chief causes are obviously imperfect assimilation, exhausting discharges, and the presence of some *materies morbi* in the blood, either introduced from without or formed within the organism itself. The less common causes are tuberculosis, cancer (especially when a rapidly growing mass robs the system to find the material for its own growth), and allied affections, mental shock, and that form of necræmia with tissue-degeneration, known as pernicious anæmia, which is rarely seen in England.

The cases which take their origin in insufficient or improper food, or in imperfect assimilation due to an impaired condition of the digestive organs, are the simplest and the easiest to treat. Nevertheless, very commonly cases which apparently ought to improve readily and quickly remain stationary, or are but little benefited by treatment. This is most frequently seen in women, either as girls or as middle-aged women. Anæmia, except from grave disease, especially Bright's disease or from starvation, is comparatively rare in women after the menopause. Taking the cases furnished by ordinary out-patient practice, and cases which form the bulk of practice in the humbler classes in private, the frequency of anæmia is very apparent. But the bulk of it is furnished by women; the next most frequent class is that of growing children; and the other cases, of varied origin, form considerably the smallest third.

It becomes readily obvious that the cause of marked anæmia is rather demand upon the system than simple imperfection in the chylipoietic processes. Of course, in many cases, there is great demand without anæmia; but here there must coexist not only a sufficient supply of suitable food, but also the digestive capacity to assimilate it. In anæmic cases, there is usually a demand, as of growth for instance, together with an impaired condition of the digestive organs, and then imperfect blood-formation results. The demand is in excess of the supply, and for the relief of this condition both factors must be appraised and allowed for. It will be found very commonly that diminishing the demand is as essential as improving the supply. For instance, anæmia, often proceeding to a chlorotic condition, is very common in girls in services who have not completed their growth, and who have to sustain the double demand of the discharge of their duties and the necessities of their system. Here not uncommonly we find one periodical demand cut off spontaneously, and the patient becomes amenorrhœic. The wonted discharge will not return until the system is equal to it; its return is the evidence of the renovated condition of the system, and, though ordinarily the measures are wielded as if the reappearance of the discharge were the matter directly aimed at, still it is only arrived at immediately through the general improvement. Not rarely it will be found that this period of amenorrhœa is one of rapid growth. If the discharge had remained, arrested growth would have been the consequence; for the organism would have failed to maintain the double expenditure of the periodical flow and the demands of growth. A very striking instance of the good effects of diminished demand in the successful treatment of anæmia was furnished lately in the case of a girl who was energetically treated for several months as an out-patient, without the faintest evidence of improvement, but who was well in a month, under the same measures, when made an in-patient. Growth was arrested; the catamenia were suspended; but still the supply was unequal to the demand, until a cessation of her domestic duties was furnished by a residence in hospital, combined with long hours in bed, and then the whole aspect of the case was changed at once. Again, a patient labouring under persistent suppuration of the cervical glands was for weeks put on steel, quinine, and cod-liver oil, without any improvement being attained; arrest of the downward progress was all that could be accomplished. At last, it was extorted from her that she suffered from profuse leucorrhœa, which she had hitherto denied, and, on this being subjected to its appropriate treatment, the case at once moved forward, and complete repair was quickly achieved. Even in cases where the fault seems to

lie entirely in the assimilative processes, it will often be found that there coexist drains which more than antagonise any improvement which can be inaugurated in the digestive system. Here a carefully regulated diet, tonics, hæmatics, astringents to control any catarrhal condition of the stomach, are all insufficient and inoperative. It is not only improved assimilation that is to be achieved; a lessened expenditure is imperatively necessary for successful treatment.

We are all familiar with the anæmia of albuminuria, where the albumen of the blood drains away in the renal secretion. The amount of albumen present in the urine causes alarm in direct proportion to its bulk; *i.e.*, alarm as to the danger of exhaustion. But, if there exist a like drain of an allied matter, it is equally important, so far as its exhausting capacity is concerned; and yet how seriously we regard the albuminous loss in albuminuria, and how apt we are to disregard a leucorrhœal discharge, often not even asking about it; and yet the body-expenditure may be as great in the latter case as in the former. How commonly are patients found who have attended the out-patient department of a hospital for years, or been under the care of their family doctor for an equal time, with all the evidences of anæmia, and who have been drenched with iron, taken quinine by the ounce, and cod-liver oil by the bucketful, and yet who are as bloodless as ever. They have vertical headache, great depression of spirits from anæmia of the occipital lobes; their tongues are indented with the teeth and covered with a silvery fur, or abnormally clean; their conjunctivæ are pale; indeed, there is general pallor of the face; they have black specks before their eyes; they are usually liable to palpitation, and invariably they suffer from some form of neuralgia, usually of the sixth or seventh intercostal nerves, and not rarely they are dyspeptic, and their bowels are constipated. In addition to steel, cod-liver oil, etc., they are usually ordered good food and, where practicable, some nourishing form of stimulant. It is all, however, of no avail; they are weary of themselves, and their doctor is often as tired of them as they are of him.

In such cases, there is usually present some form of demand of body expenditure which has been overlooked or not properly attended to. There is probably leucorrhœa, with or without menorrhagia, or the patient is suckling. In some cases, there is also present tea-poisoning in its chronic form. As soon as the source of the drain is discovered and attended to, the patient rapidly improves; usually at least. In the management of such cases, it is not an increase of body-income which is so essential; it is a reduction of the body expenditure which is the great matter, and which most calls for treatment. The arrest or removal of the drain is what is imperatively demanded. To stop suckling is readily done; to abandon tea is not impossible; but, in the cases of menorrhagia, it is not always so easy to limit the drain. Nevertheless, it will be found, in anæmia associated with menorrhagia, that it is better and more successful practice to check the outgoing than to increase the body-income. Instead of giving the patients hæmatics and tonics, and building up blood—only to be lost in the profuse catamenial flow—it is well to give astringents and quinine, and to reduce the flow by quiet, by cold ingesta, and by drugs, as ergotine, digitalis, or sulphate of copper and opium. To reduce the loss in time and in quantity, and so to diminish the expenditure, will soon give a better balance in the body-bank than an improved income with unchecked expenditure. It is not that iron is contraindicated in these cases, for often it is most useful, but that astringent measures are not to be neglected at the time of the outflow. In young females, where the menorrhagic flow is the consequence of sexual excitement, and of its accompaniment, increased local vascularity, the measures and agents appropriate for the control of this condition are indicated, and are more potent than astringents, and the measures suitable where the flow has other causal associations. It is her large body-expenditure which makes woman so subject to anæmic states, quite as much as, or more, than any inherent failure in her assimilative processes, or in her choice of food. Doubtless, her affection for tea, for farinaceous foods and butter, with her avoidance of meat, is not without its influence; but

alone these are not sufficient for the induction of the anæmic state, at least usually.

That these drains upon the system are not so studiously looked to as they ought to be, is intelligible enough. In the first place, it is a delicate matter for inquiry under all circumstances. Secondly, such inquiry is scarcely practicable before a class of students, even with the most conscientious teachers. Consequently, the student's attention is not drawn to these subjects in his hospital experience, and he enters on private practice without having had his attention sufficiently roused, and he too rarely ever wakes up spontaneously, but slumbers on from habit.

At other times, an insufficient supply of oxygen is an important factor in the case. Here, again, woman is the chief sufferer; for she spends the great portion of her time indoors, frequently in small, confined, imperfectly ventilated rooms. The anæmia of clerks, composers, and others who inhabit close rooms, is often of allied origin. In these cases, any diminution in the number of oxygen-carriers, the red blood-corpuscles, is readily felt in the imperfectly oxygenated atmosphere they breathe. In such cases, not only are chalybeates indicated, but it is well that the patients take regular exercise in the open air, and so get a fair supply of oxygen. It is the storage of oxygen in the open air occupation of the agricultural labourer, in the days, which saves him from the anæmia of the factory hand or the artisan, who works all day in a polluted atmosphere; for both at nights occupy rooms but too imperfectly ventilated.

In the connections of anæmia and an imperfect supply of oxygen, we find the explanation of those cases where the anæmia is due to the presence of some *materies morbi* in the blood. Anæmia is produced by the presence of effete products in the blood in excess as surely as by the blood-poisons, malaria, lead, syphilis, or mercury. The anæmia of Bright's disease, much more common in Germany than in England, is due very often to the waste products in the blood, as when seen without albuminuria. Anæmia from chronic constipation is well known in the East End hospitals, and here it is due to imperfect elimination, or the reabsorption of deleterious matter from the intestines. In all cases where anæmia is associated with a blood-poison, the removal of the poison is as essential as the administration of chalybeates. Especially well is this seen in conditions of anæmia associated with syphilis. Here iron is usually impotent until mercury is added to it. Even in most cachectic states, by the addition of iron, mercury may be freely given without ill effects. It is desirable for the patient to be well fed at the same time. In those cases of anæmia which are accompanied by defective action in the excretory organs, it is well to give arsenic along with the chalybeates. In conditions of cachectic anæmia, not of any specific character, such combination is usually indicated.

At other times, anæmia is associated with subtle losses, as that of urohæmatine. Here, when nitric acid is added to the urine, a pink colour is produced. If hydrochloric acid be added to the urine, and it then be boiled, a deep red colour will be produced. In these cases, the red corpuscles are broken up, and their colouring matter is found in the urine.

When anæmia is associated with a strong mental shock, it is most intractable, and frequently resists the best laid schemes. Where anæmia coexists with an irritable stomach and acute indigestion, it is well to resort to bismuth, with acacia or tragacanth in a bitter infusion, before meals, than to give iron with the bitter. If iron be given in these cases before meals, it is apt to disagree or to be rejected, and the food with it. Consequently, it is well to give bismuth and to strictly regulate the dietary first; and then, when the stomach is less irritable, iron may be added in the form of drops after the food, by which means it is often well digested in cases where, given otherwise, it would not be assimilated. It is not a matter of indifference which preparation of iron is used. Sometimes one form, or even several forms, will disagree, and then some other preparation will be found to suit admirably. The most common form is the tincture of iron; but it is better to give

it in acetate of ammonia, which makes a very pleasant form of chalybeate, often readily assimilated when other forms have failed. When iron is given strictly as a hæmatic, it should always be given after food, and then it is digested along with the food. If given before meals in a bitter infusion, it is often not properly absorbed, especially if the bulk of fluid in which it is taken be small. The addition of a tumblerful of water to each dose, thus simulating the dilute natural waters, will often cause iron to be absorbed where it has hitherto failed to produce good effects. When taken after food, when the stomach is full, the iron is diffused, and so is more readily absorbed. In giving iron, it will not rarely be found that the lighter preparations, as the ammonio-citrate or tartrate, are often tolerated when the perchloride and sulphate do not agree; and in convalescence this is specially seen, but even in chronic anæmic states such peculiarities are not unknown.

In the management of anæmia, its causal associations must never be overlooked, and the importance of checking all drains upon the system is quite equal to that of the restorative treatment. The failure in the treatment of anæmia is very commonly due to the neglect of these important factors.

DEATH-CERTIFICATES OF FRIENDLY SOCIETIES.

A CASE recently heard at the Wigan Borough Police Court was important both as regards its bearing upon friendly societies and as evidence of the unreliability of the information relating to the cause of death sometimes contained in medical certificates, and thence transferred to the death-register. It appeared that a collier, who died last October, was insured in a local friendly society, which was established to meet the cases of those injured by colliery accidents. The collier, during his last illness, was attended by a surgeon's assistant, who, on the day of the death, gave a certificate to the effect that it was caused by rheumatic fever, and signed the certificate with the name of his employer. On the following day, the surgeon himself gave another certificate, stating that the death was due to lockjaw. In the meantime, it is presumed that rheumatic fever had been entered in the death-register as the cause of death. The friendly society, only being liable in case the death was the result of accident, very naturally objected to pay the sum of £45:5 claimed by the widow of the collier, until the true cause of death, in the face of these two conflicting certificates, was established. On the hearing of the case, evidence was produced showing that an accident had taken place; and the surgeon deposed that the death of the collier was due to lockjaw, caused by an injury to his ankle in the pit; and he further stated that the first and incorrect certificate was granted by his assistant without his knowledge. On behalf of the society, this evidence was accepted as proving their liability; but a strong protest was entered against the laxity, negligence, and positive misstatement disclosed by the case. The bench made an order for the amount claimed by the widow of the collier, but completely justified the course taken by the society in demanding an investigation. They, moreover, expressed themselves as far from satisfied at the manner in which the certificates were given, and trusted that in future the medical practitioner in question would not allow any one to sign his name to certificates.

It may be hoped that there are few medical practitioners who sanction certificates being filled up and signed in their names by their assistants, although the vague and unsatisfactory causes of death which often find their way into the death-register, apparently certified by registered practitioners, would strengthen the suspicion that this is not of very rare occurrence. Unfortunately, there is no check to such laxity, as the Registrar-General instructs his local registrars that, if a certificate be produced purporting to be signed by a registered practitioner, it is no part of their duty to question the genuineness of the signature. Neither would it be advisable that registrars should be permitted to raise such a point, although it may be desirable, in the interest both of the public and the profession, that the mode of issuing death-certificates recently inquired into at Wigan should be emphatically discountenanced.

AMONG the list of recent ordinations for the Church appears the name of Dr. Nunneley, for a short time assistant-physician at St. Mary's Hospital, a distinguished graduate of the University of London.

M. POTAIN, Professor of Pathological Medicine in the Paris Faculty of Medicine, is appointed Professor of Clinical Medicine in the same Faculty, in place of the late M. Béhier.

THE late Sir J. L. Bardsley, M.D., of Manchester, has, we are happy to learn, bequeathed £500, free of legacy duty, to the British Medical Benevolent Fund, a charity than which none has higher claims on the benevolence of the profession.

THE first meeting of the Royal Medical and Chirurgical Society of London is fixed for Tuesday next, October 10th; that of the Clinical Society for Friday, October 13th; and of the Pathological Society for Tuesday, October 17th.

It is noticed that, of ten introductory addresses this week delivered at the metropolitan medical schools, only one was delivered by a surgeon. If the delivery of these addresses were wholly relegated to the medical branch of the profession, the surgeons would probably congratulate themselves on relief from an onerous, disagreeable, and thankless task.

It would be premature to speak as yet of the entries at the metropolitan schools. At some, we hear, they are very good; others are at present below the average; but the numbers are not yet complete anywhere. We hear many complaints that the results of the preliminary examination at the Royal College of Surgeons of England have not been communicated to the candidates before the 2nd of October, so that they were unable to decide whether they could enter as medical students this session.

MR. SIMON having intimated his desire that Mr. Haviland's proposal of a testimonial to him should not be carried into effect, it was resolved at a recent meeting, at which Dr. C. Fox, Captain Clode, Dr. Corfield, and Mr. Haviland were present, not to proceed with that proposal. It was at the same time resolved to refer to a meeting which is to be held on Wednesday, the 25th of October next, the propriety of raising a limited subscription in order to present Mr. Simon's bust in marble to the College of Surgeons.

THE first annual report of the Metropolitan and National Nursing Association, which was established for the purpose of providing trained nurses for the sick poor, has been issued. It shows that, from January to June, 216 cases have been attended in the central district, and altogether 339 cases have received nursing assistance from the institution.

THE Musée de Cluny has just received the valuable contribution of the cast of Dante taken after death. It appears that a few years ago one in plaster, modelled on the face of the dead poet, was sold in Rome. It was hotly disputed by several amateurs, and was ultimately purchased by the Chevalier Morgantini, who immediately had it reproduced, and offered a copy to all the principal museums of Europe.

THE Vivisection Act has been put to a very useful and desirable purpose in Sunderland. A Dr. Abrath had announced a lecture on Mr. Bravo's death, to be illustrated by experiments on animals with antimony. This is a kind of exhibition which is highly objectionable, and is wisely forbidden now by Act of Parliament. Dr. Abrath had been cautioned not to carry out his advertised intention, and was offered the opportunity of expressing regret through his solicitor at breaking the law by his advertisement, which is in itself an infraction of the law. This he refused to do, and was fined a shilling and costs. The penalty was wisely small; but we cannot at all regret that the law was enforced. Such senseless proceedings are precisely those which ought to be prevented.

THE inauguration meeting of the American Gynæcological Society was held at New York on September 14th, 15th, and 16th, under the presidency of Dr. Fordyce Barker. The Society embraces the representative men of all the great centres of activity. Admission is conditional on approved work. The choice of honorary members is also strict. At present, seven have been elected, viz.: Dr. Robert Barnes and Mr. Spencer Wells for England, Dr. M'Clintock for Ireland, Mr. T. Keith for Scotland, Professor Simon of Heidelberg (since deceased), Professor Schroeder of Berlin, and Professor Koeberle of Strasburg.

MR. STANSFELD, M.P., AND THE CONTAGIOUS DISEASES ACTS.

At a meeting of the Society for the Repeal of the Contagious Diseases Acts held at Plymouth on the 4th instant, Mr. Stansfeld declared that the Acts were hygienically a failure, and not only a failure and an imposture, but they were a scandal, a moral evil, and a political danger. Their object was bad, for they sanctioned vice, and, above everything else, promoted early vice. The Acts also were cowardly and mean, and a day and generation would come which would look back and say that in the whole history of the world nothing had ever been known so cowardly and mean. The Acts sought to manufacture a pariah class of women, without rights and without souls. If Englishmen cared for the traditions of their country, he adjured them to lift their voices against legislation which, if allowed to exist and be generalised, would sink England to the level of an effete heathen and Asiatic race. Mr. Stansfeld continues his crusade with a splendid defiance of facts, and is not the less bold in the use of figures because they have been refuted.

UNIVERSITY COLLEGE HOSPITAL.

WE have often expressed in these columns our objections to the superabundance of gratuitous professional medical service which prevails in this country at the present time—a kind of charity which is far from beneficial to those on whom it is bestowed, as the most thoughtful laymen are very ready to admit. It has for many years been the custom at University College Hospital for the honorary medical staff to resign the whole of the fees paid by the students for clinical instruction to the Committee of Management, to enable them to defray the expenditure for general purposes. The sum so surrendered during the year 1875 was no less than *two thousand three hundred and forty-four pounds*, or something like one-third of the ordinary income, excluding extraordinary donations, legacies, and interest on investments, etc. All honour to those gentlemen, members of the honorary medical staff, who first consented to resign their legitimate privileges, and to relinquish so large a proportion of their hardly earned income, in order to enable the lay Committee to meet the pressing necessities of an annually increasing debt, years ago; but surely it was never intended at that time to give up for ever the lawful claims of those who came after them. A moment's reflection must make this fact obvious, for no medical staff would ever attempt to anticipate the views and wishes of their successors in office by rendering the appointments they would hold of less value for ever than those of any other medical school in the country. They would never have attempted such a course as this, for the plain reason that legally they had no power to do so. But what has resulted from the continued adoption by the medical staff of University College Hospital of the precedent set them long ago by their former colleagues or predecessors in office, in thus relinquishing the whole of the fees paid for clinical instruction? We unhesitatingly say, nothing but disaster to the best interests of the institution, which the medical staff as a body have endeavoured, by an heroic act of self-denial unequalled in the history of hospital management, to foster and promote. It has, in the first place, become a matter of course for the staff to vote the fees, and for the Committee of Management to expect them almost as a right. The senior medical officers of course take the initiative in the matter; and, although they are the largest losers pecuniarily, it is really the juniors who, being perforce obliged to follow their elder colleagues, are to be pitied; for it is very hard on a young professional man, whose means are usually

very limited, that he should be practically compelled to relinquish the hard-earned remuneration which his really arduous services entitle him to receive. Nor is this all; for, without for one moment reflecting upon anybody, we are compelled in fairness to state the obvious fact that, so long as University College Hospital continues to deprive the honorary medical staff of its legitimate due by handing over the whole of the fees paid by the students for clinical instruction to the Committee of Management, contrary to the established practice of every other clinical hospital in the country, so long will the hospital be deprived of the services of some of her most eminent students, who now lack the opportunity of permanently attaching themselves to the hospital, and are compelled, however brilliant their accomplishments, from want of large private means, to seek reputation and advancement at other schools, where, when junior officers and most needing remuneration for their services, they will receive, not a full, but a sufficient allowance out of the clinical fees to enable them to live with the aid of comparatively small private means. The injustice done to the young and rising members of the medical profession, who are or may be students at University College, cannot be too fully considered; and the more the matter is weighed, the more its merits are appreciated, the sooner will an alteration be made in a system which, originally instituted with the noblest and highest motives to meet what ought at best to have been a temporary want, has too long been continued, and now urgently demands reconsideration in the interests of the profession and the school itself. But let us turn from the purely professional aspect of this question to its business side, and see whether it has not been the means of causing an actual decrease in the income from ordinary sources, by removing the necessity for continued and ever increasing efforts on the part of the lay Committee. The accounts show this to be the case; for, if we compare the amounts received from annual subscriptions and donations during the year 1875 with the amounts received from the same sources in 1872, the year before Hospital Sunday was established, what do we find? That the ordinary donations have fallen off to the extent of £268; that the annual subscriptions have remained almost stationary (the whole amount received from this source was but £1,446 in 1875); that the annual festival resulted in a less profit of £175; but that the sum relinquished by the medical staff had increased by £410, which, with the £84 arrears or new subscriptions received, more than covers the falling off in the very sources of income which it should be the duty of the Committee to steadily increase. We subjoin the actual figures, as published in the Annual Reports for 1873 and 1876.

	1872.	1875.	Increase.	Decrease.
Ordinary donations.....	£1,043	£775*		£268
Annual subscriptions	1,302	1,446	£84	
Annual festival	1,275	1,100		175
Fees for clinical instruction	1,933	2,344	411	
	£5,613	£5,665	£495	£443

By giving up the fees, the medical staff have endowed the University College Hospital to the extent of something like £60,000; and this, added to their other property, gives this hospital a total endowment of upwards of £110,000, which is probably the largest sum in the possession of any hospital of its size in the country. Such an endowment unquestionably operates to restrict the benevolence of the charitable, and to make the hospital depend more upon the sums presented to it by its medical officers, who ought rather to be paid than to be called upon to furnish funds for the hospital, to which they already give so much labour. We have made out a clear case for candid inquiry; and we abstain from drawing invidious comparisons, believing that, when the attention of the authorities of the hospital is seriously given to this matter, a change for the better will at once be made. It cannot possibly be more difficult for the authorities of University College Hospital to raise money, than for other similar charities. Let them, therefore, put their house in order without delay; and, as a first step, let them confer with the medical staff with reference to the fees. The surrender of these

* Hospital Sunday, £961, one gift of £500, and one of £472, are omitted as "extraordinary donations" from this amount.

has become too much a matter of course, so that the Committee omit to acknowledge the great generosity of the medical staff in their Annual Reports. We do not say to the medical staff, "Refuse to give up the fees altogether from this time forth"; but what we wish to see is the *gradual* restoration of the fees to their lawful possessors, the teachers in the clinical school, and a revival of energy and exertion on the part of the lay Committee. As a beginning, we suggest that the Medical Committee should decide to relinquish one-half only of the clinical fees received during the present session, and to devote the other half to its lawful purpose. If this be done, and if the whole question of deciding how to secure a larger and more elastic income for the support of University College Hospital be at once boldly faced, the result will enhance the prosperity of the institution in question and confer a great benefit on the honorary staff and the whole medical profession.

THE BRAVO INQUIRY.

THE opening of the medical season is marked by a choice piece of gossip for *quid-nuncs* in the reference by Sir William Gull to the Censors of the College of Physicians of London of the questions of professional conduct raised by his statements in evidence at the Bravo inquest, and by the public comments on them in the medical press, as well as the privately expressed opinions which have been current in the profession. It is well known that Sir William Gull does not admit the justice of the censures which have been inflicted upon him unofficially; and he now seeks, by an appeal to the College, not only to set himself right, but to shift the burden of blame on to Dr. George Johnson. Sir William complained that the counsel who re-examined Dr. Johnson put a false interpretation on his (Sir William Gull's) evidence; and that Dr. Johnson, by not correcting, confirmed this misinterpretation. He has, therefore, taken the offensive at the College; and it is now Sir William who appears as the complainant. The Board of Censors of the College, who include the President (Dr. Risdon Bennett), Dr. Peacock, Dr. Radcliffe, Dr. Wilkes, and Dr. Bristowe, have had the statement and rejoinder of the two physicians before them in writing during the week, and meet this evening, Friday, to consider their decision.

PAUPER LUNATICS AT HOME, IN WORKHOUSES, AND IN LUNATIC ASYLUMS.

ACCORDING to the last Report of the Commissioners in Lunacy, there were 57,407 pauper lunatics in England and Wales on the first day of January last. Of this number, 61.6 per cent. were in asylums, hospitals, and licensed houses, under skilled medical treatment; 27.0 per cent. were in workhouses; and 11.4 per cent. were returned as residing with relations or others. With regard to the proportion of pauper lunatics maintained in asylums, it increased steadily from 56.7 per cent. in 1859, to 61.9 per cent. in 1870; and, after a decline to 59.5 in 1872, increased again to 61.6 at the beginning of the present year. The percentage in workhouses was 25.1 in 1859, and had decreased to 23.5 in 1870, since which it has increased, and was 27.0 on January 1st, 1876. The most satisfactory feature in these statistics is the steady decline in the proportion of pauper lunatics residing with "relatives or others"; these were equal to 18.2 per cent. in 1859, the proportion having since declined year by year to 11.4 per cent. in 1876. The increase in the proportion to pauper lunatics resident in asylums during the past two years is attributed by the Commissioners in great measure to the legislation of 1874, which provided that four shillings per week of the cost of maintenance of every pauper lunatic in an asylum should be defrayed by the State. This enactment has undoubtedly resulted in general benefit to the insane poor, but has caused an increasing demand for more asylum accommodation. The Commissioners remark upon the fact that our public asylums contain many patients suffering from lunacy of a chronic and thoroughly harmless character, who might be adequately provided with diet, nursing, and accommodation, in institutions where the cost of maintenance would be lower than in our county asylums. The statistics relating to the recoveries and mortality of patients in asylums have, in recent reports of the Commis-

sioners, showed a considerable improvement, both in completeness and arrangement. The Commissioners in their last report, however, state that no returns of these particulars as to pauper lunatics kept in workhouses, or in receipt of out-door relief, are furnished to them. This is much to be regretted, as, on the 1st of January last, no less than 22,035, or 38.4 per cent. of the total number of pauper lunatics were residing out of asylums, including 6,526 in the receipt of out-door relief, and residing with relations and others. With regard to the mortality among pauper lunatics in workhouses, it would not only be reasonable, but desirable, that reliable statistics should be furnished to the Commissioners. The proportion of pauper lunatics receiving out-door relief and residing with relations in the different counties of England and Wales, affords an useful test of the varying amount of attention and treatment received by insane paupers. The proportion on the 1st of January last was lowest, 3.5 and 3.6 per cent. in Middlesex and Lancashire; whereas it was 20.0 per cent. in Cambridgeshire, 20.9 in Suffolk, 21.5 in Bedfordshire, 24.1 in Wiltshire, 27.3 in Herefordshire, and 34.5 per cent. in Wales. It appears that, in the agricultural counties, a far too large proportion of pauper lunatics still reside with relatives, thus affording insufficient guarantee against neglect or ill-treatment. The smallest proportion of pauper lunatics residing out of asylums and workhouses are found in the counties having a principally urban population. It appears highly important that we should know more as to the condition of those 6,526 pauper lunatics who are under no systematic supervision or treatment.

LOCAL GOVERNMENT AT STANWIX.

STANWIX forms part of the district under the control of the Carlisle Rural Sanitary authority, and has been visited by a small outbreak of enteric fever, four cases having occurred in one house, and two in another. Mr. Hall, the medical officer of health, wished to have the water-supply of the village, which is derived from three public wells, analysed. Mr. Rhodes, a guardian, objected, on the ground that one of the wells was very deep, "and, if it was not pure, none was pure". The medical officer replied that Stanwix was rarely without typhoid fever. After discussion, nothing was done, although it had been previously known that the water of one of the wells was bad. At the same meeting, a nuisance arising from a foul ditch was under discussion, when a member, whose name was the same as one of the persons upon whose premises the nuisance existed, declared that, if the watercourse were cleared, there would be no nuisance; and, if one arose afterwards, the person from whose premises the offensive drainage came should be summoned. On being put, the motion was lost. After this, an angry discussion took place, and the chairman vacated the chair, saying that, if a nuisance such as this were suffered to remain, it was useless summoning other persons for foul privies and the like. It is to be hoped that this is not the usual course adopted by the Carlisle Rural Sanitary Authority in the conduct of its sanitary business; and we agree with the observation made by one of the members, that "the Local Government Board ought to be informed that there is a nuisance, and that the Board had refused to deal with it".

THE MEDICAL SERVICE FOR THE PARIS EXHIBITION OF 1878.

M. KRAUTZ, the Commissary General of the Paris Universal Exhibition of 1878, has organised the medical service for the Exhibition. A medical station for the reception of sick or wounded workmen will be established at the workshops of the Champ du Mars or the Trocadero. The staff will be composed of a senior surgeon, two assistant-surgeons, and two infirmary attendants. The wounded workmen, after having been temporarily attended to, will be treated gratuitously at the hospital or at home, according to the decision of the surgeon. During the forced interruption of their work, the married workmen, or bread-winners of any kind will receive half their usual wages. When they are so seriously injured as to be disabled for the labours of their profession, they will be allowed half of their salary during a year. If a married workman, or one having the care of a family, should be killed, or die either from his injuries or from disease induced by labour, his

widow or family will be entitled to an indemnity of six hundred francs. These charitable allowances may be increased by a special decision of the Minister, according to the position and the needs of the victims and their families. Workmen who have been injured when in a state of drunkenness will only receive medical help. The head surgeon is charged to take all the hygienic measures necessary to maintain the health of the workmen.

THE SUPPLY OF SUBJECTS FOR DISSECTION.

THE efforts now made by the authorities of the metropolitan medical schools to have a supply of bodies for dissection, upon which the students may commence their labours at the beginning of the session, is highly commendable. The result contrasts most favourably with the state of affairs which obtained only ten or twelve years since. Then it was unfortunately customary for students to have to wait many weeks after the commencement of the session before they could obtain "parts". This year, in London, nearly eighty subjects were ready for dissection on October 1st at the various schools: Guy's having fourteen, St. Bartholomew's and St. Thomas's eleven each. The difficulty in obtaining bodies is increased by the fact that the session opens just at the termination of the hot period of the year. Consequently, we find that all the bodies have been preserved, though the exact method of preservation is different at almost every school. All the plans adopted seem to answer fairly well, and furnish students with material for work, so that they need not waste the precious first weeks of their too short session. In all cases, the vessels are injected; but the subsequent treatment of the "subject" varies considerably. At St. George's Hospital, for instance, the bodies are kept in pickle in large tanks until required for use. The only real objection to this plan appears to be that the muscles of subjects kept so long in the liquid lose their colour. In other cases, as at St. Bartholomew's, the bodies, when once fully injected, are simply exposed to the air. In this case, the hands, feet, and other regions, are apt to become very dry. Perhaps the plan adopted at the Middlesex Hospital is about the best. In this case, the body is injected with some preservative fluid, is then placed in a shell, surrounded with a thick layer of sawdust made damp by a strong solution of carbolic acid, fastened down, and kept in this state until required for use. The subjects then come to the table, moist, of good colour, and free from smell. Certainly, any plan which tends to mitigate the unpleasantness of the dissecting-room is, especially to fresh men, a great boon.

RECENT URBAN MORTALITY.

DURING last week, 5,538 births and 3,033 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living: in Portsmouth, and Newcastle-upon-Tyne the rate was 15; in Edinburgh and Sunderland, 16; Nottingham, Bradford, Plymouth, and London, 18; Birmingham, Norwich, and Bristol, 19; Glasgow, Brighton, and Leeds, 20; Wolverhampton and Sheffield, 21; Hull, 22; Leicester and Oldham, 23; Dublin and Liverpool, 24; Manchester, 25; and the highest rate, 29, in Salford. The annual death-rate from the seven principal zymotic diseases averaged 3.1 per 1,000 in the twenty English towns, and ranged from 0.8 and 1.3 in Newcastle-upon-Tyne and Bristol, to 6.3 and 7.5 in Sheffield and Salford. The 9 fatal cases of scarlet fever in Portsmouth showed a further decline from the numbers in the two preceding weeks, but were equal to an annual rate of 4 per 1,000, and raised the deaths from this disease since the beginning of the year to 326. Small-pox caused 9 more deaths in Manchester and Salford (including 1 in the Monsall Hospital), 12 in Liverpool, and 15 in London. In London, 2,285 births and 1,230 deaths were registered. The births were 14 and the deaths 163 below the average. The annual death-rate from all causes, which, in the two previous weeks had been equal to 16.7 and 19.1 per 1,000, was last week 18.4. The 1,230 deaths included 15 from small-pox, 9 from measles, 59 from scarlet

fever, 5 from diphtheria, 14 from whooping-cough, 27 from different forms of fever, and 42 from diarrhoea; thus to the seven principal diseases of the zymotic class 171 deaths were referred, against 171 and 170 in the two preceding weeks. These 171 deaths were 129 below the corrected average number, and were equal to an annual rate of 2.5 per 1,000. The deaths referred to each of these seven zymotic diseases, except small-pox, were below the corrected average. The 59 fatal cases of scarlet fever exceeded the number in any previous week since January last. The 42 deaths from diarrhoea were 51 below the corrected weekly average. The 27 deaths referred to fever, were 10 less than those returned in the previous week, and were 14 below the corrected average; 3 were certified as typhus, 19 as enteric or typhoid, and 5 as simple continued fever. The fatal cases of small-pox, which had been 16 and 11 in the two preceding weeks, were 15 last week, of which 11 were registered in the north group of districts; nine fatal cases occurred in Islington, including 3 recorded in the Homerton Small-Pox Hospitals; 1 in North Street (King's Cross), 1 in Kentish Town, 1 in Kensington, and 3 in the Stockwell Small-Pox Hospital, admitted from Brixton Hill and the Old Kent Road. Nine of the 15 deaths from small-pox were of unvaccinated children and adults, and 1 of a vaccinated woman, aged 36 years; in the five other cases, the medical certificates gave no information as to vaccination. The two Metropolitan Asylum District Small-Pox Hospitals at Homerton and Stockwell contained 128 in-patients on Saturday last, against 72, 95, and 101 in the three preceding weeks; 62 cases were admitted during last week, of which 45 were vaccinated, and 17 unvaccinated. In greater London, 2,729 births and 1,427 deaths were registered, equal to annual rates of 33.2 and 17.4 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 12.9 and 1.4 per 1,000 respectively, against 18.4 and 2.5 in inner London. At Greenwich, the mean height of the barometer last week was 29.45 inches; the mean temperature of the air was 56.8 degs., or 2.2 degs. above the average of the week; and rain fell on each day of the week except Monday to the aggregate amount of .96 of an inch.

THE WAR IN THE EAST.

THE Medical Director at Deligrad has telegraphed to Belgrade for some of the English surgeons to return to the front; and the directors of the English hospital have telegraphed to the National Aid Society, London, to send out more surgeons immediately. Colonel Loyd Lindsay has arrived in London from the seat of war, after having organised hospitals of the National Society both in Serbia and Turkey for the wounded soldiers of both armies. Four surgeons left London on Tuesday evening for the Society's hospital at Belgrade, replacing others whose duties at home have compelled their return.

SCARLET FEVER IN ST. PANCRAS.

AT the inquest on the body of a child who died from suppressed scarlet fever at Euston Mews, Drummond Street, the medical man in attendance, Mr. H. R. Myers, surgeon, of 30, Euston Square, said he had attended nine cases in the same mews. There was fever not only in the mews, but in Melton Street, close by; and he had suggested that the houses should be fumigated forthwith, with a view to prevent the further spread of the disease.

DEATH FROM SCURVY ON BOARD SHIP.

MR. CARTTAR, coroner, concluded an adjourned inquiry at the Three Tuns, Greenwich, on the body of John Martin, an able seaman, aged 45, who had died a few hours after his admission into the Seamen's Hospital at Greenwich. The deceased had shipped on board the *Eurydice*, of London, at Liverpool, on a voyage to Jamaica and Rangoon, and other ports, and back to London. On the return voyage, which ended on the 25th ult., he became ill after leaving Ascension, and was placed off work. The captain, Mr. Cox, having no surgeon on board, treated him, according to instructions in a medical book, for scurvy, giving him a good supply of lime-juice and as much fresh pro-

visions as he could eat. The lime-juice put on board, taken from bond in the Customs, was considered sufficient for the whole crew for twelve months; and at the completion of the voyage, which lasted nineteen months and a few days, the whole of it had been used on board excepting a portion of one bottle. Mr. H. H. Murphy, assistant-physician at the Seamen's hospital, deposed to the admission and death of deceased, who was suffering from scurvy and extreme exhaustion; but he had nothing to complain of as to his treatment. The jury returned a verdict in accordance with this opinion.

SCOTLAND.

THE FORFAR INFIRMARY.

At the annual meeting of the directors of and subscribers to the Forfar Infirmary, the usual report was read, which showed the institution to be financially in a flourishing condition, the revenue exceeding the expenditure by about two hundred pounds. Sixty patients had been admitted during the year, and, of these, fifty had been cured, three had died, five were relieved, and two remained in the house at the date of the report. Instead of, as hitherto, appointing a chaplain, the meeting appointed all the ministers in the town chaplains.

SURGEON-GENERAL BALFOUR.

The *Madras Standard* contains an account of the presentation, by the Mohammedans of Madras, of an address to Surgeon-General Balfour, on his leaving that city on his return home. The address expressed the gratitude of the Mohammedans to Surgeon-General Balfour for having established the Mohammedan Library of Madras, and generally for promoting learning in the community. In reply, the gallant officer gave an account of the difficulties he had encountered. He claimed for the library that it had greatly increased the knowledge of English among the people, and he was glad to have been in any way useful in a city in which so much of his life had been passed.

THE ELGIN ASYLUM.

At a meeting of the Elgin Lunacy Board held last week, a letter was read from Mr. Liddell of the Home Office, stating that the Home Secretary had declined to open an inquiry into the state of the Elgin Asylum, with special reference to statements made respecting it by Dr. Arthur Mitchell, the Commissioner in Lunacy. Dr. Mitchell had explained his meaning to be, "That the Elgin asylum is no longer what it once was—an asylum to be copied; and that it has become an asylum that is no better than other asylums".

TYPHOID FEVER IN A SCHOOL.

An alarming outbreak of typhoid fever has taken place at the Wells-hills Girls School of Industry, Perth. There are seventy girls in the institution, and, of these, forty have been attacked by the disease, though some of them are now convalescent. The utmost care is being taken to prevent the spread of infection. The outbreak is attributed to defective drainage in the neighbourhood of the school.

DEATH OF DR. GRANT.

The death on Thursday last of Dr. John Grant, a well-known medical practitioner of Hawick, will cause general regret. Dr. Grant, says the *Edinburgh Medical Journal*, was a native of Morayshire, and came to Hawick more than thirty years ago. His practice was extensive and wide-spread over the pastoral districts on both sides of the border. His dog-cart, of home construction, for he was a skilful mechanic, was a familiar object in the district. He united great skill in his profession with a kindly disposition, which endeared him to his patients. For several years he was the owner of a pack of otter hounds, and there was never a more enthusiastic sportsman than the master of the Teviotdale pack, as he delighted to be called. He had an immense flow of spirits, and it was hard to say whether he was most enthusiastic while listening to the music of his

hounds in full cry, or recounting over again the battles in the border streams. Dr. Grant was between fifty and sixty years of age, and had been in failing health for some time.

THE SCOTTISH MIDLAND AND WESTERN MEDICAL ASSOCIATION.

The annual meeting of the members of the above Association will be held in the Bedford Hotel, 54, St. George's Place, Glasgow, on Friday, October 13th, 1876; the Chair to be taken at two o'clock, P.M., by Robert Moffat, M.D., Falkirk, President of the Association. The annual dinner will take place at 4.30 P.M.

THE PURIFICATION OF THE CLYDE.

A CONFERENCE of the representatives of local authorities in the Clyde district was held on the 27th ultimo to consider Sir John Hawkshaw's report on the purification of the Clyde. The Lord Provost of Glasgow moved a series of resolutions, declaring it to be necessary to take steps to prevent the pollution of the river and its tributaries, and in particular to prevent the establishment of any new source of pollution: that, as a first step towards this object, a Bill should be applied for, under which a Board of Sanitary Commissioners of the Clyde should be created; and that this Bill should be discussed at a future meeting. The resolutions were adopted—the representatives of Greenock, Crosshill, and Maryhill dissenting. It appeared from the minutes, that the expenses already incurred amounted to about £6,727. Sir John Hawkshaw receives upwards of £4,000, and Mr. Badenoch Nicolson £400. This amount had been paid by the Finance Committee of the Town Council of Glasgow.

IRELAND.

LAST week, a concert with recitations was given to the inmates of the Richmond Lunatic Asylum, by the kindness of Mrs. Rousby and other professionals. The patients seemed quite delighted with the entertainment, and one of the inmates accompanied herself on the piano in an operatic air with considerable success.

THE deaths registered in Dublin for the week ending September 23rd represent an annual mortality of 24.8 per 1,000; and, omitting the deaths of persons admitted into public institutions from localities outside the district, the rate was 24.0 per 1,000. The deaths from zymotic diseases numbered 33, against an average of 43.6 for the corresponding week of the previous ten years—showing that, although there is room for improvement in a sanitary point of view, the mortality is considerably less than of late years in this class of affections.

CORONER OF DUBLIN.

At the Corporation last Monday, Mr. Gray brought forward a motion to fix the salary of the City Coroner at £500, with an extra £100 as compensation for the inability of the Council to provide a retiring allowance, as the clause for that purpose had been struck out of the Bill (Coroners Bill, Ireland). The motion was opposed, and it was stated that, when there were two coroners, the united salaries only amounted to £300.

CERTIFYING A LUNATIC.

THE guardians of the South Dublin Union having lately refused to pay Dr. Noble Seward, dispensary medical officer of Tallaght, the sum of £2 ordered him by the justices at Tallaght Sessions for having examined a lunatic, the Local Government Board were communicated with, who informed the guardians last week that they were bound to pay, as the justices had power, under the fourteenth section of the Lunatic Asylums Act (Ireland) of 1875. As Dr. Seward had to travel some twenty miles to examine the patient, the parsimony of the guardians seems most reprehensible.

VACCINATION.—Mr. Daniel Gibson, public vaccinator for the West District of the Hull Incorporation, has received an award of £67 8s. from the Local Government Board for efficient vaccination.

THE OPENING OF THE SESSION AT THE MEDICAL SCHOOLS.

ALL the medical schools of the metropolis were opened on Monday last. At all of them, large gatherings of past and present students assembled to listen to the Introductory Lectures and attend the school dinners. The dissecting-rooms are already scenes of busy work, the demonstrators in most instances having been enabled to secure beforehand a good supply of subjects.

ST. BARTHOLOMEW'S HOSPITAL.

A VERY pleasant party of about 120 old Bartholomew's men met at dinner on Monday evening; Dr. Andrew in the chair. Dr. Carpenter, Dr. Risdon Bennett, Sir James Paget, and Sir Trevor Lawrence (son of the late Sir William Lawrence), member for Mid-Surrey, were amongst those present. A speech was abstracted from each of these gentlemen. Sir Sidney Waterlow, alluding to the school buildings, mentioned how much new buildings were required, owing to the rapid increase of students during the last few years. He further suggested that, when done, such an alteration should be thorough and complete. He hinted that the generous thought much of the matter, etc. There is a fair supply of bodies with which to commence the session. The preparations (patent) of arsenic and carbolic acid used for injecting enable the demonstrators to keep the bodies some months in good condition. There is every prospect of a large entry of students this year, but the exact number will not be known until after the termination of registration at the College.

CHARING CROSS HOSPITAL.

THERE is only one subject in the dissecting room, although the authorities applied for four in July. It is injected with arsenic and corrosive sublimate, and kept in a tank with spirit. There is no change worthy of note in the school buildings. A dinner took place on the 2nd instant at the Freemasons' Tavern, at which the members of the staff, old students and present students, were present—in all, about forty. Mr. Folker, Senior Surgeon to the Staffordshire Infirmary, was in the Chair.

GUY'S HOSPITAL.

THE dissecting-room presents a very busy appearance, the session having opened with fourteen subjects ready for dissection. Many of these had been preserved for two or three months by means of glycerine and arsenic, and the majority of them are in a good state of preservation. Six of these bodies have been allotted to gentlemen in their first year and the remainder to second and third year students. Dissection had been commenced upon all the bodies at the time of our visit on Wednesday last. We were informed that some of the bodies had been encased in gutta-percha sheeting, with a view of preventing the drying up of the fingers and toes, which is apt to occur when a body is long kept, and also to avoid the other injurious effects of air upon an exposed corpse. The demonstrators are the same as last year; but, as these three gentlemen now hold also appointments as assistant-surgeons, two assistant-demonstrators are to be appointed to aid them in their duties.

After a series of annual introductory addresses of very various *calibre*, which, in their delivery, called forth manifestations of applause or dislike upon the part of the auditory, that were always loudly expressed, the authorities of Guy's Hospital decided this year to follow the example set by St. Bartholomew's Hospital some five or six years since, and to open the session without the usual Introductory Lecture. In its stead a *conversazione* was decided upon, and this took place last Monday evening in that part of the hospital designated "Hunt's House". The splendid anatomical models of the museum were exhibited, also objects and instruments illustrating recent advances in medicine, surgery, and the allied sciences, paintings, photographs, toughened glass, microscopes, etc., etc. In the course of the evening, the prizes gained by the students during last session were distributed by the Treasurer in the presence of a very large gathering of past and present students, who had come from all parts of the country in order to be present. It was generally considered that the substitution of the *conversazione* for the Introductory was a decided improvement; though, as suggested at the *conversazione*, that improvement might be rendered more nearly perfect in future years by the admission of ladies. Great credit was due to those members of the staff who, on Monday, brought together such an excellent collection of new and interesting objects for the gratification of the guests, all of whom seemed to spend a most pleasant evening.

ST. GEORGE'S HOSPITAL.

SUBJECTS for the winter session were first received at St. George's Hospital at the beginning of last July, and the number now in the dissecting-room is nine. They have been kept in a preservative fluid, which is the invention of the dissecting-room porter, and which seems to answer its purpose remarkably well. The subjects are kept in a large slate tank filled with the fluid. The first subject which was received was in an advanced stage of decomposition when it arrived, owing to the hot weather. It, however, is now quite fresh and sweet. The only objection to the fluid is that it causes the muscles to lose a little of their colour, otherwise it answers admirably.

There have not been any great alterations in the school buildings during the past year. The repairs necessary in consequence of the late tank accident have been completed and the wards reopened. A dinner in connection with the school took place at Willis's Rooms on Monday evening, at which Mr. George D. Pollock presided. The old St. George's men mustered in great force, there being a larger number present than on any previous occasion for many years, and Mr. Pollock, who most ably filled the chair, received a most enthusiastic reception. The proceedings were enlivened by some very good glee-singing under the direction of Mr. Henry Regaldi.

KING'S COLLEGE HOSPITAL.

THE subjects now in the dissecting-room are six; they have been preserved by Stirling's (of Edinburgh) method, which is pronounced to be very satisfactory. No change has taken place in the school buildings. The extensive alterations of last year and the year preceding have been completed, so that the enlarged dissecting-room and the new physiological rooms are exceedingly well arranged and in full working order. The old students' dinner took place at King's College on October 2nd, under the chairmanship of Dr. Beale. Above 140 sat down, and among whom we noticed Drs. Dyer (Ringwood), Eade (Norwich), Sansom, Symes Thompson, Allfrey (St. Mary Cray); Messrs. Heath, Macnamara, Bartrum (Bath), etc.; the principal of King's College and most of the members of the medical staff. The Chairman, in replying to the toast of the evening, "The Medical School of King's College", referred to the fact that every year from 1835 to 1876 was represented at the gathering.

LONDON HOSPITAL.

THERE are three bodies ready; one has been preserved for three months, it is rather hard, but makes good dissections. It was kept in ice after having been injected. The Demonstrators' room has been enlarged and fitted with shelves and apparatus for dissection and microscopic work. Dr. Wilson of Cambridge is Demonstrator, *vice* Messrs. Adams and Reeves, who have resigned; and Mr. Reeves has been appointed Teacher of Practical Surgery.

ST. MARY'S HOSPITAL.

THE chief changes in the working staff of this hospital have resulted from the sad loss which has been experienced in the death of Mr. Gascoven. Mr. Edmund Owen is now lecturer on anatomy, with charge of the anatomical department of the school; Mr. Garbutt is demonstrator of anatomy, and Mr. Hetherington assistant-demonstrator. Mr. James Lane and Mr. Norton give the lectures on surgery, and Mr. Page has been appointed teacher of practical and operative surgery. Dissection was commenced on Tuesday morning on three subjects which had been awaiting the beginning of the session during the last few weeks. These bodies had been injected with a solution of arsenious acid and then with a mixture of plaster of Paris, vermilion, and wax. The experiment has been made of keeping them in an atmosphere of alcohol, and, although it has not met with all the success that could have been desired, still subjects somewhat discoloured from decomposition are better by far than none at all. For Dr. Shepherd's classes in histology, a large and well lighted room has been constructed. Of the extensive and well-advised alterations in the hospital, we shall have much to say later on, when Dr. De Chaumont's official report has been published.

The biennial dinner of the friends and students of the school was held in the evening at the Pall Mall Restaurant, under the presidency of Dr. Chambers, one of the consulting-physicians. In speaking of the sad loss which had been experienced in the deaths of Mr. Gascoven and Dr. Sibson, the Chairman claimed these gentlemen as typical St. Mary's men, and attributed much of the growing success of the school to their all-pervading influence. The usual loyal toasts were enthusiastically received, and, in a clever speech, returning thanks for the Volunteers, Mr. Malcolm Morris (of Google) said that, if these brave defenders should ever be called on to serve their country, their

medical officers would be found perfectly ready to do their duty—as they had always done it—gratuitously. Old St. Mary's men turned up for the dinner from all parts of the world. Mr. Chisholm from Australia, Mr. Beresford from Buenos Ayres, Mr. Sargent from India. The meeting passed off with great *clat*, for which much was owing to the songs of Mr. Lewin and the arrangements of Dr. Farquharson, Mr. Juler, and the ubiquitous dean of the school.

MIDDLESEX HOSPITAL.

IN the dissecting-room are two subjects, which were laid down in August; five were applied for, for the purpose of storing for the opening of the session. These subjects have been preserved in the following manner: a solution of arsenic (two pounds to three gallons of water) is allowed to find its way into one of the large vessels through a tube in communication with a reservoir above. Usually about a gallon and a half of the solution are required for each body; then the coloured paint is injected; and the body, surrounded with a thick layer of sawdust made damp by a strong solution of carbolic acid, is fastened down in its shell until required. This plan answers very well; the subjects coming on to the table moist, of good colour, and free from smell.

There were some important changes made during last year in the school buildings: an additional lecture theatre, more especially for practical physiology, practical surgery, and pathology, was built; a new curator's room was added to the museum; and the laboratories and closets in connection with the dissecting-room were rebuilt.

The annual dinner took place on Monday evening at St. James's Hall; J. W. Hulke, F.R.S., Lecturer on Surgery, in the chair. It was very largely attended by over ninety past and present Middlesex students, several members of the staff, the Chairman of the Weekly Board, and a few guests. The enjoyment of the evening was greatly enhanced by the really first-rate music and singing of Herr Gauz, Drs. Roberts and Lavies, and Mr. Anderson Critchett. These gentlemen have on several previous occasions conferred a similar favour; and, if they have found at these festivals enthusiastic audiences, it is because their performances deserve the appreciation they obtain.

ST. THOMAS'S HOSPITAL.

ELEVEN bodies are ready for the dissecting-room, most of which have been preserved by Howse's method practised at Guy's.

The only change in the school buildings is that they have been thoroughly cleaned and painted, and the comfort and health of the pupils have been looked after.

Many old students put in an appearance at the hospital on Monday, October 2nd; in the first place, to hear the admirable address delivered by Mr. Mason; and in the second, to meet their old friends at dinner in the evening. The dinner was held at Willis's Rooms; and, although not quite so many sat down as was anticipated, the dinner was nevertheless a complete success; there were about seventy present. Mr. Simon took the chair, and made several admirable speeches. He was, as usual, exceedingly happy and brilliant in his allusions and quotations, and met with a most hearty reception. A band from Messrs. Coote and Tinney was in attendance.

WESTMINSTER HOSPITAL.

AT this medical school, the method of preserving bodies for dissection is the same as that at St. George's Hospital; and one subject is at present in the room for students who commence dissecting early.

The important sanitary improvements now in hand at the Westminster Hospital will not interfere with school pursuits, and will eventually result in improved accommodation for lecturers and pupils.

After the introductory address by Dr. Allchin, on Monday last, a *conversazione* was held in the Board Room; and a full gathering of past and present pupils witnessed the distribution of prizes awarded during the session 1875-76.

ASSOCIATION INTELLIGENCE.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of this Branch will be held at the Town Hall, Woburn, on Friday, October 13th, at 3.30 P.M.; H. W. SHARPIN, Esq., President, in the Chair.

Dinner at the Hotel at 5.30 P.M.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate at once with Dr. Bryan.

An excursion to Woburn Abbey is proposed at 1.30 P.M.

J. M. BRYAN, M.D. } *Honorary Secretaries.*
W. MOXON, Esq. }

Northampton, September 19th, 1876.

COMMITTEE OF COUNCIL:
NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 18th day of October next, at Three o'clock in the afternoon.

FRANCIS FOWKE,

General Secretary.

36, Great Queen Street, London, W.C., September 27th, 1876.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting of the above Branch will be held in the Examination Hall of the Queen's College, on Thursday, October 12th, 1876. The Chair will be taken at 3 P.M.

Dr. James Thompson will propose the following resolution; "That in the opinion of the Branch, the occupier of a house in which infectious disease occurs should be the person to give information to the medical officer of health of the existence of such disease."

The following papers are promised.—1. Dr. Russell: Clinical History of Tumours of the Brain.—2. Dr. Harrison: Three cases of Embolism, two of them Puerperal.

BALTHAZAR FOSTER, M.D. } *Honorary Secretaries.*
JAMES SAWYER, M.D. }

Birmingham, October 5th, 1876.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

THE next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 12th, at 4 P.M.; Dr. C. HOLMAN in the Chair.

The following communications are promised.

1. Mr. Durham: A Paper.

2. Mr. Maunder will exhibit three patients recently submitted to Osteotomy of the Femur.

3. A Case of Hydrophobia, by Mr. R. Steele, with notes by Dr. Dyce Duckworth.

4. Missed Labour in a Cow, with Delivery after use of Barnes's Bags, by Mr. Hawker and Mr. R. Steele.

5. A *Résumé* of a Year's Practice in the Reigate Cottage Hospital, by Dr. Walters.

6. Two Cases of Fracture of both Thighs, by Dr. Flood and Dr. Holman.

Dinner will be provided at the White Hart Hotel at 6 P.M. Tickets, exclusive of wine, 6s. a head.

JOHN H. GALTON, M.D., *Honorary Secretary.*

Woodside, Anerley Road, S.E., September 20th, 1876.

BORDER COUNTIES BRANCH.

THE autumnal meeting of the above Branch will be held at Whitehaven, in the Board Room of the Whitehaven and West Cumberland Infirmary, on Friday, October 20th, at 1 P.M.

Gentlemen intending to read papers, or to be present at the dinner, are requested to give notice to the Secretaries.

RODERICK MACLAREN, } *Honorary Secretaries.*
JOHN SMITH, }

Carlisle, September 26th, 1876.

YORKSHIRE BRANCH.

A MEETING of this Branch will be held at the Royal Hotel, Scarborough, on Wednesday, October 25th, at 2.30 P.M.

After the meeting, the members will dine at the Royal Hotel, at 5.30 P.M. Tickets, 6s. 6d. each.

Gentlemen intending to join the dinner, or to bring forward communications, are requested at once to communicate with the Secretary.

W. PROCTER, M.D., *Local Secretary.*

York, October 3rd, 1876.

BATH AND BRISTOL BRANCH.

THE first ordinary meeting of the Session will be held at the Royal Hotel, Bristol, on Thursday evening, October 26th, at half-past Seven o'clock: H. F. A. GOODRIDGE, M.D., President.

E. C. BOARD, Clifton. } *Honorary Secretaries.*
R. S. FOWLER, Bath. }

Clifton, October 2nd, 1876.

THAMES VALLEY BRANCH.

A MEETING of the above Branch will be held at the Board Room, Richmond Infirmary, at 5 o'clock, on Wednesday, October 18th, 1876.

A paper will be read by Dr. Thorowgood; and a discussion will then take place on the Treatment of Burns.

There will be a dinner afterwards at the Greyhound Hotel at Seven o'clock. Charge, 7s. 6d. each, exclusive of wine.

Those who intend to be present at the dinner are requested to send word to the Honorary Secretary as soon as possible.

F. P. ATKINSON, *Honorary Secretary.*

Surbiton Road, Kingston-on-Thames, Sept. 27th, 1876.

STAFFORDSHIRE BRANCH.

THE third annual meeting of this Branch will be held at the Star and Garter Hotel, Victoria Street, Wolverhampton, on Thursday, October 26th, at 2.30 P.M.

An address will be delivered by the President, W. MILLINGTON, Esq., M.D., M.R.C.P.Lond.

Dinner at 5 P.M. precisely. Tickets (exclusive of wine), 10s. 6d. each.

Members intending to be present are requested to communicate as soon as possible with the Honorary Secretaries.

VINCENT JACKSON, Wolverhampton. } *Honorary Secretaries.*

RALPH GOODALL, Silverdale.

Wolverhampton, October 2nd, 1876.

CORRESPONDENCE.

ANDERSONIAN LECTURESHIP ON MEDICINE.

SIR,—As my name has been mentioned in your columns, and in those of one or two of the local papers, in connection with the above appointment; and as the object which I had in view would be somewhat defeated were, under these circumstances, an explanation from me not forthcoming, I shall feel obliged by your allowing me the following brief observations. The idea of succeeding against Dr. Charteris never entered my mind, for reasons too apparent to be mentioned; and he was himself perfectly aware of this. At the last moment, however, as a public invitation to candidates was given, I made an application, *but entirely in vindication of a principle which I maintain.* In Glasgow, as elsewhere, it too frequently happens that very little dignity must be attained at the sacrifice of much personal humiliation. I could never make up my mind to the exclusive right of one section of the profession more than another to teach or give gratis advice to the poor—to hold, in fact, a monopoly of doing good; and, as on more than one occasion I have had to pocket a good deal of feeling of which I am rightly or wrongly proud, I conceived on this occasion the *revenge* of lodging an application for the lectureship on medicine, stating, at the same time, that I was opposed to the principle of personal and friendly solicitation, and that I advisedly abstained from endeavouring to influence the directors in this manner. What would become of that admixture of arrogance and ignorance which, to such an extent, regulates the destinies of our profession, and makes advancement in it depend so much on sneaking sycophancy, if this rule were universally observed?

The statement may be made by individuals hostile to me, with as much jubilation as they like, that I received five votes; but I can assert that I have no idea who the five gentlemen were who voted for me; and I feel proud to think that neither social influence nor ecclesiastical caprice determined this, if small, grateful support. For myself I am quite satisfied; and if others derive satisfaction from a different phase of the transaction, so far as I am concerned, they are heartily welcome to it.—I am, etc.,

D. CAMPBELL BLACK.

Glasgow, October 3rd, 1876.

OAKUM-PESSARY.

SIR,—I am aware that women have been told to retain their urine when suffering from anteversion; that Huguier thought stuffing the rectum with tow might cure retroversion; and that, in a slip-shod fashion, sponges are put up the vagina in cases of prolapsus; but I did not know that systematic plugging the vagina with oakum was a plan of treatment to be depended on for the cure of prolapsus uteri; and when I found Mr. Morgan recommending it as satisfactory to himself and to his medical friends, and that women could easily apply this remedy to themselves, I eagerly availed myself of your JOURNAL to obtain more precise information respecting this plan of treatment, because the treatment of uterine displacements is the most unsatisfactory part of gynaecology.

Instead of giving me the corrected information, Mr. Morgan retreats under the shadow of Dr. Copeman's respected name; but, like the coy maiden who, while retreating, still further exhibits her charms, Mr. Morgan never hints that the oakum-pessary may even be applicable in some cases of flexion and version. Surely Mr. Morgan will explain to us what he has demonstrated to the satisfaction of his friends; and, lest I should be obliged to trouble you again, I wish to know what are the particular "cases requiring support" that do well under treatment by the oakum-pessary, and what particularities of flexion and version are benefited by its use? In what way is the vagina to be plugged, to what extent and how long is the plug to be left in? Whether it is to be reapplied and for how long? Whether, in the meantime, the patient can walk without inconvenience, or is liable to suffer in any way? Whether the treatment has more than a palliative effect? Any other remarks will be acceptable to your readers and to yours faithfully,

Seymour Street, Portman Square.

EDWARD J. TILT.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE Rev. F. W. Burbidge, Dr. J. Anthony, and Messrs. D. Archer, W. Clayton, J. Garlick, W. W. Hart, H. Hordley, jun., T. Hunt, G. Ingall, J. Rawlins, E. Strutt, and J. Vaughan, have been elected members of the newly formed Saltley Local Board. The first meeting was held last week, and Dr. Anthony appointed Chairman.

AT Chopwell, a township in the parish of Winlaton, Durham, a meeting of owners and ratepayers has been held, and a resolution passed that it is expedient that it should be constituted a Local Government District under the Public Health Act.

LIEUTENANT-COLONEL COX, R.E., one of the Local Government Board Inspectors, has held an inquiry, upon the application of the owners and ratepayers of Reddish, to have the township formed into a Local Government District. It was shown that the rateable value of the property had increased from £10,250 to £29,280, and the population from 1,363 to about 5,000, during the last ten years. No opposition was offered, and the application will, therefore, in all probability, be acceded to.

THE Mayor, Aldermen, and Burgesses of the Borough of Ipswich, acting by the Town Council, have, by an order of the Local Government Board, been constituted the Port Sanitary Authority till September 29th, 1877.

POOR-LAW MEDICAL OFFICERS AND MEDICINE.

A MEMBER of the Association and constant reader of the JOURNAL most respectfully begs to call the editor's attention to what he believes to be an error at page 418 of the last number. It is there stated, under the heading "Public Health and Poor-law Medical Services," as follows: "That no workhouse medical officer in the metropolis has found any medicine whatever for some years past, such being always found by the guardians under the provisions of Mr. Gathorne Hardy's Metropolitan Poor Act of 1867." The statement in the above extract is incorrect. The medical officer of the Marylebone Workhouse finds all medicines and medical appliances for a fixed sum annually: the writer of this is also under an impression that, the medical officer finds wine, etc., under the terms of the contract with the guardians.

. Some years ago, an arrangement existed whereby all drugs and appliances were found by the guardians of the Marylebone Workhouse, and certain medical gentlemen gave voluntary attendance on the sick poor of the house, the infirmary department being recognised as a hospital. This, after working most successfully for many years, came to an end, through the licensing bodies refusing to recognise the attendance at the infirmary; the medical gentlemen also resigned. Subsequently, the guardians contracted with a medical man, who for a stipulated sum found everything. When the Metropolitan Poor Act was introduced, neither the medical officer nor the guardians were disposed to disturb the contract entered into, which, by the bye, was unusually generous, so far as the medical officer is concerned. We believe this is the only instance in the metropolis where the provisions of the Metropolitan Poor Act have not been carried out in their integrity, so far as the provision of all medicines, etc., by the guardians is concerned. The Marylebone guardians were the last to introduce the dispensary system into their parish.

DEPUTY SURGEON-GENERAL G. AUCHINLECK, M.D., has been appointed Principal Medical Officer at Chatham, on promotion, vice Deputy Surgeon-General R. Bowen, transferred in a similar capacity to Portsmouth.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SCHOOL AT NETLEY.

THE winter session of the Army Medical School was opened on the 2nd instant. The introductory address was delivered by Professor De Chaumont, who has succeeded to the Chair of Hygiene left vacant by the lamented decease of the late Professor Parkes. The printed list showed that sixty-six candidates for medical commissions were present; viz., twenty for the Naval, thirteen for the Indian, and thirty-three for the Army Medical Service. The commandant and staff of the hospital were present at Dr. De Chaumont's address.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

ANATOMY AND PHYSIOLOGY.—Professor Humphry gives notice as follows. The Course of Lectures on Practical Anatomy will commence (with the Description of the Joints) on Tuesday, October 10th, at 9 A.M.) and be continued daily till October 23rd, and after that on Mondays, Wednesdays, and Fridays. The Course of Lectures on Anatomy and Physiology will commence on Thursday, October 19th, at 1 P.M., and be continued on Tuesdays, Thursdays, and Saturdays. The subject this term will be the Nervous System with the Organs of Special Sense. Gentlemen not requiring certificates may attend this course without fee. Both courses are intended for students preparing for the Natural Sciences Tripos as well as the Medical Examinations. Superintendence of Practical Anatomy daily from 9 to 4.

OBITUARY.

EDWIN BARTLEET, F.R.C.S., CHIPPING CAMPDEN.

On Friday, September 29th, whilst on a visit to his daughter at London, Mr. Edwin Bartleet, of Campden, Gloucestershire, died somewhat suddenly, in his seventy-fourth year. Mr. Bartleet was a student of St. Bartholomew's Hospital, and practised for more than forty years in Birmingham, where he was highly and deservedly respected and esteemed. For some years he was Surgeon to the Birmingham Eye Infirmary, and only relinquished this specialty on account of the claims of a large and important private practice. Mr. Bartleet was for many years a member of the Committee of Council of the Association; and his urbanity and tact, as also his open-hearted hospitality, were of no slight service. For the last ten years, Mr. Bartleet had relinquished practice, and had resided at Chipping Campden, in Gloucestershire, where he had ably and conscientiously fulfilled his duties as justice of the peace, and where he was much respected.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, September 28th, 1876.

Gabe, John, Poplar Hospital

The following gentlemen also on the same day passed their primary professional examination.

Jackson, Thomas, Middlesex Hospital.
Saunders, William, University College Hospital
Stewart, John McDougall, Middlesex Hospital
Webb, William Wilfrid, Charing Cross Hospital
Weichman, Henry Palmer, Birmingham Hospital
Wiles, Frederick William, London Hospital

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 29th and 30th of September, 1876—91 candidates presented themselves; of whom 29 were rejected, and the following 62 passed, and received certificates of proficiency in general education—viz., in the First Class, in order of merit:

1. L. Stokes 2. R. S. Batson, J. A. Liebmann, and F. W. Nicholson. 5. J. Parrott, J. H. Spry, and W. H. Weston. 6. A. J. Stiles, and J. Walpole.
10. A. De Prenderville, H. S. W. Hall, S. Gordon Smith, and J. Whelpton.
13. R. J. Allan, and T. O. L. Beales. 16. W. E. Bradley, H. V. Knaggs, and J. F. Spong. 19. O. A. Collins, T. M. Day, H. O. Fisher, and H. Visger.

In the Second Class, in alphabetical order:

- J. E. Anderton, J. B. Baker, L. P. Banks, J. F. Braga, J. W. Cazalet, W. H. Cory, C. E. H. Cotes, J. S. E. Cotman, C. E. Faunce, H. Gilchrist, S. Goodman, H. Gravely, G. A. Green, W. H. B. Hall, S. S. Hewlett, J. S. Hunt.

D. W. Jones, A. S. Kenny, F. W. E. Kinnier, J. T. Land, R. W. Laing, A. Lane, C. J. Lumpkin, E. C. MacPhee, L. Macrae, F. R. Nichols, W. A. J. Nottingham, J. I. Palmer, F. C. Payne, R. W. Pickering, H. A. J. Raymond, T. P. Roberts, R. E. Rygate, W. Spencer, W. F. Stephan, F. Sturges, D. C. Trott, S. Whitaker, and H. Wilson.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ASHTON-UNDER-LYNE UNION—Medical Officer for the Second District.
BELGRAVE HOSPITAL FOR CHILDREN—House-Surgeon. Applications on or before October 10th.
HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street—Medical Registrar. Applications on or before October 12th.
LANCASTER INFIRMARY AND DISPENSARY—House-Surgeon. Salary, £125 per annum, with apartments, etc. Applications on or before Oct. 11th.
LEEDS PUBLIC DISPENSARY—Assistant Resident Medical Officer. Salary, £80 per annum, with board, lodging, and washing. Applications on or before October 14th.
LEICESTER FRIENDLY SOCIETIES' ASSOCIATION—Assistant Medical Officer. Applications on or before October 10th.
NORTH DEVON INFIRMARY, Barnstaple—House-Surgeon. Salary, £100 per annum, with board, lodging, etc. Applications on or before October 7th.
ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum, and apartments. Applications on or before October 7th.
STOCKWELL SMALL-POX HOSPITAL—Temporary Assistant Medical Officer. Salary, £3 per week, with board and lodging. Applications on or before October 6th.
SUNDERLAND INFIRMARY—Junior House-Surgeon. Salary, £60 per annum, with board and residence. Applications on or before October 21st.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

EADYS, Henry, M.R.C.S., appointed Honorary Surgeon to the Birmingham and Midland Eye Hospital, and Medical Tutor and Demonstrator of Anatomy to the Queen's College, Birmingham.
JONES, Thomas, M.D., Senior Assistant Physician to Victoria Hospital, appointed Physician, *vice* J. Cavafy, M.D., resigned.
*TUCK, Buckmaster Joseph, J.P., M.R.C.S. Eng., and L.S.A., elected Mayor of Sleaford, Sussex.
WILKINS, E. W. S., M.R.C.S., appointed House-Surgeon to the Blackburn and East Lancashire Infirmary, *vice* Wm. Crawford, M.A., M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

MORRIS.—On September 22nd, at Euston Place, Leamington, the wife of *Joseph Morris, Surgeon, of a daughter.
SATCHELL.—On September 25th (Tin Wedding-Day), at Groombridge, near Tunbridge Wells, the wife of *Walter A. Satchell, F.R.C.P. Edin., M.R.C.S. Eng., etc., etc., of a daughter.
MOXON.—On October 4th, the wife of *B. H. Moxon, L.R.C.P. Ed., 1, Bond Street, Hull, of a daughter.

MARRIAGES.

TUCK—MANBY.—On October 3rd, at the Parish Church, Seaford, Sussex, by the Rev. W. H. M. Buck, Vicar, *Buckmaster Joseph Tuck, J.P., M.R.C.S., Mayor of Seaford, to Elizabeth Sarah, second daughter of W. E. Manby, Esq., of Gable End House, Seaford, and Regent's Park, London.
WILLIAMS—EVANS.—On the 4th instant, at the Parish Church, Wrexham, by the Rev. John Jones, Vicar of Rhos, assisted by the Rev. William Williams, Vicar of Llanrhaidr, M., and the Rev. James Dixon, Senior Curate of Wrexham, Joseph Llewellyn Williams, M.B., Wrexham, to Margaret Rimmer, eldest daughter of Edward Evans, Esq., Bronwylla, Ruabon.

DEATH.

*BARTLEET, Edwin, Esq., F.R.C.S., of Chipping Campden, Gloucestershire, suddenly, on September 29th.

BEQUESTS.—The late Sir James Campbell of Strathcathro has made in his will the following bequests to charitable institutions free of legacy duty. Glasgow Royal Infirmary, Glasgow Western Infirmary, and Glasgow University New Building Fund, each £1,000; Glasgow Eye Infirmary, Glasgow Ophthalmic Institution, Brechin Infirmary, and Montrose Infirmary, each £250. The total amount left to various charities was £10,000.—Mrs. Marian Nasmyth, late of Westbourne Park Terrace, who died on February 12th, has bequeathed to *St. George's Hospital £6,000, and to University College Hospital £5,000; and, in doing so, she trusts it will not be inconsistent with the rules and regulations of the governing bodies of such hospitals to establish with these sums in their respective hospitals a ward, to be called "Mrs. Marian Nasmyth's ward".

ENGLISH SURGICAL INSTRUMENTS.—We are informed that Messrs. Salt and Son of Birmingham have this week added to their already long list of honourable distinctions for excellence of their surgical instruments and mechanical appliances a silver medal, for their display of trusses and surgical instruments at the Brussels International Exhibition. They received prize medals at Vienna in 1873, and at Dublin in 1865, and a honourable mention at the Paris Exhibition in 1867.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. William Adams, "On Subcutaneous Division of the Neck of the Femur for Ankylosis of the Hip-joint"; Mr. Davies-Colley, "Case of Resection of the Tarsal Bones for Congenital Talipes Equinus Varus".

WEDNESDAY.—Hunterian Society, 7.30 P.M.: Council Meeting, 8 P.M.: Dr. J. Braxton Hicks, F.R.S., "Some Cases of Suppurating Ovarian Cysts treated by Drainage-tube: with Remarks on Diagnosis".

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Wolston and Mr. Maunder, "Case of Intestinal Obstruction"; Mr. Gordon Brown and Mr. Maunder, "Sequel of a Case of Enterotomy, with Artificial Anus in the Small Intestine"; Mr. Teevan, "Case of Traumatic Stricture, with numerous Fistulae, cured by Internal Urethrotomy"; Mr. Higgins, "Case of Hydatid of the Orbit"; Dr. Cayley, "Case of Empyema, in which washing out the Pleural Cavity was followed by Convulsions and Death".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

WE are compelled by pressure on space, owing to the publication of abstracts of the Introductory Addresses, to omit from this issue three pages of Letters, Notes, and Answers to Correspondents.

ANTIDOTE TO MUSHROOM-POISONING.

THE introduction of atropia daturia, or stramonium, in substance or extract, as an antidote to mushroom-poisoning, a practice now common and successful in Italy, has been recently attributed, in paragraphs which have been much copied by the general press, to Professor Schiff of Florence (*Imparziale*, Nos. 11 and 12, and *London Medical Record*). Although, however, Professor Schiff has, by his authority, confirmed and extended the use of this antidote, its introduction was first recommended by Dr. Lauder Brunton, as the result of the investigations of himself and Schmiedeberg.

THE publication of a number of letters relating to the Use of Alcohol is postponed till next week.

PRESCRIBING CHEMISTS IN AUSTRALIA.

AT an inquest held in Adelaide a few weeks ago on the body of a woman who had died from scarlet fever, after having been attended by a chemist only, the jury returned the following verdict: "That she died of scarlet fever. We are of opinion that Mr. Wood is highly censurable for prescribing in this case, and that the practice of chemists prescribing in serious cases of illness should be discontinued."—*Australian Medical Journal*.

MR. BROWN (Northallerton) must express his opinions in the ordinary language of courteous intercourse if he wish them to receive attention.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

WATER-FILTERS.

SIR,—In justice to the Silicated Carbon Filter Company, allow me to say that I have used one of their filters for the last three months in my own house, in preference to several others, and I am so satisfied with its simplicity and efficiency, after testing it in various ways, that I have already recommended it to the various sanitary authorities in my district, and also to private friends, as in my opinion not only the easiest cleaned, but the most perfect of any filter yet offered to the public.

—I am, sir, your obedient servant,

A. MACKINTOSH, M.D.,
Medical Officer of Health, Chesterfield.

MR. COCHRANE (Colmonell).—One letter is in type, and the other shall be published at an early date.

CHRONIC PEMPHIGUS.

SIR,—In answer to Enquirer, I had lately two patients suffering from this disease—a tailor, aged 67, half-starved, and his daughter in a similar condition. The father rapidly recovered from taking phosphorus pearls—or, as sometimes spelled, perls—and mild aperients. To the daughter (as phosphorus is not expedient in young persons—port wine and quinine, with stimulating diaphoretics, were given with complete success. The father had several relapses, but the phosphorus always removed his complaint. The daughter went out to service, and grew four inches in a year, and remained well.

A third aged and starved patient was relieved of his complaint by phosphorus pearls and improved diet.—Your obedient servant,

P.S.—Enquirer should cure the ulcer in the leg, the probable cause of the debility.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; The Harrogate Herald; The Dumfries and Galloway Standard; The Glasgow News; The Buxton Advertiser; The Wexford Constitution; The Yarmouth Independent; The Islington Gazette; The Manchester Courier; The Newcastle Daily Chronicle; The Sunderland Daily Post; The Standard; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, &c., have been received from:—

Dr. Andrew Clark, London; Dr. J. Althaus, London; Mr. Charles Mackrow, London; Dr. J. Bruce Ronaldson, Clonakilty; Dr. Tripe, Hackney; M.B.; Mr. F. Gordon Brown, London; R.; Dr. Blandford, London; Dr. Thomas, Sheffield; Dr. Morgan, Manchester; A Member of the Association; Surgeon John C. Lucas, Neemuch; Mr. B. Lumeaux, Newark; Dr. Allchin, London; Mr. Francis Mason, London; Dr. G. H. Evans, London; The Secretary of Apothecaries' Hall; Mr. B. J. Tuck, Sleaford; The Secretary of the Hunterian Society; Dr. C. J. B. Williams, London; The Registrar-General of England; Dr. J. Milner Fothergill, London; Dr. Thomson, Glastonbury; Dr. R. Boyd, London; The Registrar-General of Ireland; Mr. Henry Brown, Northallerton; Mr. Mitchell Banks, Liverpool; Dr. Ryder, Gorey; Temperance without Abstinence; Dr. H. Cripps Lawrence, Bayswater; J. A. H.; The Rev. Dawson Burns, London; Dr. Holland, London; Dr. T. Clifford Allbutt, Leeds; Dr. J. C. Thorowgood, London; Dr. Thomas Oliver, Preston; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Dow, London; Mr. Peter Young, Dundee; Mr. Edward Pope, Tring; Dr. Robert Barnes, London; Mr. Fancourt Barnes, London; A Member, Chudleigh; Dr. Angus Mackintosh, Chesterfield; Our Paris Correspondent; Medicus; Mr. W. Johnson, Leinster; Our Edinburgh Correspondent; M.D. Edin.; Mr. T. H. Bartlett, Birmingham; The Secretary of the Clinical Society; Dr. Carus Weeks, Newcastle-upon-Tyne; Mr. Egan, Dublin; Mr. G. W. Callender, London; Dr. Tilt, London; M.D., Brussels; Our Dublin Correspondent; Dr. D. Campbell Black, Glasgow; Dr. MacLagan, Dundee; Dr. T. Trölope, St. Leonard's-on-Sea; Dr. T. W. Bogg, Louth; M.R.C.S.E.; M.D., Brussels (No. 2); Dr. Grabham, Earlswood; Dr. Squire, London; Mr. Morley, Barton; Mr. Vincent Jackson, Wolverhampton; Mr. Ralph Goodall, Silverdale; M.D.; Mr. E. J. Adams, London; Dr. Cayley, London; Dr. Edis, London; Dr. Mackey, London; Dr. Braidwood, Birkenhead; The Secretary of the Royal Medical and Chirurgical Society; Mr. Eastes, London; Mr. Walter A. Satchell, Groombridge; Dr. Joseph Rogers, London; Dr. J. M. Bruce, London; Dr. D. Baxter, London; Dr. Maudsley, London; Mr. E. A. Fox, Warrington; Dr. Bourke, Limerick; Dr. Thin, London; Mr. A. Pythias Turnell, Brynmawr; Mr. Alfred Haviland, Northampton; Dr. Balhazar Foster, Birmingham; The Secretary of the Pathological Society; Dr. Jas. Sawyer, Birmingham; J. O. P.; Mr. E. G. Levinge, Limerick; Dr. E. M. Courtenay, Limerick; Dr. T. R. Glyn, Liverpool; Mr. Joseph Morris, Leamington; Dr. Broadbent, London; Dr. G. De Gorrequer Griffith, London; Mr. Blount, London; Dr. Mullan, Ballymena; Dr. Prowse, Amersham; Mr. Eales, Birmingham; etc.

REMARKS

ON THE

EFFECTS OF THE TRADES OF SHEFFIELD

ON THE WORKMEN EMPLOYED IN THEM: WITH SPECIAL REFERENCE TO INHALED IRRITANTS.*

By JOHN CHARLES HALL, M.D.,

Senior Physician to the Sheffield Public Hospital, etc.

At the repeated request of the President, Dr. Chadwick, I have consented to introduce to the members of the British Medical Association the all-important subject of the effects produced by inhaled irritants. I did not refuse at first to comply from any wish not to take a fair share in the discussion of a subject which, for more than a quarter of a century, I have made a special study. But, having given evidence before a Royal Commission and occupied many pages of a Blue Book of the House of Commons—after having spoken often, and again and again published the results of my gleanings on the diseases of the grinders and other workmen following like trades—nothing seemed left but to repeat myself. This subject, affecting as it does thousands of the working classes of this and other countries, is surely well worthy the careful investigation of an Association learned and powerful as this; and, I venture to think, even our amiable critic, dating from the “sad sea waves”, will hardly venture to apply to investigations such as we are engaged in this morning his proverbial “*cui bono?*” If we cannot altogether prevent these diseases of our industrious artisans, let us, at any rate, endeavour if possible to render them less deadly.

If a man spend a considerable portion of his time, day after day, in a room the atmosphere of which is constantly loaded with small dust-like atoms of coal, cotton, flour (millers') dust, and fine particles of foreign hair and dust, and if the most perfect and efficient means be not taken to carry off this dust, the serious effects of the mechanical irritation soon exhibit themselves. The girls employed in hair seating, workmen in leather and flax, chaff-cutters, stone-masons, metal-miners, quarrymen, the machine-filers of Leeds, potters, needle-grinders, razor-grinders, scissor-grinders, fork-grinders, sheep-shears grinders, and, during some part of the process, table-blade grinders, all suffer more or less.

It would appear, from the observations of Dr. Holland, Medical Inspector, that metal-mining is more destructive of life than coal-mining; for metal-miners are destroyed by excessive lung-disease, shortening the average duration of their lives by nearly nine years, and the period of productive labour about one third. It is after the age of forty that the mortality becomes so enormous.

The question of inhaled irritants embraces a field so vast, so studded over with objects of interest, that all our time would be inadequate for its full investigation; and therefore is it that I shall this morning confine myself strictly to the effect produced by them on the Sheffield grinders. For a more minute description, I refer you to my published works.†

I shall divide grinders into *wet*, *dry*, and *mixed*. Those who use the wet-stone, those who use the dry, and those who work partly on a wet and partly on a dry-stone.

Wet Grinders.—Spring knives, files, saws, scythes; wool shears and edge tools; table knives, sickles.

Dry Grinders.—Forks, needles, brace-bits, spindles, table-knife bolsters, shanks, scissors.

I shall not have time to describe the interior of a hull, with its grinding troughs (“trows”), glazier, lap, polisher, drum, placed at the back part of the hull; and at once, therefore, will again refer you to my published works—contenting myself by remarking that, in years gone by,

I have attended boys dying from the effects of inhaling irritants, who had never ground, but had been only employed in polishing; in which process a dry powder called by the men “crocus”, but which is in fact an oxide of iron, is used. I must, however, refer for a moment—for this is productive of much dust—to what is called *racing* a stone. When the old stone is removed, much dust is created in sweeping up, in hanging, and in racing a stone. When the grinding stone comes from the quarry into the wheel, a hole is drilled through the centre, and, being fixed on the axle, it is made to revolve slowly in the trough, so that the steel may bite. The grinder then takes a bar of steel, and by it the asperities of the rough stones are removed and their surface rendered level and smooth. This process lasts for half an hour, and the room becomes filled with clouds of dust. When there is no proper fan, a light handkerchief tied over the nose and mouth is a great protection; but many grinders do not care to be at the trouble even of using it.

Causes of Grinders' Disease.—Scissor-grinding, fork-grinding, and razor-grinding are the most fatal. The razor, forged out of a bar of steel, is shaped upon a dry stone into the required pattern when in a soft state. The causes of the disease in dry grinders is, in the first place, the irritation produced by the metallic and gritty particles inhaled in grinding, and in hanging, and racing the stone. The bad atmosphere in which the men work must not be forgotten. Bad ventilation and its consequences—the breathing of hot, close, foul air, and the increased liability to catch cold after working in such an atmosphere—are frequent causes of the disease. Next come the constrained position in which these men have to work for hours; sitting upon what they are pleased to term their horsing (a low narrow bench): the elbows rest upon the knees; and, especially when grinding very small articles, the head is kept over the stone. The position is most injurious, and, when long continued, cannot but induce pulmonary congestion. If my views as to the pathology of the Sheffield grinders' disease be correct, I need not trouble gentlemen of your standing and experience with long details of the symptoms during life. After working some years at dry grinding, without the protection of a fan (however tolerant some may think that lungs are of foreign matters), the digestive functions become impaired; there is difficulty of breathing after the slightest exertion, and more or less inability to walk up the steps leading to the hull. The face is pale and pasty-looking; the countenance tells its “o'er true tale” of distress; there is a feeling of constriction across the chest, and a dry sensation at the back of the throat. To these symptoms succeed coughing; at first dry, then with frothy expectoration, indicative of irritation. The physical signs of the Sheffield grinders' disease, as I have observed them for many years in hospital, dispensary, and private practice, are in some patients those of bronchitis and dilated bronchi; in others of emphysema or consolidation; and we have, lastly, excavation. In many cases the physical signs are not quite in proportion to the extent of the disease, the diagnosis of which, however, is no longer difficult, when the nature of the occupation is known.

I will now direct attention to the diagrams before us, of the expectoration in wet and dry grinders. The objects in each circle were first magnified 250 diameters, and afterwards enlarged last week, for our present purpose, with the photograph. I need hardly remind you that the appearance of such expectoration varies with the length of time the grinder has left the wheel before it was procured.

Expectoration from a Wet Grinder.—At the top, you will notice curled elastic lung-fibre and cells containing pigment; immediately below, pus and mucus-cells, some transparent, showing a nucleus, others loaded with pigment.

Expectoration of a Fork-Grinder.—Epithelium from the mouth, epithelium from the fauces, particles of gritty stone, particles of metal, blood-corpuscles, pus, and mucus-cells. Taken on leaving the hull.

Post mortem Appearances.—So far as I have been able to discover, the general appearances of the lungs of those who have died of grinders' disease are such as we see in ordinary cases of chronic inflammation. Although I have often discovered particles of grit, I have never, after the most careful microscopical examination, detected a particle of steel. It may economise our time, if I direct attention to these diagrams which most accurately exhibit the appearances of sections of a dry grinder's lung and bronchial glands. The whole of the superior lobe of each lung is often dense as in this, and of a dark-grey colour. The external surface is sprinkled over with small black spots, which will vary in size from that of a split No. 3 shot-corn, to a kidney-bean. To cut into the solidified lung is often a task of some little difficulty. Here, beneath the surface, are seen similar black bodies; and I have examined cases in which these have been gathered into masses of very large size. In this section of lung (which was taken from a razor-grinder), one near the bifurcation of the trachea was fully as large as a hen's egg. You also find the bronchial glands blackened and

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

† A series of papers in the BRITISH MEDICAL JOURNAL: “The Sheffield Grinders' Disease, with many Microscopical and other Illustrations” (Longman and Co.); “The Trades of Sheffield, as Influencing Life and Health”, read before the National Association for the Promotion of Social Science (Longman and Co., second edition). A series of articles in the *Times*: Descriptions of the Sheffield Hulls, for the sketches in the *Illustrated London News*, 1866, of File, Razor, Fork, Table-Blade, Scythe, Saw-Grinding, and File-Cutting; Evidence given (see Parliamentary Blue-Book of the House of Commons).

enlarged. In this razor-grinder, I forgot to say that, on both sides, there were extensive adhesions, forming at the apex of each lung a cartilaginous cap. The appearances of the bronchial glands were exactly like the drawing placed underneath. On the other side, you have a very faithful representation of induration matter, with which the lungs are often found to be infiltrated—tough, solid, hardly to be cut, and in colour like a piece of gutta-percha. I regard the black discoloration of the lung and augmentation of its consistence as simply black pulmonary matter, with the superaddition of a morbid induration, which is altogether independent of it. I sent a portion of a dry grinder's lung to my late friend, in whom we all sustained so great a loss, Professor Hughes Bennett, who considered the black spots chronic exudation coloured with pigment. Some is in the smaller bronchial tubes, the black granular matter being deposited on the mucous membrane; much of it is either in cells, or exists in masses having all the characters of cells; some is in the vessels, and is probably altered blood. The enlargement of the bronchial glands is certainly the result of the chronic inflammation set up in the pulmonary tissue by which they are surrounded. The black pigment with which they are loaded differs not from the pulmonary parenchyma; and Dr. Sieveking has shown that it bears a close relation to the defective oxygenation of blood, manifest from the normal tendency to the deposit being greater in proportion as life advances, and in the attacks of chronic inflammation to which the grinders are so liable. I find that it accumulates in considerable quantities. The cartilaginous capsule, so often seen at the apex of the lungs, is by no means uncommon; under the microscope, to me it appeared to be of a fibrous—others have assigned to it a chondroid character.

With regard to the ages of grinders living and the ages at which they die, I have only to say I have no reason, from recent tests, to doubt what I have already stated, and that from personal observation. I found the average of all fork-grinders living (boys being included) to be 29; razors, 31; scissors, 32; edge-tool and wool-shears, 32. The stone on which shears are ground is soft and causes much dust.

Ages at Death of Fifty-four Grinders.—Under 20 years, four; 21 to 30, eleven; 31 to 40, fourteen; 41 to 50, fifteen; 51 to 60, seven; 61 to 70, 3; and of these 37 died of grinders' disease. In 1874, 92 grinders died, wet and dry; average age at death, 46 years. In 1875, 111 grinders died, wet and dry; average age at death, 42.5 years. I am indebted to my friend Dr. Griffiths, our very able Officer of Health, for these returns.

Wet Grinders.—We have yet, as far as grinders are concerned, to apply to these trades recent experiments as to the artificial production of tubercle; and in order to do this, to ascertain what this material is, and what the origin of it. Suffice it here to say, we know already that there is proof of the non-specific character of tubercle, which may have its origin in various causes, differing the one from the other.

The table-blade grinders, being wet grinders, work on the lowest floor of the wheel; they work in the coldest weather with their shirts open, thus fully exposing the chest—the coat, waistcoat, and neckerchief being put aside. Perspiring freely, they often go into the yard, attracted by something, and remain, heated as they are, out of doors without additional clothing. Inflammation of the lungs, pleurisy, rheumatic fever, diseases of the heart, are very common. I have at present one of these wet grinders under my care in the Public Hospital, with crippled heart and dropsy, after rheumatic fever.* The case of a table-blade grinder, who died some miles from Sheffield only ten days ago, under my care, well illustrated what takes place. A. B., aged 32, a table-blade-grinder, about two and a half years ago caught cold, then had pleuro-pneumonia, of which disease I find exposure to cold the most common cause. It left him with a portion of the upper lobe of the right lung consolidated; and probably, as in almost all such attacks, there was considerable adhesion of the pleura. He recovered in part, but was left with a lung altogether unequal to its respiratory work. Of course, such a state of things must interfere with the nutrition of the body, and thus is prepared a certain way for the deposit of tubercle. His breathing was short, but he went to the wheel; had another attack during the winter, the health becoming more impaired. He had then cough, some slight hæmoptysis. He continued, notwithstanding his cough, difficulty of breathing, and copious muco-purulent expectoration, to creep to his hull and grind, until six weeks before he died. He only lived three days after I saw him, having a cavity of the right side, signs of softening on the left, and very great emaciation. No *post mortem* examination was allowed, or I would gladly, as I had hoped to do, have brought you a section recently taken from a grinder's lung. Sometimes, owing to the fibrous and contractile kind of exudation present, the lung does not give way; but such contraction causes great difficulty of breathing, owing to the obliteration of too great an extent of the breathing apparatus.

* Since dead. I hope to give full details of this very interesting case. The *post mortem* appearances were most instructive.

Can tubercle be produced by the inhalation of irritants? This is a question of no little interest. I think it can.

Prevention.—I am clearly of opinion that the means already exist. In a well ventilated room, with a properly constructed fan—or as the men say *fannia*—I have seen (a carefully contrived box being added) all the processes of the grinding trade, *i. e.*, shaping razors, grinding forks and scissors, hanging and racing stones—in a word, all the more dangerous processes of grinding, deprived of the power of causing irritation; all the dust having been driven up the shaft on to the outside of the building.

To prevent boys from entering the hull at an early age was what I at first set forth as an essential; and, although there has not as yet been time to witness the good effects, certain to arise from recent legislation, even in this our day, we have the satisfaction of knowing that no more youthful victims are in preparation for the grave; that no more boys can be driven into the wheel by their ignorant and besotted fathers to slowly perish—working with their hands at polishing, instead of with their brains under a master appointed by a school-board. Years slowly lingered on before my fellow-workmen and myself had the pleasure of reading one morning, in the *Times*: “Dr. J. C. Hall, by his persistent efforts for years on behalf of these poor men, has at last forced the public to listen to him”. Sad, sir, and disheartening—all but hopeless—seemed our task; when, year after year,

“All refused to listen:

Quoth they, ‘We bide our time’,
And the bidders seized the chance,
Beggary, Filth, and Crime.”

The members of the Association have been invited to visit the works and grinding wheel of Joseph Rogers and Sons (limited)—a firm the reputation of which is world-wide. I beg of you to visit it and other like well constructed wheels. Contrast them with some of those graphic sketches from the *Illustrated London News*, the correctness of which I vouch for—accompanying as I did the artist. Compare them with wheels formed out of old houses, etc., too often destitute of all means to carry off the dust. Visit, compare, see, and judge for yourselves of the difference between a well constructed and a badly constructed wheel. Then, as it ought to be, let the verdict be yours, not mine, as to the value of a good fan in removing all dust, and so doing away with the serious consequences of inhaling irritants.

Calling to mind how, by proper treatment, we now prolong life in certain diseases of the lungs, contrasted with what was done more than five-and-thirty years ago, when I first joined the ranks, we cannot but regard it as one of our great victories. But, methinks, sir, there remains for us a greater victory still—the entire prevention of the injurious effects of mechanical irritants on the lungs of the industrious artisans of this our Fatherland.

[Diagrams were shown of the microscopical appearances of the sputa in wet and dry grinders; large photographs of sections of the lungs of dry grinders who had perished from the disease; and a bound copy of the *Illustrated London News*, with sketches of the grinders, wet and dry, at work—the description of each process being written by Dr. Hall.]

FRENCH MILL-STONE MAKERS' PHTHISIS.

By THOMAS B. PEACOCK, M.D., F.R.C.P.,

Senior Physician to St. Thomas's Hospital; Consulting Physician to the Victoria Park Hospital for Diseases of the Chest; etc.*

Some years ago, having had my attention attracted, both at St. Thomas's and the Victoria Park Hospitals, to the great prevalence of affections of the chest in the men employed in the manufacture of millstones from the “French burr”, or in the “French millstone-makers” or “builders”, as they term themselves, I took some pains to investigate the subject; and in a paper in the *British and Foreign Medico-Chirurgical Review* for 1860 drew attention to the very early age at which the men, when brought up to the trade, die from pulmonary disease; and showed that the injurious effects of the occupation were chiefly to be ascribed to the gritty particles which the men inhale while at work; and I detailed the particulars of two fatal cases, in one of which siliceous matter was found in the lungs.

Shortly after the appearance of that paper, a third case fell under my notice; and specimens of the lung, and microscopic slides and drawings prepared by Tuffin West, showing the siliceous matter in the consolidated lung-tissue, were exhibited at one of the meetings of the Pathological Society (November 16th, 1864), and a notice of the

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

communication is published in vol. xiii of the *Pathological Transactions*.

Since that time, several cases of the same kind have been under my care. Of these, one possessed very special interest from the pulmonary disease having coexisted with very marked symptoms of Addison's disease. This is, however, unfortunately imperfect, from the patient having died at a distance in the country; and I did not hear of the fatal event till it was too late to obtain a *post mortem* examination.

More recently, a case has occurred in the practice of Dr. Andrew, at the Victoria Park Hospital, in which siliceous matter was also found in the lungs. Of this I am able, by the kind permission of Dr. Andrew, to send a report to the Society.

CASE. Millstone Makers' Disease: *Induration of lung and dilated bronchial tubes; small cavity at the apex of the left lung; enlarged and indurated bronchial glands; adherent pericardium; siliceous matter found in the lungs.*—Thomas Stapleton, aged 45, a millstone maker, was admitted into the Victoria Park Hospital on October 25th, 1875. It appeared that he had been apprenticed to the trade of a French millstone-maker or builder, and had continued to follow the occupation all his life. His parents were both dead, and had died of acute diseases. He had been subject to winter-cough for several years, and, five years before his admission, had a severe attack of illness, said to be congestion of the lungs, with feebleness of the circulation. He, however, recovered from this illness, and continued well till May or June 1874, when he began to suffer from cough and vomiting of food. His symptoms were much aggravated about five days before his admission into the hospital.

When admitted, he had a severe cough and much muco-purulent expectoration, with difficulty of breathing, amounting to severe paroxysms at intervals. He was not, however, much emaciated, had a fair appetite, and the bowels were regular. He had never spat blood. He was very livid, and the extremities were cold. There was general flattening under the clavicles, with impairment of the resonance on percussion, especially at the left side; but there was not any marked increase of the cough or vocal resonance. There was also entire dulness on percussion, and absence of vocal thrill and of respiratory sounds at the right base, and much rhonchus in other parts of the chest. The pulse was rapid and feeble, and the action of the heart was much embarrassed. The point of pulsation of the heart could not be distinguished, and the sounds were feeble, but without murmur. He stated that he had lived a quiet and regular life.

He died exhausted on the 27th.

The *post mortem* examination was made by Mr. T. O. Bark, the resident medical officer, and Dr. West, the clinical assistant, and the following notes were furnished by Mr. Bark:—The body was somewhat emaciated; the hands and wrists were plentifully tattooed with the black and blue lines and marks characteristic of the patient's trade. The fingers were slightly clubbed. The left pleura was adherent over the whole lung, the adhesions being there red and easily broken down. The right pleural cavity contained about a pint and a half of clear serous fluid. There were old adhesions between the pericardium and the heart and vessels. The attachments were closer and firmer at the base of the heart, and looser and more easily torn towards the apex. The surface of the pericardium in the neighbourhood of the root of the right lung, and downwards along the posterior surface of the interventricular septum, was studded with black patches, varying in size and shape, some being very small elongated streaks, others as large as a bean. They were evidently in the substance of the pericardium, and in some places ran into a kind of net work, as if consisting of a deposit in the lymphatics. Similar patches were found in the right pleura.

The bronchial glands were much enlarged and of almost stony hardness, black, and firmly adherent to the surrounding tissues; and the glands in the course of the vessels at the root of the neck were in the same state. In the right bronchus, close to its origin, a gland pressed upon the passage, so as to produce a decided constriction; and in the left bronchus, corresponding to the seat of one of the glands, there was a small superficial ulcer.

On section of the right lung, a firm mass, spheroidal in shape, was found at the lower part of the upper lobe. It was about two inches in diameter, but was not distinctly separated from the rest of the lobe, the whole of which was tough, with the alveoli obliterated, and very dark. In the mass referred to there were one or two calcareous masses, the size of a cherry-stone. Lines of black pigment ran in all directions towards the pleura. Throughout the rest of the lung the bronchi and peribronchial tissue were thickened and deeply pigmented, and the fibrous septa of the lung were very well marked. The alveoli were large and exuded on pressure a frothy reddish serum.

The whole of the upper part of the left lung was also indurated, and in a similar condition to the right, except that the bronchial tubes were

very much dilated, the dilatations being lined by congested mucous membrane. At the upper part of the lobe there was a cavity about the size of a walnut, into which a large bronchus led, and which was lined by fibrous tissue, and partly contained caseous material. The rest of the lung was congested and emphysematous.

The heart was large, probably weighing twelve or fourteen ounces. Its substance was flabby, pale, and with yellow striae, especially towards the apex and in some of the columnæ carneæ. The cavities, particularly those of the right side, were dilated. The valves were natural. The pericardium was entirely attached by old cellular adhesions. The liver, spleen, and kidneys were congested, but not otherwise diseased.

Portions of the indurated lung were incinerated in the flame of a spirit-lamp till there remained only a white ash, and this was macerated in strong nitric acid for some hours. The residue, under the microscope, consisted of angular particles, exactly resembling the dust collected in the workshop.

A portion of the extremely indurated lung was subjected to chemical analysis by Dr. Bernays, in the laboratory of St. Thomas's Hospital, and yielded the following results: Water, 74.66; dried lung tissue, 25.34—total, 100.00. The dried lung tissue consisted of: Ash, 1.41 per cent., and this contained silicic acid 0.387 per cent.

In illustration of this case, there were forwarded to the Society three naked eye specimens: a preparation of the more extreme degree of induration of the lung, one of the less marked degree of consolidation, and an enlarged and hardened bronchial gland.

Dr. Shepherd, my colleague at the Victoria Park Hospital for Diseases of the Chest, also allowed me to send to the meeting slides, showing the microscopic structure of the indurated lung, which he had prepared to illustrate his lectures at the Royal College of Physicians.

I have recently visited one of the largest manufactories of French millstones; and I find the injurious nature of the occupation, as before reported, fully confirmed by more recent experience. I am informed that the men, who are apprenticed to the trade as boys, rarely live beyond thirty or forty, and die with pulmonary symptoms, doubtless caused by the inhalation of the sharp siliceous dust and metallic particles which they inhale when leaning over the stones during their work. This, in persons previously of sound constitution, gives rise to chronic bronchial and bronchopneumonic affections, which lead to consolidation, and ultimately to breaking down of the lung-tissue; and, in persons predisposed to consumption, may probably call into active operation true tubercular phthisis.

The occupation is, probably, more injurious to young persons who have not attained their full growth and vigour than when the men take to it later in life. The injury is also much lessened, if the men, when they begin to find their health failing, change for a time to some other employment; and thus it happens that, in most of the yards, men will be found working who have attained greater ages than those named, and who are comparatively well; but such men are always found not to have entered on the work early in life, or not to have followed the occupation continuously. I fear also that the injurious nature of the occupation is often much aggravated by the intemperate habits of the men.

In 1862, when the Royal Commission sat to investigate the condition of the Metalliferous Miners, under the presidency of Lord Kinnaird, it was thought by some of the Commissioners that the very early age of invaliding and the high rate of mortality in the miners might be, in part, due to their inhaling particles of rock or metal while at work; and, under this idea, I was requested to investigate the subject. After, however, devoting much attention to the state of the miners employed in the deep copper and tin mines of Cornwall, I was led to conclude that this cause did not operate in a very marked degree to the injury of those men; and that the chief factors in the production of their unhealthy condition were—

1st. The impurity of the atmosphere in which the men work, especially when employed in the so-called "close ends", the air being deficient in oxygen and surcharged with carbonic acid, and with the products of combustion, respiration, etc.; this condition especially gives rise to the general debility and nervous prostration, and to the loss of appetite and dyspeptic symptoms, and to the low hectic fever, from which the miners commonly sooner or later suffer.

2nd. The heat of the deep workings, by which the men are tendered and made unduly susceptible to cold and damp, when exposed in the shafts and on coming to the surface; this causing various inflammatory affections of the respiratory organs, rheumatism, etc.; and

3dly. The overstrain of the heart and arteries in climbing the ladders, beating the borer, etc. At the time named, the almost universal means of access to and egress from the mines was by ladders, the man engine and skip being very rarely provided. In this way, the right

side of the heart becomes dilated, and not unfrequently valvular incompetency ensues.

In the lead mines of Cumberland, Northumberland, and Durham, the dust inhaled probably is a more important element in the production of the bronchial affections of the miners; indeed, they very generally complain of suffering from the "stour" when working in the soft-shales. The atmosphere of some of these mines is, however, apparently quite as bad as in Cornwall, though the workings are comparatively shallow; and so the men are equally subject to asthma and prostration of strength, and dyspeptic symptoms. As, however, ladders are little used, the mines being entered by day levels, or machinery being provided for access and egress, the miners appear much less liable to suffer from heart disease.

While in Cornwall, I had the opportunity of examining the body of a man who died at the age of fifty-five, and had been employed in the mines since he was thirteen or fourteen years of age. His health began to fail at about the age of fifty, and he became incapable of work at fifty-two. The left lung was emphysematous at the edges, and of a deep blue colour. The right lung was firmly adherent to the parietes, consolidated throughout, and with irregular cavities at the apex, containing a brown coloured fluid, but without anything of the nature of tubercle in any part. The lung-tissue was not found, on chemical analysis, to contain any siliceous material. The bronchial glands were enlarged, very hard, and of a deep blue colour. There was caries of the third left rib, and an abscess had formed. One suprarenal body was atrophied, so as to be reduced to little else than cellular tissue, and the other was converted into a cyst containing dark grumous fluid.

It is quite possible that some effectual mechanical means may be introduced by which the inhalation of the gritty particles by the millstone-makers may be lessened or prevented; and I have before suggested that, if the stones were worked wet, it would probably very much prevent the dust being thrown off and inhaled. I believe, however, that the most effectual relief would be gained by not allowing young persons to be brought up to the trade; and by only employing men who have attained their full growth. I have also long thought that a similar rule, as regards the metalliferous miners, would go far to lessen the amount of sickness and invaliding among them. In some of the mines, as those of the London Lead Company in the North of England, boys are not allowed to work underground before the age of sixteen, and only for three or four months during winter between that age and eighteen to nineteen; and the evidence of the resident medical men was conclusive as to the young people, so gradually seasoned to the work, suffering much less than those who commence to go under ground at earlier ages.

I do not know that the condition of the lungs has been carefully investigated in the chest-affections of the northern lead-miners; and cannot say whether, in their case, the gritty particles are commonly found in the lungs; but it is most probable that such is the case, as the workings are stated to be often extremely dusty.

DISEASES INCIDENT TO THE MANUFACTURE OF POTTERY.*

By JOHN T. ARLIDGE, M.D. Lond., F.R.C.P. Lond.,
Physician to the North Staffordshire Infirmary, Newcastle under-Lyme.

AT the solicitation of the worthy President of this Section, I have put together some brief observations on the principal diseases incident to the manufacture of pottery, as a contribution to the series of essays which he has so very wisely sought to lay before the members of the British Medical Association, illustrative of the maladies attributable to the chief manufacturing processes carried on in this country.

Having on several previous occasions written on the same subject, it will be difficult to avoid repetition in the observations now submitted, for the materials constituting the basis for observation remain the same, and are in themselves necessarily limited.

The observations upon which the remarks and conclusions in this paper are based are written notes of 815 cases of disease occurring among those engaged in the various processes of the manufacture of earthenware and china, who came under my notice as out-patients of the North Staffordshire Infirmary.

This infirmary is, as you may know, the great medical institution for North Staffordshire, but, by its locality in Stoke, is pre-eminently the medical institution of the Pottery towns, containing a population of 120,000 individuals, of whom a very considerable proportion—just

about one-sixth—are engaged in the pottery manufacture; consequently the infirmary affords, by its very large out-patient department, as well as by its in-patient accommodation—amounting to 180 beds, most ample opportunities for observing the diseases prevalent among the artisans of the neighbourhood.

So much for the field of observation afforded me. It is further necessary for you to know something of the processes of the manufacture in question, so as to apprehend in some degree the mode in which those processes prove detrimental to health.

As a rough classification, they are divisible into the clay and finishing departments. The clay department comprehends all those processes concerned in the preparation of the clay for use, and in the moulding of the clay into the various objects, ornamental and useful, which we all know under the terms "earthenware and china". The finishing department comprises all processes employed in giving the glazed surface to the ware, and in ornamenting the surface with colours and gold. The firing of the ware in the ovens and the placing of it in the special boxes, technically called "saggars", made of coarse clay, wherein it is submitted to the fire and protected from smoke and other injury, may be regarded as intermediate processes. So perhaps might the "dipping" of the ware—that is, the covering of it with the glaze—be deemed an intermediate process; whilst, again, the "sorting" of the ware after it is withdrawn from the oven may be represented as a supplementary operation, neither appertaining rightly to the clay nor to the finishing department. Now, without puzzling my hearers with details and technical words, I may state that the working in the clay and the "dipping" of the ware are the divisions of labour most inimical to health.

The so-called clay is obtained from Cornwall and Dorsetshire, and is very rich in silica, consisting largely of decomposed granite. And, besides clay, more or less ground flint is used, especially in the making of china. In the manipulation of the clay in the processes called "throwing", "pressing", and "turning", and, in a considerable measure, by reason of the heat in the workshops, more or less dust is thrown off and diffused through the atmosphere. Hence it happens that the operatives in the shops are exposed to the inhalation of dust, consisting of mineral matters, silica, and alumina.

Again, the "dipping" consists in immersing the ware for a second or two, by means of the hands of the workmen, in the glaze, a thick liquid compound containing a large proportion of lead blended with borax and other matters. In this proceeding, therefore, there is exposure to the absorption of lead through the skin; but my belief is, that the poison is chiefly introduced into the system through the lungs by inhalation of the dust; for the glaze dries upon the surface of the ware almost immediately, and you will find the clothes of the workers and all surrounding objects in the workshop dusted over with a white dust, which is the same as saying that the surrounding air is more or less charged with the dust from the poisonous glaze. Men are employed in this work of "dipping", but are assisted by women or lads, who take the ware, when dipped, from the hands of the dipper, remove any excess of glaze from the surface, and put it aside to finish drying. But, with this process, the mischievous contact with the lead-solution does not cease, for another class of workmen are next in order called upon to handle the ware covered by its film of glaze, and to "place" it, or carefully dispose it in the earthen vessels—the saggars—in which it is to be fired. Hence it is that placers suffer equally with dippers from lead-disease. There are yet other processes in which lead is used; viz., where it is mixed with colours and dusted on the surface in a dry state, the process of "ground-laying", and where it is mixed with colour in a moist state and laid on by pencils in the colouring of the ware known as majolica.

The finishing branches of the trade are those of printing, painting, gilding, and burnishing; but these in themselves offer no source of disease other than what is represented by sedentary labour and exposure to hot, and too frequently ill-ventilated and overcrowded workshops. I need, however, mention a subsidiary branch of labour known as scouring, carried on by women, and consisting in the cleaning of china after it is drawn from the oven from the flint dust with which it has been covered. This unhappily is a very health-destroying proceeding, by reason of the dust given off in it, and its copious inhalation.

After this bare outline of the processes of pottery manufacture, you will not be surprised to learn that lung-disease, caused by the inhalation of mineral dust, is exceedingly prevalent among potters, and very destructive of life, killing them off, indeed, at an early age. From statistics I have worked out, I find that, whereas among the males of the population not engaged in the making of pottery the proportion of sufferers with bronchitis equalled 18 per cent., that of potters was a shade higher than 36 per cent.; and that, with regard to phthisis, whilst the proportion among the former was 13 per cent., it rose among the latter to 20 per cent. Now, it is the male workers who are espe-

* Read in the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

cially exposed to the inhalation of dust from the clay in its manipulation, and we perhaps get a better apprehension of the effects of such inhalation from the statistics relatively to men and women engaged in the manufactories. For instance, we find that women engaged in fictile works furnished only 7.14 per cent. of the cases under notice, as against 36.57 per cent. of male potters so employed.

To turn now to the statistics of lead-disease among potters, male and female, I find that, among the 815 out-patients, as many as 68 suffered in one way and another from the baneful effects of the poison. In other words, one patient out of every twelve engaged in pottery manufacture suffered more or less severely from the poisonous effects in lead. This proportion is higher, indeed, than I should have stated had I been asked what it was; but the memoranda of the cases in my possession leave no doubt about the matter. The proportion is the more remarkable, inasmuch as the number of operatives brought into contact with lead constitute but a small percentage of the whole number of workers engaged in the pottery manufacture.

I must now say something about the disease induced among potters by the inhalation of dust. The special malady so induced is a chronic and incurable form of bronchitis, resembling in all its intrinsic features the bronchitis consequent on the inhalation of all mineral and of some organic dusts; resembling, that is, the "grinder's rot" of Sheffield, the miners' consumption of coal-getting districts, the consumption of dressers of stone, or that of the mother-of-pearl workers.

It is a form of bronchitis ever advancing from bad to worse while the workman continues at his calling. Pathologically, it is a fibrosis of the lung-tissue, consequent on the direct irritation of the gritty dust upon the mucous membrane of the smaller bronchi. Its minute features I have already described in a paper published in the *British and Foreign Medical-Chirurgical Review* for 1875, to which, in the absence of time to again depict them, I must on the present occasion refer my hearers. Its symptoms are distressing cough and severe dyspnoea, and, as frequent concomitants, heart-disease and dropsy. The marked dyspnoea causes it to be called potters' asthma, whilst the wasting accompanying it has given rise to the name potters' consumption. In fact, in many cases, the line of demarcation between this chronic bronchitis and tubercular consumption is difficult of recognition, and, in a large proportion of cases, tubercular disease is associated with it.

A few words with respect to lead-poisoning. This is witnessed in every variety of form and gravity, from mere general malaise and nerve-tremor and dyspepsia to more or less complete paralysis affecting one or more limbs, or even the whole body. Colic is the most frequent result, and is noted as the principal morbid feature in sixteen of the sixty-eight cases where lead was the morbid agent. Gastric and intestinal derangements, where colicky pain was not prominent, were found in fourteen instances. Paralysis of the hands and arms occurred in thirteen, hemiplegia and paraplegia severally in three, and paralysis of both upper and lower extremities in four cases. In not a few patients neuralgia was a leading symptom, affecting sometimes the aspects of rheumatism. Moreover, two of the sixty-eight patients were epileptic.

Usually I find colic to be the initiatory symptom of the lead-poisoning; but it is not by any means universally accompanied by constipation. It is also often intermittent between attacks of paralysis. The renal affection, with albuminuria, which some pathologists insist upon as a common resultant of lead-poisoning, has very seldom indeed fallen under my observation, although I have carefully looked for it. Affection of the sight, amounting to actual blindness in rare instances, is of common occurrence; and, among the women, menstrual disorder, miscarriages, and confinements with puny children, unable to survive, are events of considerable frequency, attributable to the operation of the same mineral poison.

A word, in conclusion, relative to the maladies prevailing among the workpeople, chiefly women, engaged in the "finishing" departments. These are such as are credited to working in hot, ill-ventilated, and too crowded shops, and in constrained and fixed positions, and also to sedentary work. The women suffer with delayed and disordered menstruation, especially with amenorrhoea and its concomitants anæmia and gastric disorders, and also with pulmonary consumption. Epilepsy is a very common malady among both men and women, and chorea even a more frequent one among the girls and children. Gout also prevails largely in the female population, making its appearance at or soon after puberty; but it is not unknown, though uncommon, among the males.

The time at my disposal is too short to give you other than a very rude outline of the subject I have taken in hand; but the matter presented to you may suffice to enable you to form some conception of the sanitary, or rather insanitary, conditions under which the pottery artisans labour, and of the maladies thereto attributable. As a matter of

course, I have said nothing about the hygienic or sanitary measures calculated to lessen or remove those unfavourable conditions, deeming this topic, even had time allowed me, beyond the scope of a paper read before this Section of Medicine.

ON THE OCCURRENCE OF PHTHISIS AMONG GRANITE-MASONS.*

By R. BEVERIDGE, M.D., Aberdeen,
Physician to the Royal Infirmary.

FROM the similarity in several points between the working of granite and other trades known to be unhealthy, I was led, some years ago, to inquire into the sanitary condition of the granite masons in this neighbourhood; but the results obtained were mainly negative. The repeated occurrence, however, of late years of phthisis among masons, as brought under my notice in hospital practice, induced me to look into the subject again, with the following result:—That the granite masons were formerly a very healthy body of men, little subject to phthisis; but that, of late years, although they are still fairly healthy, yet phthisis is much more prevalent among them than it was. The following figures will make this apparent. As I desire to compare the past fifteen years or thereabout with a period prior to 1850—before the Registration Act was in force—a reference to the Registrar's returns of deaths will not avail for my purpose; and I, therefore, take the admissions into hospital as the most reliable source of evidence for the purpose of comparison. These admissions do not, of course, give the total number of cases in town, but a comparison of the ratio of phthisis to other diseases among the masons admitted to hospital will give a very fair approximation to the prevalence or otherwise of that disease at different times. For a reason that will be apparent immediately, I select the ten years 1839 to 1848, inclusive, as representing the former condition of the trade, and, during that period, the ratio of phthisis to other diseases among the masons admitted was as 1 to 77½. The ten years succeeding to the period named must be held as exceptional among the working population of Aberdeen, for this reason. The financial crisis of 1847-48 fell with very great severity on Aberdeen, paralysing its industries to such an extent, that the working population shortly began to leave the town in considerable numbers, and continued to do so for several years. So long, in fact, did the depression continue, that the census of 1861 showed but a trifling increase over that of 1851: an increase not equal to the natural increment by excess of births over deaths. The ten years, therefore, 1849 to 1858, I leave out of account, as the condition of the working classes then was such as to make it unsafe to draw any conclusion as to their sanitary state. During the next decade, 1859 to 1868, the ratio of phthisis to other diseases among the masons admitted to hospital was as 1 to 26, or about three times the proportion already quoted. In the succeeding seven years, 1869-75, the same ratio is maintained, with this circumstance in addition, that the total number for these seven years is as large as for the previous ten. This naturally raises the question, Is this increase exceptional in this trade, or is it but the expression of a general increase dependent on the increase of the population, or a defective sanitary condition of the town at large? This question I answer from two sources: 1. The total hospital admissions of phthisis; 2. The Registrar's returns of deaths from phthisis. In stating these, I take an average of years; for it is obviously unfair in such a disease as phthisis, which varies to a certain extent, both in incidence and in mortality, according to the seasons, to take any single year as a guide. For the ten years 1859-68, the average annual admissions of phthisis cases was 73, and for the seven years 1869-75, the average was 70. Phthisis, therefore, throughout the town was, to say the least, not on the increase. The Registrar's returns of deaths from phthisis shows the same result. For the seven years of which 1861 was the centre, the average annual mortality from phthisis was 228, or one in every 333.7 of the population; while, in the seven years of which 1871 is the centre, the average was 229, or one in every 384.8 of the population. It appears, therefore, that, throughout the town generally, the total number of cases of phthisis is not on the increase, although the population is rapidly rising; or, in other words, that the proportion of phthisis to the population at large is on the decrease, while, among the granite-masons, it is on the increase. The same result may be brought out another way. If we compare the number of masons admitted labouring under phthisis with the total admissions into hospital of cases labouring under the same disease, the following result appears. From

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

1839 to 1848, the proportion of masons affected with phthisis to the total number of phthisis cases is as 1 to 71; from 1859 to 1868, the ratio of the same is as 1 to 56.5; and from 1869 to 1875 as 1 to 37. If it be objected that the total admissions are of too miscellaneous a character to afford a fair comparison, then we may restrict it to the factory operatives, and compare the number of phthisis cases in these two classes, when the figures stand thus:—The ratio of phthisis cases among masons to that of phthisis cases among factory hands during the ten years 1839–48, is as 1 to 19; during the ten years 1859–68 as 1 to 10; and during the seven years 1869–75 as 1 to 9. The proportion of masons to factory operatives in the town has ranged from 1 to 6 to 1 to 7; so that it would appear that, while the liability to phthisis among masons has nearly doubled within the last thirty years, it is not even yet so great as it is among the bulk of the working population in the town.

Such a result presents us with two problems to solve: 1. Why should granite working be an exceptionally healthy occupation? 2. Why should its character in this respect have so far changed?

One has only to look into a mason's shed to see that the occupation is a very dusty one. A glance shows the presence, particularly at the upper part of the shed, of a faint whitish cloud, while the fine gritty white dust that settles on every thing shows plainly enough the results of the workman's labour. Why should the fine gritty dust be so innocuous in this case, when similar dust does so much harm in other trades? The explanation seems to lie in the conditions under which the work is carried on. The mason works, for the most part, in long narrow sheds, completely open on one side; near this open side, he places the stone, and works with his face towards the light and air, and stooping, to a certain extent, over his work. He is, therefore, practically in the open-air, the shed serving simply to protect him from wet; the dust is almost entirely above and behind him; while the muscular exertion necessary to wield his heavy tools is such as to keep him sufficiently warm to resist variations of external temperature.

I have inquired into the conditions of the trade with the view of determining the cause of its sanitary deterioration, and, in particular, I have endeavoured to ascertain whether the recent great development of the trade in polished granite might not have been in part the cause. I have failed, however, in tracing any part of it to this; the work of the mason is practically unchanged, and the polishing which is added to his work after his part is finished is effected entirely by machinery, and in that part of the work there seems nothing calculated to be injurious. The change seems to be mainly due to a change in the class of men engaged in the trade. For some time, and especially within the last five or ten years, there has been a great emigration of masons from Aberdeen. The high wages current in this trade in America has had the effect of draining it largely of its best hands, and the result is that the greater part of the flower of the trade has left the country. Their place has been largely taken by a class of young lads inferior in physical strength to their predecessors, and, therefore, unable to resist the exposure necessary to keep the work from being positively injurious. Formerly, the trade was largely recruited by stout, robust, healthy lads from the country; but this class is now becoming very scarce from various causes connected with the occupancy of the land, and weaker town-bred lads are taking their place. In short, the country labourer is being driven away by the concentration of land in a few hands, and the mason is being enticed away by high wages elsewhere, so that the *physique* of the trade is being changed, and a decided deterioration is the result.

DISEASES AFFECTING LEAD-WORKERS.*

By W. HOLDER, M.R.C.S. Eng., L.S.A. Lond.,

Surgeon to the Hull and Sculcoates Dispensary.

A PARAGRAPH in our JOURNAL intimating that it was intended to have a series of papers read on the diseases incidental to trades, brought vividly before me recollections of several cases of lead-poisoning which have been at times under my care during the last few years, more especially recalled to my mind two cases of the gravest nature, and determined me to try to attract the attention of the members at this gathering for a few moments to a trade disease, which, in my opinion, affects as seriously the human frame as any to which your attention may be directed—I refer to the manufacture and uses in trade of white-lead for paint. I am not unconscious in giving such an opinion of the destructive nature of diseases instigated and upheld by the inhalation of the grit and grinding which impregnate the atmosphere where cer-

tain trades are conducted; but, remembering this, and the horrors suffered by the *employés* in the phosphorus manufactures, I feel justified, after calm consideration and observation, in saying that lead-poisoning is one of the most baneful of them all; for it is not so merciful in its speedy destruction, its tortures are agonising and prolonged, and the lingering cachexia induced renders life useless and a burden to the sufferers frequently to the end of their miserable days. It should be understood that I refer, in this paper, not alone to the slight absorption of lead by the plumbers and painters, but chiefly (I may say almost absolutely) am particularising the ingestion of lead from the inhalations of carbonate of lead-powder in the whitelead manufactories, where sheets of lead are acted upon by the fumes of acetic acid and spent tan, which, corroding the metal, gradually convert the lead into a heavy white powder of carbonate and deutoxide of lead, which, when mixed with oil, is used as a paint and called whitelead. In the manufacture, manipulating, and packing of this substance, not only does the air breathed become impregnated by the deadly agent, but, the hands being in constant contact with it, it becomes absorbed also through the skin.

The labourers in these manufactories show truly the terrors of the trade: as may be imagined, only the poor and ignorant will work in this avocation; either their sense is so blunted by want or indifference, that they accept labour which is too sure to curse them, and to which, did we put our criminals, I venture to say we should quickly receive, and justly merit, the hearty condemnation of the whole civilised world, as Russia does for the political prisoners in her Siberian copper-mines. It is work such as is described by a writer as—

"Bare life he toils for here all day,
Surrounded by a dirty gray;
Bare life, all bare of joy."

To those who have seen but cases of painter's colic and wrist-drop, although so formidable and grave, my criticism of lead-poisoning may seem too harsh, but, to those who have practised amongst these lead-workers, as I have done, I can confidently look for confirmation of my remarks. I need but recount two extreme examples from many cases as justification in themselves of what I have said. In December 1874, Bridget M., aged 27, a strong fresh-coloured Irish girl, came under my notice for treatment. She had been working at the lead-mills for only five weeks; she was suffering from severe colic, with constipation; this was relieved after a few days' suffering. She went again to her work, and, in about a fortnight, she returned to me with much more persistent colic, faintings, and constipation of the bowels. She was again relieved, strongly advised to be scrupulously clean and to drink plenty of the diluted acids prepared for them at the works. I saw her after this several times; after about seven months, the cumulative action of the lead produced paralysis, which gradually completely affected the left side of the body. When I again saw her, she was thus paralysed; the face was pinched and wasted; she was intensely anæmic: her hearing was much affected. From her appearance, she would then have been taken for nearly double her age; her suffering from colic was dreadful in its intensity; it came on intermittently, and resisted for some weeks treatment to cure it. When I last saw her, some months after I had given up treating her, the paralysis was in no way improved; the deafness was complete on the left side, hearing dull on the right; her teeth were rotting away; and, for all pleasures and purposes of life, she was blighted. I have lost sight of her for some time past, and could not find her before leaving home.

The second case was that of Margaret J., aged 38. This woman came repeatedly under my care. She had had many attacks of colic and constipation, for which she had been treated at the hospital; but her poverty (for their wages are small) barely allowed her to become relieved before she again returned to her work. At length, the constipation, pain, and weakness completely prostrated her; she was then compelled to seek medical aid at home. After I had again relieved her, and warned her of the consequences (her very cachexia seemed to be against her obtaining better employment), she returned to her former work. When I was next called to her, her condition was indeed pitiable; there was a transparent waxy-looking skin (which, in the women, I may say at first gives them a most beautiful transparent complexion); she had wrist-drop on the right side, which gradually spread up the arm to complete paralysis of the extensors; her lips were pallid; her eye bright and pupils dilated; she complained of her sight being dim; her forehead was covered with heavy beads of sweat; the bowels were aching and constipated; of course, she had the usual blue line on the gums, the teeth shaking in the sockets, covered with an ashy-grey slime; the breath was nauseous to the woman and horrible to all in the room with her. On my calling next morning, the aching bowels were still constipated and spasms heavy; a few days after, her sight became worse, and ultimately she became blind from amaurosis, for

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

which I can assign no other cause but the action of the lead. She was, until the last I saw of her, blind and paralysed. Her friends took her with them from the town, and I have no doubt that ere this she is dead or the inmate of the Chronic Paupers' Home, probably the latter; for, as I have said, this disease is slow to mercifully kill, but leaves a destroyed body to crawl through poverty and life with all the unhappy reflections such a condition of helplessness entails on the poor. These two cases, abstracted from many, serve strongly to show why this disease should interest us, and in their instruction give us zest to turn from their depressing details and look upon what we may more callously consider the pathology and treatment of the disease.

I am aware that time will not permit me fully to discuss its pathology. I will then briefly lay before you what is known concerning it. Considerable attention has been paid to the subject by Drs. Burton, Fletcher, William Budd, Wilson, Parkes, Martin, and Hunter, in Great Britain; and MM. Andra, Duvergie, and Gubourt, De Hain and Louis, abroad. The result of investigations may be summed up as follows. Lead has affinities for all the tissues in the body, and can be detected in the tissues many months after it has first demonstrated itself, thus indicating how slowly it passes out of the system (*Dublin Medical Press*, 1874). Fletcher found, in the case of a man suffering from colic, as much as 4.8 grains of metallic lead in one hundred grains of solid matter in the urine. Some consider that it forms a chemical union with the tissues of the body. As I have said, death comes very slowly. As the direct result of this disease, Andra gives the number as one per cent. I should be disposed to put it even lower than that. In this disease, a persistent anæmia is excited; and I have noted that this and the cachectic habit leave them prone to fevers and ulcerative affections. I have often noted the marked effect lead has locally, the painter and plumber invariably only suffering from paralysis of the extensors of the arm when affected, which is usually preceded and accompanied, unlike other paralysis, by intense aching pain of the part affected. In these trades, they are constantly in their employment handling leads; they first complain of aching pain spreading up the arms, and ultimately ending in paralysis of the extensors. As a rule, sensation is not affected; here, in these cases, the nerve seems to lose its motor power by being locally inoculated by the lead: as the pain spreads backwards so the paralysis extends. On the other hand, in the lead-workers, where the system entirely is affected, where sight, hearing, general paralysis, and colic often show themselves, you have the ingestion into the lungs by vapour; you have the absorption through the skin, and too frequently through the stomach, through their habit of eating with unwashed hands, and the poison thus becomes attached to the food. When these paralysed muscles are examined, they are found yellow and soft; this has been looked upon as pathognomonic of the action of lead upon the muscular tissue, but may we not venture to suppose that it is chiefly the fatty degeneration usually accompanying disused muscle assisted in these cases by the great anæmia? for lead in the system is found to cause absorption of the red corpuscles, and induces an anæmia of the body. Dr. Garrod says that, "if lead be taken for a long time, it causes the blood to become impregnated with uric acid; and thus it is common to find gout, with its distressing enlargements, prevailing amongst those who have been affected by lead-poisoning". When *post mortem* examinations are made in those which have died in the colic, great contraction is found in the colon and sometimes in the cæcum; the bowels are often intussuscepted. In the cases where the body has been for some time under the influence of this poison, the diseased action spreads backward from the local seat of contagion or primary attack and goes on to permanent general paralysis, blindness, and deafness; the nerve-tissue is found to be affected; it is pale, soft, and aqueous; and the brain-convolutions become separated by a semi-opaque fluid, and the convolutions themselves are much shrunken.

The treatment of this fearful disease in its early stages is simple and generally effectual. Small doses of sulphate of magnesia with diluted sulphuric acid and opium relieve the constipation and remove the colic by its supposed power of converting the poisonous carbonate into the insoluble sulphate of lead in the tissues; for it seems to be only the carbonate and oxide of lead that act so deleteriously. When the case becomes more chronic and obstinate, hot baths, Turkish baths, if obtainable, a pill made of one-third of a grain of morphia, with one-third of a grain of extract of belladonna, every four hours for twelve hours, is most efficacious in removing the spasm of the gut. I have also used the interrupted electric current on the abdomen, alternated

with hot baths during a severe colic. After the administration of the above pill and mixture, with the happy result of affording relief to pain, which before, at a previous attack, was much more prolonged before being relieved, iodide of potassium in large doses of twenty grains, when the case assumes a chronic form, seems to act then the best. I may here mention that I have never had a case of iodism or distress since I have given these large doses, although some have taken that dose three times a day for months, whilst I have had two or three so affected who only had two to four grains for a dose. Whilst taking the iodide, I advise Turkish baths with precipitated sulphur, good and nutritious diet and porter.

I may here point out that faradisation is mentioned as an useful agent for diagnosis; for, under the influence of lead-impregnation, the excitability of the muscle is much diminished and frequently lost to this stimulus; and, as I have before mentioned, it is an useful remedial agent, if persisted with.

The therapeutics of this disease I believe I have exhausted. If the patient take the earlier warnings, I consider our armaments sufficient; but, if it be allowed to become chronic, I fear it is a disease of such rancour, that we are nearly vanquished. What long-continued generous diet would do we are not permitted to try, for these cases occur in the poorest classes. As a trade-disease, I presume it is inevitable; yet we cannot but look upon its ravages with pity; the patient might mitigate these ravages by scrupulous cleanliness, but the half-hour they have for breakfast cannot be considered sufficient to enable them to adopt the precautions they know to be requisite. It is, indeed, surprising to observe how many return to this employment, which has so often prostrated them.

I trust I have not wearied you; but, as I have said, I felt, in trade diseases, this was one of the first importance; I therefore determined to bring it before you when I saw it was not on the list by any other member, and I sincerely trust I have not taken up your time uselessly or without your approval.

ON THE ADMISSION AND RETENTION OF FOREIGN MATTERS IN THE LUNGS.*

By CHARLES ELAM, M.D.

MY intention, in the following brief remarks, is to illustrate by some few cases the possibility of the reception by the lungs of foreign matter of sensible and even considerable bulk, and its retention for undefined periods, without the necessary and immediate production of urgent symptoms, the facts furnishing (as I hope) a not altogether unimportant or uninteresting contribution towards the natural history of the special local diseases of Sheffield.

Apart from the domains of surgery in relation to gunshot-wounds and accidents generally, into which I shall not enter at all, the literature of this subject is not extensive. With regard to the casual lodgment of bodies in the air-passages, much interesting matter may be found in Erichsen's *Science and Art of Surgery* and other systematic works of the same nature; but this is entirely apart from my proposed subject. I may, however, in passing, allude to a remarkable case which came under my notice some years ago, in which, during an epileptic attack, two artificial teeth were detached from the jaws and found their way into the right bronchus, where they remained, causing very urgent symptoms and ultimate death.

The general impression with regard to the lungs is that, although dust and very fine or impalpable powders may penetrate to them, yet generally anything of more sensible size and individuality is stopped at the larynx and rejected by the reflex functions of the glottis. As a general rule, this is correct; but it must, as will be shown, be received with limitations. It is further supposed that, in case larger substances do gain admission to the lungs, they cannot remain there long without exciting considerable local and general disturbance. This also is ordinarily correct, but, as one of my cases will show, is not invariably so. I propose, from a very large number of cases, only to allude to three on this occasion: the first illustrative of the retention of metallic particles in the lungs, the second to the retention of sand, and the third to the retention of coal, not in the form of dust, but of actual pieces of coal of sensible size. The first two are sufficiently common, I believe, to require but a passing notice; so far as I know, the third is unique.

CASE I.—T. S., aged 27, a fork-grinder, was the subject of the first observation in 1864. He had been subject for some years before

* I may here say that until after this paper was written, I did not know of any other recorded case of lead-encephalitis. In the *JOURNAL* of the 22nd of this month, one case is recorded by Dr. Reid and two others mentioned. Until I read of these, I fancied this case of mine was unique.

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

coming under my notice to occasional attacks of "grinder's asthma", as it is popularly called. The precise pathology of this affection has been much disputed. I believe it to be merely a form of capillary bronchitis, specially and constantly aggravated by the irritating presence of metallic particles in the air, and by the other physical conditions of wet and exposure under which the avocations in question are carried on. I prefer the name of "destructive bronchitis", as more descriptive of this affection, as there is undoubtedly in many, if not all, of the fatal cases a destruction of portions of the tissue of the lungs, resulting in cavities, sometimes of considerable dimensions, even where there has been no indication or suspicion of tubercle. The general symptoms which precede the fatal termination of these cases do not differ in any important particular from those of phthisis. In the case of T. S., there was nothing exceptional to require special notice; I shall only allude to the condition of the expectoration during life, and to the state of the lungs after death.

The sputa were of the character usually met with in "peripneumonia notha". The microscope did not reveal any granular tuberculous matter; but there were many minute casts of the ultimate bronchial ramifications and very frequent shreds and filaments of disintegrated lung-tissue, in addition to those matters ordinarily characterising the expectoration. There was no chemical investigation made of the sputa; but, after death, in the walls and contents of the numerous small vomices found at the posterior part of both lungs, the presence of iron in rather large quantities was easily ascertainable. This must have been due to the fact, that he continued working at intervals until within a short time of his death; and that, towards the last few days of life, the expectoration was difficult and scanty. The lining also of the cavities would probably be more tolerant of the presence of foreign matter than the bronchial membrane in its normal state.

I am also strongly inclined to believe that the indulgence in alcoholic drinks produces a kind of tolerant anæsthesia, which might favour the retention of ordinarily irritant matters; and T. S. and the subject of the next observation were both of intemperate habits. The detection (chemically) of the iron is most readily accomplished by perfectly calcining the tissue, dissolving the soluble portion of the residue in mineral acid, and then adding sulphide of ammonium, which indicates the presence of iron by a black precipitate.

CASE II.—W. M., aged 31, the subject of the second observation, was a stonemason. He was accustomed to work at the lower end of a long saw employed in cutting blocks of stone. During this operation, the face is generally defended by a kind of wirework mask; but he, by his own confession, had frequently dispensed with the protection, because it interfered with his pipe. I give no details of his illness, as the history of most of these cases which are due to the inhalation of irritants is very uniform, and all are more or less closely allied to phthisis. In the sputa there were frequently observed little masses of granular appearance and of gritty feel. These were at first supposed to be broken up concretions, such as are found in cicatrised cavities, consisting of phosphate of lime; but, on being tested, they were found to be insoluble in any acid, and, in short, they proved to be merely sand glued together by mucus. After death, numerous cavities were found in various parts of the lungs, and some of them were almost filled with this same matter in a thin pasty form. This must have been in the lungs more than a month, as that time at least had elapsed since he worked last.

CASE III.—The subject of my third observation was a coal-miner, of whose previous history I know nothing. He came into the hospital merely to die, apparently in the last stage of phthisis. There was nothing very remarkable about either the general symptoms or the expectoration. The sputa were occasionally, but not constantly, dark-coloured, as though carbonaceous. They never presented the characteristics of the proper "black spit". There were evidences of cavities and much consolidation in the left lung. Over the whole of the right lung dulness was marked, with general absence of vesicular respiration, but no cavernous sounds. After death, I opened the chest myself. I found, as was expected, great disease of the left lung, but nothing to distinguish it from hundreds of other cases. It was far different on the right side. The lung did not collapse on opening the chest, but presented a hard, dry, dark appearance. On cutting into the lung, the knife was continually obstructed by small hard black particles, disseminated with tolerable uniformity throughout the entire lung. These particles were simply unchanged coal, preserving all its physical characteristics; they varied in size from a small pin's head to pieces nearly a quarter of an inch long, one-eighth broad, and about one-tenth thick. These were present by hundreds. Some of them appeared to be simply imbedded in the substance of the lungs, some were buried in partly softened tissue, but others again were distinctly encysted, completely enclosed in a fine, firm, transparent sac, and these generally preserved the peculiar lustre seen in the split surfaces

of some coals. There were no cavities. I cannot form to myself any rational or consistent theory of this case; I can only vouch for its perfect accuracy so far as I am able to describe a case which I have personally investigated with great care. It illustrates better than any other case I ever met with the tolerance that the lungs may manifest for foreign matters during an indefinite, but certainly a prolonged, period.

CLINICAL MEMORANDA.

POISONING BY PARAFFIN.

A CASE of poisoning by paraffin is mentioned in the *BRITISH MEDICAL JOURNAL* of September 16th. Let me mention another. A child, four years of age, was brought to the Surgery, having swallowed a quantity of paraffin a few minutes before. The chief symptoms were those of suffocation, with a constant cough, though there was no expectoration. The tongue, gums, and cheeks were blanched and swollen where the oil had touched them, and the child's hands were raised to the throat. But there was no vomiting of any kind. The mouth and throat were washed with olive-oil with good effect; the distressing cough ceasing before he left the Surgery. On going home, milk and castor-oil were ordered to be given; and in the evening the bowels had been freely moved, and the child had apparently quite recovered. I have no means of determining how much paraffin had been swallowed.

ROBERT SMITH, F.R.C.S. Ed.

MENINGITIS: RECOVERY UNDER THE USE OF MERCURY WITH CHALK AND IODIDE OF POTASSIUM.

A BOY, aged 5, had had persistent vomiting and headache for about a week before he was seen. The headache was paroxysmal, and so severe as to awaken the child from sleep; it was at first occipital, but afterwards frontal, and during the paroxysms the brow was very contracted. There were strabismus and dilated pupils, but they were equal and fairly sensible to light. There was also great intolerance of light and sound. The abdomen was retracted, and the *tache clybrale* could easily be produced. The pulse was irregular and weak, and occasionally intermittent; and the respiration unequal and sighing. Improvement took place steadily under hydrargyrum cum creta in grain-doses, at first every four hours, and afterwards three times a day, and two grains of iodide of potassium with three grains of the bromide thrice daily. When convalescence began, iodide of iron and cod-liver oil were administered. A curious feature of the case was that, when he was first able to get up and move about the room, he walked with a jerky shuffling gait and back bent almost double; but he eventually walked quite steadily and perfectly erect. The cause was somewhat obscure. There was no history of accident or fright, none of tubercular taint; but the father had been for years a confirmed dipsomaniac. Another point of interest also is, that a sister of the child died of meningitis at the age of three years. I have thought this case worthy of recording, from the rarity of recovery from this disease in young children.

JOHN CROSS, M.B. Camb.

CASE OF ACUTE POISONING BY TARTAR EMETIC.

NINETEEN years ago, the daughter of a surgeon, aged 18, after an early dinner at 1 P.M., went into her father's surgery at 2 P.M., and mixed herself a draught composed of a teaspoonful of sodæ bicarb. and the same quantity of antim. tart., which she mistook for acid. tart. Observing that the draught did not effervesce as usual, she added more antim. tart. and then drank it off. She experienced a metallic taste in the mouth, but attributed it to some tamarinds which she had eaten at dessert. In a short time, she felt sleepy and powerless; black specks floated before her eyes, and she had to go to bed, where she lay rolling about, and became faint, with cold perspirations. At 3 P.M., she vomited her dinner, and was purged, and again vomited two or three times. She had pain in the lower part of the abdomen, with severe cramps in the lower extremities. At 5 P.M., Mr. Morley saw her; she was then in a state of extreme prostration, with tetanic spasm of the legs. With great difficulty, the legs were straightened, which gave great relief. The mistake she had made having been discovered, decoct. cinchonæ was freely administered, after which she vomited repeatedly. She suffered from enteritis for about three weeks, and gradually recovered. The only other effect of the poison was, that the hair began to fall off soon after the illness. The lady is now alive and well, but the hair on the crown of her head is very thin.

JOHN MORLEY, Barton-on-Humber.

THE USE AND ABUSE OF THE BOTTLE IN INFANT-
FEEDING.

AMONG the numerous opinions as to the most wholesome food for infants, there is little discrepancy as to the suitability of milk. The mother's milk, should she be able to suckle, and the nearest approach to it should she be unable, and the difficulty seems solved; but such is not the case, for so much depends upon the proper administration of the food, that the difficulty, instead of being solved, is practically only commenced. When we have determined to feed a child on properly diluted and sweetened milk, we are told to imitate the temperature of that of the mother, to reduce the constituents to as near an approach to human milk as we can, and then to administer it in one of the most recently constructed feeding-bottles, and the result with the greater number of delicate children is disappointing in the extreme; the child is ever crying, except at such times as the India-rubber teat is in the mouth. Years ago, it was not thought too troublesome, if a child were to be brought up by hand, to feed it; but now the child must feed itself, and, to save a little trouble, a great deal more is incurred. The most important part of the operation of feeding, viz., that of taking care that the infant has a proper quantity, and takes that quantity as nearly naturally as possible, is left to the ingenious contrivance of the bottle itself to accomplish. The modern bottle saves the trouble of nursing, so the infant is never without it; but whoever has watched a young infant feeding through one of the India-rubber tubes may quickly observe that the child either takes the food too fast or cannot take it without too great an effort. But one bottle to suit the varying powers of different children seems absurd. The present system of laying an infant down with the bottle is a mere excuse for idleness. A child should be fed in the arms of the nurse and constantly watched while feeding, the supply of food carefully regulated, in order that it may be taken in a natural manner, and, after feeding, the child may be laid down, but not with the bottle, which is one of the most injurious and pernicious introductions of modern times. The ancient feeding-bottles, that necessitated the constant attention of the nurse, should alone be allowed, and we should much less frequently hear of the failure of the most natural food, milk, supplying every element for the effectual and comfortable nutrition of the child.

SAMUEL PRALL, M.D., F.R.C.S., West Malling.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.

LONDON HOSPITAL.

CASE OF ACUTE DISTENSION OF WHARTON'S DUCT GIVING RISE TO
INFLAMMATORY SWELLING, THREATENING SUFFOCATION.

(Under the care of Mr. JAMES ADAMS.)

ELIZA EKINS, aged 31, a pale flabby woman, who had been recently confined, and bore the marks of ill-usage, came to the out-patient department at the hospital, on Tuesday, April 25th, complaining of pain under the jaw, chiefly referred to the right side, with swelling of the floor of the mouth on each side of the frænum; and the tongue itself was also swollen. There was also considerable swelling visible externally beneath the jaw on both sides. The mucous membrane on each side of the frænum was raised, forming a considerable prominence, and its surface was covered by a false membrane, which was tough but not very firmly adherent; when it was removed, the surface beneath bled but little, and the membrane was quickly renewed. The tongue itself was swollen, notably more on the right side; and there was a distinct hard mass in the muscular substance of the organ on that side. The false membrane contained no vegetable fungus, and consisted entirely of epithelium. The mouth was always open, and there was constant dribbling of saliva. At this time, with the exception of the slight tendency in the disease to be somewhat unilateral, it appeared to be an ordinary inflammatory mischief, and closely resembled a case of suppuration of the deep connective tissue of the neck, several examples of which have come under notice, one being of special interest as occurring in connection with trichinosis (this case will also be published). On the 28th, she was admitted into the hospital. During the next two days, the swelling of the tongue and sub-maxillary region increased somewhat, but I could not satisfy myself that there was any fluctuation. She had two attacks of urgent dyspnoea, but they were not of long duration. On the morning of

May 2nd, she expressed herself as being much better, and said that something had burst under the tongue during the night, and that a large quantity of yellowish fluid had escaped. The swelling was now much less: pressure beneath the jaw caused the fluid to pour out through an opening on the right of the frænum. A probe introduced through this led into a large cavity, which extended upwards into the substance of the tongue, and downwards in the direction of the submaxillary gland. From this time recovery was rapid, the only treatment required being to wash out the cavity with a weak solution of Condy's fluid. She went out, and was told to show herself from time to time, but never re-appeared.

Since seeing the above case, I have met with another amongst my out-patients, which seems to me to be most probably of the same kind. The patient was a child about 10 years, and her mother gave a history of a rapid swelling beneath the jaw on the right side, great swelling of the tongue with protrusion, and constant dribbling of saliva, and said that on the morning of the third day something broke while the child was asleep, and there was a copious discharge of greenish yellow fluid. On the fourth day, when I saw her, the swelling had greatly subsided, and there was a ragged opening on the right side of the frænum large enough to admit a No. 5 catheter, and from this there was still escaping fluid of the above-mentioned characters. The direction of the cavity in this case was the same as in the other, only it did not extend into the tongue.

From the one-sided symptoms, the situation of the natural point of opening, and the peculiar glairy character of the secretion, I have no doubt that both these swellings were caused by dilatation of Wharton's or some other adjacent duct; but in the absence of any visible mechanical cause of obstruction (such as salivary calculus) it is difficult to account for the acuteness of the symptoms. These are the only cases of this kind that have occurred in my own practice, but I have lately learned that several others have been known in this hospital.

The early recognition of the disease, and a timely incision, would doubtless save the patient much pain, and some risk, as in one case the dyspnoea actually proved fatal.

HOSPITAL NOTES.

GUY'S HOSPITAL: DR. WILKS'S CLINIQUE.

Early Use of Bromides.—The history of the introduction of any remedy into practice has always an interest, and that the earliest cases of epilepsy treated by bromides were observed at Guy's deserves record. It was at the time that epilepsy was being traced to syphilis, and the iodides consequently were being freely given, when Dr. Sieveking read a paper concerning the malady at the Medico-Chirurgical Society, and Sir Charles Locock, then in the chair, remarked that, in Germany, bromides were being given with advantage to hysterical and excitable girls. From that statement, Dr. Wilks was led to prescribe it as an alternative to the iodide treatment in epilepsy, and with such remarkable results as are now daily verified. His cases were reported by Dr. Hughlings Jackson in the *Medical Times*, December 1861, some having been treated in March 1860.

We subjoin some notes of observations made by Dr. Wilks on cases in his wards during our recent visits.

Chorea; Pathology.—"I am sceptical as to fright being really so frequent a cause of chorea. The mothers seem to know we expect to hear of it, and they are ready to connect the two things. I have known three cases follow direct injury, one boy having been knocked down and another pulled backwards from a chair, and a third hurt in some other way, and all developing chorea shortly afterwards. A curious point is that, even in cases that may be set down to moral causes, vegetations occur in the heart-valves; this was the case in a girl admitted with chorea (consequent on a Woolwich explosion), and who died a week afterwards: the valves were covered with recent fibrine. For the embolic theory of chorea there is much to be said, for some cases may be so entirely explained by it: a child, for instance, having first acute rheumatism, peri- and endocarditis, suddenly loses power in one arm and leg, and, as power gradually returns, the same limbs are affected by chorea; but if chorea be produced by a moral cause, are we to suppose embolism, then, also?"

With regard to treatment, I wish I could speak as confidently of it in other diseases as in this: I mean that we can depend on curing it by rest and food. Nerve-tonics may help, but no remedies seem to act directly on nerve-diseases. The marked physiological action of conium, belladonna, nux, and others, finds but little application in therapeutics: narcotics and sedatives may do something, but to benumb the nervous system is not really curing. It has happened that we may quiet a severe case of chorea or of tetanus with opium or with chloroform, and

the patient may die when quiet. It is likely that blows on the head graduated to produce the requisite amount of concussion would induce similar effects of quieting, *e.g.*, a maniacal patient; but we should scarcely speak of it as curing hysteria."

There are two interesting cases of hysteria in Dr. Wilks's ward. One, a girl of 15, "cannot open her eyes", and the muscles take on a state of spasm which is more or less under control of volition; that is to say, the arm may remain for long flexed as it is placed and resists being moved; but, if the attention of the patient be directed to another part, the spasm suddenly relaxes. "One can imagine in hysteria an abeyance of function of a part or the whole of the brain, but the combination of spasm and volition is not easy to explain. In another case, of a woman of 30, with a long history of anomalous symptoms, there seems to be such an abeyance of function of the right half of the brain; there is not only loss of power on the left side, but, according to her statement, loss of sensation and of special sense also on the same side. Now, we do not know any lesion that will produce such a state of hemianesthesia, though it is said that some lesion of the pons will give an approach to it. In hysterical hemiplegia, it is noteworthy that those parts fail most that are under the control of the will, as the voluntary muscles of the limbs; the face, for instance, is seldom affected, unless as to the sphincter muscles of the eyes and mouth; but the constrictors of the pharynx and the pelvic sphincters are liable to suffer."

Pathology and Therapeutics.—It has been objected to us at Guy's that we rather under-rate therapeutics and over-estimate pathology; also that the latter study tends to narrow and limit our views. Now, I feel satisfied that we give very much more attention to therapeutics than was given in my early days. We may not always prescribe medicines, but we never see a case without at least discussing treatment; whereas I have known Bright and Addison, after a visit, entirely forget to write a prescription; and even Babington, whose formulae were considered so elegant and were so popular, never discussed treatment, and I doubt whether he could have reasoned about it. And, with regard to any narrowing influence of pathology, the fact is surely the reverse. It is the pathologist who generalises, and the clinical physician who specialises; it is the latter who says, "Here are certain signs and symptoms; it is a case of heart, liver, or kidney-disease"; whilst it is the former who says, "The heart is unhealthy, it is true, but this is only part of a general morbid change in the vessels and organs, thoracic, abdominal, and cerebral". Here really is the generalisation.

Morbus Cordis, etc.—In a case of advanced mitral disease with dropsy, the area of liver-dulness was found to be smaller than normal, and the liver was judged to be cirrhotic. "As a rule, the liver is enlarged, and should be expected to be so, as a consequence of venous congestion in heart-disease. I have often noticed, as Addison often noticed before me, that it will be said of a case of heart-disease, that it is complicated with disease of the liver, the fact really being that the enlargement is a natural and necessary consequence."

Phthisis: Prognosis.—Hæmoptysis is more frequent in the earlier than in the later periods of phthisis, and hence it is often difficult to discover physical signs for it. In later stages, the vessels have usually become contracted or obliterated before softening occurs. The mistake is sometimes made of condemning a case wherein signs of excavation are found, whereas they are often evidence of a chronic form, and one likely to remain stationary for some time. The really worst cases may prove to be those in which but little physical alteration is at first detected, and acute tubercuosis will run a rapidly fatal course without any excavation. The signs of a cavity may be reckoned on the fingers, as these five: dulness, amphoric breathing, pectoriloquy, gurgling, *bruit de pot fêlé*. The most importance is commonly to be attributed to the moist sounds, for others are not conclusive. As to the external appearance of the phthisical chest, as a question of life-insurance, the pigeon-breasted narrow chest is often considered phthisical, but without sufficient reason: such a form represents early rachitis, but the true phthisical chest is a flat one, with the sternum rather falling in than protruding. "I see no close connection between rachitis and phthisis."

The Hemorrhagic Pulse resembles most nearly the pulse of aortic regurgitation, and has been well called the pulse of "unfilled arteries". Its jerky character was well marked in the case of a woman who had recently had severe hæmatemesis.

Eczema Infantile (Syphilis?)—In judging of skin-diseases, it was formerly reckoned important to distinguish between those affecting the epithelium and those affecting the true skin. Is it really important? very often not. The child before us has a rash also on the buttocks, rather coppery and hard; the colour alone would suggest syphilis. The modern nomenclature "syphilide" is an improvement on the older one of syphilitic lichen, syphilitic psoriasis, etc.

ABSTRACTS OF INTRODUCTORY ADDRESSES

DELIVERED AT

THE METROPOLITAN AND PROVINCIAL SCHOOLS,

On OCTOBER 2nd, 1876.

QUEEN'S COLLEGE, BIRMINGHAM.

THE Introductory Address was delivered by Dr. JAMES SAWYER, Physician to the Queen's Hospital and Professor of Pathology in Queen's College.

After some words of welcome to the students, both old and new, the lecturer remarked that he cordially and sincerely congratulated them upon the choice which brought them there. The calling they had chosen was not likely to make them rich; but they might confidently expect to secure an honourable independence, without the aid of patronage or party, if they had ability and used it aright. He hoped a genuine and unalterable love for science had guided their choice; then they would always have an ever-deepening pleasure in their work.

Speaking of the Birmingham Medical School, Dr. Sawyer said its history was honourable; made so by the record of much self-sacrificing zeal, by a succession of teachers, not a few of whom had been truly eminent, by a roll of students, not a few of whom had been truly distinguished. About five years ago, the General and Queen's Hospitals, before, with changing fortunes, rival clinical schools, became united for the instruction of students. This association of the two great hospitals of the town had already effected much good, and experience of its working had more than realised the sanguine expectations of its promoters. The students had now the privilege of watching and sharing in the practice of twenty physicians and surgeons, who were responsible for the charge of four hundred beds and the annual care of nearly four thousand in-patients and forty thousand out-patients: a staff of teachers and a *clientèle* unequalled in most other schools, either in the metropolis or in the provinces.

All the examining boards now very rightly demanded that students, before entering upon the study of medicine, should pass a preliminary examination in the subjects of ordinary scholastic culture. In most cases, this examination was still lamentably insufficient. Their progress in study and position hereafter to be attained in public and professional estimation depended very greatly upon the degree and extent of mental cultivation the students had already attained. They should not lay aside the culture of general literature. Let them learn to turn to it with delight when severer studies pressed too hardly. He hoped they had acquired a competent acquaintance with more languages than their own, and had made a thorough study of logic; for logic now, as truly as ever, was the only art of arts, the surest foundation on which they could build: they must learn to measure all things by its exacting canons, learn to test all teachings by its searching scrutiny. They must further apply themselves diligently at the College to the study of anatomy, physiology, chemistry, *materia medica*, and botany. All through the curriculum, they ought to attend continuously the work both of the College and of the hospitals; but, in the earlier part of their course, they should give preference to the former; in the later, they might allow prominence to the latter. The work of a hospital, especially the surgical portion of it, has usually a great charm for the young student. It is right it should be so. But it must not be permitted to lead him to neglect in his earlier years the more sober studies of anatomy, physiology, chemistry, *materia medica*, etc. There is a time for all things. Medicine is both a science and an art. The training must first be mainly scientific and then mainly practical. Students should be careful to assign its proper place to each of the subjects before them, and allot their time and thought to each in a measure corresponding to its relative importance. They should not fall into the too exclusive pursuit of any favourite science to the neglect of the others. The end before them was to become good physicians and surgeons.

They had adopted a calling which often carried with its practice an enormous weight of responsibility, dealing as they would have to do with questions of stupendous importance, with the health and sickness of individuals, of families, and of communities, with life and with death. For such a task no education could be too severe, no preparation too exacting; and their training would not be complete unless it reached to morals and to character no less than to knowledge and to

skill. The senior students, he desired to say very plainly and in all friendliness, did not, as a body, apply themselves either in sufficient numbers or with sufficient diligence to the work of the hospitals. To a very great extent they were masters of their future; and the manner in which they spent their years now would colour the whole of their after lives. They were now either laying up for themselves a treasure of coming triumphs or a bitter succession of disappointments.

The division between medicine and surgery, seen in hospital work, is convenient, but it is not fundamental; the boundary is well defined, but is wholly arbitrary. Medicine and surgery, in science at least, are now absolutely one. An exclusive study of either is no longer justifiable; it is not even possible. While either can be purely practised, neither can be purely learnt. Purity in the knowledge of either is only an euphemism for an incomplete acquaintance with the one and entire ignorance of the other. Pathology is the great link between them, or, more truly, their common foundation. But the whole range of experience and work in medicine and surgery is now so vast and is so rapidly increasing, that, in large centres of population, a few practitioners will always be required who devote themselves in practice to one branch or one part of a branch of the profession. But for students, whatever their future, there should be no such limitation. The practice of medicine and surgery, as exhibited in hospital work, must alike claim their most earnest attention.

Having advised all students in the wards to acquire an accurate knowledge of the use of the stethoscope, the laryngoscope, and the ophthalmoscope, and to cultivate careful case-taking, as the best means for the acquirement of a serviceable knowledge of medicine, Dr. Sawyer advised students to extend their reading even now beyond the text-books and manuals of the day. No other profession could rival theirs in its literature. The sooner they learn to love its books and to be proud of them the better. If they strove aright to reach professional perfection and eminence, they would seek learning as well as skill. In a knowledge of the glorious achievements of the past, and in the lives of the masters of their art, they would find at once their strongest stimulus to exertion and their surest safeguard against self-conceit.

The lecturer then concluded his address in these words:—"I hope an acquaintance with the literature of your profession will help to fill you with a fitting sense of the dignity and worth of your calling. If you feel this pride aright, you will keep your own honour spotless, and you will be jealous of the honour of the body to which you belong. You will shrink from wounding a brother's reputation, you will not shut yourself up in selfish isolation from your fellows, you will not labour only to get gold, you will scorn the arts of the toady and the time-server, and you will ever be ready to make some sacrifice to accomplish any work which tends to foster professional unity and to raise your calling in public usefulness and esteem. Do not seek success by dragging others down, but by raising up yourselves. It is your duty to use all fair and honest means to secure and maintain your own repute; but you may do so most perfectly, indeed you can only do so successfully, while holding an unswerving regard for the interests and good name of your fellow-practitioners.

And now I have done. I have striven to set forth some outline of the work that is before you. Look forward with confidence. Let the highest aims be yours. Let your minds be filled with a deep sense of your responsibility. Let your hearts ever grow in courage and in kindness. Strive to discover the true and to practise the good. In such a spirit, labour to profit by opportunity, and then—

"The secret consciousness
Of duty well performed; the public voice
Of praise that honours virtue and rewards it;
All these are yours."

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

THE Introductory Address was delivered by Dr. GLYNN, Physician to the Royal Infirmary.

The lecturer inferred, from the increasing magnitude of the meetings, that a growing interest was taken in the school of medicine and in medical education in the town of Liverpool. After paying a tribute to the memory of the late Dr. Inman, and assuring those students who appeared as first class men of the readiness of the staff to help them as far as possible, Dr. Glynn, addressing the students, said—You, gentlemen, begin the study of medicine at a time when in all departments of it there are innovation and progress. In every direction, stimulated by aid from the natural and physical sciences, on the firm foundation afforded by their development and enlightened clinical investigation, medicine is advancing. The progress of medicine, as of the physical

and natural sciences, depends on the exercise of observation, experimental research, and careful reasoning. On analysing the causes which have retarded the growth of medicine and the sciences, we find that early investigators have had to struggle with superstition, with the prejudices of their age, with disadvantages from insufficiency of science and instrumental aid; or that they have pursued an erroneous method of investigation, have observed incorrectly, accepted statements as facts without verification, or have reasoned incorrectly. It is my purpose, from the history of medicine, to attempt to show how errors from such causes, namely, from faulty methods of research or of reasoning, have affected the development of medicine, and thus, from the page of history, convey perhaps an useful lesson to my younger hearers. Hippocrates rightly imagined that the office of the physician was to observe the operations of nature. By the exercise of patient industry in watching, and accuracy in recording, the features of diseases and the effect of remedies, he at once transformed medicine into a science. Regarded as a god, he turns out to be only a man who could use his eyes and profit by his experience. His works abound with careful observation, and in them we find some of the oldest examples of inductive reasoning—certainly, the oldest in medicine. Thus the father of medicine followed that true method of research which was to be such a mighty agent in after ages in advancing science. He came to nature in that ingenuous spirit which has ever characterised the true inquirer. The ancient practitioners of medicine looked to the philosophers for the solution of the problems of life, while we look to science; and the influence of philosophy was most prejudicial. Medicine is founded on the study of nature, and the philosophy of the ancients either directed men away from nature or satisfied them by offering plausible but false explanations of its phenomena. As an illustration of this, he referred to the systems of the two greatest Greek philosophers, Plato and Aristotle. The lecturer then proceeded to consider the position of the study of medicine in Europe when the Church monopolised the little learning of the times, and the priests appropriated the profession of physic. When learning began to revive, the scholastic philosophy was as inimical to research as the ancient. The scholasts adopted Plato's doctrines, and Aristotle was considered infallible on any point of science. Extreme credulity characterised the mental condition of the age—a state of mind quite hostile to research. The medical education provided by the Church in the great schools she established was such as to restrain the exercise of original thought. Learning was second hand; it had accumulated, books were multiplied, without real increase of knowledge. Thought was devoted rather to the study of the ancients, or the maxims of the schools, than to the works of nature. However, everywhere in Europe alchemy and astrology were being pursued with greater ardour, and dissection, in the fifteenth century, began to be practised in Italy. We may trace, in the experiments of the alchemist, and the observations of the anatomist and astrologer, the development of the inductive method, and the beginnings of those sciences which were to break the bonds of authority and overthrow the dogmas of the schools. He showed, by reference to the progress of anatomy, with what difficulty men gained freedom of thought. A century passed nearly, and, although many facts had accumulated, men remained still blind to the imperfections of Galen; then Harvey appeared to give the death-blow to his authority, but to be scouted by many during his lifetime as a crack-brained fool. As men were led to interrogate nature, they shook off their allegiance to the ancients. They comprehended that, to succeed in interpreting nature, they must go to her as humble observers. They saw that Greek philosophy and that of the schools was a failure, and understood the causes of this. In the seventeenth century the principles of inductive philosophy were clearly enunciated by the great reformers, Bacon, Descartes, and Locke. Bacon, while he exposed the weakness of the ancient philosophers and schoolmen, showed that the right way to arrive at the knowledge of truth in the study of nature was by means of accurate observations, experiments, and true induction. Ages of experience were required to teach men to restrain the imagination, to lead them to learn something of the profundity of nature. The physicians, controlled no longer by authority, gave rein to every fancy. Captivated by the discoveries of their day, they hurried, if possible, to apply those to the explanation of all vital phenomena. The systems of medicine constructed on their pseudo-scientific theories were as crazy as those of the ancients based on pure speculation, and were equally the fruit of vanity and ignorance. What Voltaire said of the physicians of his age was certainly true of these: "That they poured drugs of which they knew little into a body of which they knew less." After referring to the opinions of many eminent men of modern times, to illustrate the diversity of thought on medical subjects which then prevailed, the lecturer concluded as follows:—Scientific truth has only been attained after rigorous and well-directed research. Turn to the life of any discoverer—any one who had improved our science; note how observation

and experiment had been repeated, how every step taken had been scrutinised, how speculation had been controlled by observation. In the practice of medicine you will be compelled to be original inquirers. Every case will be the subject of investigation, in which your powers of observation and reasoning will be tested. It is desirable, therefore, that you enter on the study of medicine with all the force of scientific training. The necessary acuteness of sense and habit of mind are only to be acquired by exercise and discipline. Medical education has recently been rendered more efficient by the introduction of various practical courses, which necessitate careful individual research and manipulation. It is, however, to hospital practice you must look for the most important lessons; by the bedside you must train your senses, exercise your reasoning powers, and acquire practical knowledge of disease and of the action of remedies. In dwelling on the advantages which hospital work and hospitals afford to the student, I am not unmindful that the chief object of such institutions is to relieve the sick poor. The public may rest assured that the connection of a medical school such as this with a hospital is an immense advantage—a circumstance which more than anything else ensures that those who are supported by their liberality are well cared for. The medical student does a vast amount of work in such institutions, for which he expects neither thanks nor acknowledgment, recognising the substantial advantages he acquires. In taking notes of the daily condition of patients, making physical and analytical examinations, he does work which no nurse is qualified or even has time to do. With his assistance, the physician or surgeon learns in a few minutes what otherwise would take him much time, an important matter when very many patients have to be visited. I have not referred to opinions of the great ones of the past, or spoken lightly of their labours, to excite contempt or ridicule, but to demonstrate to you the nature of the advantages you enjoy. In this age we do not fall into error from want of a guide in a true method. We are not encumbered by any false philosophy, and have no unhealthy reverence for authority. Science has attained such perfection as to offer us advantages immeasurably greater than those enjoyed in any age. We can boast of no perfect system of medicine. The volumes you may see entitled *Systems of Medicine* (I allude to scientific works) only present the medical knowledge of the day in a systematic form. For our science is modified as our powers of research are extended, our means of preventing or curing disease perfected. The scientific knowledge you may acquire, if you follow your studies with spirit, will not only prepare you for the successful exercise of your profession, but will afford you much happiness in an enlarged appreciation of the good and beautiful, an increased capacity for enjoyment of more value than gold. I need not allude to the order and method in which you should pursue your studies, since you will find excellent directions on such subjects in the school prospectus. Nor is it necessary for me to insist on the necessity of your working earnestly, since if any of you at your age do not recognise this, no words of mine can lead you to do so. I will only exhort you to recollect that you have entered on the most momentous period of your life—the “forming time”, as Ruskin says, “when a man makes himself, or is made, what he is for ever to be”.

SELECTIONS FROM JOURNALS.

SURGERY.

TREATMENT OF DISLOCATIONS UPWARDS AND BACKWARDS OF THE SCAPULAR END OF THE CLAVICLE.—Dr. Wm. H. Dougherty reports (in the *Richmond and Louisville Medical and Surgical Journal*, July 1876) a case of dislocation of the acromial end of the clavicle successfully treated by himself. He remarks that the true method of treatment for this injury is to render, and maintain a state of high tension of the fibres of the muscles connecting the humerus and clavicle, making the former, for the time being, the fixed point of action. To do this, the arm must be drawn forcibly downwards and backwards in close apposition with the body. This involves no painful restraint, no pads in the axilla, or other injurious means; simply a firm, wide strip of adhesive plaster, closely adjusted to the inequalities of the part. The side of the chest becomes a broad fulcrum to add the substantial leverage of the humerus to the direct traction already made, all of which contribute further to the immobility of the scapula, slightly rotated downward. A strip of adhesive plaster (spread on cotton-flannel) five or six inches wide, and long enough to encircle the body is provided; then, the dislocation being reduced by the manipulation before described, the arm is invested therewith from the insertion of the deltoid to near the elbow, carrying the strip backward and around the body, taking such direction on its front as the inequalities of the person may suggest. The arm thus pinioned cannot be brought forward or elevated,

but the security of its position requires the application of another strip over the whole, but not looped around the arm as in the first instance; the latter need not exceed three inches in width.

FORMATION OF EPIDERMIS BY THE TRANSPLANTING OF HAIRS.—Dr. Schweininger reports (*Boston Medical and Surgical Journal*, June 1st, 1876) successful results in inducing cicatrization by transplanting to granulating surfaces hairs pulled out by the roots. Placed upon ulcers, they formed as many centres of new epithelial growth, which spread outwards, coalesced, and produced rapid and complete cicatrization. These islands proceeded without doubt from the cells of the outer root-sheath, which is continuous with the epidermal cells of the rete mucosum, so that epithelium is here developed from pre-existing epithelial cells.

TOXICOLOGY.

CONVULSIONS IN OPIUM POISONING.—Dr. Julius C. Morse reports (*Pacific Medical and Surgical Journal*, July 1876) a case in which about sixty grains of opium were taken by an adult, with the effect of producing, in addition to the ordinary symptoms of opium poisoning, spasms of great frequency and intensity. They were allayed on the induction of vomiting and the hypodermic injection of atropia. The patient recovered.

POISONING BY OIL OF RED CEDAR.—Dr. D. C. Holley reports (*Detroit Review of Medicine and Pharmacy*, July 1876) the case of a woman who took half an ounce of red cedar-oil—*Ol. Juniperi Virginiana*—for the purpose of producing abortion. In a few moments, she had symptoms of congestion of the brain, and soon became comatose. Violent convulsions came on, and occurred in rapid succession. Vomiting was produced by sulphate of zinc; chloral and bromide of potassium were freely given; and sinapisms were applied to the feet and epigastrium. She remained comatose for twelve hours, but then regained consciousness, and made a good recovery.

PATHOLOGY.

AN UNUSUALLY LARGE GALL-STONE.—Dr. Lessdorf describes in *Betz's Memorabilien* for September a case of remarkably large biliary calculus. The patient, a married woman, aged 58, who came under his notice with symptoms of pulmonary consumption. She had also a large umbilical hernia, containing a hard body of the size of a hen's egg, which Dr. Lessdorf diagnosed as a gall-stone. The hernia was reduced as far as possible, but the stone would not return into the abdomen. Dr. Lessdorf endeavoured to make it serve as a truss by keeping it pressed against the opening; but the patient could not bear the pressure, and an ordinary bandage with a concave pad was applied with relief. The patient died of phthisis two months later. There were at no time while she was under observation any indications of icterus, either in the general symptoms, or in the urine or stools. At the necropsy, the stone was found to entirely occupy the gall-bladder. It was 10 centimètres (near 4 inches) long, 9 centimètres wide, and 6 centimètres thick. The small end lay towards the liver; the broad end towards the abdominal wall. It weighed 60 grammes (more than 2 ounces avoirdupois).

THERAPEUTICS.

THE CAUSTIC PROPERTY OF BROMIDE OF POTASSIUM.—M. Peyrault, at the recent meeting of the French Association for the Advancement of the Sciences, read some remarks on this property of bromide of potassium. He said that he had been led to acknowledge its existence from the fact, that subcutaneous injections of this salt had been followed by a hardening, a sort of tanning of the skin, and sloughing of the tumour. M. Peyrault had cured fungous tumours, or wounds resulting from abrasion of tumours of that nature, by dressings, first with the solution, and then the powder of this salt. He had obtained good results with these topical applications in lichen hypertrophicus and ulcerated lupus. Bromide of potassium might be employed as an ointment in erysipelas, as injection in blenorragia. It is indicated in syphilitic chancres, in uterine ulcerations, lacrymal tumours, palpebral granulations, etc., ozæna, pharyngeal granulations. According to M. Peyrault, it puts an end to simple and sloughing methods, and likewise is a remedy for phthisical vomitings; and he concludes by affirming that a solution of this salt in glycerine is efficacious in pityriasis.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 14TH, 1876.

SMALL-POX IN LONDON.

THE great amount of attention that the present outbreak of small-pox in the metropolis has excited indicates to how much greater an extent the public attention has been directed of late years towards the means of preventing disease and diminishing the annual death-rate. As we shall show by a comparison of the death-rates from small-pox since 1840, this outbreak has not at present assumed alarming proportions, as it has not as yet caused a mortality equal to that in any year since 1861. To what, then, do we attribute the alarm which it has created in South London and in Islington? We think that this has been chiefly caused by the removal of a large number of cases to the hospitals of the District Asylum Board, which would have hitherto been treated at home, so that the progress of the disease is measured at the present time more by the number of cases and less by the number of deaths. The disease is reported to be of a severe character, as a considerable proportion of the patients are suffering from the hæmorrhagic and confluent forms, which is well known to be an ordinary occurrence at the commencement of an epidemic. The type of the disease, and the progress it has made since the end of May, and especially during the last three weeks, certainly indicate the approach of an epidemic, which we shall attempt to gauge by a careful consideration of the past.

As the population of London has increased every year, it might lead to erroneous conclusions if we gave the total number of deaths for the different periods, we have, therefore, calculated the deaths from small-pox per million population for each year. In 1840 and 1841, when the disease was epidemic, there were respectively 673 and 561 deaths per million. In 1842, the mortality fell to 188; increased in 1843 to 224; and in 1844, when there was an epidemic, to 887 per million. In 1845, it was 438; in 1846, 121; in 1847, 435; and in 1848, another epidemic year, 720 per million. In 1849, the rate fell to 226; in 1850, to 213; in 1851, it rose to 461; in 1852, to 483; and in 1853, an epidemic year, it was as high as 893 per million. After this, we entered upon a period of comparatively low mortality, lasting, with one exception, for five years; the rate in 1854 being 270; in 1855, 403; in 1856, 211; and in 1857, the smallest number recorded between 1840 and 1873, which was 58. The next year, 1858, it was 92; after which it became epidemic, causing a death-rate of 420 in 1859, and 316 in 1860. In 1861, another very low rate occurred—viz., 76—which rapidly increased to 693 per million in 1863, which was the most severe epidemic for ten years. In the years 1864-67, the rates were 182, 216, 454, and 432; in 1868, it fell to 191; and in 1869 rapidly rose to 861 per million. In 1870, it was 295; and in 1871, the death-rate from this disease alone reached the formidable number of 2,413 per million inhabitants, and then fell to 538 in 1872. Since that time, it may be said to have died out until the present epidemic, as the death-rate in 1873 was only 34, and in 1874 it was lower still, having been 16 only.

The epidemic wave, as may be gathered from the preceding figures, varied greatly in height and duration, as the time occupied by its passage from its highest point in 1841 to the highest in 1845 was four

years; thence to 1848, only three years. The decline towards the end of 1848 was sharp, although not to a very low point, when it remained at a comparatively uniform level for two years, so that the period of greatest mortality did not occur again until 1853, a period of five years. We next had a wave of six years' length, which described a very low curve, without at any time reaching a very high point. This was followed by one of three years' length; then of four; and then of five, viz., from 1868 to 1872 inclusive, with a very considerable rise in 1869; so that this may be said to have included two epidemics, as the figures given readily show. The mean mortality for each of the earlier epidemic periods was singularly close, as in 1842-45 it was 434 per million population; in 1846-48, 425; in 1849-53, 455; but in 1854-60 it was 253; in 1861-63, 397; in 1864-7, 328; in 1868-69, 526; and in 1870-72, no less than 1,082. But, if we take the period of 1854-72 as one long completed wave, broken up by smaller undulations, we find the average mortality to have been 451 annually per million population; or, taking the whole of the period 1842-72, it was 437 per million per year.

Since 1872, the disease has been almost in abeyance, as in the month of January in the present year no death was recorded in London; but in February there were 3, and in March 7. At the end of May, deaths occurred in Lambeth, Camberwell, and Chelsea, and happened chiefly in the south side of London until the outbreak took place in Islington, which caused 1 death in the thirty-sixth week, 5 in the thirty-seventh, 1 in the thirty-eighth, and 9 in the thirty-ninth week. The returns of the Registrar-General are not sufficiently definite to state the districts from which the persons who died in the Stockwell Hospital were brought; but, as far as can be ascertained, there were 27 deaths amongst inhabitants of Lambeth, 7 of Camberwell, 3 of St. Olave's District, 6 of Wandsworth, 11 of St. Saviour's, as well as 30 in the hospital returned as from the south of London, 18 of Islington, 3 of Chelsea, 2 of Stepney, 3 of St. Pancras, and 1 each of Marylebone, Hackney, Kensington, Mile End Old Town, Poplar, Bethnal Green, and Shoreditch; so that deaths have occurred almost all over London, which is a very important fact. There were only 7 deaths registered during the first quarter, 26 in the second, and 110 in the third; so that, unless very active measures are taken, especially those of isolation of the sick, early vaccination of infants, and revaccination of all above fourteen or fifteen who have not been revaccinated or who do not possess good marks from former vaccinations, a severe epidemic must be looked for. It will, therefore, be necessary that larger accommodation be immediately provided by the District Asylum Board at Hampstead; and that directions be given by the various boards of guardians to their vaccination-officers to make a house-to-house inspection of the infected localities, especially in the subdistrict of Brixton, which has furnished a very large proportion of the deaths in Lambeth, and in Islington. The discussion at the Islington Board certainly does not indicate that proper measures will be adopted for stamping out the epidemic; but, on the contrary, a timidity bordering on ludicrousness seems to have taken possession of some of its members. It is no time for half-measures; and we therefore hope that those who have accepted the responsible position of guardians of the poor will prove themselves to be guardians of the public health rather than of their individual crotchets. Such precautions as cleanliness, diminution of overcrowding, disinfection or destruction of infected articles of bedding and clothing, we need not dwell upon, as all admit their value; but what we do insist upon is, that efficient vaccination of the whole population is the best preservative against death from small-pox.

The irregularities in the height and length of the epidemic wave in past years, and the violence with which the disease explodes in particular localities, as compared with the quiescence which it manifests on other occasions, prevent us from making at present any forecast as to the probable duration and intensity of the present epidemic; but the unusually low death rate for the past three years, and the great rapidity of its rise in September, induce us to fear that a severe outbreak is to be apprehended.

THE ANATOMICAL RELATIONS OF THE HUMAN SKELETON.

PROFESSOR EDWARD S. MORSE, in an address before the American Association for the Advancement of Science, at Buffalo, New York, August 23rd, gave a summary of recent American contributions to the anatomical evidence of the descent of man, which has attracted much attention, and will be read with much interest by all biological students, as well by those who disagree with the conclusions which Mr. Morse supports as by those who accept them.

The facts bearing on man's lowly origin have, he observed, been fully contributed by American students, and as all intelligent men understand the bearing of these facts on the question, it is only necessary to allude to them here. If man have really been derived from so lowly an ancestor in common with the ape, we must expect to show—1st, that in his earlier stages he recalls certain persistent characters in the apes; 2nd, that the more ancient will reveal more ape-like features than present existing in man; and 3rd, that in the present existing races of men certain characteristics pertaining to early men still persist in the inferior races.

Professor Wyman points out certain resemblances between the limbs of the human embryo and the permanent condition of the limbs of lower animals. "In some human embryos, about an inch in length, he found that the great toe was shorter than the others, and, instead of being parallel to them, projected at an angle from the side of the foot, thus corresponding with the permanent condition of this part in the *Quadrumanus*."

In some observations made on the skeleton of a Hottentot, Professor Wyman calls attention to the complete ossification of the nasal bones, no suture remaining. This was more noticeable as the individual was young; and the other bones were immature, and had an interest in connection with the fact that the nasal bones are cuspid at an early period in the monkeys, and before the completion of the first dentition in gorillas and chimpanzees. Careful measurements of the pelvis also revealed quadrumanous features, though "the resemblance is trifling in comparison with the differences".

In a study of the crania, Wyman found differences in the relative positions of the *foramen magnum*. In the North American Indian this opening was further back than in the Negro, while some crania from Kanai presented this opening still further back than in the Indian; and more than half the lot from Kanai had the peculiarity in the nostrils first pointed out in the Negro by Dr. John Neil of Philadelphia, namely, the deficiency in the sharp ridge which forms the lower border of the opening. In its place is a rounder border, or an inclined plane. This feature occurs very frequently in different races, but more rarely in Europeans. It is, however, never absent in the apes. Professor Wyman, in studying characters of certain ancient crania, from a burial place near Shell Mound, Florida, observed the *foramen magnum* quite far back, and remarks on the massive character of the bones composing the skull, the parietal being nearly twice the thickness of ordinary parietals, while "the general roughness of the surfaces for muscular attachments on the hinder part of the head is very striking".

In certain measurements of synostotic crania, Professor Wyman found that the length of the parietals was twenty-four millimetres above the average, the parietals being lengthened from before backward, the frontal and occipital being but slightly augmented. Now, on the much-discussed Neanderthal skull, wherein it is urged by Dr. Davis that it is a synostotic skull, though denied by Huxley, Wyman shows that the parietals measure nine millimetres below the average, which is certainly against the view that the Neanderthal skull is synostotic.

In an essay, entitled *Observations on Crania and other parts of the Skeleton*, Professor Wyman shows that the relative capacity of the skull "is to be considered merely anatomical, and not as a physiological characteristic", a mere distinction, certainly, in considering the large capacity of certain ancient skulls, since we must know the plurality, as well as the quantity, in order to assume the intellectual position of the

races. In this essay is also quoted the results of a large series of measurements made by Dr. B. A. Gould, in which it is shown that the arms of the blacks are relatively longer as compared with the whites, in this respect approaching the higher animals, a confirmation of the observations made by Broca, Pruner Bey, Lawrence, and others.

The perforation of the humerus, which occurs in the apes quite generally, was found to occur rarely in the white race. Of fifty humeri, Wyman found but two perforated, while of Indian humeri he found thirty-one per cent. perforated. With the remains of ancient men, there has been found among some of them a remarkable lateral flattening of the tibiae, unlike anything found at present, but always characteristic of the earliest races. These tibiae have received the name of *platycnemic tibiae*.

Wyman quotes Broca as saying that these tibiae in their measurements resemble those of the ape; and, what is more striking, in a small number of instances "the bone is bent, and its angles are so rounded as to present the nearly oval section seen in the apes". The occurrence of these *platycnemic tibiae* has been noticed by several investigators. They have been exhumed from the mounds of Kentucky, by Mr. Carr, Mr. Lyon, and Mr. Putman. Professor Wyman found them in Florida mounds. To Mr. Henry S. Gillman of Detroit science is indebted for the discovery of the most flattened tibiae ever recorded, exceeding even those discovered in Europe. Mr. Gillman has opened a number of mounds along the Detroit and Rouge rivers, in Michigan, and has assiduously studied the characters of these remains, which indicate a very ancient race of men. Many of these tibiae he has sent to Mr. Peabody's Archaeological Museum at Cambridge. Associated with these remarkable tibiae are large numbers of perforated humeri.

At the Detroit meeting of the Association, Professor W. S. Barnard showed that the muscles which move the fingers and toes have been developed from one common muscle; and, in studying the various degrees of specialisation of the muscles which move the hand and foot through the gorilla and lower apes, he finds that in the foot "man remains a creation of the past, not modified by that which makes him a man, the brain. The hand has been modified and perfected by its services to the brain."

Professor Barnard also contributed another essay, entitled *Comparative Myology of Man and the Apes*. From very careful studies, he is led to believe that the relative position of the origin of the muscles is more constant than that of their insertions. In this examination, he brings to light a muscle which Traill dissected in the higher apes, and which he called the *scansorius*, and this was supposed to have no representative in man.

Traill was followed by Wyman, Owen, Wilder, and by Bischoff, who, in a controversy with Huxley, argued from this muscle against the simian origin of man. Professor Barnard now shows that Traill was mistaken, and that other naturalists were misled by the weight of his authority. What Traill interpreted as the *gluteus minimus* is the *pyriformis*, and what he figured as a new muscle separating the apes from man, the *scansorius*, is the homologue of our *gluteus minimus*.

From gradually accumulating data in regard to microcephalic skulls, it would seem as if Carl Vogt was right in judging them to be cases of reversion. Professor Wyman says, in regard to a microcephalic skull from the Mauritius, that, "taking together the high temporal ridges, the union of the temporals with the frontals, the projection of the jaws, the narrow and retreating forehead, the small capacity, and the form and proportions of the nasal openings, the general resemblance to that of an ape is most striking, and seems to justify Vogt's expression of a man-ape, it being understood that the skull we are describing is not a natural but an anomalous formation".

It would be difficult to imagine, indeed, that mere reduction in the size of the brain through arrest of development should produce a series of characters so closely resembling the apes as is found to be the case in so many widely separated examples. Thus, in the Mauritius microcephalic skull, the capacity is only twenty-five cubic inches. The jaws are extremely propinuous, the zygomatic arches stand out wide and

free, and the temporal ridges approach within one inch and a quarter. If such examples should prove to be veritable cases of reversion, then we have a parallel in the startling appearance of the long-lost rudimentary toes of the horse, traces of which are only seen in the hidden splint bones. In the seventh annual report of the Archaeological Museum, Professor Wyman describes a microcephalic skull from the ancient huacas of Peru. Its capacity is only thirty-three cubic inches; "the frontal bone, so much slanted backward, has a decided ridge corresponding to the frontal suture, and is slightly concave on each side of it".

Wyman states that the bones of the head are well formed, though, from the diminutive size of the brain, idiocy must have existed.

Professor Morse concludes: "If we take into account the rapidly accumulating data of European naturalists concerning primitive man, with the mass of evidence received in these notes, we find an array of facts which irresistibly points to a common origin with animals directly below us—the massive skulls with coarse ridges for muscular attachments, the rounding of the base of the nostrils, the early ossification of the nasal bones, the small cranial capacity in certain forms, the prominence of the frontal crest, the posterior position of the *foramen magnum*, the approximation of the temporal ridges, the lateral flattening of the *tibia*, the perforation of the humerus, the tendency of the pelvis to depart from its usual proportions, and associated with all these a rudeness of culture and the evidence and manifestation of the coarsest instincts—we must be blind indeed if we cannot recognise the bearing of such grave and suggestive modifications."

THE Censors of the College of Physicians have, we believe, arrived at a decision in the matter referred to them, as between Sir W. Gull and Dr. George Johnson; but it has not yet been communicated to the parties concerned.

THE fatal cases of enteric fever in Paris, which in the seven preceding weeks had declined from 87 to 59, further fell last week to 35.

THE session of the Medical Society of London will commence on Monday next, October 16th, 1876, at 8.30 P.M. An address will be given by Wm. Adams, Esq., F.R.C.S., President of the Society.

PROFESSOR HUXLEY has resumed his duties at South Kensington since his return from America, and delivered the first of a series of lectures on Biology.

MR. JAMES MURPHY, Surgeon-Dentist, of 42, Welbeck Street, Cavendish Square, is in Charing-Cross Hospital in a dying state. It appears that the unfortunate gentleman, in alighting from a carriage at the Charing-Cross Terminus, slipped and fell while the train was in motion. He was crushed between the train and the platform. His injuries were excessive.

ROYAL COLLEGE OF SURGEONS.

THE annual registration of gentlemen pursuing their professional studies at the metropolitan schools will not be brought to a close until next week, when we shall be better able to state as to whether there is an increase of students or the reverse. On Thursday evening, the total number registered amounted to 1255.

THE ENTRIES AT THE MEDICAL SCHOOLS.

OUR returns of gentlemen pursuing their studies at the various medical schools are as yet imperfect; but, as far as the annexed figures go, they were correct on Wednesday evening. At Guy's, the new entries for the present session are 98; St. George's, 31; King's College, 32; the London Hospital, 48; St. Mary's, 27; Middlesex, 42; University College, 81; and Westminster, 12. From the provincial schools, the returns on Wednesday were the following: Birmingham, 16; Bristol, 17; Leeds, 34; Sheffield, 22; and Liverpool, 22. The whole number of gentlemen studying this year at Liverpool was, on Wednesday, 70; and at Manchester, 139.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE first meeting of this Society took place on Tuesday last. There was a large attendance of Fellows, and Sir James Paget occupied the chair. Two papers on surgical subjects were read, and gave rise to interesting discussions. The papers were, one by Mr. Adams, giving details of twenty-two cases of division of the neck of the femur for ankylosed hip-joint; and one by Mr. Davies-Colley, of excision of some of the tarsal bones of both feet for severe equino varus. We are compelled by want of space to defer until next week the report of the meeting.

THE "SPECTATOR" ON VIVISECTION.

AN attack upon Dr. Andrew Clark, *à propos* of his remarks on vivisection, in the columns of the *Spectator* (October 7th), is not remarkable either for courtesy of language or soundness of reasoning. It calls upon us to notice how "very weak an exceedingly able man may be when the exponent of a trades-union feeling". In what sense can Dr. Clark's sentiments be allied to trades-unionism? Does he, or does the profession, gain any personal benefit by physiological research? The privilege of freedom of study, of investigation without police supervision, of pursuing most difficult and laborious observations when and how we can—in what sense can the defence of such a privilege not only for one profession, but for all scientists—in what sense can it be called, as it is offensively, "a trades-union feeling"? The article says, "Medical men are not satisfied with the compromise of last session"; but Dr. Clark says, "We shall neither gainsay the wisdom of the discussion nor refuse to abide by its conclusions;...only, if the question is reopened, then I trust every thoughtful man will make the cause his own", and prevent the statute-book from being again sullied by penal enactments against the just liberties of men. The *Spectator* feels acutely the "intolerable injustice and hardship involved in the policy of deliberately torturing an innocent sensitive creature for the chance of relieving a few other sensitive creatures not more innocent", etc. We may leave it to the reader of Dr. Andrew Clark's address to say which would be likely to have a more real regard for humanity—the hospital physician, or his sentimental critic, whose suggestions savour of the uncandid *suggestio falsi* and singular recklessness of imputation which have painfully marked the outcries of the opponents of physiological research during the controversy of which this is an echo.

"TYPHOID AND SHEEP-POX ORGANISMS."

DURING the last year or two, a great deal has been heard in England about a discovery by Dr. Klein of certain vegetable organisms which constitute the actual contagious element in sheep-pox and typhoid fever, these diseases being supposed to be caused by the introduction of specific spores into the system of a healthy individual, the course of the disease corresponding with their development. This pathological doctrine has sustained a sudden and fatal shock in consequence of certain investigations by Dr. Creighton, which are described in the *Proceedings* of the Royal Society, vol. xxv, No. 172. Dr. Creighton has found that, when fresh tissues are put in solutions of chromic acid or alcohol, mucus and other albuminoid fluids coagulate in forms which simulate the appearance of the organisms which Dr. Klein believed he had discovered. Dr. Creighton remarks that, "although Dr. Klein considered that he had before him in these preparations the various conditions of a fungus, to which he gave a generic and specific name, and although he professed to find the various conditions of spore, mycelium and fructification occurring in their natural sequence, and that natural sequence to correspond with the regular advance of the pathological process, there is no doubt that this circumstantial account rests on erroneous observation and on defective evidence, and that the appearances found in the skin of the sheep are none other than those resulting from the coagulation of albuminoid fluids under particular circumstances". Dr. Creighton believes that "this mistake has greatly contributed to the spread of a reactionary and superficial pathology"; but of this there is not much evidence. Dr. Klein's theory, although adopted and expounded by several

scientific men (Professor Tyndall's seems to have been a case of instantaneous conversion), never really passed into an accepted belief. An attitude of wonder and expectancy was certainly produced amongst a great number of medical men who follow the course of pathological studies; and we believe that in time, if Dr. Creighton had not interposed, "organisms" would have been saddled with all the bodily evils known to us. But Dr. Klein's views had not lasted long enough to have in any way affected the slow, and at best not very satisfactory, progress of pathology.

LUNACY INQUIRY AT SHEFFIELD.

MR. BARLOW, Master in Lunacy, has held an inquiry at Sheffield into the state of mind of Elizabeth Shearwood, an elderly maiden lady, who is possessed of great wealth. Some years ago, Miss Shearwood, her sister Ellen, and other members of the family, became entitled to a large sum of money under an order of the Court of Chancery. The order required that the property should be sold, but Ellen and Elizabeth refused to comply with it, and they were imprisoned for thirteen years. When liberated, Ellen conducted herself so strangely—living in squalor and poverty—that a Commission was issued, and she was declared insane, and is now in an asylum. It is alleged that Elizabeth has of late developed similar eccentricities to those of her sister, preferring to live in dirt and squalor to cleanliness. She has altogether conducted herself so strangely that the present inquiry was held. The medical testimony, however, was that she was not insane, but was suffering from the effects of her long imprisonment. After a three days' inquiry, the jury were of opinion that Miss Shearwood was competent to manage her property, and that she was not insane.

PREVENTION OF SMALL-POX.

IN consequence of the small-pox prevailing in Islington, the Rev. G. Allen, Vicar of St. Thomas's, caused an examination to be made of the children in the school in Hemingford Road. Dr. Hill examined 710 children, and recommended the vaccination of 101. A circular reporting the case of each child was forwarded to the parent, and the offer of vaccination, where deemed desirable, has been widely accepted. The example is a good one, and, if widely followed, might do much to arrest the epidemic of small-pox with which London is once more threatened.

REDUCTION OF CHILD-BED MORTALITY.

IN a recent inaugural dissertation, Dr. Stoltz gives an account of the excellent results of ten lying-in asylums that have been recently established at St. Petersburg. Established on account of the danger that exists in the agglomeration of puerperal women, these asylums have only three or four beds in each; and, although many of these are placed in very insalubrious districts, a six years' experience has proved their great utility. Of the 7,907 women who have been delivered in them, only 80, or 1.1 per cent., have died; while at the three hospitals the mortality has been 3.6 per cent.; so that the lives of 200 women have been saved which would have been lost in the old establishments. Besides their great convenience in being distributed over the city, the cost of these asylums is much less than that of the hospitals, the expense of each patient being in the latter from nineteen to twenty-three roubles, while in the asylums it is only twelve roubles.

THE AMMONIA-TREATMENT OF SNAKE-BITE.

THE Report of a Special Committee of the Medical Society of Victoria is entirely adverse to the use of the intravenous injection of ammonia in the treatment of snake-poisoning. Their experiments entirely confirm the negative results of Indian experimenters; and Dr. M'Crea expressed the opinion at the Society, that to continue the intravenous injection of ammonia was to trifle with human life. Thus the use of this alleged "antidote" to snake-bite, about which so many romantic fallacies had collected, is virtually exploded in the stronghold of its quondam believers.

THE ISOLATION OF FEVER-PATIENTS.

THE recent slight increase in London of deaths from fever, though as yet that death-rate is below the average, is sufficient to warn the metropolitan sanitary authorities that they must be on the alert and ready to adopt every measure by which the spread of the disease may be prevented. Foremost amongst such measures is the isolation of the sufferers. Now, the rich are usually treated in their own homes when suffering from infectious maladies, the other members of the family being sent away from the house, and the building being thoroughly disinfected throughout when the illness is over. But this is a very extravagant process, and it would be far better in all respects if fever-patients amongst the wealthy classes would go to one of the private rooms at the London Fever Hospital, where, as we have before explained (page 566, vol. ii for 1875), they may be treated by their own medical attendant or by the visiting physician to the hospital, as may be preferred, and where they receive the best of nursing, medicine, food, and attendance generally, for the small sum of three guineas a week. Domestic servants, *employés* in commercial houses, clerks, etc., are received in the wards of the hospital on the recommendation of a governor or annual subscriber of one guinea, or on the payment of two guineas on admission. Paupers can, of course, be sent to the Metropolitan Fever Asylums. There is, however, a large class of people, such as artisans and others, just above the pauper class, for whom isolation is especially needed, as they usually live in densely populated localities. But patients, whatever their social position may be, can only be admitted to the Asylums Hospitals by being pauperised; and, since fever-patients are usually sent to hospital not so much for their own good as for the benefit which others may receive by being no longer exposed to the infection, the injustice of thus pauperising all who are voluntarily or involuntarily sent into the Asylums Hospitals is extreme. Moreover, sewer-authorities may now arrange with any hospital for the reception of sick inhabitants of its district; and Kensington, Poplar, and many extra-metropolitan parishes, have made such arrangements with the governors of the London Fever Hospital. But, as all the London parishes have not yet adopted this very excellent example, we would impress upon the medical officers of health the desirability of urging their vestries to permit them to arrange with, and send suitable patients to, the London Fever Hospital. It can make no difference to the taxpayers whether payment for patients is made out of the sanitary or poor rate; but it makes all the difference to the patient, as the fact of his being pauperised or not depends on it. Again, the payment made to the London Fever Hospital is considerably less than the cost of a patient in the Asylums Hospitals, which one would consider to be a cogent reason with relieving officers. In the Homerton Fever Hospital, it would appear that fully two-thirds of the patients are usually not paupers, or rather should not have been made paupers; and such a state of things as this should not be allowed to continue.

PLASTER OF PARIS SPLINTS.

A CORRESPONDENT of the *Philadelphia Medical Reporter*, describing the display of splints at the Exhibition there, writes:

"The most recommendable method of using gypsum seems still open to question. It requires a body or filling in order to give it firmness and lightness; and what shall this be? I was well pleased with the 'gypsum and hemp combination splint' exhibited among the surgical matters in the German section. They are used in the Surgical Hospital of the Royal University of Königsberg, of which Dr. Schönborn is Director. The hemp is spread over the limb in a layer of half an inch in thickness, and is retained there while the gypsum is applied upon it. In a few minutes, the plaster hardens, and a second coat can be laid on if required. This is much simpler than the elaborate bandaging system which used to be employed, and has less danger of interfering with the circulation of the part.

"In the Austrian department there is a very similar set of splints to be seen, such as are used in the surgical department of the Vienna General Hospital. They are of cotton and gypsum, and have the advantage of 'movable flaps', the splint being prepared in sections, so that one piece at a time may be removed for dressing, inspection of the

surface, etc. This saves the old and awkward plan of cutting holes in the splint.

"Still another variety of plaster splints may be found in the department of the Netherlands, in the Main building. These are the 'plaster bandages' of Dr. A. Mathysen, and may be briefly described as follows. Three pieces of flannel are cut and fitted to the member. The one destined to lie between the other two is coated with gypsum on both sides; the other two only on one side, that which is to come in contact with the inner double-coated piece. By this arrangement, the splint is rendered cleanly, firm, light, and agreeable to the skin; there is no compression from bandages; and they are easily fitted and readjusted. They have been in use in the Netherlands for a number of years; and they must have been satisfactory, as their inventor has been awarded a red cross decoration for them, and the Société Néerlandaise for the relief of the wounded in war gives them its recommendation."

HABITUAL DRUNKARDS.

IN commenting upon the recent report of our Joint Committee and their proposed action, the *Daily Telegraph* writes:

"While formulating the principles on which they propose to legislate, the British Medical and Social Science Associations would do well to keep the following points prominently in view. Assuming that the warrant for subjecting a dipsomaniac to a 'home of restraint' will have to be discussed in private, it must then be so discussed before a magistrate who is a skilled lawyer of high standing. In Scotland, the law of lunacy, we believe, forbids any less dignified legal official than the sheriff, who corresponds to our county court judge, to grant a warrant sending any one to an asylum. With reference to dipsomaniacs, the provisions of the law as to the judge ought to be even more than usually strict, so as to render it impossible for the evidence in favour of detention to escape the keenest critical sifting. Some guarantee, too, beyond the mere fact of registration, must also be given for the status of the doctors who sign the certificate; and the magistrate ought to be forbidden to issue a warrant unless he is clearly convinced that those applying for it have no unworthy interests to serve in consigning the dipsomaniac to the 'home'. The most stringent limit will have to be set to the period of confinement, which should in no case exceed three months, but which, on sufficient medical and other evidence being adduced, might be extended after expiry for similar terms if, upon a personal examination of the dipsomaniac, the magistrate think him a fit subject for further care and treatment. And one grand distinction should be made between dipsomaniacs and lunatics. All visitors should, within stated hours, be admitted freely to see the habitual drunkard in confinement, subject, of course, to such regulations as to 'searching' as would prevent intoxicating contraband from being smuggled into the 'retreat'. It will be said that, if we insist on forcing these elaborate safeguards into an Habitual Drunkards Bill, we may render it unworkable. But, unless some such provisions are made, the advocates of the measure will have to do without legislation altogether. Less stringent clauses will not satisfy those of their opponents who are jealous of abusive interference with personal liberty. They will retort to the philanthropists who say that a Bill so burdened with protective clauses must have its usefulness minimised, that it is the special business of statesmanship to draft Bills embodying and conciliating antagonistic jealousies which shall yet be workable in practice."

RECENT URBAN MORTALITY.

DURING last week, 5,688 births and 2,974 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 19 deaths annually in every 1,000 persons living. It was 13 per 1,000 in Edinburgh, 22 in Glasgow, and 16 in Dublin. In the twenty English towns the rates were as follows: Plymouth, 13; Nottingham, 17; Brighton, London, Bradford, and Leicester, 18; Portsmouth and Birmingham, 19; Bristol, Hull, and Sunderland, 20; Leeds, Liverpool, and Sheffield, 21; Wolverhampton, 22; Newcastle-upon-Tyne, 23; Oldham, 24; Manchester, and Salford, 26; and the highest rate, 28, in Norwich. The annual death-rate from the seven principal zymotic diseases averaged 3.2 per 1,000 in the twenty towns. No death from these diseases was registered in Plymouth, whereas in the nineteen other towns the zymotic rate ranged from 1.6 and 2.3 in Bristol and Leicester, to 7.5 both in Portsmouth and Salford. The fatal cases of scarlet fever in Portsmouth, which had been 20, 13, and 9 in the three

preceding weeks, rose again to 14. Small-pox caused 7 more deaths in Manchester and Salford (including 1 in the Monsall Hospital), 9 in Liverpool, and 11 in London. In London, 2,476 births and 1,200 deaths were registered. Allowing for increase of population, the births exceeded by 168, whereas the deaths were 189 below the average of the week. The 1,200 deaths included 11 from small-pox, 19 from measles, 57 from scarlet fever, 6 from diphtheria, 8 from whooping cough, 34 from different forms of fever, and 35 from diarrhoea; thus to the seven principal diseases of the zymotic class 170 deaths were referred, against 170 and 171 in the two preceding weeks. These 170 deaths were 114 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 2.5 per 1,000. The deaths referred to each of these seven zymotic diseases were below the corrected average. The returns from the Metropolitan Asylum District Small-Pox Hospitals at Homerton and Stockwell afford evidence of the increased prevalence of small-pox in the metropolis. These two hospitals contain 204 beds for in-patients, of which 153 were occupied on Saturday night last, against 95, 101, and 128 at the end of the three preceding weeks; 48 new cases were admitted during last week, of which 37 were vaccinated and 11 unvaccinated. Eleven fatal cases of small-pox were registered in London during the week, against 16, 11, and 15 in the three preceding weeks. Since the beginning of July, 121 deaths from small-pox have been registered in London, whereas in the first six months of the year only 33 deaths were referred to this disease. In greater London, 2,986 births and 1,400 deaths were registered, equal to annual rates of 36.4 and 17.0 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 13.1 and 1.8 per 1,000 respectively, against 17.9 and 2.5 in inner London. At Greenwich, the mean reading of the barometer during the week was 29.76 inches; the mean temperature of the air was 58.0 degs., or 4.5 degs. above the average of the week; and rain fell on five days of the week to the aggregate amount of 0.45 of an inch.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of the twenty-first session was held at the Royal Kent Dispensary, Greenwich Road, on Friday, October 6th. Dr. J. N. Miller was in the Chair. The following gentlemen were elected office-bearers for the session 1876-77. *President*: Thomas Creed, M.D. *Vice-Presidents*: John Prior Purvis, M.R.C.S.; W. Johnson Smith, F.R.C.S. *Council*: John Anderson, M.D.; Hughes Cable, M.R.C.S.; William Carr, M.D., F.R.C.S.; Ralph Gooding, B.A., M.D.; H. W. Jackson, M.R.C.S.; W. Lockhart, F.R.C.S.; F. Moon, M.B. *Treasurer*: Prior Purvis, M.D. *Hon. Secretary*: Harry Knight Hitchcock, M.D. *Librarian*: J. B. Saundry, L.R.C.P., M.R.C.S.

THE TURKISH ARMY MEDICAL SERVICE.

THE *Standard* correspondent writes:—

"In the afternoon a visit to the hospital and prolonged chat with the European doctors helped to while away the tedious hours. I have refrained as yet to talk of the sanitary organisation of the army, as I consider this to be a subject which can only be judged of after very special and protracted observation. Here at Spuz the houses which do hospital duty are most inadequate to the service, several dozen patients being crowded within the limits of very contracted rooms. The doctors do everything in their power to assuage the sufferings inseparable from such a state of affairs; the fault rests entirely with the Government, which has neglected to provide a point like this, which it was evident must sooner or later become the basis of military operations, with the necessary hospital accommodation. At Podgoritza a commodious hospital with 150 beds exists; of course this barely suffices for the more pressing cases after each conflict, and a large number of private houses have had to be pressed into the service. And even thus a considerable number of wounded have to be prematurely despatched to Scutari. There, at least, sufficient accommodation is found, but I have heard of sad instances of gunshot wounds and fractured limbs only partially healed, which have come to grief during the trying transit on jolting bullock carts, when amputation became ultimately necessary. The chiefs of the medical service, Matkovich Bey and Zoeros Bey, are

doctors of established reputation at Constantinople, the latter having been private physician to Sultan Abdul Aziz, and owing his present position only to having fallen into disgrace on the deposition of that ruler. The *cadre* of subordinate doctors is of most heterogeneous composition. Zoeros Bey once stated that no less than nine nationalities and five religions were represented among them, and I have found his calculation to be exact. The number of doctors attached to this army of 30,000 regulars and 5000 irregulars does not exceed fourteen; fortunately the fights that have occurred on this frontier have been either unimportant or followed by long intervals of inaction, so that the numerical inadequacy of the medical staff has not proved as fatal as might have been expected. There are, moreover, a certain number of pharmacists, and every battalion has its surgeon. The great majority of the latter are only half instructed in their profession. There has been some talk about English doctors who were to be engaged on behalf of this army, and, therefore, I shall add some remarks about the treatment they may expect to receive. The salary of 500*l.* in gold per month is paid anything but regularly, and never in gold. I know doctors to whom eight or nine months are due, but these appear to feel no anxiety about the matter. In countries like these a doctor can manage to live on the amount he receives at the end of each month for the rations of the horse which he is supposed to keep, though under the circumstances, here only one of the doctors actually keeps a horse. They are nearly all Austrians and Hungarians, with as little knowledge of Turkish as an Englishman may be surmised to possess. The bringing out of a dictionary and grammar would be of very great use. It is curious to observe how those among my medical acquaintances here who take things cheerfully and accommodate themselves to the circumstances manage to be on the most excellent terms with their Cimbashis, and how they get paid much sooner than the grumblers and malcontents.

AN INTERESTING MANUSCRIPT.

The National Library of Paris has just made the acquisition of a very precious manuscript by Denis Papin, the illustrious philosopher who originally discovered the use which might be made of steam as a motive power. The manuscript is entitled "A Treatise on Painless Operations". In it the author describes the different means which may be used to lull the sensibility of patients and to spare them the pain of operations. It is known that Papin, disgusted at the shackles which were placed on his researches in medicine, gave himself up to philosophical pursuits. The manuscript in question was written in 1681. Papin, when leaving Germany to return to France, gave it to an old friend, Dr. Bremer, who alone had sustained him by his encouragement and appreciation. This manuscript finally fell into the hands of Pador Lahn, a schoolmaster in the environs of Marburg, who has lately died. His heir has sold it to the National Library for a considerable price.

HYDROPHOBIA.

AN inquest was held at Wisborough-Green, near Horsham, before Mr. Fullagar, Coroner for Sussex, into the circumstances attending the death of James Mansfield, aged about four, from the effects of hydrophobia. A white retriever dog flew at him while he was running along and bit him in the head and face, after which it rushed into a fowl's-house and killed a quantity of fowls. It also bit some pigs and sheep, which had since died. Medical attendance was procured, and the boy at first went on well, but after Wednesday last he was unable to take food, and he gradually sank and died. The animal that bit the deceased had been shot. The jury returned a verdict of "Death from hydrophobia".

REGISTRATION OF INFECTIOUS DISEASE.

MR. ALFRED HAVILAND, in his general report to the sanitary authority of Wellingborough, made the following statement.

"I am glad to inform you that an influential association is about to take up the subject of compulsory information in the case of infectious and contagious diseases. At a late meeting of the health section of the Social Science Association, we succeeded in obtaining a majority to a resolution to the following effect: 'That it should be made compulsory, by penalty or otherwise, that heads of houses, families, etc., should give immediate information to sanitary authorities as to the existence of infectious or contagious diseases, and that within a certain given time; and that the medical attendant should be compelled to give the neces-

sary information to such heads of houses, families, etc.' This resolution will be brought before the Congress of the Social Science Association at Liverpool, now in congress, with the view of representing to the Government the desirability of carrying it into effect."

THE FEES OF AMERICAN PRACTITIONERS.

M. MOLINARI has been writing some letters to the *Débats* from Savannah. In the course of them, he states: "There are not less than fifty medical men in Savannah, of which three are homœopaths and two Thompsonians, without reckoning negro practitioners and others who perform operations without having any diploma. Each visit, operation, or treatment is paid according to its importance. A simple visit to a resident costs two dollars; to a non-resident, five dollars; a visit on board a vessel during the day, five dollars; during the night, twenty dollars; a visit during the hours the surgeon receives patients at his office, twenty dollars; an ordinary confinement, fifty dollars; with complications, one hundred dollars; the Cæsarean operation, five hundred dollars; amputation of an arm, fifty dollars; of a leg, one hundred dollars, etc. These prices are, however, only the minimum. They may be increased according to the importance of the case, at the discretion of the surgeon; and a notice, printed at the head of the tariff, informs clients that accounts will be sent to them monthly, or when attendances have been discontinued." This system, which was introduced by a Belgian physician, is very satisfactory to the profession, and does not seem to meet with any objection from the patients.

ENGLISH SOLDIERS IN INDIA.

THE important question of the length of service for the English soldier in India is now engaging the attention not only of the home officials of the War and Indian Offices, but is likewise being discussed by the authorities in this country. Several officers of the Army Medical Department have been called upon to submit reports on this subject. The medical aspects of the question are most important, and will have great weight in the final conclusions arrived at.

THE RELIGIOUS ELEMENT IN FRENCH HOSPITALS.

CONSIDERABLE attention has been aroused in French medical circles by an article which appeared in the *XIX Siècle*, signed by Francesque Sarcey, but really inspired by Doctor Desprès of the Cochin Hospital. This article referred to the new bed-tickets used in the French hospitals, in which a certain system of initial conveys to the sisters and nuns on duty in the wards information as to the religion of the patient, whether he has taken the sacrament, and if he have changed his religion since he has been in hospital. Dr. Desprès objects to this system as calculated to create a prejudice in the minds of the religious functionaries in the hospitals against the patients of whose religious convictions they may disapprove. Some correspondence has taken place on the subject between the Directeur General de l'Assistance Publique and Doctor Desprès, and a meeting of the members of that body was called by M. de Nervaux. The result is the suppression of the objectionable label and the appointment of a commission of five members to construct a fresh one, in which matters of religion should be left in abeyance.

THE TATTOOED MAN.

AT the last meeting of the Accademia dei Linci at Rome, M. Moriggia presented the famous tattooed man, Konstantinos, a native of Albania, who was long a prisoner of war in Chinese Tartary. He was then tattooed from head to foot with figures of men, tigers, crocodiles, apes, etc. The work was continued for four months. The tactile sensibility of the skin is diminished; sensibility to thermal stimuli is good, and to electrical perhaps increased; muscular force low; there is a difficulty of breathing, and lassitude; sense of strain and smart in the skin, greatest in the feet and seat; considerable insomnia; vision and hearing are affected; there are frequent dysentery and abdominal pains; the blood is rich in leucocytes; urine with traces of albumen; free perspiration persistent; intelligence is not much affected, but the *morale* is depressed; etc.

NORMAL OVARIOTOMY.

At a recent meeting of the Central Kentucky Medical Association, reported in our able contemporary the *Richmond and Louisville Medical Journal*, Dr. McClellan said, of the ten cases operated on by Dr. Battey, five had been under his observation since the operation. Of these five, one died, and the others had not in the least been benefited. After giving an outline of the cases and the manner of operating, he said that he knew of no operation in surgery that promised so little as this, and he declared emphatically that no patient of his should ever be subjected to the operation of normal ovariectomy, unless in the last extremity.

SCOTLAND.

THE contest for the vacant Chair of Practice of Physic in the University continues to be the topic of conversation in Edinburgh. Professor Sanders declines to come forward as a candidate; and at present the competitors are Dr. Rutherford Haldane, Dr. Grainger Stewart, and Dr. G. W. Balfour, the three ordinary Physicians to the Royal Infirmary. Dr. Gairdner is also spoken of as a probable candidate. The election lies with the Curators of the University, seven in number, of whom four are nominated by the Town Council and three by the University Court. The present Curators are Sir W. Stirling Maxwell, Lord Rutherford Clark, Sir John McNeil, the Lord Provost, Mr. Tawse, W.S., Lord Gifford, and Dr. William Chambers; the three firstnamed being the nominees of the University.

THE Glasgow Medical Officer to the Corporation reports, with regard to the analysis of air which is in contemplation, that an apparatus had been devised by Mr. Dixon of the E.C. Training College, Glasgow, which had been approved of by the Chemical Section of the British Association as a simple and accurate means of overcoming the difficulties of air-analysis. The apparatus was sent to the Mull of Kintyre under Mr. Dixon's charge, and was continuously at work for a time day and night analysing air under the most varying conditions of wind, temperature, moisture, etc., for three weeks, the object being to obtain a standard of pure air for comparison with the air of Glasgow. Mr. Dixon is now working out the results in his laboratory. The Clyde trustees had put a man and boat at their disposal for the investigation of the air above the surface of the Clyde.

PUBLIC HEALTH IN EDINBURGH.

At a meeting of the Public Health Committee of the Town Council of Edinburgh, held last week, the report of the medical officer commented on the scarcity of water in certain parts of the city. The report made special reference to cases of typhoid fever which had occurred in houses where the want of water was most complained of, and stated that it had been found necessary to have a number of patients removed from their own houses to the fever-wards of the Royal Infirmary. There was also submitted to the meeting a communication from the medical officer with reference to the advisability of intimation being sent to the Public Health Office by the various practitioners throughout the city in regard to cases of infectious disease which come under their notice. The Committee decided that the statement which the medical officer had prepared on this subject should be printed and sent to the Town Council for approval previous to the circulation of the document amongst the members of the medical profession in Edinburgh. Notwithstanding the above-mentioned cases of typhoid fever, the death-rate of the past week in Edinburgh has been very low, the total number of deaths registered being 55; and, if five of these be deducted as belonging to country districts, the rate of mortality is only 12 per 1,000. With the exception of the week of the Queen's visit, this is the lowest weekly mortality in the present year. No deaths from diarrhoea occurred; and the zymotic mortality continues small as compared with similar periods in previous years.—In Leith also, the recent death-rates have been remarkably low; thus, during the last three months, 239

deaths have been registered, this being equivalent to an annual mortality of 13 per 1,000; 102 of the deaths were of children under five years of age. The births during the quarter numbered 525.

FALKIRK WATER-SUPPLY.

OWING to the rapid increase of the population of Falkirk and the extension of public works and buildings, the present supply of water to the town is proving inadequate for the demand, and a report was read at the last Council meeting as to the best means of increasing the present supply. The engineer suggested the erection of certain works at the present sources of supply, with a view to preventing waste, and also that an additional supply could be obtained from springs near the town. He was of opinion, however, that, in order to obtain an adequate supply for the growing population, it would be necessary to enter into a larger scheme, and pointed out a source, Glen Burn, from which a supply of twenty gallons a head per day for a population of 10,000 could be obtained.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

At a meeting of this Corporation held on the 2nd instant, the following office-bearers were elected for the ensuing year, viz., *President*: Andrew Fergus, M.D. *Visitor*: J. B. Cowan, M.D. *Treasurer*: John Coats, M.D. *Honorary Librarian*: James Finlayson, M.D. *Vaccinator*: Hugh Thomson, M.D. *Councillors*: the *President, ex officio*; the *Visitor, ex officio*; the *Treasurer, ex officio*; J. G. Fleming, M.D.; William Leishman, M.D.; Henry Muirhead, M.D.; J. D. Maclaren, M.D.; James Morton, M.D. *Board of Examiners*: Alexander Lindsay, M.D., Chemistry, one year; George Buchanan, M.D., Anatomy and Physiology, one year; James Finlayson, M.D., Clinical Medicine, one year; J. D. Maclaren, M.D., Clinical Medicine, one year; R. D. Tannahill, M.D., Midwifery, one year; R. Scott Orr, M.D., Medicine and Materia Medica, two years; James Dunlop, M.D., Clinical Surgery, two years; Alexander Patterson, M.D., Clinical Surgery, two years; P. A. Simpson, M.D., Medical Jurisprudence, two years; James Dunlop, M.D., Surgery and Surgical Anatomy, two years; H. C. Cameron, M.D., Surgery and Surgical Anatomy, three years; Eben Watson, M.D., Anatomy and Physiology, three years; J. G. Wilson, M.D., Midwifery, three years; Matthew Charteris, M.D., Clinical Medicine, three years; R. Scott Orr, M.D., Clinical Medicine, three years; James Morton, M.D., Surgery and Surgical Anatomy, four years; Robert Perry, M.D., Chemistry, four years; A. Wood Smith, M.D., Medicine and Materia Medica, four years; H. C. Cameron, M.D., Clinical Surgery, four years; James Morton, M.D., Chemical Surgery, four years; William Macewan, M.D., Medical Jurisprudence, four years. *Examiners in Arts*: James B. Russell, M.D.; John Pirie, M.D. *Clerk*: William Henry Hill. *Secretary and Librarian*: Alexander Duncan, B.A.

IRELAND.

At a meeting of the Corporation of Dublin on the 6th instant, the question of an increase in the salary of the coroner for the city was again brought forward; when it was ultimately decided that it should be £500 *per annum* for the discharge of the entire duties, including all fees, allowances, car hire, etc.

ARTISANS' DWELLINGS IN DUBLIN.

THE Recorder of Dublin, in his charge this week, attributes a large proportion of the intemperance and crime of Dublin to the foulness and uninhabitable misery of the dwellings of the poor in that city. The Artisans' Dwelling Company, lately formed in Dublin for the purpose of supplying habitable dwellings to artisans and others at moderate rents, have, we are glad to learn, lately purchased some land in Upper Buckingham Street, and have advertised for tenders for the erection of a block of buildings on the site selected, which, when erected, will, we understand, be not only in a sanitary point of view all that can be de-

sired, but also, which is of great importance, if large operations are to follow, have the best prospect of being successful in a commercial sense.

SMALL-POX IN DUBLIN.

THE relative success with which Ireland is guarded from small-pox by vigilant and efficient vaccination and the isolation of fresh cases is very noteworthy. In the Registrar-General's return for the week ending September 30th, a death was registered as resulting from small-pox; that of a boy, thirteen years old, who died in the South Dublin Union. An investigation of the circumstances was immediately made; and it has shown that a mistake had arisen; the deceased dying from phthisis. It appears that, in 1872, the patient was under treatment for small-pox; and the bed-ticket labelled as "convalescent from small-pox"; which still remained, was in this way reported to the master by one of the nurses, who had it registered as a case of small-pox.

MALAHIDE GRAVEYARD.

ON Saturday, the 30th ult., Mr. O'Brien, Local Government Board Inspector, held an inquiry in reference to this burial-ground, in consequence of a representation to the Board by Lord Talbot de Malahide, who believed it necessary for the public health that interments for the future should not be permitted, except in exceptional cases, as the Board should allow. His memorial stated that the ground was already overcrowded; and that, owing to its being in the immediate vicinity of his residence and the dwellings of his servants, and also close to the town, any further interments would be prejudicial to the public health of the inhabitants. Dr. Cameron, City Analyst, believed that the graveyard should be closed, and that it should be at least five hundred feet from any residence. The soil was of a very putty-like description, and a bad absorbent of the noxious gases exhaled from the remains. Thirty-five interments, the number that took place last year, was, he thought, an excessive number for a well-regulated graveyard of its size. Dr. Reynolds, Professor of Chemistry in the University of Dublin, corroborated Dr. Cameron's statements, and was of opinion that interments should cease for at least ten or twelve years; and another medical gentleman stated that in one instance there was a grave with only fourteen inches of covering, and another with twenty-seven inches. On the other hand, Dr. Mapother and some others believed that there was no necessity for closing the graveyard, it not being overcrowded, and the soil being fresh and dry, and consequently suitable for decomposition. The inquiry will be continued this week; but we trust, in the interests of health, that, from the evidence given, such a condition of affairs as exists will speedily be removed by an order from the Local Government Board refusing any further interments in a burial-ground so densely overcrowded.

DRAINAGE OF RATHMINES AND PEMBROKE TOWNSHIPS.

THE commissioners of these townships have combined to introduce a Bill into the next session of Parliament for the main-drainage of these places. By the method proposed, it is intended, we understand, to bring the sewage down to the river Dodder, and, by a pumping apparatus, carry it out to the mouth of the river Liffey and bay at Poolbeg lighthouse. We believe the sewage will only be allowed to pass into the sea for a short period daily and during high water, thereby obviating some objections to the proposed scheme; but it seems most probable that the Port and Docks Board, who have the control of the river, and the inhabitants of Irishtown and Ringsend, will naturally object to the pumping apparatus being located in their vicinity, giving rise to odours not of the most pleasant description. For these reasons, considerable opposition may be expected to the Bill; and, besides this, unless the sewage is carried to a long distance out in the bay, which would necessarily cause enormous expense, the tide and currents would undoubtedly bring it back again along the adjacent coast, causing an effluvia at low tide which would be unbearable.

AMBULANCES OF THE TURKISH AND SERVIAN ARMIES.

MR. MAC CORMAC, who has recently returned from the front, whither he accompanied Colonel Loyd Lindsay for the purpose of assisting in carrying out the benevolent objects of the National Aid Society, has favoured us with some notes of his journey. Mr. Mac Cormac writes:

On looking back to what I have lately seen in Servia and Turkey, the impression that occurs to me as the most prominent is that the war has thus far been a small war, although the misery caused by it has been disproportionately great.

The operations of the contending forces have been on a comparatively limited scale. The Turks and Servians have, for instance, been confronting each other before Alexinatz for months. The cannonading goes on briskly enough, but a Turkish general assured me that, on one day recently, five hundred cannon-shots had been fired, and that the result in casualties was two wounded men. The Turks say the Servians fire a prodigious quantity of ammunition, but the shells do not explode, and do little harm; they bury themselves in the soft earth, and, being percussion fuses, do not go off. The Servians, on the other hand, say the Turks have excellent artillery, and they have, in fact, the newest Krupp guns, but that they don't know how to serve them. Indeed, so far as I could judge, the officers on each side appeared to possess, and freely express, contempt for the other. The General Tchernayeff himself told me the Turks could not fight; and that, if he had anything better than the wretched Servian militia at his disposal, he could soon render a good account of them. But the misery and suffering entailed by this war on the population are out of all proportion to the extent of it. It is something perfectly frightful. Nothing also struck me more forcibly than the amount of the *vis inertia* met with in the Turks. If we wanted to get our stores forward, we had the greatest trouble in making the officials believe we really meant what we said, and that we were in a hurry. Nobody certainly appears in a hurry in Turkey. In Sophia, when we wanted to establish a hospital for one hundred beds, where it was acknowledged the greatest want for it prevailed, we had to wait and wait for hours in the presence of the Pasha and other officials, while one delay after another took place. The *Commandant de Place* said he certainly could do nothing that day because it was Sunday, but it was only the Christian Sunday, the Turkish being Friday. They gave us cigarettes and beautiful coffee, and expressed themselves in the most delightfully courteous phrases; but, nevertheless, we had to submit to delay at every stage, of the most irritating kind, because apparently so unnecessary. Yet, we had our own way in the end by dint of pure obstinacy. There seemed no motive beyond mere delay for the sake of delay.

The same sort of thing goes on in the camp. The Servians and Turks fight, and, as a rule, the former have run away, but the Turks have hitherto taken no advantage of this. Evening comes on, and things remain much as they were before. At night, they never fight at all, it seems. The Turkish soldiers, had they been properly led at the beginning of the war, might very soon have occupied the whole country, and Belgrade itself. There would have been, I feel convinced, little serious resistance to their advance. Now, it would probably be otherwise, for the Servian army is steadily becoming converted into a Russian one; and this explains another salient feature in the position of affairs in Servia. Not only is the army a foreign one, but the medical service is so likewise. I met only two Servian medical officers during my whole stay in Servia, but Russians in great numbers, both Russian men and Russian women. In Belgrade itself, there are hospitals under Servian control, of course, and Russian as well; but, along the line towards Alexinatz, nearly every ambulance visited by me, and I visited most of them, was under Russian management; and, judging by the examples I witnessed, I must confess the surgery of some of the surgeons is not all that might be desired. Some of the hospitals I visited in Servia were, however, all that could be wished for under the circumstances, except in the amount of ventilation, by which English surgeons set greater store than those of most other nations I have met with. One of these hospitals was in Belgrade, under the direction of an able surgeon, for many years assistant to Professor Billroth, whose name I cannot recall. Here, the wounds were all treated after the most recent antiseptic method. The cases, however, were, with few exceptions, of a mild type; and there were several for whom, surgically speaking, there could be no reason to retain them in the hospital at all.

Another very complete establishment was at Tchupria; a wooden barrack for eighty beds, under Russian surgeons and sisters of charity.

The installation was admirable in every way ; but, here again, there was bad ventilation.

The building at Töpschidere, near Belgrade, was the only exception to this. There, the system of open air, that is, one side of the barrack unclosed, except by blinds at night, was in operation. There were one hundred and fifty beds and every arrangement, including Russian sisters of charity, complete, but only two patients at the time of my visit. -It has since been filled up.

Slightly wounded men formed a considerable proportion of the cases everywhere, and the number of operations has not been large. I saw some cases where, for injury to a joint, excision was demanded ; but the patients refused to submit. There was the same horror of operative interference which characterises ignorant people in every country. It is not peculiar to the Servians. I have seen many an instance in my London hospital and elsewhere.

One handsome fellow of eighteen, with the head of the humerus shattered by a fragment of shell, a large open wound of the joint, with profuse suppuration, and suffering intense pain from the pressure of the end of the shaft of the bone against the brachial plexus, excited my sympathy and pity. He refused any operation, and yet it was a most favourable case for excision. He was evidently much exhausted by suffering. His poor mother, who never left him, had three other sons, the youngest only fourteen, in the war ; but she stoutly refused to allow the operation to be performed.

In Belgrade, the National Society has established an ambulance for one hundred and fifty beds. One hundred are already in operation ; and the hospital is as nice as nice can be, while Mr. MacKellar, who is Surgeon-in-Chief to it, will, no doubt, be able to render a good account of his work there when he comes home. This gentleman, with Messrs. Sandwith, Hume, Hare, Atwood, and Boyd, were busy during the preceding six weeks in the Verband-Plätze of the first and second lines, generally, indeed, the first lines. Their services were invaluable, and have met with the acknowledgment they merit from the Servian authorities. Dr. Vliadan Georgovitch, the principal medical officer in the field, spoke to me of them all in the warmest terms of praise, and of MacKellar as his *alter ego* and right-hand man.

Another feature observable in the Servian hospitals was the absence of any wounded Turks. I saw one only myself, and he appeared to be considered a natural, or perhaps I should say an unnatural, phenomenon. But I was told there had been several.

Another noteworthy fact in this unfortunate war is the number of persons who have maimed themselves in the hand to avoid fighting. That the Servian soldiers, who were no better than the rawest militia, did not want to fight is established conclusively by this one fact alone. Driving along the road to Alexinatz on August 31st, I counted in a few hours stragglers from the front, up to one hundred in number, all wounded in the fingers or hand. I then ceased to count. One met them in batches of two, three, four, and five ; in one batch, I actually counted eight men, all hand-wounded. A Russian surgeon in Rasanj told me he had passed three hundred such cases through his ambulance alone ; and I am afraid to state the number Baron Mundy told me he had seen. Our own surgeons often taxed the fellows with it, for they saw the traces of powder on their fingers.

The transport of the wounded is the same both in Servia and Bulgaria : a couple of eastern-looking oxen are yoked to a bullock-cart, in the bottom of which, upon some hay, three or four wounded men jolt slowly along, without cover from the scorching sun by day, or more shelter during the chilly nights than their own clothing affords. Fortunately, at this season there is no rain. There are, however, besides a few spring carts in which I met some wounded officers.

Baron Mundy, who has an official appointment as Superintendent of foreign ambulances, has organised a very complete transport system so far as means admitted. The wounded are carried, as soon as possible to the rear. Some are distributed in the ambulances along the line of route, and others brought to the nearest river station where they are transported in ambulance barges to Belgrade by the Danube. Our party, consisting of Colonel Loyd Lindsay, four surgeons, Messrs. Leslie, Pitts, White, and Barker, and myself landed, after a most interesting sail down the great river, with a large amount of surgical stores, and four hospital tents on Turkish soil, on September 10th. Our object was to afford a like amount of aid to each contending party, and in this I may at once state we were completely successful.

We found at Widdin large hospitals, and a numerous staff of surgeons, and this seems to obtain throughout Turkey. Everywhere we found considerable hospitals, and a numerous staff of Turkish military surgeons. I did not meet a single volunteer surgeon till I came to Constantinople, and there we found the twenty English surgeons who had accepted the Turkish uniform and pay, and who complained loudly, and with much apparent reason, that they had been kept a fortnight

waiting for orders from Constantinople doing nothing but running up a heavy hotel bill. I suppose the Turkish Government had in fact no work for them to do. I believe it was rather from political motives than on account of any great need of their services that they were retained in London. Be that as it may, I found everywhere I went an ample staff of Turkish military officers, who wear a military uniform, and are designated by military titles. Most of these gentlemen speak French, and many have completed their education in the medical schools of Paris and Vienna. In Widdin they had received in all 400 wounded, from Saitchar chiefly, while the sum total of the operations in the hospital there amounted to two amputations, one of the leg, another of a finger. The Turks object also, it appears, to the exercise of surgical skill ; for there were three or four elbow and shoulder wounds which required excision of the joints, but which the patients objected to having performed.

Our little hardships began during our journey from Widdin to Nish, three days and nights in miserable carriages, with no food but some small provision we fortunately brought with us, and no resting-place better than a foul-smelling hay-loft. At Nish, however, we visited the camp at the head-quarters and entered into a most satisfactory arrangement with Dr. Voulcovitch Bey, principal medical officer at the head-quarter camp before Alexinatz. He welcomed our four surgeons with open arms, and promised that they should have a good share of work. He has already redeemed his word ; for Leslie telegraphed me that they have had their hands full both day and night with the wounded of the two recent battles.

From Nish to Sophia, and thence most of the way to Tatar Bashardjik, the road lies amongst the Balkan mountains. It is very picturesque, and the district is said to abound in mineral wealth. We lived part of the time on grapes and bread.

Sophia lies on very high ground, and there we determined to place our reserve ambulance hospital for one hundred beds. It is a most healthy situation, and the chief surgeon, Dr. Takvorian, was most anxious for more beds. We found, after much delay and trouble, a very suitable building, formerly used by the railway commission, and Colonel Loyd Lindsay arranged that three of the English surgeons in the Government service whom we afterwards met should proceed from Constantinople to do duty in it.

In Sophia, besides the military hospital with one hundred and fifty sick and one hundred and fifty wounded, there is the Hirsch Hospital, organised by Dr. Fano Bey for one hundred beds, with funds supplied by Baron Hirsch, who also maintains it wholly at his own expense. This hospital is a transformed khan or country inn. We looked at two such khans ourselves with a similar view ; but anything to equal the dirt and general nastiness of these places I never beheld. In one the vermin might almost be described as inch-deep upon the floor. I saw nothing whatever in Sophia of surgical interest. There were many cases of fever, and the wounded mainly comprised cases of flesh-wound and fractures of the extremities, with a few instances of joint-injury.

After leaving Sophia, we had a long and weary drive to Tatar Bashardjik, where we met the railway, a most welcome sight. The luxury of railway travelling can only be estimated at its proper value after such jolting as we had experienced during the previous three weeks. We spent the night in comparative comfort in the waiting-room, and started early in the morning for Adrianople. Here there is a large, and by no means ill arranged hospital. The furniture of the wards and beds was good, and no overcrowding ; indeed, the hospital was only half full. Here, too, there was the same absence of thorough ventilation. I was greatly interested in the condition of a young Circassian. A ball had entered the upper and outer side of his foot three weeks before, and he had travelled thus far without the ball being discovered, or, at any rate, extracted. I was able to find it after a little searching firmly lodged between the astragalus and os calcis, and its presence there was already beginning to threaten the integrity of the ankle-joint. The interesting point was the poor fellow's evident delight at the discovery that had been made, and the manner in which he took the probe from my hand, reintroduced it himself, and repeatedly tapped upon the bullet, was a sight to see. Of course, while travelling through this district, which was the one where the greatest number of the dreadful cruelties had been practised, we made many inquiries about them. For my part, the replies given by different people, all apparently with equal good faith, were so utterly contradictory, that I feel quite at a loss to know what to believe, or how anyone can possibly arrive at the exact truth. The Christian Bulgarians appear to have commenced the atrocities, and carried them on for a brief interval, when they were ruthlessly avenged by their Moslem neighbours. The inhabitants of one village exterminated those in the adjacent one in the most cruel fashion, and the people who did these deeds, for the most part certainly, were not soldiers, but armed

civilians; the villagers who had, but a generation or two before, been Christians themselves.

I saw no wounded Servians in the Turkish hospitals, but was told of a few who had been received. The Circassians neither receive nor give quarter, and, when severely wounded, beg to be killed, and are dispatched, I have been informed, by their comrades.

One thing strikes me forcibly in all this, that we shall not arrive at reasonable conclusions if we judge the actions of barbarous peoples solely from the standpoint of civilised Europe. When barbarians have the power and the opportunity, they will be certain to commit barbarous actions, and reflect but little either upon the nature or the consequences of their acts.

THE HYGIENIC CONGRESS AT BRUSSELS.

At the Red Cross Section of the Hygienic Conference at Brussels on September 28th, Dr. Appia of Geneva, Secretary of the Central Committee for Succour to the Wounded, read a paper on the organisation of the medical service on the field of battle during action and afterwards. He described the German field-lazarets, and he insisted on the necessity of every soldier carrying with him some simple surgical apparatus. The Germans had already learnt to take with them into action a little Esmarch bandage, and the French a morsel of lint. Dr. Appia also advocated the use of horse-litters on the field of battle, instead of hand-litters carried by men. A military man in the audience soon afterwards rose and said that with hand-litters they were able to avoid shot, but that horse-litters would be very liable to be disabled. It was also objected that horse-litters would be less easy to the wounded, and that the transfer from the litter to the hospital or the ambulance would be more painful and difficult. Dr. Dauvé, delegate to the French Ministry of War, was the next speaker. He was very clear in expressing the opinion that the business of the Red Cross Societies was not to go upon the field of battle. That was, he thought, the task of the regular medical service. The Red Cross Societies' men were to remain in the rear and supplement the professional exertions of the regular staff in times which must recur in wars of extraordinary pressure. He advocated the regimental organisation of medical relief, so that regiments should have their own hospitals, ambulances, litters, attendants, etc.; and, reviewing the several ambulances exhibited in the Exhibition, he pronounced in favour of the Belgian ambulance. Dr. Esmarch demonstrated an arrangement for the transport of the wounded, which he had sent to the Exhibition. Dr. Langenbeck supported the exclusion of the auxiliary medical service from the field of battle, unless when the regular doctors became utterly exhausted; and he said the rule was already that of the German army. One speaker wished that no doctors should venture under fire; their lives were valuable, as he said; but Dr. Langenbeck, while admitting the propriety of keeping surgeons out of danger, retorted with much vigour of manner that the peculiar business of a military surgeon was to imperil himself for the sake of saving others. The German government had requested this Section to make suggestions as to the ventilation of ambulances.

In the Section of Medical Hygiene, there was an animated discussion upon quarantine. M. Hirsch said that quarantine, though strictly enforced, had done nothing to prevent the epidemics which had in modern times broken out. It had done nothing for us against cholera. He had studied this disease lately on the shores of the Vistula. Though no quarantine had been adopted, the malady had not spread, but had disappeared upon the adoption of better hygienic arrangements. M. Charbonnier mentioned the persistence of cholera in the poorer quarters of Calcutta. In Belgium, it attacked persons living in dirt and disorder. Then two rival experiences were detailed: Signor Castiglione, in Italy, had observed that cholera came overland to Rome, and did not travel by sea. From this, he inferred the benefit of isolation. Herr Verentadt, however, had, in 1849, watched the cholera ascend the Rhine, visiting the towns upon its banks, but not communicating to the inland places.—The Section soon afterwards briefly considered the question of cattle-disease; and Dr. Virchow of Berlin complained that Russia had failed to take sufficient precautions against the propagation of epizootic disease.

Dr. Herpin opened the debate on the sanitary conditions which civil hospitals ought to present. He was followed by Dr. Hyernaux and several other medical men. Mr. Edwin Chadwick urged the separation of patients on the ground of the discouragement to the sick involved in hearing and seeing nothing but suffering. In the large hospitals, with their perfect appliances, results (in maternity cases, where the patients are particularly susceptible) were less satisfactory than in the small infirmaries of the unions. Surgeons in a London hospital stated that, after the administration of the last sacrament to an Irish patient, all the

patients in the ward were worse. The idea was started by another member that cubical capacity was not a good measure of the healthiness of rooms. Much would depend upon shape, and height of the room would not make up for smallness of surface. Baron Mundy and M. Buquet quoted against this view the hospital at Milan, which had 2,400 beds in all, placed in long, narrow, but lofty galleries. The rate of mortality was very low. Dr. De Chaumont, whose authority upon ventilation was often cited by General Morin, also preferred long rooms to square; but it was generally admitted that no form of room without special arrangements for ventilation was enough.

At the sitting of October 2nd, the discussions in the Red Cross Section continued, and the terrible character of a battle on a large scale was illustrated by the detail of the means adopted for abating the pestilential exhalations from the field of Sedan. M. Créteur, who for four months was occupied in the burial of the dead at Sedan, related that he placed above the bodies layers of quicklime, pitch, and then petroleum, thus obtaining, as it were, chemical cremation. M. Guillery proposed the formation of an association similar to the Red Cross Societies, but under the funeral title of the Black Cross, which should devote itself to the burial of the dead upon the crowded battle-field. The Russian General Obroucheff deprecated the introduction of this new agent, saying that the victor took with the spoil the duty of burying the dead. Some other members thought it a suggestion which might be carried into practice.

Surgeon-Major Porter then read a *précis* of his essay on "The Treatment of Wounded in War", which gained the prize offered by the Empress Augusta at the Vienna Congress in 1873. He began by pointing out the difficulty of affording aid immediately after an engagement to the multitude of wounded whom modern weapons placed so rapidly *hors de combat*, and consequently the necessity that surgeons and their assistants should be selected for their knowledge and aptitude in the construction of temporary appliances. Mr. Porter next referred to the recent improvements in the railway transport of wounded men, and suggested the utility of employing hammocks. He expressed himself as opposed to the examination of penetrating wounds on the battlefield, owing to the danger of introducing septic poison on the fingers of the surgeon. He concluded a most interesting paper with some practical remarks on overcrowding wounded men, cleanliness, etc. On one point especially all will agree with Mr. Porter when speaking of the difficulty of using antiseptic treatment on the field; he said that if there were a chance of success with it, then the soldier had as much right to expect it as his country had the right to insist that he should be provided with the most perfect weapon and ammunition at unlimited cost.

Herr Roth, surgeon-general in the German army, remarked on the difficulty of determining the proper place for surgeons during an action, and expressed some opinions with regard to surgeons being attached to the general staff during manœuvres in time of peace, in order to acquire a more complete knowledge of strictly military duties. Dr. White of Netley, Dr. Howard of New York, and Mr. Ellissin also spoke on the same subject.

In another Section, the mortality among infants was discussed. M. Houzé de l'Aulnoit gave statistics concerning the death-rate of children in France. As for the causes of mortality, small-pox made the greatest ravages; next in order of destructiveness came the very suspicious agency of a sedative potion called *le dormant*. Another cause was the poor nourishment afforded to their children by mothers who were obliged to work immediately after their babes came into the world. Women ought to be forbidden by law to go to work within a certain number of days from childbirth; and, to help them in this case, a charitable fund must be established. Such a fund existed at Mulhouse. The speaker had tried in vain to establish one at Lille. Women after childbirth ought to have not less than a month of repose. It was agreed to ask one member in each country to contribute statistics on the mortality of infants under the age of one year.

Dr. Benjamin Howard of New York read a paper giving his method of artificial respiration for the treatment of persons apparently dead from drowning. He also urged the importance not only of a more general instruction of the public upon the subject of life-saving, but that the best methods of rescuing drowning persons from the water, of resuscitation, of the rules to be observed in escaping from burning buildings, etc., should form part of general education, as the best means of insuring discretion and coolness at the critical moment, the want of which added so much to the fatality in various catastrophes. Afterwards, in one of the offices of the Exhibition, Dr. Howard demonstrated his method of artificial respiration and resuscitation, which was most simple, and could be employed by anyone.

In the Section of Medical Hygiene, one of the delegates, Dr. Kuborn, speaking of the mortality amongst infants, gave some curious statistics. Out of 1,000 infants, he showed that the average annual death-rate was

greatest in Bavaria, namely 372, and least in Sweden, with 153; next to this country was Denmark. Scotland stood third on the list, and England fourth with 170. Later, an international statistical committee was appointed to report on this question, and Dr. Hardwicke was nominated the English representative.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

THE Lumleian Lectures are appointed to be delivered by Dr. George Johnson; the Croonian Lectures, by Dr. Braxton Hicks; and the Goulstonian Lectures by Dr. Lauder Brunton. We have the pleasure of announcing that, by arrangement with the authors, all of these lectures will be published, as delivered, in the *BRITISH MEDICAL JOURNAL*, from the authors' manuscripts.

THE CHAIR OF MEDICINE IN EDINBURGH.

WE have reason to believe that Dr. Sanders, whose name occupied so prominent a place among those who were at first spoken of for the vacant Chair of Medicine in the University of Edinburgh, will not, by reason of the necessity of early election and of reasons connected with his only lately recovered health, become a candidate for the post.

Of the gentlemen mentioned in our recent notice of this subject, Dr. Haldane has forwarded to us a copy of his address to the curators. Dr. Haldane has held high office at the Royal Infirmary and at the Royal College of Physicians of Edinburgh, and is now the representative of the College in the General Medical Council. Dr. Haldane has, since 1862, annually delivered a full course of lectures on the Practice of Medicine in Edinburgh, and has been many years engaged in clinical teaching in the Infirmary. He is too well known and highly respected to need any further recommendation to the electors.

Dr. G. W. Balfour, also one of the physicians and clinical lecturers at the Royal Infirmary, has also issued a letter of application, in which are set forth his high scientific claims to the post. Dr. Balfour has been a diligent and original and thoughtful contributor to the literature of his profession. His "record" includes no less than sixty-five such contributions; and the last of them, his *Clinical Lectures on Diseases of the Heart and Aorta* (1876), would alone suffice to establish his reputation on a very firm basis, and to place him in the front rank of clinical observers. We have not seen the formal application of Dr. Grainger Stewart; but our readers do not need to be instructed as to the work of the author of the well-known *Practical Treatise on Bright's Disease of the Kidney*, or to be told that Dr. Grainger Stewart occupies a very prominent and highly honourable place among the most effective of medical teachers and most successful of practitioners in Scotland.

During the last week, however, the name is once more mentioned of an eminent physician to whom many have in anticipation assigned the probable reversion of the Chair of Physic in Edinburgh, but whose high and settled position elsewhere might easily counterbalance the attractions of that chair. At first, it was believed that Professor Gairdner of Glasgow would be reluctant to relinquish his chair and practice in Glasgow to return to his old University. We believe, however, that we may state with certainty that Professor Gairdner may now be included among those whose names will be placed before the curators; and that there are many who think that the restoration to the University of the services of one of her most distinguished sons would be conducive to her best interests, and who have therefore strongly urged Dr. Gairdner to enter the field.

UNIVERSITIES OF GLASGOW AND ABERDEEN REPRESENTATION IN PARLIAMENT.

WE have received the following report of a meeting of the supporters of Dr. Anderson Kirkwood, held on Friday, October 6th, in one of the Committee Rooms at Exeter Hall. Between forty and fifty electors attended. Dr. Alexander Patrick Stewart was called on to preside. He stated at the outset that he was well acquainted with Dr. Kirkwood, whose name was a household word in Scotland, and whose services to Glasgow University had been so great as richly to merit the recompense of a seat in Parliament. He expressed an earnest hope also that the medical voters would throw the whole weight of their vote on the side of Dr. Kirkwood, and forego their predilections for a medical candidate.

A deputation from the Glasgow Committee, consisting of the Rev. Mr. Stark, United Presbyterian Minister, the Rev. Principal Douglas of the Free Church College, Glasgow, and Mr. David Brand, Advocate, Edinburgh, were severally heard. They stated Dr. Kirkwood's claims to support, gave the meeting some information as to the candidature, and said also that they were most anxious to obtain the aid and influence of the metropolitan vote.

Several gentlemen next addressed the meeting, and among others Dr. Joseph Rogers, Dr. Kerr, Dr. Kennedy, and Dr. Morrison. The former explained that he was a member of the St. Andrew's University Council, but had come to the meeting in the hope that Dr. Kirkwood would give attention to sanitary and other questions in which the medical profession were interested. He also said that he had received a pressing invitation to attend the meeting of Mr. Watson's supporters; but, having been a liberal for thirty years, he preferred attending this meeting.

Mr. Macrae Moir, Barrister, read a letter from the Marquis of Huntley urging the London graduates to support Dr. Kirkwood.

Dr. Chalmers then moved a resolution pledging the meeting to support Dr. Kirkwood, which was seconded by Dr. Caskie, and carried unanimously.

The Chairman, in the course of the proceedings, which were harmonious and hearty throughout, read the following telegram, expressing some of the candidate's views as to sanitary matters.

"Dr. Kirkwood considers legislation with regard to sanitary questions of primary importance. He would give his cordial support to measures under suitable medical supervision, which would insure the enforcement of proper sanitary regulations. He would support the Scotch Poor-law Amendment Bill, and all similarly well-directed legislation, believing, as he does at present, that the provisions for the administration of medical relief are very insufficient."

Before the meeting separated, an influential Committee to organise measures to secure Dr. Kirkwood's return, having Dr. Stewart as Chairman, Dr. Morrison and Dr. Aveling as Vice-Chairmen, and Mr. C. R. MacClymont, Barrister-at-Law, as Secretary.

We have also received a copy of Mr. Watson's (the Lord Advocate's) address. It contains the following satisfactory paragraph.

"There are various matters affecting the medical profession which I am aware require serious consideration. The Scottish Poor-law Amendment Bill of last Session contained provisions in regard to the position of medical officers which were, I believe, satisfactory to the profession. The Government have already given a pledge that the Bill, including these provisions, will be reintroduced next Session, and I trust that its early introduction and vigorous prosecution will insure its becoming law."

Each candidate has many well-known medical names among his supporters. It is satisfactory to see that both are pledged to support and press the Scottish Poor-law Amendment Bill, and we trust that their medical supporters will be urgent in obtaining from the candidate whom they support pledges to give adequate attention to the questions of Medical Reform, Army Medical Reform, and Sanitary Reform, which urgently require attention. The position of the Medical Act (especially in relation to the Penal Clause), of the Army Medical Service, and the Public Health Service urgently require amelioration, and deserve the early attention of Parliament.

We have the best authority for stating that the failure to pass the Scottish Amendment Bill of last year was owing entirely to pressure of business, and circumstances beyond the control of the Government. We are informed that the Government had a *bond fide* desire to pass this Bill, and that they will certainly reintroduce it next year. It would have conferred no small claims upon the support of the profession if this bill had been carried.

THE CHAIR OF PHYSIOLOGY IN GLASGOW.

WE are informed that Dr. J. G. McKendrick of Edinburgh has been appointed Professor of Physiology (Institutes of Medicine) in the University of Glasgow. When the vacancy was first announced, we mentioned that the general opinion of the most competent judges pointed to Dr. McKendrick as the candidate whose high physiological acquirements, ability as a teacher, and proved capacity as an original investigator gave him pre-eminent claims to the post. And we may now congratulate the University on an appointment which will secure

the highest standard of efficacy in physiological teaching, while it promises for the University the added lustre which is likely to be reflected by a professor of great power and earnestness in original research.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 18th day of October next, at Three o'clock in the afternoon.

FRANCIS FOWKE,

General Secretary.

36, Great Queen Street, London, W.C., September 27th, 1876.

THAMES VALLEY BRANCH.

A MEETING of the above Branch will be held at the Board Room, Richmond Infirmary, at 5 o'clock, on Wednesday, October 18th, 1876.

A paper will be read by Dr. Thorowgood; and a discussion will then take place on the Treatment of Burns.

There will be a dinner afterwards at the Greyhound Hotel at Seven o'clock. Charge, 7s. 6d. each, exclusive of wine.

Those who intend to be present at the dinner are requested to send word to the Honorary Secretary as soon as possible.

F. P. ATKINSON, *Honorary Secretary.*

Surbiton Road, Kingston-on-Thames, Sept. 27th, 1876.

BORDER COUNTIES BRANCH.

THE autumnal meeting of the above Branch will be held at Whitehaven, in the Board Room of the Whitehaven and West Cumberland Infirmary, on Friday, October 20th, at 1 P.M.

Gentlemen intending to read papers, or to be present at the dinner, are requested to give notice to the Secretaries.

RODERICK MACLAREN, } *Honorary Secretaries.*
JOHN SMITH, }

Carlisle, September 26th, 1876.

YORKSHIRE BRANCH.

A MEETING of this Branch will be held at the Royal Hotel, Scarborough, on Wednesday, October 25th, at 2.30 P.M.

After the meeting, the members will dine at the Royal Hotel, at 5.30 P.M. Tickets, 6s. 6d. each.

Gentlemen intending to join the dinner, or to bring forward communications, are requested at once to communicate with the Secretary.

W. PROCTER, M.D., *Local Secretary.*

York, October 3rd, 1876.

BATH AND BRISTOL BRANCH.

THE first ordinary meeting of the Session will be held at the Royal Hotel, Bristol, on Thursday evening, October 26th, at half-past Seven o'clock: H. F. A. GOODRIDGE, M.D., President.

E. C. BOARD, Clifton. } *Honorary Secretaries.*
R. S. FOWLER, Bath. }

Clifton, October 2nd, 1876.

STAFFORDSHIRE BRANCH.

THE third annual meeting of this Branch will be held at the Star and Garter Hotel, Victoria Street, Wolverhampton, on Thursday, October 26th, at 2.30 P.M.

An address will be delivered by the President, W. MILLINGTON, Esq., M.D., M.R.C.P. Lond.

Dinner at 5 P.M. precisely. Tickets (exclusive of wine), 10s. 6d. each. Members intending to be present are requested to communicate as soon as possible with the Honorary Secretaries.

VINCENT JACKSON, Wolverhampton. } *Honorary Secretaries.*
RALPH GOODALL, Silverdale. }

Wolverhampton, October 2nd, 1876.

WEST SOMERSET BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Red Lion Hotel, Dulverton, on Thursday, October 5th, at five o'clock; FREDERICK FARMER, L.K.Q.C.P.L., President, in the Chair. Ten members and one visitor were present.

Minutes.—The minutes of the last general meeting were read and confirmed.

Letters of Regret.—The SECRETARY laid before the meeting letters from thirteen members accounting for their absence.

Dinner.—An excellent dinner—and its excellence was enhanced by presents of venison of the hunted wild deer of the district, game, etc.—was dispatched, and the usual toasts were drunk.

Question of the Evening.—To the question (as sent round in the circular), "What is your experience of the effects of salicylic acid?" the answers, written and verbal, returned by members were very scanty, in consequence of their having used the drug very little.

Papers.—1. On a Case of Poisoning by Belladonna Liniment, by JOHN MEREDITH, M.D. (Wellington). It was thought desirable that this case should be recorded; and the meeting requested that Dr. Meredith would allow the Secretary to send it for publication in the BRITISH MEDICAL JOURNAL, which he assented to.

2. On the Public and Professional Advantages of Village Hospitals and Provident Dispensaries, by G. CORDWENT, M.D. (Taunton). Dr. Cordwent being prevented from attending by ill-health, his valuable paper was read by Mr. R. B. ROBINSON.

3. On a Case of Alphas Universalis, by the President (Dr. FARMER). The case was one of unusual severity, and affected the whole surface of the body and limbs in a man of middle age. It was successfully treated by hot air baths, with tar administered internally as well as applied on the skin. Photographs of the patient were shown.

4. On a Case of Hydrocephalus, by J. B. COLLYNS, Esq. (Dulverton). Tapping the head and pressure, combined with internal remedies, had been employed. The case was still under observation, but not presenting any encouraging signs of amendment.

Vote of Thanks.—The thanks of the meeting were unanimously voted to each of the gentlemen who had contributed the several papers abovenamed.

READING BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Wellington College Hotel, on Wednesday, September 20th, 1876; seventeen members were present. The retiring President, Mr. MAY, took the chair; and, after the usual business with regard to the past year had been transacted, he introduced Dr. ORANGE of Broadmoor, President for the ensuing year.

Insanity and the Criminal Law.—Dr. ORANGE read a valuable paper on Insanity in its present relation to the Criminal Law, for which he received the cordial thanks of the meeting.

President-elect.—Dr. SHEA of Reading was chosen as President elect.

Dinner.—The members present subsequently dined together in the Hotel. The usual toasts were drunk, and the members separated soon after 8 P.M.

NORTH OF ENGLAND BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Coatham Hotel, Coatham, on Thursday, September 21st. In the absence of the President, MATTHEW BRUNELL, Esq., through indisposition, the chair was occupied by the ex-President, S. E. PIPER, Esq., F.R.C.S.

New Members.—Six new members were elected.

Testimonial to Dr. W. H. Rumsey.—A letter from Mrs. Rumsey to Dr. Farr, Chairman of the Committee, expressive of appreciation of herself and family was read.

Specimen.—Dr. FOSS exhibited under the microscope, and gave a description of, human hair affected with trichorexis nodosa.

Papers.—The following papers were read.

1. Mr. FAXTON: Notes upon Provident Dispensaries (so-called), in connection with the Registration of Disease.

2. Dr. GIBSON: On the Obstructive Agency of Nosological Definitions.

3. Dr. PHILIPSON: On Carcinoma-Hepatis.

Representation of the Profession in Parliament.—Dr. EASTWOOD reported respecting the resolution agreed to by the members at the annual meeting of the Branch. He stated that the resolution had been duly considered by the Committee of Council and the General Council at the annual meeting of the Association, at Sheffield, and that both bodies were favourable, but did not see their way how the resolution could be practically carried into effect; and, therefore, it was decided not to bring the subject before the Association. Dr. Eastwood then

referred to the present vacancy in the representation of the Universities of Glasgow and Aberdeen, and thought the opportunity was fitting for bringing forward a graduate in medicine of either University.

Dr. EASTWOOD moved, Mr. JOHN PAXTON seconded, and it was carried unanimously.

"That, considering the vacancy in the representation of the Universities of Glasgow and Aberdeen, it is very desirable that the opportunity be taken of endeavouring to secure a medical candidate, who shall be a graduate of either University, and that communications be sent to the Presidents of the Glasgow and West of Scotland, and the Aberdeen and Northern Counties of Scotland Branches of the Association, suggesting this course."

Dinner.—The members and their friends afterwards dined together.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at Caerphilly, on September 28th, at 2 P.M.; A. DAVIES, M.D., President, in the chair. About eighteen members were present.

The minutes of the previous meeting were read and confirmed.

Place of Next Meeting.—It was unanimously resolved that the spring meeting should be held at Llanelly.

Medical Defence Association.—The report of the Council, recommending the establishment of a Branch of this Association for South Wales, was read; and, on the motion of Mr. WATHEN, it was resolved that the report be received and adopted. Ten gentlemen present gave in their names as members. Mr. J. H. WATHEN (Fishguard) will undertake the duties of the office of Secretary *pro tem.*; and to him all communications should be addressed. He will be happy to receive the names of gentlemen proposing to become members.

Papers.—1. A Case of Biliary Fistula, with Recovery, was read by Dr. GRIFFITHS (Swansea) for Mr. GREEN of Neath.

2. Dr. GRIFFITHS (Swansea): A Case of Gall-Stones, Abscess, and Cancer combined. The gall-stones were unusually large.

3. Dr. BALL (Blaenavon): Case of Kidney Disease following Unremoved Stone in the Bladder. Morbid specimen shown.

4. Mr. J. H. WATHEN (Fishguard): A Case of Retrouterine Hematocele degenerating into Abscess, treated by aspiration, resulting in death.

5. Dr. GRIFFITHS (Swansea): A paper on Pregnancy, Sickness, and its Treatment, chiefly illustrating the successful treatment by dilatation of the os uteri with the finger, first introduced to professional notice by Dr. Copeman of Norwich.

Dinner.—The members afterwards dined together at the Boar's Head Hotel.

EAST YORK AND NORTH LINCOLN BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Royal Hotel, Grimsby, on Wednesday, September 27th, 1876, at 2.30 P.M.: Mr. KEETLEY, the President, in the Chair.

Papers and Cases.—The following papers and cases were read:

1. Case of Hemiplegia, from Gunshot Wound of the Brain: Removal of Bullet five weeks afterwards: Recovery. By Mr. KEETLEY.

2. Case of Chronic Abscess beneath Frontal Bone. By Mr. R. H. B. NICHOLSON.

3. Case of Excision of Both Tonsils by means of the Guillotine. By Mr. R. H. B. NICHOLSON.

4. Case of Acute Poisoning by Tartar Emetic. By Mr. MORLEY.

5. Case of Retention of Urine, illustrating the use of the Aspirator. By Mr. HARDEY.

6. The question—Whether Habitual Drunkenness is a Vice or a Disease was re-introduced by Mr. DIX.

Dinner at five o'clock.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEETINGS.

A MEETING of this District were held on Wednesday, September 27th, at the Fox Hotel, Three Bridges; T. H. MARTIN, Esq., of Crawley, in the chair. Sixteen members and visitors were present.

Communications.—1. Mr. T. SMITH of Crawley read particulars of a case of a Dead Frog passed from the Rectum of a Child, aged eighteen months. The grandmother says she saw it in the chamber-pot used by the child; the pot being previously clean; the frog was smeared with

feces. The child had been subject to pains across the abdomen since an attack of bronchitis when six months old, and also had a ravenous appetite; it also had no power in its legs. After the frog passed (?), the pains in the abdomen ceased, and the child was able to walk. A case in point was cited of a young woman, who had been in the habit of swallowing clay and water from a priest's grave, and who discharged about two thousand larvæ of beetles after a dose of *ol. terebinth.* Grave doubts were expressed as to the possibility of a frog, or even a tadpole, living in the human stomach or intestines; and various explanations were given as to how the frog could have reached the place where it was discovered.

2. Mr. T. H. MARTIN read Notes of a Case illustrative of an Uncommon Form of Emphysema occurring in a primipara, aged 25, who had been twenty-four hours in labour under a midwife. The face, neck, and chest were greatly swelled, and the characteristic crackling very perceptible. Mr. Martin delivered her, by craniotomy, of a large male child. She rallied well, and was convalescent in two months.

3. Mr. BLAKER of Robertsbridge cited three similar cases he had met with, all being primiparae, all having protracted labour, and all being under the charge of a midwife.

4. Mr. E. NOBLE SMITH exhibited Drawings depicting the Sores resulting from Syphilitic Inoculation as pursued at the Lock Hospital some years back.

5. Mr. BOSTOCK of Horsham related a case where Spurious Symptoms of Hydrophobia persisted for two years in a woman who had been bitten (the bite being only an abrasion) by a dog; and whose child, who had also been bitten, died after five weeks from the effects of the bite.

6. Mr. HODGSON of Brighton commenced a discussion on Croup and Diphtheria. He maintained that the two diseases were totally distinct, and pointed out the salient points of difference.—This discussion will be resumed at the next meeting.

A Vote of Condolence was passed on the death of Mr. T. F. Sanger of Alfriston, a valued member of this Branch and constant attendant at these meetings.

New Member.—Mr. Noble Smith was proposed as a member of this Branch.

The Dinner took place at the Fox Hotel, under the Presidency of Mr. Martin.

The Next Meeting—a conjoint one for East and West Sussex—will be held at Brighton in November; Dr. Fussell, Medical Officer of Health for East Sussex, in the chair.

An early notice of intended communications for the November meeting is requested by the Secretaries for East and West Sussex.

SHROPSHIRE AND MID-WALES BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Lion Hotel, Shrewsbury, on September 26th, at 1.30 P.M.; Dr. S. TAYLEUR GWYNN, President, in the chair. There were upwards of forty members present.

J. Rider, Esq. (Wellington) was appointed President-elect. J. Gill, Esq. (Wem) was elected Vice-President. H. Nelson Edwards (Shrewsbury) was elected Honorary Secretary.

The President, President-elect, Samuel Wood, Esq., J. R. Humphreys, Esq., and the Honorary Secretary were elected representatives of the Branch at the meetings of the General Council.

New Members.—The following gentlemen were elected members of the Branch: Dr. Barfoot; H. J. Rope, Esq.; A. K. Hatch, Esq.; J. Ouston Smith, Esq.; Dr. Downes; and W. Jones, Esq.

President's Address.—THE PRESIDENT read an address. After alluding to the formation of the new Branch and the increased good feeling and usefulness likely to ensue by having only one Branch for this district instead of the two which formerly existed, he went on to speak of the treatment of habitual drunkards. Considerable discussion followed, and a resolution was unanimously carried:—"That it is desirable to establish reformatories in various parts of the country for the control and cure of habitual drunkards."

Papers, &c.—1. Dr. ANDREW read a paper on Hypodermic Injection of Morphia in Haemoptysis. An animated discussion ensued.

2. Dr. STOWERS read Notes on the Administration of Chloroform.

3. Dr. ANDREW read a paper on the Relative Value of Chloroform, Ether, and Bichloride of Methylene.

4. Dr. A. EDDOWES related a Case of Alarming Symptoms under Ether.

A discussion then followed on the three papers, especially as to

the relative value of the different anæsthetics. Some instances of patients having been kept under the influence of chloroform for three and four days without any ill effect were related. The general opinion appeared to be that ether is by far the safest anæsthetic, although it takes the longest time in its administration.

5. Mr. S. WOOD exhibited some specimens of phosphatic urine.

6. Dr. ANDREW showed a patient on whom he had performed a new operation for cataract.

Dinner.—About fifty members dined together after the meeting at the Hotel.

REPORTS OF SOCIETIES.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH : MICROSCOPICAL SECTION.

FRIDAY, SEPTEMBER 29TH.

LAWSON TAIT, Esq., President, in the Chair.

AN extra meeting of this Section was held in the Examination Hall of Queen's College.

Myxoma of Rectum.—The CHAIRMAN exhibited a preparation from a case of stricture of the rectum, arising from a myxomatous growth. The growth was of a very mixed character, but here and there it showed immature tissue which consisted of large nuclei occupying branching canalicular cells resembling embryonic mucous tissue.

Morbid Lung of Mouse.—Mr. WRIGHT WILSON exhibited sections of the lung of a full-grown mouse killed by chloroform to show certain bodies which appeared to him to be morbid products, and to resemble the products seen in human lung affected with tuberculous disease.

Oxalate of Urea.—Mr. WILSON also exhibited a specimen of the so-called oxalate of urea, which was regarded as a mixture of the oxalate with hippuric acid, such as is often met with in the same urine as that containing oxalate of urea.

Motile Bodies in a New Locality.—Dr. HINDS showed and described certain motile bodies found in the pellucid glandular dot-cells of hypericum; enumerated and discussed the various movements found in different tissues and localities of plants; and stated that movements of the nature exhibited had not been previously described as seen in the locality pointed out.

PATHOLOGICAL SOCIETY OF DUBLIN.

HENRY KENNEDY, M.B., President, in the Chair.

Abdominal Aneurism.—Mr. JOLIFFE TUFNELL showed an interesting specimen from the body of a man, aged 24, who had been admitted to the Glasgow Infirmary on October 23rd, 1874. In May 1875, he came into the City of Dublin Hospital, suffering from abdominal aneurism. The treatment by rest in the recumbent position and by diet was persevered in, and after some time the pulsation in the tumour ceased. All went on well for awhile, but the physical signs of abdominal aneurism returned. The man died on December 23rd, 1875. An aneurismal tumour was found to spring from the anterior wall of the abdominal aorta just below the crus of the diaphragm. The sac was filled with solid laminated fibrin. It was the original but cured aneurism. Beneath the origin of the coeliac axis there was a second and more recent aneurism, which had given rise to the renewed physical signs, as above-mentioned. The two inner coats of the vessel had yielded. Mr. Tufnell said the conditions required for recovery in such cases were: 1. That the aneurism should spring from the front of the aorta; 2. That the coats of the vessel should be entire; and 3. That the rate of the heart should be reduced by rest and judicious diet.

Abscess of the Brain causing Symptoms of Intracranial Tumour.—Dr. JAMES LITTLE exhibited the brain of a young French lady, who had suffered from the following train of symptoms, viz.: 1. Occasional severe headaches; 2. Constipation; 3. "A feeling of being miserable"; and 4. Loss of appetite. In process of time, palsy of the right arm and leg set in; the right facial nerve became partially paralysed. There were no aphasic symptoms. Paralysis of the third nerve on the other side ensued, the left eye becoming affected. In both eyes there was "congestion-papilla". From the paralytic symptoms, the presence of disease—most probably some tumour—in the upper part of the pons Varolii and left crus cerebri was diagnosed. At the necropsy, these parts were found to be healthy, but a large abscess existed in the left hemisphere of the brain. There was no communication between the cavity of the abscess and the corresponding lateral ventricle. The case illustrated the simulation of intracranial tumour by excentric pressure of an abscess.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 5th, 1876.

Brett, James, South Parade, Leamington
Browne, Henry, Lidford Road, Stoke Newington
Messum, Julian Alexander Broker Galsworthy, Grasmere Villa, Dulwich

The following gentlemen also on the same day passed their primary professional examination.

Gamble, Henry W. B., St. Bartholomew's Hospital
Grimby, Richard Henry, St. Thomas's Hospital
Thurston, Edgar, King's College Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

AUCHTERGAVEN, Perthshire—Parochial Medical Officer. Applications on or before October 10th.

BARVIS, Island of Lewis—Medical Officer. Salary, £150 per annum. Applications to the Inspector of Poor, Stornoway.

DONCASTER UNION—Medical Officer of Health. Salary, £250 per annum. Applications on or before October 28th.

EAST LONDON HOSPITAL FOR CHILDREN—Assistant-Surgeon. Applications on or before November 2nd.

FRIENDLY SOCIETIES' MEDICAL INSTITUTE, Northampton—Medical Officer. Salary, £180 per annum, with residence. Applications on or before October 23rd.

GLANFORD BRIGG UNION—Medical Officer for the Messingham District. JOINT COUNTIES ASYLUM, Carmarthen—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, etc. Applications to the Medical Superintendent.

LEEDS PUBLIC DISPENSARY—Assistant Resident Medical Officer. Salary, £80 per annum, with board, lodging, and washing. Applications on or before October 14th.

MIDLAND COUNTIES HOSPITAL FOR INCURABLES, Leamington—Medical Officer. Salary, £52:10 per annum, with board and residence. Applications on or before October 14th.

POPLAR UNION—Dispenser. Salary, £100 per annum. Applications on or before October 20th.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with apartments, washing, and board. Applications on or before October 31st.

SUNDERLAND INFIRMARY—Junior House-Surgeon. Salary, £60 per annum, with board and residence. Applications on or before October 21st.

WORCESTER GENERAL INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before November 6th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BLACKADER, A. D., M.D., appointed Resident Clinical Assistant to the Hospital for Consumption, Brompton.

CANTON, A. F., L.S.A., appointed Dental Surgeon to the National Dental Hospital, London, *vice* W. Perkins, L.D.S., deceased.

CASLEY, R. F., M.B., appointed House-Surgeon to the Royal Surrey County Hospital, *vice* A. M. McAlldore, M.B., resigned.

EALES, Henry, M.R.C.S., appointed Honorary Surgeon to the Birmingham and Midland Eye Hospital, and Medical Tutor and Demonstrator of Anatomy to the Queen's College, Birmingham.

HASTINGS, George, M.D. Brussels, appointed Honorary Physician to the Westminster General Dispensary, *vice* W. Domett Stone, M.D., F.R.C.S., resigned.

JOSEPH, S. W. J., M.R.C.S., appointed House-Physician to the Hospital for Women, *vice* Robert Manser, M.R.C.S., resigned.

MAKAND, M. D., M.R.C.S.E., appointed Assistant Medical Officer to the Stockwell Small-pox Hospital.

WICKS, Wm. Cairns, M.B., C.M. Edin., and L.R.C.P. Edin., appointed Honorary Physician to the Newcastle-upon-Tyne Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

THOMSON.—On the 10th ult., at Westgate, Peterborough, the wife of *W. Thomson, M.D., of a son.

BEQUEST.—Mrs. Marianne Arnott, late of No. 2, Cumberland Terrace, Regent's Park, who died on August 19th last, bequeaths to Dr. Alfred Swaine Taylor, F.R.S., when the contemplated edition of her husband's work, *The Elements of Physics*, is published, the sum of £1,000.

ADELAIDE HOSPITAL, DUBLIN.—The Ophthalmic Surgeoncy in this hospital, vacant by the retirement of Mr. Swanzy, who has been appointed to Stevens's Hospital, has been conferred upon Mr. Richard Rainsford, Lecturer on Ophthalmic and Aural Surgery in the Ledwich School of Medicine and Surgery.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. President's Address.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Semple: Cases of Croup. Dr. Peacock: Medullary Sarcoma of Lung and Bronchial Glands causing Obliteration of Inferior Cava. Dr. Hilton Fagge: General Anchylosis of Ribs. Dr. Hilton Fagge: Aneurysm of Pulmonary Artery in Vomic of Young Child. Dr. Hilton Fagge: Antelexion of Uterus. Dr. Greenfield: Absence of one Kidney. Dr. Coupland: Absence of one Kidney. Dr. Cayley: Lymphadenoma of Stomach. Dr. P. Irvine: Aortic Aneurysm. Mr. Butlin: Cancer of Bladder. Mr. Carr Jackson: Injury to Spine. Dr. Goodhart: Tumour from Upper Lip containing Cartilage. Mr. Barker: Popliteal Aneurysm. Mr. Gould: Sarcoma of Thigh.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. J. Milner Fothergill, "On Anhydrotics".

FRIDAY.—Medical Microscopical Society, 8 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

THE Manager has received an advertisement commencing "Wanted immediately", without name or address, and enclosing stamps for 3s. 6d.

FILTERS.

SIR,—It seems to me that very few people understand the action of filters at all: certainly the makers of them do not. The mistake they and many others fall into is the notion that a filter removes or retains, or both removes, retains, and dissipates organic soluble impurities. The real fact is, that a good filter converts or breaks up organic filth, and so renders it harmless. The portion actually removed is infinitesimal. After good filtration, Wanklyn's method would indicate "albuminoid ammonia" (Frankland's "previous sewage contamination"). Here let me remark that not a few analysts and medical officers of health evidently regard "albuminoid ammonia" as a peculiar but definite variety of ammonia, possessing albumen characteristics existing as such in the water previously to distillation with the permanganate solution, instead of a name happily coined by Wanklyn to express a resultant.

There is no doubt but that filters as a rule are a delusion, and even the best are short-lived, especially as commonly treated in domestic use. Without doubt the silicated carbon filter is a good one, and its makers are the only makers I know of who honestly and openly say that its life is a limited one; and on that account I have extensively advised its use.

There is another filter of which I have heard much that is good (Dr. Bond's); but I presume the well known modesty of its inventor prevents him from detailing its merits through the medium of advertisement. Your correspondent, who uses porous stone as a filter, merely strains his water, and nothing more.—I am, sir, yours respectfully,

EDMUND J. SYSON, Medical Officer of Health.

AN ASSOCIATE (Glasgow) must sign his letter with his proper name, if he desire publication.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

PRIZE IN INDUSTRIAL HYGIENE.

AN offer of a medal in connection with this subject has been made by Mr. Benjamin Shaw, and has been accepted by the Council of the Society of Arts. The medal will be of the value of £20, and will be awarded every fifth year. Mr. Shaw has transferred into the name of the society a sufficient amount of Consols for the purpose. The terms of the offer are as follows: "For any discovery, invention, or newly devised method for obviating or materially diminishing any risk to life, limb, or health, incidental to any industrial occupation, and not previously capable of being so obviated or diminished by any known and practically available means." The first award will be made in May, 1877. Parties desiring to compete for the above prize should communicate with the Secretary of the Society of Arts. A full description of the invention or process must be given, illustrated, if necessary, by models, drawings, specimens, etc. When the invention or process is in actual work, it is desirable that this should be stated, so that the committee may, if they think proper, have the opportunity of examining it. The Council reserve to themselves the right of withholding the prize, in the event of nothing of sufficient merit being sent in for competition. The latest date for receiving communications will be March 31st, 1877. In case a sufficient number of objects are sent in for competition, the Council will make arrangements to exhibit them, or a selection from them, to the public.

P. LE NEVE FOSTER, Secretary.

SIR,—Will some one of your readers kindly give me the requisite information in order to obtain the M.D. degree of some good German University, with the address of the Dean or Registrar, at the same time stating if the examination is conducted in English. Does the possession of English qualifications modify any part of the examinations?—I am, yours, etc.,

L.R.C.P.

FEES FOR CERTIFICATE FOR THE SCHOOL BOARD.

SIR,—Many of us know painfully that many of our little patients are unfitted by incipient disease for attendance at school. Having a rather large practice among the poor, I have been frequently requested to give a certificate. Surely the medical man who certifies should receive a fee from some source, the parents not being able to afford it.—Your obedient servant,

L.R.C.P.Ed., L.S.A.Lond.

MR. H. BROWN is referred to the notice of last week.

MEDICAL DEFENCE.

SIR,—A great deal has been said about chemists and druggists prescribing, and how they ought to be prosecuted. How about the medical botanists? In almost every town, and especially the larger towns, they assume medical titles contrary to the medical acts, distribute handbills and cards with the title "Dr." in large type (a specimen or two of which I enclose), and have the same prominently painted above their doors or windows, yet the Medical Defence Society winks at all this, whilst a druggist who gives a bottle of medicine for diarrhoea is threatened with prosecution. Is there sense or reason in this? If we are to have anything done, let it be done all round alike. I fear little comparatively will be done, however, unless a person be appointed whose business it shall be to get up cases, so as not to leave it to local branch associations or individual practitioners, who naturally shrink from acting as informers.—I am, etc.,

MEDICUS.

. We would again recommend that a "defence committee" be formed in connection with each branch of the Association.

TO CLEANSE THE OS UTERI.—Every gynaecologist, says Professor Pajot, knows how difficult it often is to cleanse the uterine orifice of the viscid mucus which is characteristic of certain forms of catarrh. After trying a variety of chemicals, in order to discover a satisfactory detergent, the simplest substance suggested itself the last, and was found all that can be desired. This is the yolk of egg. Dip a piece of charpie or cotton in the yolk of a fresh egg, apply it to the orifice, throw some water into the speculum, continuing to mix the yolk and the mucus; then let the water escape, dry the os, and it will be found perfectly clean.

THE SURGERY OF SYPHILIS.

SIR,—Mr. Messenger Bradley's remarks on the necessity of surgeons bearing in mind the possibility of patients being the subject of constitutional syphilis, when about to perform some of the great operations of surgery, are most valuable. I have myself on several occasions witnessed the recurrence of long dormant syphilitic symptoms after the performance of operations, or after wounds of any kind, and there can be no doubt that syphilis is not very unfrequently reproduced in syphilitic patients by traumatism. Last winter, I witnessed such an effect in the wards of M. Verneuil in Paris; and that great surgeon, who is especially alive to the importance of becoming acquainted with the diathesis of any patient on whom he is about to operate, has tempted, by his remarks on this important subject, one of his pupils, Dr. Petit, to write a pamphlet on the effect of syphilis on wounds. The teaching of such cases as he refers to is, that special treatment should be made use of when any unusual results occur after operations.—I remain, sir, yours obediently,

CHAS. R. DRYSDALE, M.D.

London, September 2nd, 1876.

DR. WILLIAMS (Swinton).—Next week.

CONGENITAL DISLOCATION OF THE KNEE-JOINT.

SIR,—A few weeks ago, I delivered a woman of her first child—a fine, plump, vigorous infant. The appearance of the left leg at once attracted notice. It was kept perfectly straight, and so flexible at the hip-joint that the limb naturally lay along the child's body, with the foot resting on the neck. A little examination showed that this was owing to a dislocation of the knee-joint. The dislocation was reduced without any difficulty, but gave rise to a good deal of pain. As soon, however, as the child stretched the leg fully out, the head of the tibia was at once jerked backwards out of the joint, and the same thing took place each time the joint was set. It was observed, however, that when the leg was kept slightly bent at the knee, no dislocation could take place: a turn or two of a bandage was therefore put round the foot and ankle-joint, and so fastened round the child's body that it was unable to stretch the leg to its full extent. The limb was kept in this position for two weeks, when the ligaments had so far recovered their proper functions that no further dislocation took place.—I am, yours truly,

September 1876.

PETER YOUNG.

THE letters of Nero, Dr. Byrom Bramwell, and Dr. Richards, shall receive our earliest attention.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ALCOHOL IN HEALTH AND DISEASE.

SIR,—The address delivered by Mr. Hutchinson at the annual meeting of the Metropolitan Counties Branch, and published in the JOURNAL of August 19th, deals with topics of such absorbing interest, deals with them in such a comprehensive manner, and, lastly, enunciates his views respecting them with so much clearness, eloquence, and decision, that it cannot fail to arrest the attention of the profession generally. I have no intention of entering on all the subjects referred to; but, with your permission, desire to say a few words in reference to Mr. Hutchinson's remarks on total abstinence. The question is confessedly of extreme importance; and it is absolutely essential, if the practice of total abstinence is ever to become general, that there should be no doubt as to its safety, not to say advantage, for healthy individuals. That an opinion of the feasibility of this has within the last few years become prevalent, both among medical men and the public, is acknowledged, and it has become rare to find this view challenged in responsible quarters on the point of health. Into the delicate question of the duty of medical men in prescribing for the sick in view of the dangerous seductiveness of alcoholic liquors, I do not think it necessary to say much. It appears, however, difficult to see why patients should be exposed to any risk in those cases, where it is possible to prescribe a definite dose of spiritus vini rectificatus so many times a day, any more than it is thought best to order quack narcotic medicines, whose strength is variable and unknown.

The only foundation, however, which the advocates of total abstinence require is, that the habitual use of alcohol should be recognised as unnecessary, if not more or less injurious, to healthy human beings. And further, that the use of alcoholic liquors does not increase the capacity for permanent work, bodily or mental; does not promote health or ward off disease, and does not lengthen life. I am quite prepared to acknowledge that the medical advocates of total abstinence have been few, but the inference Mr. Hutchinson draws is, I think, unwarranted. Without impeaching the profession, or making them out to be worse than the generality of mankind, I think it may be accounted for. If time should prove that it is physiologically wrong to take a daily stimulant, the profession may, if they please, attribute it to a "change of type" of constitution, as for the altered practice in regard to bleeding in sickness and in health. The practice of centuries has been adverse to total abstinence, so also has the teaching of the schools and the sympathies of patients. The popular prejudice in favour of "moderation" is immense, and none can gauge its intensity but those who have tried to stem the current—now, I thankfully acknowledge, less strong than it was. I know it to be a fact, that in several cases medical men have contributed greatly to maintain this popular prejudice. I know of many cases in which total abstinence has been advised to take alcohol in order to recover, or even to save their lives, where subsequent events have proved the advice to have been altogether a mistake. I know medical men who have given this advice as soon as they heard of the abstinence habit, before they had entered into the case, or had opportunity for a rational judgment. I know of other cases where alcoholic liquors have been prescribed, and then, on the doctor learning that the patient was an abstainer, he was recommended something else, as being "better." Surely the remark of one "vulgar" man was not uncalled for, "Why didn't the old fool give me the best advice first?"

There are numberless other causes why the advance of the total abstinence movement should be slow; but, we might fairly ask, is not the present growth of public opinion in this direction, and of medical opinion, too, due to the gradual accumulation of facts which are indisputable and in favour of it? Next, does Mr. Hutchinson adduce any facts which are adverse to the practice? To the former, I think there can be but one reply. For a long time, many have looked at total abstinence as the barbarians looked at Paul, to see when he should have swollen or fallen down dead suddenly. But having looked long—very long, some of them—they are beginning to change their minds; some, however, only to attribute a superhuman constitution to teetotalers; others, the majority, more rationally. It has taken years to formulate mathematically, by the experience of a life-insurance company, the increased expectation of life which the practice of total abstinence confers; but this can now be done, and how can Mr. Hutchinson explain it away? Other facts show that the same practice diminishes the amount of sickness, apart altogether from illness due to drunkenness. These facts are accessible to all, and no one comes forward to dispute them. With regard to hard work of all kinds, the possibility of its performance without alcohol is amply proved (Galileo-like) by an appeal to the performers thereof. Theoretical considerations, which are secondary after all, are now pointing in the same direction; and it certainly seems late in the day to expect us to doubt the possibility of the practice of total abstinence by the healthy majority without a single proof being furnished. I have, however, made a mistake, for Mr. Hutchinson recommends abstinence to children, ladies, and most young people, and, therefore, to a large majority of the population.

The Permissive Bill, to which he refers, does not propose to interfere with the private use of alcohol, but only with its public sale, which causes damage of various kinds—not to a "small minority," but to the "great majority," and is therefore a fair case for all statesmen "in their senses." Mr. Hutchinson approves of the prohibition of the public sale of arsenic (query, would he do so in Styria?) on the ground of its injurious effects. I would ask any one to compare the results of the sale of alcohol with those of arsenic. Surely there would be an *à fortiori* for the prohibition of alcohol if its injurious results were estimated. If the country be convinced that it loses more than it gains by licensing the sale of alcohol, it will be just and fair to withdraw that licence—in other words, to prohibit its sale. "It appeared to me that the medical profession, cognisant as it is, to so large an extent, with secrets of individual and family life, owes it as a duty to society to make known its conclusions." So writes Mr. Hutchinson on Early Marriages. Does not this excellent remark apply equally to this alcoholic question? And would not the profession, through their special acquaintance with facts, all but unanimously declare that intemperance is not a question of education, nor of temporal advantages, nor of "climate, race, or temperament," but a question of human nature and circumstances, a *sine qua non* being the knowledge of alcohol and the power to get it? If the whole community suffer by the drunkenness of a portion, it would be a gain to remove the cause, the *sine qua non*. "But some would suffer thereby." If they cannot obtain alcohol without perpetuating the present evils, how can they expect to be allowed to do so? "To a large extent, we lose our perception of injustice to individuals, when we become convinced that what they wish to do would be for their advantage alone, and to the certain loss of every one else." So says Mr. Hutchinson.

Lastly, nothing but the stern logic of facts can settle the feasibility of general total abstinence, and these are accumulating rapidly. Are there any contrary facts, apart from all fancies, impressions, or feelings?

I have prolonged this letter too much already, but have felt constrained to write, because I agree with Mr. Hutchinson that "it is no part of the duty of an honest citizen to fold his arms and allow that to be done, without remonstrance, which he believes will prove to be the hurt and loss of those who are to follow us"—I am, sir, yours obediently,
Enfield, August 24th, 1876.

J. JAMES RIDGE.

SIR,—In reply to Dr. Reid, I would say that I order the use of alcoholic beverages chiefly in the kinds of cases recommended by Ringer (*Therapeutics*, 1874). I have some examples. In convalescence from acute diseases, where digestion is weak, in which cases claret (or Burgundy) is often useful; sometimes in phthisis, when unaccompanied by hæmoptysis; in low types or stages of various acute diseases, as small-pox, typhoid fever, pneumonia; in the form of stout to persons with mammary or other discharging abscesses; sometimes in that of good brandy to elderly people suffering from loss of appetite and indigestion. Of course, each case has to be judged according to its individual requirement, as regards the administration or non-administration of alcohol, or the form to be used. As advised by Ringer, I usually order it to be taken with food; when given in acute cases, with beef-tea or milk. The object is of course to assist digestion; and, in the extreme debility often attending acute diseases, to strengthen the heart's action, and thus doubly to assist the patient at a critical time. In common with many other medical men, I have no doubt that great benefit is derived from the judicious use of the different alcoholic beverages in suitable cases such as the above, and I know of no drug or drugs which could properly replace them. Ammonia, apart from its alkaline nature, which often renders it improper for prescription, is generally reputed to be more transient in its effect as a heart-stimulant than alcohol; and this may also be said of ether and chloroform, invaluable as all these drugs are in their own way. Moreover, it must not be forgotten that good alcoholic beverages have frequently this great advantage for a delicate stomach—that of being palatable. Of course, I am aware that there are many cases of disease in which stimulants are quite unsuitable; and I think most midwifery practitioners would agree this far with your correspondent D. B., that alcohol should not, except in rare instances, be given as an aid to labour. Like other good things, alcohol is apt to be taken in excess. (A friend of mine who attends a teetotal club in a large town tells me that members are continually coming to him, suffering from hepatic derangement through partaking too heartily of chops three times a day.) Where one has reason to suspect habits of intemperance in a patient, it might be well to consider Dr. Kerr's suggestion, to give the stimulant, where that would be likely to answer, in a spirit of wine-mixture. At any rate, before taking final leave of such a patient, it would certainly be proper to caution him as regards the use of strong liquor. This done—and in all cases alcohol in its stronger preparations being ordered, as I believe it generally is, in therapeutic and exact quantity (brandy to adults, in acute cases by the spoonful, port or sherry to adults by the wineglass)—I maintain that our duty to our patients, from a temperance point of view, is fully carried out. It is not part of our province either to practise or to preach teetotalism for the extremely doubtful benefit that our patients, as a body, would derive from it.

Dr. Chadwick said at Sheffield: "As regards this discussion, there are cases in which all alcoholic stimulants are improper, as there are others in which they are essential to the continuance of life, and thus to the restoration of health, I firmly believe. As in most other questions, whether professional or not, the truth will occupy if we are capable of giving a candid consideration to the facts, a medium position. I trust the present age is too logical to commit the same error in reference to stimulants that has been unfortunately adopted in regard to mercury and blood-letting. Is not an attempt being now made to damage one of the greatest boons ever given to man—viz., vaccination, by the same species of false reasoning?"

Dr. Drysdale states that alcohol is not a food. My own knowledge of the subject is not sufficient to enable me to come to a conclusion. No doubt Dr. Drysdale would not deny that some of the alcoholic beverages in daily use have nutritive properties.

I must apologise for the length of this letter, more especially as it contains nothing new.—I am, sir, your obedient servant,
THOS. LEEDS.
Sheffield, September 7th, 1876.

SIR,—I am almost ashamed to trouble you with any further correspondence on this subject, but if you can find room for a short note I shall be glad to make a remark or two *à propos* of your leader of to-day.

Firstly, if it be considered justifiable—about which opinions will differ—in all cases of disease to try the experiment of non-alcoholic treatment, should not the information by which the profession might be guided be derived from one or more of our well known hospitals? I imagine that medical men will, even when the clinical notes which you criticise are more readable, be somewhat sceptical about information which comes from a teetotal hospital concerning the value of alcohol.

Secondly, you remark that the question is "at least twofold: first, do cases get well without alcohol? and second, if so, do they get well as soon?" I opine there is a third important point, do they get well *sooner* without alcohol, and with the substitution of some other remedy? Unless this can be answered in the affirmative, the profession as a body will be no more inclined to give up its use than they would that of ether or iron in cases which, it might be presumed, could be equally well treated in other ways.

A man who does not recognise the merits of teetotalism as applied to the community at large, who is himself not a total abstainer, will scarcely be likely, except in the treatment of chronic disease in the temperate, to deny his patients, where it might be of benefit, the use of alcohol.—I am, sir, yours faithfully,
September 23rd, 1876.

T. L.

SIR,—In your article on The Non-Alcoholic Treatment of Disease, I noticed that you omitted to mention the remarkable effect wine or brandy has upon the pulse in the treatment of the asthenic stage of typhoid fever. This effect I have often had to allude to to patients' friends and others as an undoubted proof and test of the value of stimulation in this disease. I am in the habit of testing this effect at the bedside, by administering the first dose myself, and observing the way it acts, and giving directions for its use accordingly. This effect is different from what we should expect *à priori*, and from what we observe in health—I mean that of reducing, by several beats, an extremely rapid pulse, and increasing its tone or *timbre*; indeed, in favourable cases this goes on until the pulse is gradually reduced to its normal frequency, or, more correctly, as a point of fact, below it; after which it slightly rises above it, thus alternating like the action of a pendulum, until the proper equilibrium is attained. What is called the *diagnostic* pulse by physicians used to be considered a sure indication for the use of stimulants; and

this is quite in accordance with the facts I have stated above, and in confirmation of them. The explanation of its arresting the low delirium in these cases is dependent, I imagine, upon the same cause.—I remain, sir, your obedient servant,
Bristol, Sept. 23rd, 1876. ROBERT W. ELLIS, M.R.C.S.Eng.

SIR,—Allow me a word of reply, as brief as possible, to the questions put by a District Visitor. For many years I have taken a deep interest in all questions relating to the effects of the common use of alcoholic drinks among the various classes of the community, and especially by the working classes, and the conclusions I have arrived at are the result of much study, and of close observation and inquiry. I have been personally a teetotaler for over thirteen years, and have never seen sufficient reason to change my habits. I would encourage her or him to persevere in the advocacy of total abstinence, and urge her (if it be a lady I speak of, as I take it to be) to impress on those whose welfare she seeks, that the popular belief in the strengthening property of beer or other alcoholic drink is a mistake, a delusion, a mere superstition, which receives no support from science, nor from common observation, if carefully and continuously applied. 2. That there are various drinks which may be substituted for beer or cider—e.g., milk, either sweet or sour (buttermilk, as the latter is sometimes called), diluted with water, weak tea, coffee or cocoa; or lemonade, made by slicing a lemon, pouring a pint of boiling water on it, and adding a little sugar; besides other beverages, the preparation of which is described in Parkes' *Personal Care of Health*. 3. Alcoholic drinks may seem to aid digestion for a time, but after a little time the stomach becomes accustomed to the stimulation, and fails to respond unless a larger quantity be taken; and this goes on till the habit of taking it in large quantities and a love for it be formed, and the party finds himself a drunkard. 4. It is perfectly safe for a drinker of alcoholic beverages to leave them off at once. In cases, where there seems to be debility or want of appetite, a mild bitter tonic might be used for some time, say infusion of gentian or camomile. Of course, the party may in some cases feel some discomfort at first, but it will be of brief duration; in a week or less it will have passed completely away, and he will feel better than when using the stimulant.

Much might, and indeed urgently requires to be said upon these topics, but I am chary of your space, and even in the longest letter full information could not be given; so I would respectfully urge a District Visitor to get one or two little works and study them; she will be amply repaid the small expenditure of time and trouble: *The Physiological Errors of Moderation*, by Dr. Carpenter; a second pamphlet, published by the Scottish Temperance League, *Alcohol, its Power and Power*, by Professor Miller; Parkes, on the *Personal Care of Health*. It will distribute pamphlets or tracts, or those among whom she works would read them, she should procure the catalogues of Messrs. Tweedie, the Strand; of the Scottish Temperance League; and of Mr. Drummond, Stirling; in which there are the names of various excellent publications bearing on the relation of abstinence and of drinking to hygiene, from which she could select some appropriate for the perusal of working men.—Yours, etc.,

A. MULLAN, M.A., M.D.

ALCOHOLIC BEVERAGES.

SIR,—In reply to a District Visitor, I may say that it is frequently my lot, as a hospital physician, to witness the sad effects of intemperance among my patients. The great error that leads to the worst mischief appears to me to be the attempt to replace food by alcohol, in the belief that alcohol is strengthening. One is told that a patient has everything that is strengthening; and, on inquiry, the sources of strength are found to be chiefly brandy and port wine. I could fill pages with illustrations of the utter fallacy of seeking strength from alcohol, and should be then only repeating an oft-told tale, the truth of which has been demonstrated over and over again. The practical rule I follow is to tell my patients to drink only when they eat, and at no other time; I also urge them to avoid spirit-drinking entirely, unless they wish to grow old before their time. I believe if a man eat his dinner or his supper all the more heartily for a glass or two of good ale or stout, that then undoubtedly the drink does him good, and he will do right to continue it.

When a person takes ale, wine, or spirits, whenever he feels dull or low, then the only thing for such an one is total abstinence, as he is fully on the road to becoming a drunkard. I never yet knew any one permanently injured by a trial of total abstinence, and have more than once been so struck with the enthusiastic delight of a tippler, who has had the courage to leave off his "goes" of brandy or sherry in the forenoon, that I have almost thought it worth while to take to drink for awhile, on purpose to experience the renewal of life which appears to ensue on its abandonment.

In many acute diseases alcohol is, as I think, a priceless remedy; and the man who knows when to give alcohol during fever, how much to give, and for how long a period, has not much to learn about the treatment of fever.—Obediently
Yours, JOHN C. THOROWOOD, M.D., F.R.C.P.

Wellbeck Street, September 30th, 1876.

SIR,—Kindly permit me, a practitioner of thirty years' experience, not a teetotaler, to reply categorically to the queries of a District Visitor in your impression of the same.

1. For the healthy man engaged in regular, and even prolonged, daily labour, alcoholic drinks of any and all kinds are totally unnecessary—are, moreover, positively injurious, and always interfere with the due performance of his work, even when taken in moderation. Milk (with or without water), barley-water, skilly, oatmeal-gruel, linseed-tea, and other nourishing drinks, may be freely taken by the thirsty as excellent substitutes for beer, etc. (tea and coffee should be taken at meals only).

2. No working man ought to exceed two pints of beer in the day, and he is far better without any.

3. Alcoholic drinks neither promote nor assist digestion, and are worse than useless for such a purpose.

4. It is perfectly safe for drinkers of alcoholic stimulants to leave them off at once.—I am, sir, yours truly,
Cambridge, October 4th, 1876. WM. PROWSE.

A SUBSTITUTE FOR THE GUM-LANCET.

SIR,—As the irritation of dentition in young children is often very difficult to relieve, and has on many occasions led to the use of the gum-lancet, whether that use was absolutely indicated or not, I venture to bring to the notice of the profession the treatment I have adopted very successfully for some time: it is the administration of the *syrr. ferri phosph.*, either alone or in conjunction with cod-liver oil. It can be given under all conditions, and is nearly always readily taken by the patient.—I remain, sir, truly yours,
Pembroke Villas, W., October 2nd, 1876. HENRY B. DOW, M.D.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

OBSTINATE VOMITING IN PREGNANCY.

SIR,—The appeal of Quereens has attracted the attention of several correspondents, and oxalate of cerium has received considerable notice in relation to the very frequent and troublesome complaint referred to. I have found it very useful in most cases, but there are some where it seems to make no difference whatever. I had a case of this kind some few months since, when I determined to utilise a suggestion I read in your columns—I forget when it was—I mean the combination of morphia with atropia (the active principle of belladonna). I had some suppositories made thus wise: Morphine gr. $\frac{1}{4}$; atropine gr. 1-96; ol. theobromae gr. xv. The result of their use in the case above referred to was most satisfactory. I may say that the proportions given make a very good suppository, as supplied to me from my own form by Messrs. Corbyn. I remember the practitioner I was apprenticed to placed great confidence in the very old-fashioned (but not to be despised) *mist. alba*, whose composition is so well known in practitioners' surgeries that I will not trouble you with it.—I remain, sir, yours truly,
September 30th, 1876. J. A. H.

SIR,—In the JOURNAL of September 30th you publish a number of letters on the subject of "Sickness in Pregnancy", and amongst them one signed A. M. W., which I think should not be permitted to pass without comment. Your correspondent says that he finds "one ounce of brandy in the form of punch" useful at bedtime, and then proceeds to detail a case thus: "Bismuth and hydrocyanic acid having failed, I relied on brandy and water (about a tablespoonful of each) being given when the sickness, retching, and feeling of syncope threatened." "Breakfast in bed, and the recumbent posture for two or three hours afterwards"; an early dinner and "a glass of mild bitter ale"; "a little cold meat, with bread and beer, at 9 P.M., provided it is followed up with the brandy, as indicated." Let us suppose that our patient suffers only four times during the day from "sickness, retching, and feeling of syncope," she will take brandy and water (about a tablespoonful of each) on four occasions; that will be by domestic measurement at least three ounces of brandy; two glasses of beer will equal at least one ounce of alcohol, and an ounce of brandy at bedtime will give us a grand total of five ounces of alcohol taken daily by a presumably delicate woman, who spends most probably fourteen hours out of every twenty-four in bed.

I am in the habit of an alarming severe and prolonged muscular exertion, and I find that anything in excess of two glasses of beer and four ounces of either claret or sherry produces a decided intoxicating effect on me. If I remember rightly, both Drs. Parkes and Anstie estimated that the extreme amount of alcohol that could be taken by strong men in fair active exercise, without deleterious effects, was between one and two ounces. I would then ask what will be the result of such a treatment as thus advised by A. M. W.?—I am, yours, etc.,

TEMPERANCE WITHOUT ABSTINENCE.

SIR,—May I trespass on your valuable space with an addition to the already long list of replies to Quereens on this subject, by advising him to try one minim dose of vinum ipecac. every hour, as recommended in Dr. Ringer's excellent Handbook of Therapeutics? I was called on the 5th June last to a patient, about two months advanced in her first pregnancy, who was suffering from severe vomiting many times a day, so that scarcely any food stayed on her stomach. I tried many remedies—limiting her food at one time to milk in spoonful doses, and giving her effervescent or alkaline mixtures, bismuth, chlorodyne, etc. During my absence from home, corium, nitro-hydrochloric acid, and creasote, were also tried by medical friends, who kindly took charge of her during my absence; but, though benefited for a time by the creasote, the vomiting soon returned more urgently than ever, and as a last resource I employed the vin ipecac. in drop doses as above. I commenced it on July 11th; on the 14th, there was no vomiting except in the morning before breakfast; on the 15th, none at all, I believe. She then discontinued medicine, and has required none since that time, the vomiting having been completely checked.—I am, sir, your obedient servant,
Louth, October 3rd, 1876. THOS. WEMYSS BOGG, M.B. LOND.

SIR,—Will you kindly allow me to make one or two comments upon the answers my letter on the above subject elicited 1, and to thank the writers for their courtesy?

First, to commence with Dr. Duncan's letter as to diagnosis, I presume there are other causes as well for retention of the menses in patients just married as pregnancy, especially in anæmic hysterical females, who have no idea of when they first noticed anything unusual, and who would strongly resent the mere mention of an examination. The suspicion of Mrs. X., mentioned in my letter, referred to *me*, and not implying any doubt as to the *fact*: the words were, "Mrs. X. suspects that she is three months in the family way." Dr. Duncan evidently thinks he has caught me napping; but whatever may be my deficiencies, I am not inclined, nor would my practice permit, my going to school again now to learn the symptoms of pregnancy, thanking Dr. Duncan all the same.

Really, Mr. Editor, the advice contained in the other letters is so full and feasible, that I almost long for the next case to try the remedies, as Mrs. X., having only been ill for three weeks, by the interference and officiousness of her friends, has placed herself in the hands of a homœopath, just as the case was at the turning point—viz., sickness only twice or thrice a day, able to dress without fainting, to walk into another room and recline upon the sofa. I should not be surprised to hear of the case figuring as a grand one of cure by homœopathy by-and-by, although at present, from what little does leak out, she appears to have retrograded; but that the case will eventually get well, in spite of globules, I have no doubt. It reminds me vivily of, and I feel sure you will pardon my winding up with—

"God and the doctor we alike adore;
But only when in danger, not before,
The danger o'er, both are alike required—
God is forgotten and the doctor slighted."

Yours respectfully,

EDWD. J. ADAMS.

86, Approach Road, Victoria Park, Oct. 3rd, 1876.

In reply to Dr. Richards and other correspondents, we have to direct attention to the "standing notice" published every week for many years, intimating to correspondents that we cannot undertake to return manuscripts not used.

SAPRÉ'S SPLINT.

SIR,—Can any of your readers inform me if there be a modification of Sapré's splint applicable to the knee-joint? Is there a London maker of the splint mentioned?—I am, etc.,
INQUIRENS.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN
SEPTEMBER 1876.

The following are the returns of the Society of Medical Officers of Health.

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen		Ammonia.		Hardness. (Clarke's Scale.)	
	Grains.	Grains.	As Nitrates, &c.	Grains.	Saline.	Organic	Before Boiling.	After Boiling.
<i>Thames Water Companies.</i>								
Grand Junction ..	17.02	0.032	0.105	0.003	0.006		12.1	3.3
West Middlesex ..	17.50	0.032	0.096	0.002	0.006		12.7	2.6
Southwark and Vauxhall	18.30	0.046	0.098	0.000	0.006		13.2	3.0
Chelsea	18.03	0.035	0.090	0.001	0.007		12.7	3.3
Lambeth	17.12	0.042	0.105	0.000	0.008		12.7	2.4
<i>Other Companies.</i>								
Kent	27.35	0.003	0.390	0.000	0.000		19.4	6.0
New River	16.43	0.028	0.088	0.000	0.006		12.7	3.0
East London	16.22	0.028	0.093	0.000	0.005		11.6	2.4

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters, the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Grand Junction.

C. MEYMOTT TIDY, M.B.

ERRATUM.—In the first line of Dr. G. de Gorreque Griffith's paper "On a New Method of Curing Phymosis," in the BRITISH MEDICAL JOURNAL for October 7th, 1876, page 464, for "slight" read "tight". Dr. Griffith states that the tightness in all three of his cases was very great.

LOSS OF TASTE AND SMELL FOLLOWING AN ACCIDENT, WITHOUT INJURY TO THE CRANIUM.

SIR,—Mr. C., an architect by profession, married, and about twenty-six years of age, was run away with by his horse six months ago. He was carried at a very rapid pace down a long steep street, at the end of which the horse stopped, and Mr. C. half slid, half fell off. He was not injured anywhere, but was seriously concussed and jolted during his violent ride. I found him, after being brought home in a cab, pale and sick, with a slow pulse, rather collapsed, and complaining of great pain in the head. He recovered slowly from the shock, remaining four or five days in bed, during which he seemed to suffer much from severe pains in the head and eyeballs, which shifted and varied in character from time to time. After about a week, he was well enough to go to the country, where he rapidly recovered his usual health; but a week or two after that he began to notice that his senses of taste and smell were defective, and soon they almost entirely disappeared. At present, he can only distinguish very bitter from very sweet substances, and cannot perceive any ordinary odours. His general health now is better than it has been for a considerable time.

He has consulted several medical men of eminence both in his own town and in London, and has perseveringly tried all sorts of treatment, but in vain. Among other things, he has been galvanised faradaically, has chewed pilularia, has snuffed hellebore, has taken iodide and bromide of potassium, quinine, iron, strychnine, and other tonics, and has done everything to maintain his general health at the best possible pitch.

He desires me to ask you to put in this notice of his case, in the hope that some one who has met with a similar one may be able to give us a hint as to pathology or treatment.—I am, yours,
October 3rd, 1876.

CHIRURGUS.

UNLESS H. M., Exeter, attends at the College of Surgeons on Monday—the last day of registration—he will lose the session. Perhaps, under the peculiar circumstances mentioned by him, a day or two of grace may be allowed on writing to the Secretary on the subject.

SALARY AT PENAL ESTABLISHMENTS.

SIR,—In answer to M.B., who inquires about the salary and means of becoming a medical officer in penal establishments, I write to inform him that the assistant medical officers commence at a salary of £150 to £200 a year, with a house, according to whether they are appointed to a large or a small prison. When promoted to be medical officers, they receive £300 to £350 a year and a house, according to the size of the prison. The salary is augmented yearly by £5 and £10 respectively, up to £250 for assistant medical officers, and £400 for medical officers. Application for entering the service should be made to the chairman of the directors of convict prisons at the Home Office.—I am, sir, yours truly,
October 3rd, 1876.

MUREX.

MR. BARNISH (Wigan).—We think there was an error in ascribing the "sprain" as the primary cause of death, when the fact was that the boy died of "typhoid fever," which he decried as the "secondary" cause. He appears to admit—that is plain, indeed—that the alleged sprain had nothing to do with the typhoid fever, and nothing to do with the death. There was, therefore, no reason, that we can see, for inscribing it as a cause of death on the death-certificate. The error undoubtedly caused a great deal of unnecessary trouble. Too much care cannot be exercised in drawing up certificates of the causes of death: they are documents which very properly assume every year a greater importance in determining the bases of hygienic progress.

UMBILICAL HÆMORRHAGE IN INFANTS.

SIR,—With reference to the case recorded by me in the BRITISH MEDICAL JOURNAL of July 20th, I beg to state that I always use thread-ligatures, which I invariably pass round a second time for greater security. I have not known of tape being used, but think that the ligature would always be found slack a few hours after being applied in the ordinary way, whatever it might be composed of; and in this I am supported by Dr. Heywood Smith, when he states that, a minute or two after the cessation of pulsation, the cord shrinks and becomes flaccid. Perhaps in pursuance of Dr. Smith's views it might answer to apply the placental ligature

first, and then, after waiting a short time for the cord to contract, to apply the second.

When first informed of the death of the infant, it occurred to me that the ligature might have been at fault; and had the case occurred to a midwife or any one else, I should undoubtedly have taken that view. It was upon examining the funis that I thought I saw an explanation of the occurrence: the annular depression showed plainly where the pressure had been, and I was very well sure that, had there been a slight departure from the amount of force I generally used in tying the ligature, it could not account for the remarkably slack condition in which I found it.

Before sending my report of the case to the JOURNAL, I attended another accouchement, in which everything went well; but, notwithstanding extra precautions, a few hours afterwards the points of the scissors could be introduced between the ligature and the funis.—I am, yours truly,

WALTER LATTEW.

W.—The best description of the composition and use of mineral waters is, we believe, to be found in Braun's *Treatise on Baths and Mineral Waters*, translated by Dr. Hermann Weber, published by Smith, Elder, and Co.

J. O. P.—Examination of the *Army List* does not show any instance of a surgeon to a volunteer corps being styled Surgeon-Major. The senior officer is styled Surgeon, the junior Assistant-Surgeon.

Wz are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; The Harrogate Herald; The Dumfries and Galloway Standard; The Glasgow News; The Buxton Advertiser; The Wexford Constitution; The Yarmouth Independent; The Islington Gazette; The Manchester Courier; The Newcastle Daily Chronicle; The Sunderland Daily Post; The East Lancashire Echo; The Wigan Observer; The Northampton Herald; The Blackburn Standard; etc.

. We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. G. H. B. Macleod, Glasgow; Dr. George Johnson, London; Dr. W. Lauder Lindsay, Perth; Dr. J. Milner Fothergill, London; Mr. H. Sewill, London; Dr. W. Berry, Wigan; Dr. Hinds, Birmingham; L.R.C.P.Ed.; Dr. Rutherford Haldane, Edinburgh; W. M. J.; Mr. J. Sampson Gamgee, Birmingham; Dr. Macpherson, London; Dr. Edis, London; Mr. H. Eales, Birmingham; Mr. Husband, York; Dr. Edwin Ickards, Birmingham; Dr. G. de Gorreque Griffith, London; Dr. De Chaumont, Netley; An Old Member; Mr. H. Burdett, Greenwich; Miss Wright, Nottingham; Mr. Rivington, London; Dr. Sharpey, London; L.R.C.P.; Dr. W. H. Macnamara, Chester; Mr. J. B. Moxon, Glanford Brigg; Mr. James Dickson, Bootle; Mr. G. Eastes, London; Mr. Richard Quain, London; Dr. Underhill, Tipton; Dr. G. V. Poore, London; Dr. P. Campbell, Bridge of Allan; Mr. G. Mockett, St. Ives; Dr. Sheen, Cardiff; Dr. W. H. Steele, Brecon; Dr. Cruicknell, Sutton; Dr. C. Parsons, Dover; Dr. M. A. Bourke, Limerick; Dr. Drapes, Reading; Surgeon-Major Wright, Cape Coast; Dr. Watts, Ayr; Dr. James Sawyer, Birmingham; Dr. B. Chevallier, Ipswich; Mr. H. N. Edwards, Shrewsbury; Dr. Ferris, Uxbridge; Mr. E. P. Hardey, Hull; Mr. A. W. Flood, Reigate; Dr. F. E. Clarke, Norwich; Mr. C. Brady, Tunstall; Dr. W. Jones, London; Dr. Adsett, Droitwich; Mr. E. C. Board, Clifton; Dr. J. Hume Smith, Fareham; Dr. Beatty, Kingston; Dr. G. B. Whiteley, London; Dr. E. H. Bennett, Dublin; Dr. E. V. McSwiney, Bayswater; Mr. C. L. Williams, Birmingham; Dr. Vines, Littleham; Dr. James McNaught, Durham; The Secretary of the Harveian Society; Mr. C. F. Maunder, London; G. F. E.; The Registrar-General of Ireland; Dr. Beveridge, Aberdeen; Dr. Kelly, Taunton; M.B., Bradford; Dr. Meredith, Wellington; Mr. Brown, Northallerton; The Secretary of Apothecaries' Hall; Dr. Williams, Swinton; An Associate, Glasgow; Dr. Hitchcock, London; The Registrar-General of England; Mr. Alfred Haviland, Northampton; M.R.C.S.Eng.; Dr. Joseph Rogers, London; Our Edinburgh Correspondent; Mr. Hugh Robinson, Preston; Dr. Shettle, Reading; L.R.C.S.I.; Our Dublin Correspondent; Inquirers; Mr. Alfred P. Watkins, Worcester; Dr. Hector C. Cameron, Glasgow; Mr. W. Iliffe, Derby; Mr. Oliver, Manchester; M.D.Ed.; Dr. Eddison, Leeds; Mr. J. Dickson, Bootle; Dr. Farmer, Bridgewater; The Registrar of the Medical Society of London; Mr. David Brand, Edinburgh; A Member; Mr. W. C. Barnish, Wigan; Dr. Quin, London; Dr. Mackey, London; Dr. Bradbury, Cambridge; Dr. Syson, Stamford; Dr. Tripe, London; Mr. T. M. Stone, London; Dr. Byrom Bramwell, Newcastle-upon-Tyne; The Secretary of the Pathological Society; Dr. H. Campbell Pope, Shepherd's Bush; The Secretary of the Medical Microscopical Society; Mr. Christopher Heath, London; Dr. Jolly, Birmingham; Dr. Peacock, London; Mr. Arthur Jackson, Sheffield; Mr. A. F. Canton, London; Mr. J. W. Palmer, London; Mr. Alex. Collie, Homerton; Mr. Samuel Lee, London; etc.

BOOKS, ETC., RECEIVED.

Statistics of Vaccination. By J. P. Purvis. London: J. and A. Churchill. 1876.
Health Resorts of Europe and Africa. By Thomas Moore Madden, M.D. London: J. and A. Churchill. 1876.

A LECTURE INTRODUCTORY TO THE COURSE ON ANATOMY.

Delivered at the Middlesex Hospital, October 3rd, 1876.

BY HENRY MORRIS, M.A. LOND., F.R.C.S.,
Assistant-Surgeon to the Hospital.

It is one hundred and nineteen years ago since permission was first given for lectures in this institution. On August 4th, 1757, the quarterly court passed a resolution to the effect "That the Physicians and Surgeons of this Hospital have liberty to read lectures on Physic and Surgery in the Hospital". The progress and extension of medical education and the requirements of the examining boards have, years since, made it necessary to increase the number of subjects upon which lectures are delivered, and you will have to attend courses on at least three different sciences during the ensuing session. With me, you are now entering upon a long series of lectures on anatomy; and I intend to-day to spend some portion of our time in considering what is understood by anatomy, to what part of it we have especially to apply ourselves, and the reasons why we ought to study it.

First, what is anatomy? In its broadest acceptance, it is the science which teaches of the structure and form of organised bodies, or organised matter. But what is meant by "organised bodies"? and what is the difference between organised and unorganised matter? All matter, whether organised or unorganised; whether vegetable, animal, or mineral, possesses structure, figure, extension, divisibility, and so forth; and to this extent all matter is in affinity, to this extent man is like the rock of the mountain, the water of the ocean, and the grass of the earth. But the phenomenon which makes the great difference between organised and unorganised matter is expressed by saying that the one is living, the other inert, matter; it is the power which the former possesses of undergoing internal changes in structure; of passing through the processes of growth and development, waste and repair; of giving rise to new matter like itself; in fact, of exhibiting all, or some of the characteristics of what is called "life".

An organised body is one in which all the constituent parts, organs, and systems are mutually means and ends to each other, each contributing to the support and duration of the whole; it follows, therefore, that an organised body may be either vegetable or animal, and, as a matter of fact, there is little if any line of demarcation between the two kinds—so little, indeed, that naturalists have long disputed over some of the lowest specimens of life. You perceive, then, that anatomy is a science which, like physiology, embraces both the vegetable and animal kingdoms; is the knowledge of the form and structure of vegetable as well as animal matter; and gives a description of the particulars of the separate parts as well as of the generalities of the entire being. It is not restricted to any class of plants or animals, but is as much concerned with the simplest alga or tiniest polype as with the grandest tree or most enlightened statesman. Hence, there is VEGETABLE as well as ANIMAL anatomy.

Now, though anatomy is a science descriptive of organised matter, and organised matter is characterised by the phenomena of life, anatomy has only to do with the *structure and form* of bodies, and not with their *vital* attributes. It does not undertake to explain the processes of life, it is not the science of the functions of parts, it does not expound the laws which regulate living matter. All this is the province of physiology, a much more intricate subject than anatomy. Physiology is the science of the *life* of organised matter; so that, while the anatomist may be said to regard man (for instance) as an organised *structure*, the physiologist goes a step further, and considers him as a *living* thing. The anatomist seeks to know the formation of the organism, the physiologist the organisation of the form. The anatomist inquires as to the mechanism of an agent, the physiologist as to the action of the machine. As, however, each is engaged upon the same objects, each ought to know much of the other's science. The physiologist could make no way in his study of the functions of organs without knowing the anatomy of the same; while the anatomist would have but scant interest in his dissections of structures, without some knowledge of, or inquiry as to, their functions.

Neither does the anatomist (as such) take any cognisance of those *intellectual* qualities which distinguish man; he notes nothing of those *moral* attributes by which man's conduct towards his fellows is regulated, and his responsibility established; nor of that *reason* which expands with his physical development, and which, while it raises him high above the

brutes and enables him to make all nature subservient to his wants, yet shows him the instability of his own body even when it convinces him of the indestructibility of matter. These are the phenomena which concern the psychologist or mental physiologist; and I would here remark that, by investigating them after the method of comparative anatomy, through other divisions of the animal kingdom, as well as in the different grades of humanity, the elucidation of many psychological problems might doubtless be assisted.

Although it is by no means universally admitted that there is anything like a perfect gradation of existence throughout the range of nature, it is at any rate undeniable that there are manifold transitions. Plants no less than animals vary in the number and importance of their parts and organs; in their internal arrangement and in their external form; in their size, complexity, and degree of perfection. The branch of the science which directs attention specially to these differences is named COMPARATIVE ANATOMY. By the comparative method of regarding the important facts relating to their structure, the members of the animal kingdom have been divided into two sub-kingdoms, viz., the vertebrate and the invertebrate. By this method it has been shown, that the presence in an animal of vertebræ or a vertebral column is an index to others of its important features. We know that it indicates a certain kind of nervous system other than the so-called "sympathetic", which alone is indicated in the invertebrata. We know that the skeleton of the vertebrate exhibits a "dorsal cavity" for this cerebro-spinal nervous system, and a "ventral" cavity for the organs of digestion and circulation, and for the "sympathetic" nervous ganglia. We know that the vertebrate animal has an internal or endo-skeleton, whereas the skeleton of the invertebrate is external; that, although the vertebrate may be without limbs altogether, it never has more than two pairs, whilst the invertebrate animals have frequently many; that it has a liver and a *portal* circulation, and that during the course of its development the vertebrate animal has exhibited a series of characteristic transverse thickenings and clefts, known by the name of *visceral arches*.

Similarly we learn how man differs from the monkeys in the diameters of his chest, the obliquity of his pelvis, the proportions of his limbs, the size of his cranium, and the projection of his face. Further, in the same way we trace these and other differences through the various races of mankind; and finally we notice the changes which occur in the curves, structure, and proportions of the different parts of the body at different periods of its life, both intra- and extra-uterine, and thus ascertain the important fact, that conditions which are permanent in some species are only transient in others. By this method we become aware of the differences in the corresponding parts and organs of animals of different classes which adapt them to the various circumstances under which they live. This discovery must fill us with admiration, whether we regard these changes as an evidence of "design" in the construction of the universe, and as a proof of the "benevolence" of the Creator towards the creature; or look upon them from an opposite point of view, as it is now perhaps more fashionable, although not on that account more correct, to do, and consider them as the results of the change or development of a particular *type*, and as, in fact, an argument in favour of the doctrine of the "survival of the fittest".

In these lectures but little can be said upon comparative anatomy, and only a small portion of descriptive or general anatomy will be considered; but though only a small part, it is by far the most important—it is Human Anatomy. In man and most animals there are three separate sets of organs for three distinct purposes; first, a varied and important set by which the body is endowed with sensibility and the power of movement; these are the organs of *animal* functions, and are limited to the members of the animal kingdom. Next there are various organs which provide for the sustenance and preservation of the body, and as these conditions are essential to every organism, the organs destined for them are said to have *vegetative* or *vital* functions. Thirdly, as the period of existence of each individual, as well as of each part of the individual, is limited, it is as necessary to provide for the renovation of the species as for the part. Hence we find a set of accessory or superadded organs, by means of which animals before their decay give rise to offspring like themselves to continue their kind after they themselves have perished. These are the reproductive or generative organs.

If we look a little closer at the component parts of man and the higher vertebrates, we find (1) a complex system of bones which, by their firmness, give a definite figure to, and determine the stature of, the individual, afford attachment and support to the soft parts, and protect important viscera. The description of the bones is called osteology.

(2) There is a set of structures called ligaments, which bind together the bones; in some cases immediately, in others mediately, through the intervention of discs and membranes which break shocks and faci-

litate movements. Thus we have a large number of joints of varying kinds, the description of which is arthrology.

(3) Next, there are the fleshy parts, the muscles (with their tendons), which, possessed of two great properties, irritability and contractility, are capable of moving the bones at their joints. The description of the muscles and of the structures which enshath and isolate them, viz., the aponeuroses and fasciæ, forms the branch of descriptive anatomy named myology.

(4) The muscles, however, are not the originators of movements; they are only the agents thereof. They are stimulated to their action by the nervous system, which includes the cerebro-spinal centre and other ganglia, as well as the nerve-cords and the organs of special sense. This branch is neurology.

(5) Then there are systems of tubes for the conveyance of the fluids of the body, the lymph and blood, and an organ for the propulsion of the latter. This division includes the arteries and the heart, the veins and capillaries, and the lymphatics. It is called angiology.

(6) We find also a large variety of viscera; first, there are the organs of digestion, for the reception, mastication, and chymification of food, which, after due preparation, is absorbed and conveyed into the blood. But before this absorbed material is fitted to nourish the tissues, and before the blood which has once circulated through the system is fit to do so again, they must be acted upon by the oxygen of the air. Moreover, certain parts must be adapted for the production of the voice. The organs for these purposes are those of respiration, and include the larynx and the lungs. Other organs, again, are provided exclusively for separating useless and deleterious substances from the blood, and expelling them from the body; of these the urinary organs are the largest and most important.

Finally, there are the reproductive organs, some of which are closely associated with portions of the urinary organs.

It is usual, in works on descriptive anatomy, to group all these viscera together under the harsh and ugly word splanchnology.

Such is a brief outline of what human anatomy consists; and you will, I am sure, be glad to hear that it is a completed and worked-out science. It is only minute anatomy—histology—the progress in which keeps pace with the improvements in instruments and in the modes of preparing tissues—which has advanced beyond the point to which Hunter and the anatomists down to his day and a little later brought it. In this respect anatomy differs from all the other sciences you have to study, for they all continue to make rapid strides. It is well it does so differ; for, as anatomy is the groundwork of the rest, our study of them is less hopeless than, and not so endless as, it otherwise would be.

Next, let us inquire the reasons for devoting so much attention to human anatomy. Now, although we are obliged to admit that, in anatomical structure, there is a close resemblance between man and some of the higher vertebrates, especially the tailless apes, all naturalists are agreed that the highest place in the highest class of animals is occupied by man. Anatomy alone teaches us that man has a relatively larger brain than other animals, if we except a few of the small singing birds whose skeletons are relatively much lighter than man's; that he is adapted for the upright position; and that the construction of his limbs is such that, whilst the posterior are fitted for what is called "biped progression", his anterior are intended for wide range and variety of movements, and great delicacy and precision of touch. All this points to his corporeal superiority; so that, while man's mental attributes stamp him as the crown of creation, the construction of his body justifies his being called the "paragon of animals".

Is it not, therefore, a sufficient reason for the study of human anatomy that thereby we acquire a knowledge of the highest of all created things? Have we not been enjoined, in the following lines from the immortal *Essay on Man*—

"Know then thyself; presume not God to scan;
The proper study of mankind is man"—

to learn the structure of our body as well as the nature of our mind?

Again, it is true that man is dignified with the possession of superior intellectual faculties; but the cultivation of these faculties elevates and dignifies him still more. There is no field of study in which our minds can be better trained, or more advantageously exercised, than in the acquisition of anatomical knowledge. No pursuit more thoroughly educates us how to observe; none makes us more aware of the existence of stern irresistible facts; and none, by keeping our faculties of acquisition on the alert, better guards us against untried conclusions or misleading hypotheses. I have said it keeps our faculties of acquisition on the alert, but anatomical study does more; it teaches us the nature of those faculties themselves. If the opinion be correct that we know nothing, except what we have learnt by the senses; if the Aristotelian doctrine—"Nihil est in intellectu quod non fuerit in sensu"—be sound, it follows that, if we know the mechanism of our bodies, we are ac-

quainted with the agents through which the mind not only obtains all its information, but executes its purposes. We learn how the eye and the ear, the nose, and the organ of taste are formed; we learn how the fibres of sensation are all pervading in the organs of touch; and how the cords which convey the mandates of the will are distributed to the structures which obey its influence. We learn by how many expedients nature accomplishes her ends, and of how many different tissues one knowledge-giving organ is composed. Here, then, are two more reasons for the study of human anatomy: 1st, from its character it is a good exercise for the mind; and 2nd, it shows us the organisation of the parts in which the origin of knowledge resides.

Other reasons, too, might be urged to stimulate our interest in the study. Anatomy is of importance to the artist and of advantage to the geologist; it has been suggestive to the architect, and has furnished hints and models to the engineer. To the artist some anatomical knowledge is necessary, and, as a rule, he is not satisfied with mere "surface" anatomy. He familiarises himself with the dry bones; knows how and where they articulate, and goes some way towards understanding how—in the words of the Spirit, in the valley of dry bones—sinews are laid upon them, and flesh is brought up upon them, and they are covered with skin. Some months ago, a friend, who was painting a landscape in Hampshire, told me that he had delayed the drawing of certain trees until after he had made a journey in mid-winter to see them without their leaves, so as to get a correct idea of their skeleton forms. Surely the skeleton of man, and the muscles which move it, as much require the attention of the artist. How else can the painter or sculptor be a truthful delineator of the human frame? how show with accuracy of detail the differences of national character, or the changes made by advancing age upon the features? How else can he with strictness portray the varying attitudes of the body in vigorous exercise or during fatigue; or the varied expressions which our emotions and feelings arouse? And here let me inform you who are not acquainted with it, that one of the most instructive and interesting of books is a work on the *Anatomy of Expression* by Sir C. Bell, who, besides being one of the profoundest anatomists the world has ever known, was also a clever draughtsman and an accomplished artist, of whom it might be said (as it has been said of Camper) that he "has demonstrated that the minutiae of anatomical knowledge are much more conducive to elegance, character, expression, and precision, than could possibly have been imagined by any one totally ignorant of, or but superficially acquainted with, the science".

We come now to the special reason why we, as medical men, must devote our thoughts to anatomy. It is because, as I have said, anatomy is the foundation of all medical and surgical knowledge; the science upon which those arts are built; the basis of all medical education. It may be said to be the only basis; for all the other medical sciences are for ever referring back to the structure of the human body.

If the physician be ignorant of anatomy, how is he to diagnose disease? If he know not the organs of the body in health, how is he to recognise the physical signs of illness? Again, if the surgeon be ignorant of the relation of parts, how will he feel when, through some accident or emergency, he is called upon to perform even an ordinary and approved operation? Will he not be like a blind man who has lost his road, mistrustful of himself, faltering and uncertain? Worse still! Will he not jeopardise the limb, even if he do not expose to risk the life of his victim? And will he not be liable to lose his own reputation, and, through the consciousness of his ignorance, his peace of mind also?

It is, therefore, in its applications to the practice of your profession that you have the chief reason for the study of anatomy, and will find the knowledge of it of such service to you. On this account, it is well in teaching, as in learning, human anatomy for medical men to connect surgery with anatomy, by laying stress, from time to time, upon the great facts which furnish the principles which they are called upon to act, which guide them in their reasonings upon the phenomena of disease, and rule their actions in every operation they perform.

But, gentlemen, you must not suppose that you will obtain from the anatomy you will learn here, and in the dissecting-room, anything like an accurate idea of the structures of the body as they appear in life and in surgical diseases. You will not see, upon the slightest touch of the knife, that gaping of the skin, that jetting stream of bright warm blood, or those spasmodic twitchings of the muscles, which you see in life. The bones which you will hear described in this theatre are the bones of the skeleton, but they are only the skeletons of the bones; they are without their periosteum or fibrous covering, without their marrow, without their blood-vessels, lymphatics, and nerves, all of which are such important factors in disease. No demonstrations, not even your dissections of the arteries or joints, will enable you to understand an aneurism or a diseased hip-joint. You will dissect out the origin and

the relations of an artery, you will ascertain the guides to its exact position in the limb, and the points at which the circulation through it may be controlled by pressure, yet, in all probability, you will fail to recognise at least the first aneurism you see. You will observe the peritoneum, and follow it as it passes from above downwards, and from side to side; you will learn its reflexions, prolongations, and relations, and will be told that this membrane forms the sac of a scrotal hernia, and yet, when you have done all this, you will not be able to diagnose a hernia. You will also, with especial care, dissect out the openings in the abdominal wall through which the spermatic cord naturally descends, and the bowel in inguinal and scrotal hernia unnaturally passes. You will see the dimple of the internal ring and the striking pillars of the external, and yet, you will not, in the whole course of your experience, see these rings in the living body as you found them, after dissection, on the subject; for when you will be called upon to interfere with them, they will be altered in structure, changed in form, and disturbed from their relative positions.

It is true, then, that the changes which occur in disease are so great that the normal gives you only an imperfect idea of the abnormal. To see the structures under their altered conditions, you must follow the examination of the body in another place, viz., the *post mortem* room of the hospital. There, also, anatomy will be taught you; not, however, the anatomy of the sound, but of the unsound body; not normal but morbid anatomy; and, unless the former is supplemented by the latter, the surgeon cannot fully profit by that science upon which his art is founded. What shall we say, then? If the anatomy of surgery and medicine differ so widely from the anatomy of the schools, shall we be warranted in neglecting the latter, and giving our whole attention to the former? Most certainly not; for, if we are not familiar with the body as we find it in the dissecting-room, it is not possible we could rightly interrogate or interpret it as it appears at the bedside or in the operating theatre. By divorcing anatomy from pathology, we should deprive ourselves of the measure we employ for judging of diseased states, for verifying our opinions and correcting our errors.

By neglecting normal anatomy, we should be returning to the empiricism of a time long passed, when there was no standard measure of science to test the deductions from experience. We should fall back into the errors of the medicine-men who lived before the days of Galen, or even of a much later date, viz., before the middle of the fourteenth century. Until the middle ages at earliest, there was no scientific practice of medicine or surgery, *because there was no systematic study of anatomy*. A body of well ascertained facts had no doubt been handed down to posterity by Hippocrates, the great father of medicine, and those who followed him; and it is marvellous that so much was effected by them, and especially by the genius of Hippocrates himself, without the assistance of anatomy and physiology; but, on the other hand, centuries passed away without a single step being made in advance, until men began to give themselves up to the study of the *normal* anatomy of the human body.

The various methods of studying anatomy are four, viz., reading, attendance at lectures, attendance at the demonstrations in the dissecting-room, and dissecting for yourselves. All ought to be combined; you will derive assistance from each; but the two latter methods are of the most importance, and reading and lectures should be only auxiliary to them. You must read to save time, and to prepare yourselves to profit fully by your work upon the body; and you should attend lectures to hear the organs of the body described in an order arranged according to their nature, i.e., in a descriptive and not in the topographical manner followed in the dissecting-room; but dissecting should be your chief resource. Dissect all you can; it will educate your senses to observe with accuracy, and your fingers to manipulate with skill. By dissecting, you have the advantage of obtaining knowledge for yourselves, independently and at firsthand, instead of receiving it upon the authority or diluted through the medium of another; your "eye negotiates for itself and trusts no agent"; you will interrogate nature to her face, and discover and verify by her aid alone. Dissection is the only perfect way of learning anatomy, which has been even defined as a "doctrine learned by dissections". Every facility will be given you for so studying it, for dissecting no longer requires that moral and physical courage which, in old times of superstition and torture, was necessary in those who prosecuted it.

By these several means, endeavour all you can to become proficient anatomists. It was by their knowledge of anatomy that the great surgeons, as well as the great naturalists, of this and other countries and times, achieved their fame. It was their knowledge of anatomy which placed Paré and Heister, Petit and Le Dran, Wiseman and Pott, Abernethy and John Bell beyond their fellows, and made them great surgeons. It is on account of their anatomical works that you will come to venerate the ancient names—of Galen, whose writings

were the only standard authority in anatomy for upwards of eleven centuries, from 200 A.D. to 1326; of Mundinus, who, a little before this latter year, published a treatise on anatomy, which was the recognised text-book of the universities and of teachers down to the middle of the sixteenth century, and from the date of which medicine may be said to have started on a scientific basis; of Andreas Vesalius, the Copernicus of anatomy, who cleared away the time-venerated errors of Galen, and who, from his love of anatomy, was falsely accused of desecrating the human dead, and, for his observations on comparative anatomy, was attainted of heresy; of those contemporaries of Vesalius—Vido Vidiur and Jacob Sylvius—the latter of whom has given his name to an aqueduct which provides for the most marvellous, as it is the most important, hydrostatic agency in the body; of Fallopius, whose name may be said to ring in the ear of every medical student, and points to the high road of our creation; of Eustachius, who discovered the anatomical explanation of what is called throat-deafness, and whose name, with those of Arantius and Valsalva, will for ever dwell in the hearts of men; of Fabricius, the discoverer of the valves in the veins, and the teacher of the renowned Harvey; of Harvey himself, the discoverer of that perpetual miracle, the circulation of the blood; of Havers, whose name permeates throughout the structure of bone; of Glisson and Scarpa; of the immortal Hunters; and of many others, both English and foreign, whose names are retained in the nomenclature of anatomy.

You will likewise hear with admiration of Goodsir and Quain; of Owen and Huxley; Humphry and Struthers; and of that philosophic surgeon, my esteemed master John Hilton, from whose admirable dissections the Anatomical Museum of Guy's has been filled with models of unrivalled excellence, and who, by the application of exact anatomical knowledge to the elucidation of some of the most difficult problems in surgery, has given to the world that classic work on *Rest and Pain*. You will hear, too, of many more who, in modern times, have carved their names for ever into the records of anatomy.

Lastly, it will gratify you to know that many who have taught in this school have distinguished themselves by their anatomical works. There is that pinnacle of light Sir Charles Bell, the first lecturer on anatomy at the Middlesex Hospital, whose discovery of the roots of the spinal nerves did for the anatomy and physiology of the nervous system what Harvey's great discovery did for the circulation. There is our consulting-surgeon Mr. Alexander Shaw, who, as the assistant of his relative Sir C. Bell, and by his independent writings, has made many valuable contributions to anatomy. There is Mr. John Tomes, the first surgeon-dentist to the hospital, who has given to science much on the anatomy of the teeth. There was the beloved De Morgan, whose name (with that of Tomes) is inseparably associated with the minute anatomy of bone. There is Professor Flower, the conservator of the Hunterian Museum, whose writings on anatomy and zoology are as important as they are various. There is Mr. Nunn, who for many years was one of the most popular and successful demonstrators in the metropolis; and whose little treatise on the arteries has been translated into the French language, and is quoted in our English text-books on surgery. There is, too, our present lecturer on surgery, Mr. Hulke, whose researches on the minute anatomy of the eye formed the subject of his very valuable lectures at the College of Surgeons.

Let the work performed by these men stimulate us in our own. Let us strive to follow along their honourable path; and, by the careful and honest study of anatomy, take the first step in the only true way to be great in our profession.

ON THE TREATMENT OF COMPOUND DEPRESSED FRACTURES OF THE SKULL.

BY SAMPSON GAMAGE, F.R.S. EDIN.,

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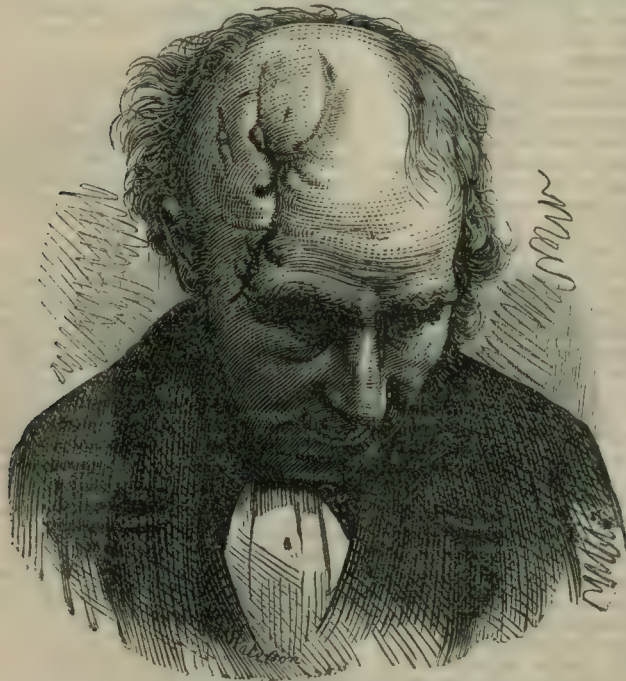
In a clinical lecture on this subject, which obtained the privilege of publicity through these columns (BRITISH MEDICAL JOURNAL, July 8th, 1876, p. 37), I endeavoured, on the basis of three successful cases, and after a review of leading authorities, to justify my conviction that, "in compound fractures of the skull, without brain-symptoms, the proper course of practice is *not to trephine*".

I now go further. Still holding to the reservation made in the lecture quoted, "that there may be cases of compound fracture of the skull justifying operative interference", I maintain that many cases of compound depressed fracture of the skull, *with brain-symptoms*, do perfectly well without the trephine. Here are two cases in point.

On the 22nd November, Edward Armitt was admitted into the Queen's Hospital under my care. He had a transverse wound about

an inch and a half in extent at the back of the head, a little to the left of the middle line, and just below the suture, between the occipital and the left parietal bone. The wound, which had been inflicted with a cabman's metal badge, led directly down to the bone; this was fissured, and the edges of the bony fissure were distinctly felt to have been driven in. The man was perfectly sensible, but the right pupil was dilated, the corresponding eyelid drooped, and partial paralysis of motion in the right arm was well marked. The treatment prescribed was absolute rest in bed, low diet, close attention to the bowels, dry dressing of the wound, and application of ice-bag to the head. At the end of nine days, the wound had healed, and the symptoms of compression, after steady decrease, had completely disappeared. The patient was discharged on the 10th December, and resumed work six weeks after the accident. I saw him last week in perfect health. The depression in the skull is still quite perceptible, but the man has not lost an hour's work, and has shown no symptoms traceable to the injury.

On May 11th, John Curtis, aged 46, was admitted under me in our accident ward. He had been thrown out of a cart in rapid motion on to some stones. The accompanying woodcut, executed from a



photograph taken after complete recovery, will give an idea of the extensive nature of the injury. The greater part of the right half of the scalp was turned back and much periosteum stripped from the frontal and left parietal bones, in each of which was a fracture with depression: one fracture, immediately above the parietal ridge, was characteristically punctured and depressed—a circular piece of bone, about the size of a split pea, having been firmly driven in to the depth of one-eighth of an inch. The man was barely conscious, and could only give a very imperfect account of the accident. When I saw him at 11.10 P.M., about two hours after admission, the pulse was 76; respirations 22; temperature 99.8. After carefully cleansing the wound, its edges were brought into contact with eight points of silver suture; an oakum dressing and gently compressing bandage; a large ice-bag over all.

On the following day (May 12th), 9.30 A.M., pulse 84; respirations 22; temperature 101.2. 9 P.M. Pulse 108; respirations 28; temperature 103. At this visit, I noted numbness and impaired motor power of the left hand, with complaint of headache. Ice-bag to be persistently continued, and an aperient draught prescribed.

May 14th. Dressing changed; discharge considerable; wound looking very well; the lower half of it healing by the first intention. Pulse 80; respirations 20; temperature 101.2. Pain in head and numbness in hand gradually decreasing.

From this date, the progress to recovery was uninterrupted. The man was discharged June 21st, barely six weeks after the accident. He resumed his regular work as a carter in another fortnight, and has

ailed nothing since. When I last saw him (September 28th), he was in vigorous health. The hair hid the greater part of the wound, from which two splinters of bone were extracted about two months ago. The cicatrix throughout is pale and painless, the points where the sutures were inserted being scarcely perceptible.

From these two cases I would not pretend to deduce a rule of practice, though I think the treatment pursued in them deserving imitation under analogous circumstances. The cases tend to restrict the justifiable use of the trephine within still narrower limits than those defined in the lecture above quoted. How narrow those limits should be, how rarely the trephine should be applied to a broken skull, may be the subject of a subsequent communication.

NOTES ON OBSCURE CASES OF CALCULOUS DISEASE OF THE KIDNEY.

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THE immediate object of this communication is to direct attention to the more chronic symptoms of renal calculus, and to show how easily, in many cases, the true nature of the affection may be overlooked. I would speak first of cases in which the principal symptom consists in heavy and continued pain over the sacrum, while there may be no other discomfort of any kind beyond such as we find in connection with dyspepsia in no very aggravated form. The circulation is generally feeble, and the patient complains of languor and want of appetite. We are sometimes assisted in our diagnosis by the bladder becoming irritable; but this symptom is not always present in any marked degree, and other causes than the true one are sought in explanation of the case. These causes are numerous and well known to the profession; but the presence of a renal calculus would scarcely suggest itself in explanation of the symptoms, if no urinary trouble were recognised. The case, in fact, is not made out. There is, however, a test which is very valuable in these obscure cases; viz., the tincture of galls. This may be regarded as an indicator of the presence of the extractive matters of the blood, and, if it be added to urine containing these, we get an immediate light brown flocculent precipitate.* This shows us that we have some cause of irritation affecting the urinary canals, and we are thus directed to the appropriate treatment of our patient. If we have no indication by this test, we may then be sure that the sacral pain is due to other cause than the presence of a renal calculus; but, if we obtain the reaction, the probability is great that a calculus is present. I use the expression "the probability is great" because now and then, and especially in gouty persons, we meet with cases in which a highly acid urine acts as an irritant and causes an effusion of the extractive matters of the blood. In these gouty cases, the irritation is often sufficient to cause an effusion of serum into the renal tubes, and albumen appears for a time, making us anxious as to the probable production of the well known small gouty kidney. In most cases of renal calculus, however, we do not find albumen present unless blood be effused, in which case the character of the disease is at once manifest. It should always be borne in mind that the absence of albumen (should the practitioner happen to examine the urine) does not prove that the urine is free from all constituents of the blood. There is, again, a set of symptoms produced by renal calculus which it is not always easy to attribute to the proper cause. In these cases, the calculus is present in the right kidney, and the patient complains of pain extending over the body from the renal to the hepatic region. The practitioner cannot detect hepatic enlargement, but he notices that the patient is slightly jaundiced. There is dyspepsia, with gout and depression of spirits, the colon being much distended, and the pain over the hepatic region is at times especially severe. If, as often happens, there be no irritability of the bladder, or but little, and no hæmaturia, these cases are not easily diagnosed. Nausea is common, but rarely such vomiting as to lead to the belief that the stomach is sympathetically affected. The use of the tincture of galls will help us greatly in diagnosing these cases.

When a calculus exists in the kidney, we sometimes observe, among other symptoms, that the patient shows a tendency to rigor. This is accompanied with blueness of the nails. The rule is, that the patients do not pass into rigor, but what they experience is often expressed by saying that they feel a "creeping" all over them.

I once saw a remarkable case, however, in which well marked rigor

* I have given a full description of the action of this test, and of its value in practice, in the *Guy's Hospital Reports*. The test is added *guttatim*, when, if the extractives are present, an immediate precipitation occurs.

occurred daily. This patient had not a single urinary symptom. He had never been exposed to the action of miasmatic poison; there was no evidence of suppurative action, and yet the rigors occurred regularly and resisted all remedies. The treatment he had undergone had in no way mitigated his sufferings. He was emaciated, sallow, and extremely weak. Though there was no urinary symptom present, the urine was carefully examined, but no traces of albumen nor of sugar could be detected. Under this state of things, the patient was one day seized with sudden pain in the side and an urgent call to pass water. While doing so, he projected a uric acid calculus into the chamber vessel, and from that moment all his symptoms disappeared. At the time I attended this case, I was not aware of the value of the tincture of galls as a test. Had I known what I now know of its value, I might probably have been led to suspect the true state of the case.

In cases such as I have described above, we are not assisted to diagnosis as we are in cases showing deposits. We have not the appearance of uric acid to guide us to the truth, nor the albuminous or bloody urine occasionally observed, but the calculus remains behind, producing symptoms variable in character and often most vague. Owing to this, I have known the pains of a renal calculus attributed to hepatic congestion and to intestinal obstruction, and the position obstinately maintained till obvious symptoms placed the matter beyond doubt. I have shown above howague was simulated, there being a most remarkable absence of all renal symptoms, though the case lasted several months. The presence of slight rigor and blueness of the nails must, I fully believe, be regarded as a corroborative symptom in cases of renal calculus. When present in obscure cases (even should there be no well recognised symptoms of urinary disease), the tincture of galls should be used in addition to other tests for the presence of blood-material in the urine, and the symptoms of the case further inquired into with especial regard to the question of renal disturbance.

These remarks may be summed up by stating—1. The diagnosis of renal calculus is often most difficult, no obvious urinary symptom being present to guide us. 2. The tincture of galls, if it give indications of the presence of the blood-extractives in the urine, shows irritation of the renal surface, and the presence of these extractives may be regarded as a corroborative symptom of the calculous state. 3. A tendency to rigor may be placed among the symptoms characteristic of the presence of renal calculus.

Cases of renal calculus are not commonly mistaken for Bright's disease in the present day, though I have known the error committed. This may happen when there has been hæmorrhage from calculus which has passed away and left a transient albuminuria. This albuminuria will also cease, however, leaving the urine after a time charged with extractives of blood only. Whenever there is a history of renal calculus, it is, therefore, well to be careful before giving an opinion as to the existence of Bright's disease. Though the error above alluded to is not commonly committed in cases in which a transient albuminuria is produced by a calculus, it is by no means unfrequent where uric acid in a crystalline form is irritating the renal tubes. Here we frequently find albumen in the urine in considerable quantity, for days or weeks together, while there is much gastric derangement; and the albuminuria may be erroneously attributed to the existence of some form of Bright's disease.

CIRRHOSIS OF THE LIVER IN A GIRL ELEVEN YEARS OF AGE.

By THOMAS OLIVER, M.B., Preston.

THE interest attached to Dr. Griffith's case* of cirrhosis of the liver in a child rests mainly on the fact that a disease, which unquestionably is associated with habits of intemperance, is occasionally found in children, or in adults whose character is so well known as to admit of no doubt of their sobriety. The disease in question is so very rarely met with in the young—in those placed beyond the limit of intemperance as a cause—that, even in the present day, it occupies no place in the nosology of children's ailments. From its rarity, many deny its existence. But, from the remarks made by various members at the meeting of the Pathological Society in December last, and especially those of one—an authority on hepatic affections—who for many years remained sceptical on the point, we may now conclude that the occurrence of cirrhosis of the liver in children is a fact fully established. Several cases were quoted by gentlemen then present.

Abuse of alcohol is by all recognised as the chief factor in the production of cirrhosis: of other causes there is a well-grounded suspi-

cion—syphilis and intermittent fever have been cited. In a few of the cases, it would seem that the little patients had been in the habit of taking alcoholic liquors; but in many no such, or any other probable, cause could be found. Frerichs mentions a case which occurred in a boy of ten years of age, and in him departure from health dated from a period—a year before death—when he had been bathing and had been kept by his companions submerged for a time. In him there was no apparent cause. According to Budd, it would seem that the excessive use of curry and other irritating spices may have something to do with its production. All are agreed, however, that in a few cases there is no discoverable cause. One of the most marked instances of cirrhosis of the liver I have met with was in a cat. It has occurred, too, in other animals; and in them there was no assignable cause.

The following case, while adding testimony to the occurrence of the disease in children, furnishes little of any etiological value. There is no history of syphilis or intermittent fever.

E. D., eleven years of age, came under my care in October last. Her history is as follows. The patient had always been a delicate girl. In her infancy she suffered much when teething, but never had convulsions. Her first tooth was cut when she was four months old. From the age of two till eight, she enjoyed fair health, but was never robust. Three years ago, she had measles and suffered from a severe pulmonary affection. As the chest symptoms began to decline, an exhausting and protracted diarrhoea set in. It was a simple diarrhoea. At this time, I am told, stimulants were made use of, but only in very small quantities and very freely diluted. Repeated inquiry elicited from the mother that port-wine was given; but it was either freely diluted with milk and water, or more intimately mixed with arrowroot. Brandy was used sparingly for two or three days. She had occasionally taken a little beer; but this, the mother firmly asserted, only since her illness declared itself.

After a tedious illness, she recovered slowly, and returned to school. Soon after her return to school—and at this time she was between nine and ten years of age—her companions noticed that her colour was changed. She was jaundiced, but not deeply. The change of colour was gradual. In addition, they complained that her interest in their games was gone; and that, in place of participating, she was listless and inattentive. On account of her indisposition, they named her "old wife". Her appetite at this time varied, but she made no complaints. In the month of July of last year, she vomited blood, and the jaundice thereafter assumed a more decided tint.

When I first saw her, she seemed a delicate girl, of average height for her years. The symptoms she complained of were great weariness and slight pain in the epigastrium. Her appetite was variable, her pulse weak and bowels regular. She was sallow, and at places her skin was of a dusky-brown colour. The dark colouration was not equally distributed. The brow was very dark, as also the skin at the roots of the hair; elsewhere the face was pale. The conjunctivæ were pale. The abdomen was very much distended, and the skin in front more deeply discoloured than that of the brow. During her illness, the distension of the abdomen increased. There was no pain over the right hypochondrium, and only slight pain was experienced when I applied my hand firmly to the epigastrium. The area of hepatic dulness was diminished; that of the spleen was much increased. It extended downwards to the left renal region, and forwards and inwards to a short distance from the umbilicus. There was no œdema of the feet: at Christmas, however, it made its appearance. Though her bowels remained pretty natural throughout her illness, she suffered on two or three occasions from diarrhoea, which was always easily checked. Her urine was passed twice a day, each time in large quantity. It was of a deep orange-colour; and did not give with nitric-acid a play of colours. There was no albumen. It contained a few oxalates, and amorphous urates in great abundance.

About the middle of January of this year, slight cough supervened, and a few bronchial rales were heard over the lower lobes of both lungs. The sounds of the heart were normal. She now began to vomit her food; and her motions, now watched, were found to be streaked with blood. There were external piles.

On the evening of January 22nd, she began to vomit blood containing a few clots, and this continued until 2 P.M. next day, when she died unconscious. In the early part of the night, she seemed to suffer great pain in the abdomen and back.

NECROPSY, made twenty-six hours after death. Rigor mortis well developed. From twenty to thirty pints of clear serous fluid were removed from the abdomen. The vessels of the peritoneum were somewhat injected. The liver was driven up under the diaphragm, to which it adhered pretty firmly. It was very much diminished in size, and was a beautiful specimen of "hob-nail" liver. On section, it was tough, from the increase of its fibrous tissue. The spleen was much

* Pathological Society of London, December 7th, 1875. In Dr. Griffith's case, there was no history of syphilis or intemperance. The patient was ten years of age.

enlarged, was firm to the touch, and much congested. The kidneys were normal; the mucous membrane of stomach and in part of bowels was covered with dark blood. Pelvic viscera were normal. Permission was not given to examine the chest.

Under the microscope, sections of the liver presented in a very marked degree the characteristic lesion of cirrhosis. The capsule was very much thickened, and from it there passed into the subjacent tissue thick bands of a fibrous structure. The hepatic lobules immediately under the capsule suffered most. Many had almost entirely disappeared. Those left were not only encircled by a dense stroma, but had delicate bands passing into the interior of the lobule, and there breaking up, in a very irregular way, the arrangement of hepatic cells.

In the absence of syphilis as a cause, the probability is, judging from the history of the case, that a morbid tendency to develop fibrous tissue in excess may have originated at the time the patient was treated by stimulants during the sequelæ of measles. She certainly never regained her usual health. But, taking into consideration the pathological conditions above-mentioned, and the fact of a long-continued pulmonary affection (unfortunately, not allowed to be verified *post mortem*), there is sufficient evidence, I think, if we accept the theory of Drs. Wilks and Moxon, to allow of our considering the origin of the disease in a perihepatitis, followed, from extension inwards, by cirrhosis of the liver.

CLINICAL MEMORANDA.

AMPUTATION OF BREAST: RAPID RECOVERY.

ON Thursday afternoon (October 12th), assisted by Dr. Jack, Mr. R. Davy, and Mr. Nickolls, I removed the left mammary gland, the seat of scirrhus. The edges of the wound were brought together by catgut sutures, and a small skein of the same carbolised gut was left hanging out at the axillary angle of the wound to promote drainage. Large compresses and strapping were applied to keep the raw surfaces in apposition, and a piece of lint, damp with carbolic water, was overlaid. Yesterday (October 15th), seventy-two hours subsequent to operation, Dr. Jack writes to me: "Removed one pad to-day; found all united, save one little point, at which was a drop or two of pus. Pulse has been constantly from 120 to 140. Temperature never above 98.5 deg. I have, therefore, given food and stimulants moderately freely. Is to sit up in a chair a little to-morrow."

C. F. MAUNDER.

ON PRIORITY IN THE USE OF BROMIDE OF POTASSIUM.

UNDER Hospital Notes in the last number of this JOURNAL, some remarks are made on the early use of bromides, of interest as giving reasons for their administration in Guy's Hospital for certain cases of epilepsy, but not quite satisfactory as to the history of their first employment in medicine. Sir Charles Locock's observations in May 1857 do not refer to cases treated by bromide of potassium in Germany, but to his own experience. Before his published statement, he had prescribed this salt for a patient of mine, now living and in good health. Dr. Russell Reynolds also saw the patient with me in consultation. We raised the dose to double the amount previously used either by Sir Charles Locock, or the German self-experimentor to whom he refers. Some share of success in the treatment depends upon this increase in the dose. Many other cases were successfully treated in this way before March 1860. Unlike the iodide of potassium, the bromide is not an excitant of the excretory organs, for it is not necessarily excreted, and can take the place to some extent of common salt. Nor is it chiefly "as an alternative to the iodide treatment in epilepsy" that the more remarkable results now daily verified are obtained by the majority of practitioners. The influence of this agent in moderating emotional excitability determines its employment in numberless cases that in no way suggest the use of iodide of potassium. The cases of epilepsy, in which the bromide of potassium is most beneficial, are not those in which the iodide is indicated, or for which it is likely to be useful.

WILLIAM SQUIRE, M.D.

POISONING BY PARAFFIN OIL.

HAVING read the case of Mr. Robert Smith, F.R.C.S.E., in the BRITISH MEDICAL JOURNAL of the 14th October current, and also your "Hospital Notes" of the 16th September 1876, permit me to mention a case (the notes of which were published in the *Edinburgh Medical Journal*, 1874) where a woman by mistake drank a pint of paraffin oil.

An emetic was promptly given, causing copious vomiting; and then large doses of bicarbonate of soda, dissolved in water. The woman complained of burning pain in the region of the throat and stomach; clearly showing that the paraffin acts as an irritant. In a few days, the woman was moving about in her usual health.

G. R. GILRUTH, L.R.C.S.E., Edinburgh.

THERAPEUTIC MEMORANDA.

TREATMENT OF SCABIES BY CARBOLIC SOAP.

DURING the past six years, I have been treating patients in the Medway Union Hospital, suffering from scabies, in the following manner. The clothing is disinfected. The patient is put into a hot bath, and then thoroughly soaped with carbolic soap (1 in 20), the lather being allowed to remain on for a quarter of an hour; at the expiration of this time, it is washed off and the patient thoroughly dried; one application is often sufficient to destroy the acari, but generally it takes three washings to effect a cure. In private practice, this treatment is far preferable to the old one by compound sulphur ointment, that remedy being almost as offensive as the disease.

WALTER DOUGLASS, M.R.C.S.E., Chatham.

FIR-WOOL FOR ARTIFICIAL DRUM-HEADS.

OF the many interesting questions discussed at the recent Medical Congress in Philadelphia, those brought forward in the Otological Section are by no means of the least value, and many moot points in this branch of surgery have been set at rest by men most competent to speak with authority. Amongst other matters, the various forms of artificial tympanic membrane have been thoroughly examined, and a report has been made in favour of Yearsley's, which, as is well known, consists of a thin disc of cotton-wool of the shape of the membrane it is intended to replace. I believe that most English aurists will agree with this verdict. I have for some two or three years used fir-wool—that is, the fine wood fibre from the cones of the *pinus sylvestris*, as a general application in those cases in which I have considered wool advisable, as well as for artificial membranes. It has all the advantages of the cotton-wool discs, namely, simplicity, easy introduction, greater uniformity of effect, comparative safety of its employment, and adaptability as a medium for direct therapeutic applications. It has further advantages over cotton-wool, in that it has undergone no chemical dressing, that its colour (a light fawn) renders its use less obvious to others, and, I may add, my belief in its vegetable character and terebinthine impregnation. On this latter account, it appears to be of direct antiseptic value in purulent cases. I enclose a specimen of the wool and of a couple of membranes made of it. I have only to add, that it was formerly procurable only as a patent remedy. It may now be obtained at about eightpence a pound through any wholesale druggist.

LENNOX BROWNE, F.R.C.S.Ed.

SURGICAL MEMORANDA.

THE ANÆSTHETIC PROPERTIES OF CARBOLIC ACID.

MR. MORGAN, in the JOURNAL of August 19th, stated that he observed that carbolic acid caused complete cutaneous anæsthesia where it was spilt on his hand. It is well known to all who have employed antiseptic precautions in surgical practice, that carbolic acid is a local anæsthetic, the antiseptic dressing being the most comfortable of all dressings. Cases are on record where one limb was amputated under the old system, and the other had to be amputated at some future period under the antiseptic system. The second amputation was by far more painless.

JOHN A. ERSKINE STUART, L.R.C.S.Ed., Chirnside, N.B.

ON A CASE OF IRIDODIALYSIS.

IN the afternoon of September 25th, I was requested to see a gentleman who had met with an accident to his eye. He had been in his garden, and was endeavouring to fasten a climbing-plant to the wall with a nail, when, on striking the latter, the head broke off and hit his right eye. On my arrival shortly after the accident, I found the iris partially detached from its border upon its outer and lower aspect, but without any wound of sclerotic or cornea. The vessels of sclerotic,

at a point opposite the internal laceration, were slightly injected; but there was no hemorrhage into the anterior chamber. Vision was slightly impaired; the iris was detached about one-sixth of its extent, and presented on its outer side a dark opening of semilunar appearance. The pupil was irregular, the external portion being rectilinear. I immediately applied to the eyeball an atropised gelatine disc, containing one hundred thousandth part of a grain, as recommended by Mr. Ernest Hart; and at my next visit, two hours later, had the satisfaction of finding, the pupil being exceedingly dilated, that the semilunar dark spot had almost disappeared, the only traces visible being merely a dark line around the rim of the iris where the laceration had taken place. Dr. Rhodes, surgeon to the Dorset Eye Infirmary, who then saw the case in consultation with me, approved the treatment adopted; and recommended the eye to be kept moist with a pledget of lint, wetted in a weak solution of belladonna. This treatment was steadily continued for a week, an atropine disc being inserted night and morning. The result has been, on the pupil resuming its normal state, that at least three-fourths of the ruptured iris have reunited, only the inferior extremity of the wound giving any indication, and that scarcely discoverable, of the recent injury. The satisfactory termination of this rare and interesting case may, I think, be fairly attributed to the early employment of atropine, which, by completely paralysing the sphincter iridis, caused the radiating fibres of the unaffected portion to contract and bring into juxtaposition the edges of the lacerated segment, and thus secure their union by adhesion.

J. MOORHEAD, M.A., M.D., Weymouth.

[In a letter accompanying this report, Dr. Moorhead makes the following remarks. Mr. Lawson, in his work on eye diseases, designates such cases *Coredialysis*. As this word, however (being derived from *κόρη*, the pupil, and *διαλύνω*, to tear through), etymologically implies laceration of the pupillary border, which was not present in my case, it is obviously inaccurate. I have, therefore, given the preference to the term employed by other ophthalmological writers, *iridodialysis*, which literally represents the lesion in question. The gentleman to whom the accident occurred is a surgeon-major in the army, who was at home for a short time on leave of absence. He is, of course, delighted at the success of the treatment adopted, as at first he greatly apprehended permanent disfigurement of the eye, whereas, unless on the closest inspection, nothing is now visibly wrong.]

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

THE LONDON HOSPITAL: DR. ANDREW CLARK'S CLINIQUE.

Chorea.—The many allusions to this malady in the present series of notes would be evidence, if any were needed, of its great frequency and wide distribution; still, the last word about it has not yet been said; and we believe that interest will be found in the following abstract of a clinical lecture, for, if not exactly new in subject, it has a specialty in method.

Referring to the well marked cases of a girl and a boy brought before the class, Dr. Clark observed: "You know chorea, as seen in irregular spasmodic muscular movement, ceasing during sleep, brought on by fear or emotion or without obvious exciting cause; lasting, if left to itself, for from two to four months, and having special relation to certain other nerve-disorders, to rheumatism and to heart-affections.

In the early part of this century, Dr. Copland began to trace the connection with rheumatism; after him, followed Dr. Bright; and the next great step was made by Dr. Kirkes, who proved, by *post mortem* evidence, that concretions from the heart-valves might be carried to the brain-vessels, causing what was called embolism of one or more, and who argued that choreic symptoms might, sometimes at least, be explained thereby.

Dr. Broadbent carried the observations further, and localised choreic emboli in the corpus striatum or adjacent parts of the brain; and Dr. Hughlings Jackson followed, with evidence and reasoning entirely in favour of the corpus striatum being the affected part. The strong side of this argument is the fact noticed by Dr. Broadbent, that in hemichorea, when sensation is impaired, it is impaired on the same side, and not on the opposite side, as would be the case if the cord were the affected part. But note the following objections: 1. In many

chorea cases, e.g., a series published by Dr. Ogle, there has been no evidence of rheumatism. 2. Other cases have died, and have furnished no trace of embolism. 3. In others, indeed, emboli have been found; but might they not have been but a factor in the fatal issue? 4. Chorea may come on instantaneously; can this be embolic?

According to an older view, the cord was the part affected: pressure over the spine certainly sometimes makes the attack worse. And, finally, experiments upon dogs have shown that choreic movements may continue after the brain has been separated from the cord (implying that the former is not a *sine quâ non* of their production).

Without at present localising the pathological condition that induces chorea, I would give you the following view of the malady. Admit, in the subjects of it, *impaired nerve-power*, congenital or acquired—it will often be the former—children may be born, as it is called, *delicate* (and by "delicacy" I understand impaired power of resistance to any injurious impression); in such children add *anæmia*, and you get the double condition out of which chorea springs; add rheumatism, indigestion—some say, worms; or add fear, emotion, *irritation* is set up—the balance of nerve-power is destroyed, and you get chorea. Now, having to deal with it, expect it to last, if left to itself, from two to four months; and if it last longer than that, it may prove very intractable and very chronic indeed.

Having ascertained a time limit, you will be able to judge as to the effect of medicinal remedies, observing by how much they shorten the time. The remedies given may be classed in three divisions: (1) anti-rheumatic remedies, as potash, iodides, bark; (2) nerve tonics, arsenic, zinc, iron; (3) empirical, as ice or ether over the spine, galvanism, sedatives. But remember you cannot judge the effect of remedies from a few cases: to do so is liable to bring discredit on our therapeutics. An instance of recent disappointment occurs to me: a distinguished provincial physician, when treating diabetics with lactic acid, found rheumatism to be developed, and reported apparently convincing evidence of the causation of the disease by the acid. This seemed to tally well with other observations. We put it to the test in our wards, and, so far, we have had no corroboration whatever. I cannot but think that the reasoning is based on too small a number of observations.

From the use of ether to the spine—a plan so strongly commended by a few—I have seen no benefit; but we will try it further. The use of alkalies with bark we must also put to further test. Rest and the free use of arsenic are the remedies which shorten most the duration of the disease.

Passing now to examine the patients, ascertain the organ or system most in fault; consider its relation to other organs; form your diagnosis; then take this in your hand, and with it go back to the case, and see if it will cover all the symptoms. Take nothing for granted. As you have heard me say many times concerning cases of rare disease—for instance, abdominal aneurism—the best mode of diagnosing it is *to doubt its existence*. In this girl, you see the whole muscular system is affected. Question it in detail. 1. Voluntary motion. Let her touch, say the nose, with a finger; let her hold out her arm. You see she can do so, but in a jerky uncertain manner. There is still, then, power of the will over movement; but, more than that, movement asserts itself sometimes *in spite* of the will: the face-muscles twitch; the neck is suddenly pulled to one side; fingers are straightened or clenched. Compare such movements with the monotonous tremor of palsy; they are constantly varied. And compare them with the spasmodic actions of hysteria, which are *purposive*, and are sometimes quite intermitted; these are *purposeless* and constant (during waking hours). 2. Associated movements. Observe the child walking. The gait is unsteady; the limbs are thrown about; the power of co-ordination is deficient. Tell her to look so as to turn the eyes inwards. By *consensual movement*, the pupils should contract. Observe her power of swallowing, and listen over the œsophagus to notice any gurgling or sign of difficulty in the action. 3. Involuntary movements and electro-motility. Ascertain whether the sphincters act or no. 4. Reflex movements. Test them, and remember that you test everything. If you only see disease, and do not carefully examine for yourselves, you get no power of observation, no receptivity. 5. Test sensation—the muscular sense—whether the position of the limb is known without looking for it; the thermic sense, and change the hands about from hot to cold media, to note if readily recognised; the tactile sensibility by needle-points (but observe that, if two be felt at half an inch on one hand and only at one inch on the other, you must not hastily conclude that in the latter sensation is impaired; in the former, it may be exaggerated); then the electro-sensibility and the sense of pain. But in children you cannot always carry out all you wish, and you are liable to fallacies more than with adults. Pass on to test the special senses; then the intelligence, the power of articulation, of association of ideas; and do not omit to investigate the sympathetic.

Take next the thoracic organs. Concerning cardiac *bruits*, I have observed very many cases, and find that, if there have been no previous heart-disease, the *bruit* will certainly disappear. I speak not only of the anemic *bruit*, but of the one which has the characters of mitral reflux. You say there is no *bruit* in this case; but you are examining when the child is quiet. Make her run round the room. Never pronounce a heart healthy until you have heard it in *strong action* as well as in quiet. By this precaution I have sometimes detected commencing aneurisms. With all care, cases of this malady will sometimes remain undetected. One patient came complaining of ill-defined pain over the heart: many of us had seen him and detected nothing. I made him go up and down stairs; still nothing; and then I encouraged him as having nothing the matter. A fortnight later, after the same exertion, I found a faint to-and-fro sound; and the end, which was not long afterwards, revealed a small aneurism of a sinus of Valsalva. Never say, then, there is no heart-disease. If there be any doubt whatever, say only, *I find no evidence of heart-disease*. Now, examine the digestive organs: see if there be any source of irritation. Note the condition of the urine; its high density, first noticed by Walshe; the presence of oxalates, and of a peculiar acid; also its tendency to rapid putrefaction.

Now, inquire the history. "What else is the matter?" "Giddiness." "How long have you been this way?" "About six weeks." "Were you quite well before?" "No, I had rheumatism all the winter." Now, observe, this seems to tally with our theories, but *you must constantly deny yourself a suggested conclusion*: it may not have been rheumatism. "What was it like?" "Very bad pain all down my face, and I cried so; and then I had whooping-cough, and mother said it brought this on." Here, again, we might trace evidence of our theories. May we trace this nerve-pain, and again this spasmodic cough, to congestion of the corpora striata, so predisposing to the chorea? I only say that the most plausible points must be questioned most closely.

STANLEY HOSPITAL, LIVERPOOL.

CASES OF INFLAMED WRIST-JOINT, SUBCUTANEOUS AND OPEN:
CURED BY MECHANICAL TREATMENT, WITH OR
WITHOUT INCISION.

(Under the care of Mr. RUSHTON PARKER.)

CASE I.—A workman, aged 56, wounded the back of his left hand with some tool or machinery in March 1876, by which the carpo-metacarpal joint of the index-finger was laid open, and the skin lacerated and displaced.

For two months he attended (he was an out-patient) under the treatment of the house-surgeon, who devoted a great deal of care to him; but, in spite of this, and although from the commencement a rectangular skeleton splint of parallel iron rod was used; the hand, having been sewn up closely and dressed, inflamed, swelled, and suppurated freely. Eventually the wrist-joint became affected; and in June the hand and lower part of the forearm were much swollen, very tender, and sometimes painful. There were several sinuses in connection with the wrist-joint, which was suppurating freely; the hand was very loosely attached to the forearm, displaced to the radial side, and quite out of control of the muscles; moreover the carpal end of the ulna was exposed, covered with granulations and pus. The patient was by this time febrile, but still able to walk up to the hospital; and in the condition just described he was brought under the notice of Mr. Parker. The same splint was continued undisturbed, the arm and upper forearm being simply evenly bandaged to it, but special attention was given to the fixation of the hand and lower forearm. Short pieces of bandage were so disposed and tied as not to cover any of the sores or sinuses, the hand being gently pulled and fixed to the bar on the ulnar side, while the lower forearm was drawn in an opposite direction towards the radial bar. Complete reduction of the projecting ulna was not possible at first; but the fixation was followed by immediate comfort to the patient, although the wrist was in a state usually supposed to demand excision, and often even amputation.

All dressing and covering of every description to the sores and sinuses was now discontinued, and the patient was directed to do nothing except wipe gently off the skin any discharge which might escape. Here and there a sinus or small abscess was incised. Later on, a few superficial healing sores were covered by the bandages when the requisite fixation demanded this, in which case a spoonful of light magnesia powder was interposed. Under this powder, perfectly antiseptic healing invariably took place.

In three days' time, he called again, suppuration having nearly ceased everywhere, and in several places having given way to a mere ooze of clear pellucid liquor sanguinis.

In a week, the ulna was in place, and cicatrization had progressed

rapidly everywhere; and in less than a fortnight the joint was closed, the displacement was reduced, and nothing left to heal except a few small superficial sores and a few narrow sinuses exuding clear yellow fluid. About or before this time, a shorter and more convenient splint was put on, the "wrist-splint" of Mr. Hugh Owen Thomas.

On June 29th, distinct bony grating could be felt in the wrist, either between the radius and ulna or between one of these bones and the carpus. The determination of the exact site of the grating was not deemed of importance sufficient to justify undoing the bandages; but that it was real bony grating there could be no doubt, and steps were taken to make this certain. The limb at this time had nearly come down to its normal dimensions, and the immobility was well maintained (sufficient to permit recovery), though it was probably never absolute.

By July 12th, the grating was still perceptible, though very slight, and healing was nearly complete in the sinuses.

On July 19th, the grating was absolutely not to be detected, though every movement of the wrist-joint was then possible. Every opening was cicatrised, and the joint in a state of satisfactory resolution. The stiffness of a few weeks back had gradually diminished under the mechanical fixation, but the joint was not yet deemed fit for use. The patient had to go to Glasgow, so he was directed to keep on the splint until he could voluntarily flex and extend the joint without pain.

As an illustration of intra-articular grating and its disappearance without leading to stiffness or ankylosis, Case II may be quoted.

CASE II.—Another out-patient, a man, aged 22, came to the hospital on October 10th, 1874, suffering from a wrist affection of a month's duration. Whether this was rheumatic, traumatic, or not, was not written down at the time, and is now forgotten; but the left wrist was stiff, tender, painful, and a little swollen. The contiguous ends of the radius and ulna bounding their lower articulation were enlarged, and during the treatment the most distinct and unmistakable bony grating could be felt on rubbing them sideways together. A single wooden flat splint was used, and the hand and forearm bandaged separately but fixedly to it; the joint being exposed for observation.

On December 2nd, 1874, the joint had regained its normal shape, and was free from pain and tenderness, and all grating had disappeared. The joint was well, and fit for slight interrupted use, gradually increased, with intervening rest in a sling, gradually diminished.

Case I was that of a strong healthy man, who was up and about during the whole of the treatment; and it may be said with reason that every circumstance favoured the singularly happy result.

As an instance of multiple joint and bone disease, with confinement to bed for a year and a half, and every constitutional obstacle to success, the next case, treated elsewhere, is a remarkable example.

CASE III.—A girl, aged 8, suffered from periostitis and open caries of both ulnæ, the left tibia and the left humerus, and from disease of the right hip following rheumatic fever. During the treatment of the hip (which has gradually healed in an absolutely straight position in H. O. Thomas's splint, after separation and issue of the head of the femur), the left wrist became affected. The present report will be confined to this feature.

In August 1875, the left forearm and hand were fixed in an iron splint exactly similar to that used for Case I. For a month or two previously, there had been inflammation of the wrist, commencing in the radio-ulnar joint, in which an abscess had formed. This was incised, but no mechanism applied.

By August 26th, there was a sinus leading to bare bone at the radio-ulnar joint, and general swelling and open inflammation of the wrist-joint. On applying the wrist-splint, an incision was made into the joint on the radial side, and free suppuration ascertained to exist all through the joint.

Early in September, the cuneiform bone came away entire, but devoid of cartilage. The treatment adopted was mere wiping away the pus from the skin (which the patient did constantly herself, combined with very perfect fixation of the joint by bandaging the hand and forearm to the iron bars, and leaving the joint exposed).

By October 19th, the joint was absolutely healed, and all trace of inflammation and cedema gone.

On December 3rd, the joint was fit for use, and the splint removed. Every movement of the wrist could now be voluntarily performed, flexion, extension, pronation, and supination; and a perfectly normal form was reacquired, except in extreme pronation, when the end of the ulna was naturally a little too prominent, from absence of the cuneiform bone.

All this excellent progress was made in a very delicate child, emaciated to a degree by the pain of the hip before she had recovered from the rheumatism; but, from the time when the hip was placed upon the splint, she commenced to improve, and afterwards positively fattened, though lying helpless on her back the whole time.

The points attended to were : 1. Mechanical fixation ; 2. Relief of distension by incision and perfectly free natural drainage.

The three wrist cases, here too briefly related and very imperfectly portrayed, form part of a long series, for which it is hoped space may at future times be kindly allowed, and which go far to substantiate the following propositions.

1. The performance of amputation for inflammation or injury of joints is perfectly unjustifiable, except under rare circumstances, such as main hæmorrhage.

2. Excision of joints is, if possible, still more rarely justifiable ; because they can be more easily cured without, even if the ordinary after-treatment of excision be employed. Excision is thus a wasteful, not a conservative, operation.

3. "Expectant" treatment alone, though often preserving life and limb, is insufficient, because unassisted Nature generally cures her joints in a bad position, making cripples of her patients.

4. The truly conservative practice of saving both limb and joint is not so difficult as is generally imagined, and may be hopefully applied to every case, provided the two following conditions be observed. *a.* The abolition of intracapsular friction (necessitating strict mechanical immobility, for which the best splints are the simplest) ; *b.* The relief of distension, whether intracapsular or extracapsular, including incision and aspiration or other puncture.

REVIEWS AND NOTICES.

CLINICAL LECTURES ON DISEASES OF THE URINARY ORGANS. By Sir HENRY THOMPSON, Surgeon Extraordinary to H. M. the King of the Belgians, etc. Fourth Edition. London : J. and A. Churchill. 1876.

THE literature of our profession abounds in books on diseases of the urinary organs, both by medical and by surgical writers. This work of Sir H. THOMPSON has always taken a high place amongst them, and the fourth edition seems to us to maintain its reputation fully. The experience of the writer on this, his special subject, is probably unrivalled at the present time, both here and on the Continent ; the book will, accordingly, be found to abound with useful hints, while the writing is, as a rule, terse, and at the same time clear. Though Sir H. Thompson's name is more especially connected with the operative surgery of these organs, there are chapters in this book which should be read by every practitioner, notably that on the early history of calculous disease and the treatment best adapted for its prevention.

The book opens with a chapter on Diagnosis, in which, besides giving useful hints as to the value of frequency of micturition as a symptom, the author gives the following good advice in examining urine, viz., to let the patient wash out his urethra by passing two or three spoonfuls, and only to examine what follows. By this means a pure specimen will be obtained, and a patient who has only an urethral discharge will not be treated for pyelitis.

In the lectures on Stricture and its treatment, this passage, "the male urethra is not an open tube, but rather a continuous closed valve, capable of transmitting fluids and solids in one direction only, and transmitting nothing whatever in the opposite direction, except in obedience to applied force", should be read carefully by any one who allows himself perfunctorily to inject the urethra or carelessly to wash out the bladder. The locality of stricture is barely mentioned, instead of being divided into three distinct regions, as has been done by the author elsewhere. After much that has been said lately as to the pathology and treatment of stricture, the following passages will be read with interest. "Organic stricture is a permanent condition. Once acquired, it cannot be dissipated by any known means. It cannot be removed by absorption, though the contrary has often been affirmed. You may dilate it, you may cut through it, but there, more or less, the morbid elements must always remain. When a man once has organic stricture, he has it for ever." And, again, further on, with evident reference to a surgeon from the other side of the Atlantic, whose teaching, we believe we are correct in saying, has not been accepted in England : "There seems now to be a school which has determined for itself a very high standard of patency in what we hear called 'the urethral tube', and which is accordingly said to have, or if it hasn't that it ought to have, a calibre of so many parts, and very large parts of an inch or millimetre, as the case may be. Instruments of astonishing magnitude are produced, and if one of them cannot be drawn with an ease that contents the operator through the whole of the urethra, the unlucky patient is pronounced to be the subject of stricture."

With regard to one or two other points connected with this subject

of stricture, we differ, with all due deference, from the author. He has kept, we see, in this edition a passage to which exception has been taken before : we refer to the one where he advises students in passing a catheter, "to forget all about their anatomy". While we do not mean to say that a catheter can be passed only by a knowledge of anatomical facts, and while we would not exclude the importance of having a large experience of the practice, we do distinctly maintain that he will be the most successful whose hand (to modify the author's words) is guided by an intelligent appreciation of sensations communicated by the point of his instrument, and by anatomical knowledge. Whoever reads these lectures attentively, will be the more struck with this advice to the student to forget his anatomy on this occasion, for Sir H. Thompson has not failed, on previous pages, to point out the importance of remembering such anatomical points as the lacuna magna, the amount of soft spongy tissue in the floor of the bulbous portion, and the readiness with which a false passage can be made there, and, lastly, not to quote other like points, the very catheter which is frequently recommended in this book (*coudée* of the French, with its point turned up and hardened) has been especially efficient with us in cases of enlarged prostate ; now, the people who fail oftenest in these cases are those who forget the anatomy of the third lobe, and do not curve their catheter sufficiently. Such a sentence as "I pity the patient who has a solid instrument thrust into his body by a knowing man at anatomy", seems to us to carry its own contradiction. Any one who really knew his anatomy, would be the very last person to do anything of the kind. Again, Sir H. Thompson rejects the term "impermeable stricture", and also, it would appear, that of "impassable" to instruments. While we are fully aware of the weight of such an opinion as this, while we remember that of Mr. Syme, and more recently that of Mr. Callender, who, in one of the most interesting contributions to surgery of the last ten years, said that he had never known the warm bath fail to give relief sufficient for the time, there can be no doubt that cases do occur with surgeons of undoubted skill, in which a stage has been reached where no urine can permeate and no instrument can be passed. We refer especially to hospital cases. A patient with an old stricture in a state of irritation from some excess or carelessness on his part, applies to a practitioner for relief in retention. To save time, instruments are used at once, and, these failing, some one else is called in who possesses finer silver instruments, and uses them, but to no purpose. When at last such cases are admitted into the hospital, the element of time, so necessary for the display of skill and patience, is wanting ; the condition of the bladder, for some time past thickened and no longer healthily distensible, and the state of the patient, call imperatively for relief, and do not allow the surgeon to wait until the condition to which the stricture has been brought by previous treatment has passed away. Before leaving the subject of stricture, we would notice that the author's later experience is not favourable to Mr. Holt's operation, and that his chapter on Internal Urethrotomy, for clearness and conciseness, leaves nothing to be desired.

Our space will only permit us just to notice the chapters on Lithotomy and Lithotripsy. Since Cheselden's day, the former has been a favourite subject with English surgeons. Sir H. Thompson's account of the method of performing the lateral operation with the curved staff is a model of what a description of an operation to students should be. A suggestion he makes for stopping hæmorrhage from deep wounds may be useful, viz., to use a tenaculum which, if necessary, can be left *in situ* by unscrewing the handle, a modified kind of uncipression. With regard to lithotripsy, the author recommends it as the operation on almost every occasion in adults, fully expecting that the time will come when it will have supplanted lithotomy almost entirely. In future editions, we hope he will alter some of the chapter on the details of this operation. As much of it stands now—"you see I have introduced the lithotrite and have to find the stone . . . in order to do this, and holding the instrument thus, I simply open the blade and close . . . I touch the little button here . . . I then disengage the button"—it loses half its value to any student save those who have had the advantage of attending Sir H. Thompson's practice at University College. The value of this chapter would be much enhanced by the author's adding to it some of the "practical hints" in his book on Lithotripsy, which Mr. Holmes has wisely transferred to the pages of his new text-book on *Surgery*.

Throughout, the book is a very readable one ; only once does the colloquial style in which the lectures were first delivered to students strike us as objectionable ; we allude to the passage where the writer speaks of the two uses of the urethra.

In conclusion, we would repeat that many of the chapters will well repay the perusal of every practitioner, especially the one we have already mentioned on the prevention of calculus, a chapter of double interest, as this subject is not spoken of in the ordinary text-books.

LITHOTOMY AND EXTRACTION OF STONE. By W. POULET HARRIS, M.D., Surgeon-Major H.M. Bengal Service. London: J. and A. Churchill. 1876.

WITH regard to this book, we are not able to say that the writer has made out for it a sufficient *raison d'être*. To begin with, it deals only with lithotomy; now this operation is so familiar to most English operating surgeons, and the latefate method of performing it (Dr. HARRIS'S book is mainly taken up with latefate lithotomy) has been brought so near perfection, that we do not think a fresh book was required devoted almost entirely to this one subject.

In his preface, the author speaks of his experience of three hundred and sixty-five cases, and his having been engaged for two months in the Netley Library, taking notes from all the works bearing upon this subject. His book is mainly made up from the latter source: very copious quotations are made from English and American writers, the author throughout keeping his large experience very much in the background. We notice that, while it is stated in the preface that the writer has endeavoured to make this book a very complete one on urinary calculi, yet the varieties of calculi are dismissed in less than four pages of large print, though a chapter is given to the parts concerned in lithotomy, and four pages to pus and mucus and their diagnosis: subjects which are treated in every text-book.

Though the natives of India differ widely from those of this country in their tolerance of severe operations, this book would have been none the less interesting to English surgeons if it had contained more of the author's own experience. If Dr. Harris, however, has not himself added to our knowledge of lithotomy, he has succeeded in collecting into a readable form the opinions of others; on this subject, as varied as they are numerous.

ST. THOMAS'S HOSPITAL REPORTS. New Series. Vol. V, for 1874. Edited by Dr. BRISTOWE, Dr. JOHN HARLEY, and Mr. WAGSTAFFE. London: 1875.

WE ought to have noticed this volume earlier. It consists, as all these Reports do, partly of original papers written by the staff and others connected with the hospital, partly of statistical summaries of the medical and surgical practice of the hospital. The former portion of the volume is doubtless that to which the general reader turns first, and on which he lingers the longest. It is probably necessary, in order to ensure a due circulation and publicity for the volume, that it should consist chiefly of original and interesting papers; yet it may fairly be doubted whether, in real importance, the part of the volume which is composed of original matter is not inferior in value to the hospital reports proper. The original papers can well appear elsewhere. In fact, editors of periodicals and secretaries of societies are apt to regret this; and the general medical public is deprived of much interesting matter, which is now addressed to the comparatively limited audience of the Guy's, St. Bartholomew's, St. Thomas's, and St. George's schools respectively. But the immense importance of securing a vehicle for the publication of authentic data from our chief metropolitan hospitals must be allowed to counterbalance any drawbacks of that nature. The assertions made as to the prevalence of pyæmia in hospitals, and its absence in private practice, have propagated opinions with respect to the insalubrity of our great hospitals which can only be tested by authentic and complete information, such as these series supply.

The question to which we referred in a review of the "John Hopkins Hospital" scheme in the JOURNAL some time ago—namely, of the advantages of the pavilion system—receives much useful illustration from the records of "hospital-diseases", as they are called, occurring in the wards of St. Thomas's and other hospitals.

First, with regard to the actual prevalence of erysipelas and pyæmia in our hospitals, we find in the volume before us that the total number of patients in St. Thomas's Hospital during the year 1873 was 3,203—viz., 1,357 medical, and 1,846 surgical. The number of cases of erysipelas which broke out during the patients' stay in hospital was 51, of which 13 proved fatal; but in 2 cases the death was due to the original disease, and in 1 to pyæmia. Of pyæmia, 16 cases were recorded, all fatal; 11 occurring after various operations, and all, as far as appears, originating in the hospital. This gives a percentage of about 1.2 of cases of erysipelas, .4 of deaths from erysipelas, and .5 of deaths from pyæmia, on the total admissions. During the same year, in St. Bartholomew's Hospital, as shown in the tenth volume of their Reports, there were 5,902 patients on the whole—viz., 2,382 medical, and 3,520 surgical. The number of cases of erysipelas which occurred after admission (including the cutaneous, the cellululo-cutaneous, and the cellular forms) was 31, with 3 deaths; whilst of pyæmia only 2 cases

were recorded as occurring in the hospital, and 3 as occurring prior to admission—giving a percentage of cases of erysipelas of .5, of deaths from erysipelas of .05, and of deaths from pyæmia an almost imperceptible proportion, if the inquiry be restricted to cases which break out in the hospital.

In the report from St. George's Hospital during the same year (1873), contained in the seventh volume of the *St. George's Hospital Reports*, the number of cases of erysipelas and pyæmia is not expressly stated; but the particulars are given of all the cases of amputation and all other operations, and of all the cases of compound fracture admitted into the hospital. The total number of patients was 3,731—viz., 1,683 medical, and 2,048 surgical. No case of amputation died from either erysipelas or pyæmia; nor is the occurrence of pyæmia noted after any of the operations performed in the hospital, and only three cases of erysipelas. Three deaths from pyæmia occurred after compound fracture. By inquiry at the hospital, we have ascertained that the number of fatal cases of pyæmia which occurred during this year was nine, as stated in the *post mortem* book, in which all cases dying in the hospital are entered; and of these, two were admitted with the disease; one of the others was a case in the medical wards. If we include this case, and reckon seven cases as breaking out in the hospital, this would make the death-rate from pyæmia about .02 on the number of cases admitted.

In the *Guy's Hospital Reports* there are no particulars given, available for our present purpose; in fact, the "Statistical Summary" appended to the volumes of this series seems to be merely given *pro forma*, and, as far as we see, is of no value whatever.

The data, however, from the other three hospitals are quite sufficient, we think, to establish the following points. 1. The prevalence of the secondary surgical affections in our metropolitan hospitals is, under present circumstances, of very slight extent; that is to say, very few cases of erysipelas and pyæmia occur, in proportion to the number and to the severity of the cases which are admitted. 2. This proportion has not, as far as we can discover, been in any way diminished by the adoption of the pavilion system of hospital construction; though, of course, for such a comparison to be really conclusive, the experience of many years, and, if possible, of many different cities, ought to be accumulated. 3. The death-rate in these hospitals is hardly affected to any sensible degree by the greater or less prevalence of erysipelas and pyæmia. 4. We may say that such publications as the present show the great importance of care and fulness in hospital statistics.

We have looked at this series chiefly from the point of view which we consider of the greatest importance—viz., that of the hospital reports proper—though we are aware that this is the portion of the volume which is the least read. The larger portion, which contains the original communications, is in this instance of unusual excellence. We would direct attention especially to the excellent paper by Mr. Osborn, "On the Corpus Morgagni, with reference to Diseases of the Testicle", in which the pathology of cases of encysted hydrocele, and that of watery cysts of the broad ligament in the female, is placed in a new and striking light; to Mr. Le Gros Clark's most interesting case of Partial Dislocation of the Shoulder, giving an apparently incontrovertible instance of an injury which was once regarded (doubtless erroneously) as very common, and is now often regarded (and, we believe, equally erroneously) as pretty nearly fabulous; to Mr. Wagstaffe's paper on the Mechanical Structure of the Cancellous Tissue of Bone; Dr. Bristowe's on Erythema, and Dr. Peacock's on Pneumonia, both excellent examples of the truly clinical work which such Reports as these ought to embody. But we have already exhausted our space, and can only commend both the series itself and the specimen of it before us to the serious attention of our readers. If such publications had no other use, yet their effect in stimulating that noble competition in well-doing which constantly goes on between our great hospitals and schools would be a public benefit, which no words of ours could adequately describe.

LECTURES ON THE PHYSICAL DIAGNOSIS OF DISEASES OF THE HEART. By ARTHUR ERNEST SANSOM, M.D. Lond.; M.R.C.P., Assistant-Physician to the London Hospital, Physician to the North Eastern Hospital for Children, etc. Pp. 115. London: J. and A. Churchill, 1876.

WE may commend this little book to the notice of senior students and practitioners as being a thoughtful *résumé* of most that is known respecting the diagnosis of heart-diseases. The work consists of six lectures, in which are discussed with very considerable minuteness the principal points in diagnosis and the explanation of the physical signs characteristic of different heart-lesions. We may mention that Dr. SANSOM considers the cardiac murmur when present in chorea as being

always due to organic lesion of the mitral or aortic valves. On the other hand, the systolic apex murmur sometimes to be heard in the acute specific fevers, typhoid, small-pox, etc., he regards as produced by a tremulous (vibratile) contraction of the expelled heart-muscle, combined with an anæmic condition of blood. The lectures are preceded by a "schema", in which, under headings, symptomatology, etiology, inspection, palpation and percussion, a kind of brief analytical index of the physical signs and their meaning is given. Dr. Sansom is sometimes betrayed into the employment of long and difficult words. We would suggest, too, that in a future edition, which we doubt not will be soon forthcoming, great improvements might be made in the printing of the book, which is at present somewhat crowded.

ABSTRACTS OF INTRODUCTORY ADDRESSES

DELIVERED AT

THE METROPOLITAN AND PROVINCIAL SCHOOLS,

On OCTOBER 2nd, 1876.

NEWCASTLE COLLEGE OF MEDICINE.

THE Introductory Address was delivered by Dr. G. H. HUME, Lecturer on Physiology in the Medical School.

The lecturer, after some congratulatory remarks to the students on the career they had chosen, said that success in it could be earned, as in other callings, only by zeal and persevering diligence. It was indeed rightly spoken of as a laborious profession. They should join its ranks from no lukewarm choice, but from thorough inclination, and with a belief that the profession they were entering and themselves were wholly suited to each other. This love of their profession was characteristic of all men who did credit to their calling; and he could welcome them with no better wish than that, as they went on, they might find it springing up in their minds to make their toils lighter, and to chase difficulties out of their path. He would first endeavour to show that there were special difficulties in medical science which have hindered its advance. It would, then, be of advantage to consider the mode in which these obstacles are being overcome; and more especially the assistance which medicine derives from certain allied sciences.

After referring to medicine as consisting of a science and an art—the former of which it was proposed chiefly to deal—the right of medicine to be considered a science at all was discussed. It was admitted that there hangs about medical knowledge a painful amount of uncertainty. It was pointed out that, in order to understand disease, we must first understand the condition of health; in other words, a complete foundation of medical science would imply a complete knowledge of physiology. It was just this knowledge which is so difficult to obtain; and the supreme difficulty lies in this, that every investigation has to face a problem which contains an absolutely unknown element. We are wholly ignorant as to the nature of *life*; and, although it is possible to advance far in discovering the intimate character of many of the living processes, yet in most, at some stage or other, this ignorance steps in to check our further efforts.

The different causes which tend to render the inquiry greatly more complex, when disease has to be dealt with, were next enumerated.

The lecturer then spoke of the efforts which have been made to find for medicine a scientific basis. It would be an inexcusable mistake to suppose that the medicine of the ancients was made up only of guesses. The philosophical observation of Hippocrates, and the anatomical knowledge of Galen, were of themselves sufficient to establish for medicine a place not inferior to any of the other sciences in ancient times. It was nevertheless true that the science of medicine, as we now understood the phrase, dated its beginning from the intellectual re-awakening which followed the close of the dark ages. It was characteristic of that awakening that a strong desire manifested itself to study nature and to interrogate her at close quarters; and along with that desire, there seemed to spring up the faculty for patient observation. It had been by following the plan which Bacon inculcated that natural science—science based on observation and experiment—had advanced; and hence it was that all branches of physical knowledge were described under the name derived from his method of inductive sciences. The nature of induction, especially with reference to medicine, was then explained and illustrated by a reference to the history of Harvey's dis-

covery of the circulation of the blood. That medicine was wholly an inductive science appeared still more evidently when we considered the history of her recent progress. The description of such a science was that it was founded on observation and experiment; and at no previous period had these means of acquiring knowledge been used with such zeal and diligence as at the present. The observation of disease had become more systematic through the great extension of hospitals; and, for the recording and necessary comparison of observations, literature had grown to a proportionate degree. The employment of experiment in advancing medical knowledge, though by no means new, had recently been greatly extended. Its use had mainly been in the department of physiology, which, treating of living processes, lay at the foundation of scientific medicine. But in the field also of therapeutics, its employment has been begun, and already promises a rich harvest.

The recent controversy on vivisection was briefly alluded to. It was pointed out that there could be no meeting point between physiologists and the absolute opponents of vivisection. With those whose opposition is directed only against the supposed abuse of the practice, a line of agreement might be more easily found. On their part, it is to be sought in the moderation of the restrictions they desire to impose; on the part of physiologists, in their recognising that they are bound to employ these experiments as sparingly as is consistent with the interests of science—to employ them only with definite and well-considered aim, and with all the means at their command for the prevention of suffering.

He next proceeded to show the position of alliance in which medicine stood to some of the physical sciences, and to point out the manner in which these contributed to the sum of medical knowledge. Hardly any branch of knowledge exists which might not be laid under contribution. At the same time, certain of the sciences came into close relation, and on that account were called collateral sciences; and as such might be mentioned botany, chemistry, and some divisions of natural philosophy.

After referring to the mode in which chemistry had contributed to medical knowledge, it was stated that at the present time its special direction was given to medicine by those sciences which are classed under the name of experimental physics. Their aid in the investigation of function was described; and illustrations of the presence of the physical element in the functions, and of the application of physics in practical medicine, were given.

It would be no surprise, after such a reference to the importance of physics, that he should feel compelled, under stress of consistency, to recommend to them some study of those sciences. It demanded, indeed, the exercise of courage to venture upon this recommendation. The medical student had of late been the object of no small pity, as the victim of a crushing burden, which yet undergoes perpetual increase; and it might seem, therefore, that he was now proposing to add the last straw to the breaking back. No one—especially no one engaged in teaching—could be backward in the admission that, during his course of four years, the student of medicine was brought face to face with an accumulating mass of detail which he might be called upon to engorge, but could not be expected to digest. Just on this account was it desirable that he should bring to his task some preliminary knowledge of science. By acquainting him with the principles which underlie many of the details of medicine, it would give possession to a key which would make clear much that must otherwise be obscure. Nor would the sum of actual information to be acquired be greatly added to. His recommendation affected mainly the time and manner of acquiring this knowledge. It proposed that they should not trust solely to obtaining it in a desultory and piecemeal, and, therefore, unsatisfactory manner, as at present; but it should be acquired with system, and, if possible, as a preliminary to their strictly professional studies. The time so devoted could not be long, nor need the acquaintance with physical science extend beyond a general knowledge of the laws of matter and force, of electricity, and the laws of heat, light, and sound. The preparation suggested was no more than was now thought necessary in the case of the manufacturer and engineer. The study of physics would also be valuable as a means of mental training. This aspect of medical education was too apt to be left out of consideration in the adjustment of its details. The acquirement of a particular habit of mind is as necessary for the practice of medicine as the possession of certain kinds of knowledge. It was then pointed out in what this habit of mind consisted; and the students were directed in what ways they could increase the tendency of their studies to foster the habit of careful observation and accurate reasoning. Nothing was more destructive of the influence which knowledge may have as a mental training, than its hurried acquisition; and this ought, therefore, to supply a strong motive for systematic working; and another motive, if such be necessary, was to be found in the consideration that it was only in this way that the mind could obtain a retentive hold of those fundamental facts and

principles, on which their future education of experience must be reared. It was only thus that they could fit themselves with an equipment which would make the work of their after life a credit to themselves, and a benefit to their fellows.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 10TH, 1876.

Sir JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

SUBCUTANEOUS DIVISION OF THE NECK OF THE FEMUR FOR ANKYLOSIS OF THE HIP-JOINT; WITH A TABLE OF TWENTY-TWO CASES OPERATED UPON UP TO THE PRESENT TIME.
BY WILLIAM ADAMS, F.R.C.S.

DURING the six and a half years which had elapsed since the above operation was first performed by Mr. W. Adams on December 1st, 1869, he had collected from published and unpublished sources the details of twenty-two cases in which the operation had been performed, including five operated upon by himself. A tabular form of these cases accompanied the paper, giving the date of operation, name of surgeon, and result. In this table, it was shown that the operation was successful in twenty out of twenty-two cases; death from pyæmia resulting in one case; and death, accelerated by chronic suppuration, following the operation in another case, in which the patient died eight months afterwards with symptoms of kidney-disease, with albuminuria, as well as tubercular deposit in the lungs. Such a result bore good testimony to the general safety of the operation, the dangers of which might be greatly diminished by the judgment of the surgeon in selecting his cases and the skill shown in the performance of the operation. In cases where there was a doubt as to the possibility of the neck of the femur being divided subcutaneously, in consequence of alterations which might have taken place at the articulation, it should not be attempted, but some other operation below the joint, such as that first proposed and successfully performed by Mr. Gant, should be adopted. In two cases of ankylosis of the hip-joint with malposition of the limb, Mr. Gant divided the shaft of the femur subcutaneously, just below the small trochanter, using instruments similar to those employed by Mr. Adams. This operation could be performed without difficulty or risk of hæmorrhage. Mr. Adams had twice divided with the subcutaneous saw the shaft of the femur for great deformity resulting from badly united fractures, and once the shaft of the humerus for straight ankylosis. No suppuration whatever occurred. Mr. Maunder had also operated in similar cases by dividing the shaft of the femur below the small trochanter, using the chisel and mallet instead of the saw—an operation resembling those performed by Langenbeck, Mayer, Pancoast, Brainard, L. S. Little, and others. The general result of the operation in the twenty-two recorded cases had been to correct the deformity and to obtain bony ankylosis, with the leg in a straight position. In several cases, useful motion had been obtained, especially by Mr. Jessop of Leeds, Mr. Lund of Manchester, and Dr. Sands of New York.

Mr. HOLMES had had one case only, which was not included in Mr. Adams's list of twenty-two. In that case the operation was scarcely subcutaneous, the neck of the bone had been greatly shortened, and there was much deposit with adhesions around it. But how could such cases be excluded? Mr. Adams should have given some rules respecting the cases fitted for the operation, distinguishing those in which it might be, and in which it might not be, attempted. His own case had been one of very great deformity. The result was anything but favourable; suppuration ensued, and the boy gradually sank. Perhaps in some cases section of the shaft of the femur might be useful. —Mr. GANT said it was of the greatest importance to know what class of cases should be submitted to the operation. He had introduced his operation of division of the shaft of the bone below the trochanter for cases in which Mr. Adams's operation was not admissible; viz., cases of strumous disease of the joint with very great deformity, where there was hardly any neck of the femur remaining. His operation came in to supplement Mr. Adams's operation. He exhibited the instruments which he had used at his first case in 1871; a small saw that now had a pistol-shaped-handle, and a knife. In ninety seconds, the operation in a child was generally completed. In one of his two cases, seen long after the operation, the limb was quite straight and the child could walk very well; and there was bony union at the site of the division in the other

child when it left the hospital. —Mr. MAUNDER said that probably no operation in modern surgery could be found associated with such great success and apparently with so little risk to life, as subcutaneous osteotomy. It was in consequence of failure of section of the neck of the femur, accompanied by division of three tendons, and forcible attempts to extend the limb in a case of fibrous ankylosis following strumous disease of the hip-joint, which had been operated upon by himself, and failure by Mr. Adams in another case a week subsequently, which had led him (Mr. Maunder) to attempt the removal of the deformity by resorting to division of the shaft of the femur just below the lesser trochanter. This he had now done seven times with the chisel and mallet; and he considered the operation by that method much more subcutaneous than it was if done with the saw. In two cases, slight suppuration had occurred (as he had related in a paper at the Clinical Society), but in no case had deep suppuration resulted. In his five other cases, primary union had occurred. The patients were up and about in from eight to ten weeks after the operation. In many cases, Mr. Adams's operation was not desirable, and the operation with the chisel was preferable. Of his seven cases, in not one was the operation done for bony ankylosis; but in all it was performed for firm fibrous ankylosis. The operator should avoid cutting through cicatricial tissue, as such material readily suppurated and ulcerated. A tissue not cicatricial should be selected for division. Mr. Maunder thought that suppuration in two instances had been due to injury of such tissue necessarily in the operation. As such decided success had attended the use of the chisel, he was surprised that Mr. Adams spoke of that operation as less subcutaneous than the operation with the saw. Of Mr. Adams's five cases, operated upon by himself (Mr. Adams), one had died. It was still to be decided whether the chisel was not superior to the saw. —Mr. HULKE had no personal experience of Mr. Adams's operation. He noticed that, in all Mr. Maunder's, and in some of Mr. Adams's, cases the ankylosis was not bony, but fibrous. Now in all such cases, under chloroform, methodical pressure with the hand would break down the ankylosis, and three or four sittings would often put such a limb right, and much more safely than with a cutting operation. —Mr. MAUNDER remarked, that osteotomy had been introduced for these cases only when tenotomy and forcible extension of the limb had been tried without success. —Mr. ADAMS said, the selection of proper cases for the operation was most important, and that there were three classes of cases to which his plan of treatment was applicable. First, there was the rheumatic class, including the gonorrhœal subvariety, in which ankylosis followed rheumatism. This was the most favourable class; and to it his own first case had belonged. Secondly, there was the pyæmic variety, in which ankylosis followed a pyæmic abscess. Thirdly, there were the strumous cases, which must be again subdivided; and only the most favourable cases of the kind, viz., those in which the disease had been arrested at an early stage of the illness should be selected for operation. The cases in which there was abscess, long-continued suppuration and extensive disease of the neck of the bone should be excluded; to some of such cases Mr. Gant's or Mr. Maunder's operation was applicable. It must, however, be remembered, that, for motion to result, section through the neck should be done; with division of the shaft one could only expect subsequent ankylosis. His own operation, and the operations of Mr. Gant and Mr. Maunder, were applicable to quite different classes of cases; they were not at all antagonistic. Mr. Maunder had improved his (Mr. Maunder's) operation by now using one chisel instead of three; whilst some of the success was doubtless due to Mr. Maunder's operative skill. Mr. Adams had first introduced his operation for bony ankylosis in the adult, and Mr. Bryant first adopted it for fibrous ankylosis in a child which would not yield to any reasonable amount of extension under chloroform. The operation was now well established; the twenty-two cases mentioned in his paper having been performed by no fewer than twelve different surgeons.

A CASE OF RESECTION OF THE TARSAL BONES FOR CONGENITAL TALIPES EQUINO-VARUS.

BY J. N. C. DAVIES-COLLEY, M.A., M.C., F.R.C.S.

Notwithstanding the recent improvements in the treatment of club-foot, cases from time to time occurred, which, from the age to which the patient had attained, the rigidity of the tissues, and the altered shape of the bones, presented insurmountable obstacles to a cure by the ordinary methods. It was not improbable that many of these cases might be successfully treated in the way which was adopted in the following instance. Edwin Harrison, aged 12, was admitted into Guy's Hospital on May 8th, 1875, under Mr. Cooper Forster. He was found to be the subject of severe talipes equino-varus; both feet were directed inwards, the soles backwards, the heels raised, and he could barely walk on account of the suppuration of burse which had

formed on the back of the cuboid bones. He was kept in bed and splints were applied. In September 1875, Mr. Davies-Colley took charge of the case, and divided some tendons of the left foot. As very little advantage was thus gained, it was decided to take out a V-shaped piece from the tarsus. On October 12th, this operation was performed. It was found necessary first to dissect out the cuboid bone, and then with knife and saw to cut away portions of the os calcis, astragalus, scaphoid and cuneiform bones, together with the cartilage of the two outer metatarsal bones. There was troublesome oozing of blood after the operation, which was performed antiseptically; so a sponge was put in, and the foot left in its old position for a week. A peculiar splint was subsequently used in order to twist the anterior half of the foot into its proper position. He recovered rapidly, and, on November 23rd, a similar operation was performed upon the right foot. Less than six weeks after the second resection, he was able to get about in a wheel-chair. In nine weeks, he could walk with help. In ten weeks, the wounds were quite healed; all apparatus was left off, and he was able to walk alone. He was shown at a meeting of the Medico-Chirurgical Society in April last, and he could then run, jump, and hop with considerable agility. He had since that time gone to work, and, in September, a letter was received from his father, stating that he had walked six miles with but little fatigue. The operation performed upon this boy was somewhat similar to one which was suggested by Dr. Little, and had been employed, once by the late Mr. Solly, and several times by Mr. Davy, viz., excision of the cuboid bone. If, however, it were the object of the surgeon to restore at once a severe case of talipes to the normal position, it was necessary to cut away large portions of the adjacent bones, as well as to remove the cuboid. This mode of procedure appeared to have been once adopted by Mr. Solly, but without a very satisfactory result. The operation must be much simpler when the foot was rendered bloodless by Esmarch's bandage. The careful use of antiseptic precautions diminished very much the danger which would otherwise arise from the opening of so many joints and synovial sheaths. Finally, the splint which was afterwards used, rendered the subsequent moulding of the foot into its proper relations a very easy matter. It was an operation which might be adopted with great advantage where other methods of treatment had failed, or when the patient desired to avoid the long and painful treatment and the costly apparatus which were required for the cure of the severe examples of this deformity.

Mr. ADAMS said that, if the operation were frequently repeated, very unsuccessful results would probably have to be recorded, as so many tendons were divided and so many serous cavities opened. For relapsed varus, excision of the cuboid bone was totally unnecessary. All such cases were to be cured by mechanical means aided by tenotomy. The tendo Achillis, in the operation for varus, should not be at first divided, but should be cut last of all; up to that time, it should be made use of to overcome the inversion of the foot. The less done with the knife usually the better; the mechanical treatment generally was not properly carried out. With care in this respect, all cases could be properly cured.—Mr. BRODHURST had never seen it necessary to remove a bone at all. In Mr. Solly's case, the deformity at the end of twelve months was greater than it had been before the operation.—Mr. DAVY had seen so many cases of club-foot that had been operated upon in the usual manner, in which the last state of the patient was worse than the first, that he had taken to removing the cuboid bone, which was done without difficulty and without danger. He should repeat the operation in the more serious cases. In his third case, he had removed the cuboid and then, with a chisel, had cut out a wedge-shaped piece of bone across the foot. In some cases, the excision of the cuboid was not enough; with the further removal of other bones the success was greater.—Mr. CARR JACKSON believed that the cases of relapsed varus which one saw outnumbered the cases of original varus. This arose from the fact that the mechanical treatment of varus was not sufficiently prolonged; it should last from infancy to adult life. And, if the treatment were not continued, the cases inevitably relapsed.—Mr. DAVIES COLLEY said that Mr. Solly's original intention had been to take a wedge-shaped piece out of the cuboid, and leave the anterior and posterior articular surfaces. But he eventually took away all the bone except the posterior articular surface. He (Mr. Colley) was surprised to hear Mr. Brodhurst's statement, because Mr. Solly had said, in his paper, that the cure in his case was undoubtedly much expedited by the operation. It was applicable to those cases in which the patient could not attend the hospital, or could not pay for the necessary apparatus. As regarded the opening of the serous cavities, Mr. Colley thought little of that where the "antiseptic method" in its entirety was adopted. His operation was not merely excision of the cuboid bone, but of nearly the whole tarsus.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 13th, 1876.

THOMAS BRYANT, F.R.C.S., Vice-President, in the Chair.

Intestinal Occlusion dependent upon Tubercular Disease of the Intestines.—Dr. WOLSTON read notes of this case, which had also been seen by Dr. Sutton and Mr. Maunder. The patient was a young lady, twenty-five years of age, and somewhat mentally deficient, though quite capable of expressing all her sensations and wants. Up to the time of her illness, she had been considered by her friends to be in robust health. In the afternoon of the 20th February, having appeared perfectly well in the morning, she complained of headache, and in the evening sickness with colicky pains in the bowels came on. For the next few days she was better, and then the sickness and colicky pains, with constipation, returned, and continued, with slight intermissions, till Friday, March 3rd, when she was first seen by Dr. Wolston. The patient looked as if there were nothing much amiss. The face was apathetic, but with no expression of distress or anxiety. There had been no pain or sickness that day. The tongue was white at the back, but clean at the tips and edges. There was slight febrile excitement. Pulse 80; temperature 99.5; urine thick and high-coloured. The most marked symptom was extreme tympanites; but there was no tumour to be detected anywhere, and there was no pain or tenderness on pressure. The catamenia were two months over due. The history of the case, with the constipation and extreme tympanites, led at once to the suspicion of intestinal obstruction. With that view, purgatives being contraindicated, the bowels were directed to be well fomented with hot water, and copious water-enemata to be administered, whilst nothing was to be taken by the mouth but a little milk and water to allay thirst.—March 4th. The patient had passed a restless night, with a good deal of pain, coming on in paroxysms, but no sickness. There was no pain or tenderness on pressure, but the tympanites had increased. Urine had passed freely. The enemata had caused no action from the bowels. The tongue was more coated. Pulse 80; temperature 99 deg. An enema, containing castor-oil and turpentine, was directed to be administered. This freely opened the bowels, but was followed by extreme pain and sickness, with no relief of the tympanites.—March 5th. There had been much pain and sickness during the night, nothing being retained on the stomach. Another enema was administered, which had the effect of quite emptying the bowel below the constriction, though it caused no relief to the tympanites.—March 6th. She was much worse; there was more pain and sickness; the vomited matters were stercoraceous; the abdominal distension was extreme; pulse 100; temperature 99.5 deg. Several attempts were made to overcome the obstruction by means of the forcible injection of tepid water, but the only result was increase of pain and sickness. She was ordered nutritive enemata of eggs, milk, and beef-tea thickened with arrowroot, with a dessertspoonful of brandy and fifteen drops of opium, to be administered every three hours, and ice dipped in brandy to be given freely by the mouth; the bowel to be washed out once in twenty-four hours with tepid water and turpentine.—March 7th. She had passed an easier night, with fewer paroxysms of pain, and had had several hours' sleep. There had been some vomiting and hiccough. The tympanites was extreme, but there was no pain or tenderness on pressure; pulse 100, full and firm. The tongue was cleaner; the urine free and normal. In the afternoon, the patient was seen by Dr. Sutton, who confirmed the diagnosis of intestinal occlusion, probably from a band over which the intestine had twisted, but without strangulating it completely. No change was made in the treatment.—March 8th. The patient had passed a good night, without pain or sickness, and had slept a good deal. There was some hiccough. Flatus had passed freely, and the abdominal distension was less; occlusion plainly not complete. Pulse 82; tongue clean; temperature 99 deg. During the next few days there was slight improvement; but on March 11th, the paroxysms of pain and vomiting returned; the tympanites again became extreme, and was but slightly relieved by puncture of the bowels with a small trocar. In the afternoon of this day, the patient was seen by Mr. Maunder, who confirmed the diagnosis as to the probable cause of the occlusion, but deprecated any surgical interference in her present state. He put her under chloroform, and, by manipulation of the bowels and inverting the body, tried to free the supposed entanglement of the intestine. Some flatus passed, but no other result ensued.—March 12th. There had been some pain and sickness during the night; in other respects there was no change; pulse 82. From March 13th to March 28th, the condition of the patient varied very little. The pulse remained about 80, and temperature at about 99 deg.; the tongue kept clean and moist; sickness was pretty constant, but the pain was comparatively slight, and easily relieved by hot fomentations and rubbing. A good

deal of flatus was passed at times, but never any feculent matter. The urine was free and normal. The nutritive enemata were all well retained, and, save that wasting became manifest, the patient retained the appearance of health.—March 28th. Sickness and pain existed; the pulse was 90; tongue clean. On this and the three succeeding days, the electro-magnetic current was several times applied, and the peristaltic action of the bowels was thoroughly aroused, but with no effect, except the passage of flatus. Peristalsis was absent, unless when aroused by the electric currents.—April 1st. She was in about the same state; her tongue was clean, and pulse 80. During the next few days, the watery extract of aloes, podophyllin, calomel, and croton oil were given, but only with the effect of increasing pain and sickness.—April 10th. Much pain and sickness were present; flatus freely passed, and the bowels were softer. She was weak and low. The wasting was very apparent; pulse 100, and feeble; temperature 99.6. From this date, the patient steadily sank, and died, somewhat suddenly, on the 21st April. The *post mortem* examination took place the next day, and the chief features were as follows. On opening the abdomen, the intestines, moderately distended with flatus, presented the appearance as if they had been scattered thickly over with boiled sago; and, on closer examination, this was found to be a tubercular deposit, which extended throughout their entire length. Many of the deposits were as large as beans, looking like yellowish-white nodules on the surface of the gut, but being deposited really in the substance of the peritoneal covering. They were most extensively distributed in the neighbourhood of the cæcum. The intestines were extensively adherent to the peritoneum in many places, especially to the sides of the pelvis. They were also much glued together and puckered by adhesions, so that it was with much difficulty they could be removed and properly examined. Complete occlusion of the bowels was nowhere found, but they were tightly constricted in many places, so that their contents were contained in a succession of pouches. The internal lining of the intestines was healthy throughout. There were no signs of recent inflammatory action, or appearance of recently thrown-out lymph, all the adhesions being old and firm.

Mr. MAUNDER said that the case so admirably detailed by Dr. Wolston was one of those affections of a cavity or region (the abdomen), in appreciating the morbid conditions of which our art not infrequently failed. Those failures must encourage us to observe more and more carefully with a view to differential diagnosis. He had seen the patient once only, in order to consider the question of operative interference; but, finding her absolutely free from symptoms of acute strangulation and with an unobstructed colon, he had declined. Doubtless, the semi-idiotic state of the patient added to the difficulties of the case.—Dr. FAGGE, when making researches in the records at Guy's Hospital for his paper on Intestinal Obstruction, which appeared in the *Guy's Hospital Reports* for 1868, had failed to find a case of tubercular peritonitis producing obstruction. He thought the case just related was not so very difficult of diagnosis, and that the symptoms during life justified a different diagnosis to that which was made—even without a knowledge of the *post mortem* examination. It was certainly not a case of strangulation by a band; the symptoms would then probably have been acute, and sudden in their onset. The obstruction was probably at several points of the peritoneal surface and came on gradually, and the case would have fallen into the group which he had ventured to call that of obstruction by "contraction". Were peristaltic actions of the bowels observed?—Dr. SILVER spoke of the benefit derived from allowing the flatus to escape. When the case was hopeless, and the distension by flatus was greatly distressing, he had punctured the bowel by needles, and had used the aspirator needles with very marked benefit and comfort to the patient. He mentioned a case of chronic obstruction of the colon, where it was passing to the rectum, in which the irregular movements of the bowels had been very visible.—Dr. SOUTHEY would also have objected to the diagnosis. He quite confirmed what Dr. Fagge had stated, that no instance of obstruction of the bowels from tubercular peritonitis was known to have occurred. But chronic peritonitis would cause obstruction; and in such cases there was absence of peristaltic movements, whilst in obstruction from a band or looping there was marked peristaltic action.—Dr. FAGGE did not agree with this opinion; his experience taught him the reverse. With chronic obstruction, the muscular coat of the bowel became hypertrophied, and peristalsis was visible from the outside; whereas the unhypercrophied bowel of acute obstruction did not exhibit such movements.—Dr. BUZZARD inquired as to the exact effect which it was hoped would be produced by the galvanic current used in the case.—Dr. COUPLAND would like to know if oozing of fæces had been observed in cases where the distended bowels had been punctured with the needle.—Dr. SILVER said the opening thereby produced was mostly valvular; the fæces bubbled out through the needle, but had not, in his experience, oozed into the peri-

toneal cavity.—A MEMBER said there were some symptoms of brain-disease at the last; now, in the absence of a necropsy, might it be supposed that tubercular-disease of the base of the brain could produce the symptom of intestinal obstruction?—Mr. GEORGE BROWN asked for further light on the controversy just raised between Dr. Southey and Dr. Fagge. Dr. Southey appeared to him to be physiologically correct.—Dr. SOUTHEY said that the cases leading to the greatest peristaltic action were those of obstruction of the first part of the great gut, where there had been for some time a difficulty to overcome. The cases following these were those with a band occluding the large intestine. Those in which peristalsis was least visible were cases of chronic peritonitis of long standing, in which the coils of intestines were glued together and could not move.—Mr. BRYANT, reverting to the tapping of the intestine when much distended, said that in two instances he had known fecal extravasation to result. In an old man, who was dying, puncture was made in eight places to give relief. He died twenty-four hours afterwards; and at three out of the eight punctures there was found to be slight fecal extravasation. In another case of umbilical hernia, with sloughing and extreme tympanites, he had drawn off the flatus with a very fine trocar and cannula in six places; and at three of the six fæces had extravasated. The fact was, therefore, to be recognised that, with the aspirator or any needle, there was a risk attendant upon puncture. He had hardly thought there was much rarity in the cases of obstruction following tubercular peritonitis. He thought this was a case of chronic obstruction of the small intestine; no surgeon would, in such a case, attempt an operation. He believed, with Dr. Southey, the peristalsis was most visible in the cases of obstruction of the large intestine which had come on slowly. In the first stage of acute obstruction of the small intestine, there was peristalsis; but the bowel soon became paralysed. In two cases of chronic peritonitis, he had witnessed at one part of the abdomen only remarkable peristaltic action, but this was not very common. The bowels usually became so matted together that peristalsis was stopped.—Dr. WOLSTON said there was no lack of symptoms. There was no history of tubercular peritonitis. The case was very slow. There was a lack of tenderness of the abdomen. In chronic peritonitis, the tenderness was usually greater than it had been in his case. The obstruction was not complete. There were no appearances of peristaltic action except when it was excited by galvanism. He had used puncture by a small trocar with little relief to the patient, so that he did not persevere with it. The form of galvanism used was a frictional magnet, which he had found useful when the poles were applied to the mouth and anus in some cases of chronic constipation.—Dr. WILBERFORCE SMITH asked whether Mr. Bryant in his cases had used the smallest needle of the aspirator.—Mr. BRYANT replied in the affirmative.

Sequel to a Case of Gastro-Enterotomy: Artificial Anus in the Small Intestine.—Mr. MAUNDER read the account of the above case, from the time when the patient had been submitted to operation in November 1875. The case was fully reported in the *BRITISH MEDICAL JOURNAL* for April 1st, 1876, p. 413, and appears in the new volume of *Transactions of the Clinical Society*. The patient's general health improved, and he was able to enjoy a good two hour's walk daily. The hard lumps, which Mr. Gordon Brown had detected in the abdomen, steadily increased in size; the appetite gradually fell off, and solid food became distasteful. Hiccough ensued, and week by week he became more feeble. The artificial anus, which Mr. Maunder had made in the right iliac region in the small intestine, continued healthy and adequate. To avoid inconvenience arising from the irregular action of the bowels through the artificial anus, Mr. Gordon Brown advised his patient to use an enema of half a pint of water daily. By this means he was able to clear his bowels before leaving his room in the morning, and had no further trouble. He wore a sponge-tent, which acted as a plug, and, at the same time, kept the orifice open. His death appeared to result from exhaustion, consequent on inability to take sufficient nourishment, and was most peaceful, seven months subsequent to the operation. Mr. Maunder thought he was entitled to say that the operation was eminently successful, inasmuch as it prolonged for seven months a life that threatened to become extinct in forty-eight hours. The patient was sixty-eight years of age, gouty, and with a feeble circulation. Much to the annoyance of Mr. Brown and Mr. Maunder, a *post mortem* examination was obstinately refused. Mr. Maunder said that the operation had now been performed by Mr. McCarthy, Mr. Wagstaffe, and himself, once by each of the three. In answer to Mr. Bryant, he said that no motion or flatus had ever passed *per anum* after the operation.

Dr. COUPLAND said that, in a somewhat similar case of obstruction, upon opening the abdomen, the jejunum alone was visible, much distended; if, therefore, the jejunum had been opened in Mr. Maunder's case, the death by exhaustion was, perhaps, explicable.—Dr. GREENFIELD asked at what part the incision had been made; the site usually

recommended rested upon the authority of Trousseau. He (Dr. Greenfield) had examined the bodies of several adults with enlarged abdomen. Once, at the spot indicated by Trousseau as that at which the lower part of the ileum would be exposed, Dr. Greenfield had found the cæcum, once the colon, once the ileum eight feet above the valve. In obstruction, the bowel above the point obstructed became distended and came to the front, so that, in obstruction, the bowel, wherever opened, was tolerably sure to be opened above the stricture. He thought Trousseau's statement rested on an insufficient number of observations.—Mr. MAUNDER said that Mr. McCarthy had opened seventy or eighty bodies with the same object as Dr. Greenfield, and found that, in a very large proportion of cases, the ileum was exposed at the spot indicated by Trousseau for the operation, viz., between the umbilicus and right anterior superior iliac spine. Mr. McCarthy's case had lived three or four months after the operation, and then died full of malignant disease.—Mr. WAGSTAFFE said that the case operated upon by himself eighteen months ago was still alive. She was a general servant, and in perfect health, with the artificial anus persisting. The bowels were usually opened through the rectum, but occasionally something escaped by the wound.

Traumatic Stricture of the Urethra and numerous Penile Fistulae cured by Internal Urethrotomy.—Mr. TEEVAN related particulars of this case. The patient was a sailor, who had injured his scrotum and penis by a fall twenty-one years previously. Numerous abscesses formed, and sixteen fistulae resulted, through which all the urine was passed. In the course of a few years, the fistulae in the scrotum (eleven in number) closed, but those in the penile urethra remained open. For a period of more than three months, Mr. Teevan tried three separate plans of treatment, with but partial success. 1. Retaining a catheter in the bladder; 2. The patient drawing off all his urine through a catheter for two months; 3. The application of heated wires and probes tipped with nitrate of silver. On January 6th, Mr. Teevan performed Dr. Otis's operation, and nine days afterwards all the fistulae were closed, and remained so permanently. The points of interest in the case were—1. The stricture being a traumatic one of the worst description; 2. The fistulae being in the penile urethra, where they were always most difficult to cure; 3. The fistulae having been open for the long period of twenty-one years; 4. The failure of three different methods of treatment; 5. The permanent closure of the fistulae nine days after the stricture of portion of the canal had been enlarged by Dr. Otis's urethrotome to its natural calibre, which was .31. 6. Subsequent to the operation, no catheter was left in the bladder, nor was the urine drawn off.

Mr. HEATH said the case was an ordinary one and in no respect differed from cases usually seen and treated in medical schools. When the stricture was dilated, the fistulae of course healed. The mode of practice adopted in treating the fistulae with probes pointed with nitrate of silver was now quite exploded. Again, it was not the practice now to leave in the catheter after division of the stricture. There was, in fact, not a point in the paper not recognised by the surgeons in the general hospitals of London.—Mr. MAUNDER said that, although Mr. Teevan's case was an extreme one, yet general principles of practice would apply to it. The only novelty connected with it was the greater amount of dilatation employed, after the manner of Otis. Personally, whether after internal or external urethrotomy or splitting, he only kept a catheter in the bladder when hæmorrhage was deemed to be probable.—Mr. TEEVAN, in reply to Mr. Heath, reiterated his statement that it was exceedingly rare to have so many fistulae situated in the penile urethra, and asked him to name a case in which there had been more. Mr. Heath had stated there was no novelty in not retaining a catheter after the operation, but he (Mr. Teevan) desired to say that the retention of a catheter after urethrotomy was rigidly insisted on by all English surgical writers, and he challenged Mr. Heath to quote a single author or to name a case to the contrary.—Mr. HEATH would have passed Holt's dilator, split up the urethra, and the case would have completely recovered. He again repeated that the teaching and practice in the London schools respecting the non-retention of the catheter were as he had already stated to be.

Hydatid in the Orbit.—Mr. HIGGINS furnished a report of this case. The patient, a girl, aged 14, who had always been delicate, came to Guy's Hospital, having for a month had pain in the right eyeball, which had then begun to protrude. It was pushed downwards and forwards, but the lids could be easily closed. Movement of the eyeball upwards was impossible, but other movements were perfect. There was diplopia when vision was directed upwards; the eye read Snellen X. The optic disc was red, greatly swollen, and bulging into the vitreous; the retinal veins were large and tortuous, and their visible number was greatly increased. The arteries were of about the normal calibre. There was no pulsation in or about the orbit, and no bruit

could be detected; but there was some fulness deep in the orbit beneath its roof. It was thought there was a growth situated between the globe and the superior rectus muscle, passing backwards and involving the optic nerve. Twelve days after being first seen, the eye became inflamed and painful; there was swelling of the upper lid, œdema of the conjunctiva, and increased impairment of mobility of the globe. There were no rigors and no constitutional disturbance. An abscess of the orbit being suspected, an incision was made through the conjunctiva beneath the upper lid, and a director passed backwards came against a firm substance at the back of the orbit, which was incised and blood only escaped. A fortnight subsequently, the protrusion was increasing. An incision was then made through the soft parts in a line parallel with the upper border of the orbit. The lachrymal gland was found pushed forward and was removed. Behind it was a firm growth, which was torn away with the fingers and the handle of the scalpel. The growth collapsed, and was then found to extend to the apex of the orbit and to be closely connected with the optic nerve, whence it was scraped away. It was an extremely thick-walled cyst, composed of inflammatory tissue, inside which was a thin pellucid cyst, which separated easily, and which the microscope demonstrated to be made up of a delicate membrane presenting an appearance of serrated fibres. The contents of the cyst had escaped; no hooklets nor daughter cysts were found. The whole tumour was nearly as large as the eyeball, but its central cavity was very small. After the operation, the wound was stitched up and the edges of the lids were pared and united so as to prevent subsequent damage to the eyeball from exposure. Some suppuration occurred at the site of the wound; but the patient made a good recovery. A month after the operation, the eye was found to deviate downwards; there was no mobility upwards; the lid could be raised to a very limited extent. The patient read Snellen $\frac{2}{12}$ easily; she had double vision when attempting to look upwards. There was a plentiful secretion of moisture, notwithstanding the absence of the lachrymal gland. The swelling of the optic disc had quite subsided, but there was some haziness of its inner border. The retinal vessels were quite normal.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 4TH, 1876.

ALFRED MEADOWS, M.D., F.R.C.P., Vice-President, in the Chair.

Utero-Vaginal Rupture.—Dr. WILTSHIRE showed a specimen of this, removed *post mortem* from a patient who had died during labour. A fibroid tumour, the size of a large orange, had interfered with the progress of labour. The rupture occurred at the junction of the cervix uteri with the vagina, posteriorly. The walls of the uterus were remarkably thick. Ergot had been given.—Dr. PLAYFAIR inquired why the forceps had not been applied. A large proportion of cases of rupture followed the use of ergot. An early application of forceps might have averted the catastrophe. He would further ask why gastrostomy was not performed when the child had escaped into the abdomen. It would have given the patient a better chance of recovery.—Dr. J. BRAXTON HICKS inquired as to the size of the os uteri, and where it was at the time of the rupture. If the cervix were firm over the head, how was it that the child escaped into the peritoneum?—Dr. AVELING inquired how soon after death the *post mortem* examination had been made. Sometimes displacement occurred from the effects of decomposition *post mortem*.—Dr. MEADOWS suggested that possibly the tumour had been mistaken for the head, the former being so large as to interfere with the descent of the head.—Dr. ROPER asked as to the relation of the tumour to the rupture.—Dr. WILTSHIRE thought that the accident would possibly have been averted if forceps had been used; but there were objections to their employment in this case, which altogether was a very painful one.

Intra-uterine Tumour.—Dr. DALY related the particulars of a case, where death ensued two hours after removal. The patient had been confined six weeks, when violent and continued pain set in. A tumour was detected, and enucleation attempted by the fingers. Rupture of the uterus ensued; there was no hæmorrhage; but the patient died from shock two hours afterwards. Rupture seemed due to softening of the uterus.—Dr. H. SMITH inquired whether any incision had been made across the face of the tumour before enucleation was attempted.—Dr. DALY replied in the negative.

Two-Headed Monster.—Dr. BANTOCK exhibited a specimen, where the bodies were united from the breast downwards. There were but two legs, with a third rudimentary one.—Dr. MEADOWS suggested that it would be well to present it to the Museum.

Midwifery Statistics of Thirty-five Years' Practice.—Dr. CLEMENT GOSDON contributed a paper compiled from the records of his father's

practice in Barnet, including the wealthy and the poorest. The results were shown in tables drawn up, indicating the percentage of ordinary normal presentations, placental and compound. In the single practice of Mr. Godson, there were 2,203 deliveries; and in the combined practice of himself and a partner, 1,020. The records were kept separate, so as to compare the results of the combined and single practice; forceps having been applied more frequently of late years. The maternal mortality amounted only to 8 in the 3,223 cases. The percentage of still-born children was slightly over 5 per cent.—Dr. PLAYFAIR remarked that he had recently pointed out that a low ratio of forceps operations was associated with a high fetal mortality, and had advocated an increased frequency of forceps operations as calculated to lessen the fetal deaths. He had then alluded to the remarkable results of Dr. Hamilton of Falkirk, who had two successive series of cases of 800 and 700 without a single still-birth. He himself (Dr. Playfair) had attended nearly 300 consecutive cases without losing a single child. In Mr. Godson's practice, forceps were used once in 66 cases, and in the other once in 9; and yet, in both about one out of every 20 children was still-born. He would ask the explanation of this.—Dr. HICKS, in reference to an allusion as to hospital statistics not being so reliable as those of private practice, stated that at Guy's patients were under observation for a month after the confinement, and that the death-rate could be relied upon. It varied between $2\frac{1}{2}$ and 7 per 1,000. Before we could fairly estimate the death-rate from forceps, we must first ascertain how frequently ergot had been given.—Dr. CHALMERS thought Dr. Hamilton's statistics were quite as likely to require explanation as Dr. Godson's. He doubted the accuracy of so low a rate of mortality as Dr. Hamilton's statistics gave.—Dr. ROPER remarked that, although the fetal mortality might be diminished, the maternal mortality was probably increased from the frequent resort to forceps.—Dr. ROUTH stated that he had gone closely into the question as regards operative midwifery among the London poor and those of the manufacturing districts. Long forceps were more frequently used on account of deformities of the pelvis, and in these cases the risk to both mother and child was increased. Dr. Playfair states that we are justified in using them once in five cases. The late Professor Simpson had shown that the mortality during child-birth was greater in proportion to the number of hours they were left in labour.—Dr. PLAYFAIR observed that he had not said that he himself advocated so frequent an application of the forceps. He would strongly insist upon the importance of distinguishing between the high and low forceps operation. The former he considered to be a serious matter not to be lightly undertaken, not without grave risk to the mother. His remarks applied solely to the low forceps operation, when the head was in the perinæum, and merely delayed by the want of *vis à tergo*. Under such circumstances, the operation was perfectly easy, quite safe, and highly conservative both to the mother and child—far better than giving ergot.—Mr. GODSON said, when he commenced practice, operative midwifery was looked upon by the public in a very different light to what it was now. Had he used them often, he would soon have had no midwifery practice at all. He never applied forceps so long as there was a prospect of labour being completed naturally without injury to either mother or child.—Dr. GODSON believed that the large number of premature births accounted in a great measure for the still-births. Had forceps been more frequently resorted to, the mortality would probably have only been very slightly diminished.

Pregnancy complicated by Extensive Malignant Disease of the Cervix Uteri.—Dr. A. L. GALABIN related the histories of two cases. In the first, hæmorrhage at irregular intervals had taken place during the whole term of pregnancy. Labour came on at full term; the cervix was dilated by Barnes's bags. Perforation was then resorted to, and the head extracted by the cephalotribe. The patient recovered. A vesico-vaginal fistula resulted from sloughing. The second case was interesting also, inasmuch as amputation of the cervix by the galvanocautic was resorted to five months after labour. The patient then being four weeks pregnant, she carried the child to the full term, when dilatation of the cervix was effected and bi-polar version performed, and the child extracted living. Peritonitis set in, but the patient recovered. The two cases showed that delivery might sometimes be effected by the natural passages, when at first sight Cæsarean section seemed the only resource.—Dr. MEADOWS thought, as a rule, it was better to resort to Cæsarean section, as, although in these two cases the patients fortunately recovered, the maternal risk was so great, and there was an almost uniform death of the child where delivery was attempted *per vias naturales*. In the first case, the dilating bag changed the position of the presenting head. This fact he had noticed in another case, and it would be interesting to know the experience of others on this point.—Dr. GODSON thought the first case confirmed the opinion he had previously stated as to the advisability of amputating the cervix

uteri in cases of epithelioma, notwithstanding the existence of pregnancy.—Dr. AVELING referred to a case where three-fifths of the cervix was involved. The idea of Cæsarean section was entertained, but was avoided by dilating the cervix with the fingers, perforating and turning. Antiseptic injections were used, and the mother recovered perfectly. Where the whole of the cervix was involved, he thought Cæsarean section the better plan.—Dr. EDIS referred to the case he had brought forward last year, where delivery was accomplished *per vias naturales*, the child living; the mother succumbing to pyæmia from the pressure and bruising of the soft parts that had taken place during the extraction of the head by means of the forceps.—Dr. HICKS thought the fact of the head being pushed aside was not a common result from the employment of Barnes's bags; this might easily be overcome by drawing off some of the liquor amnii, or by the hand externally pressing the head down.—Dr. MEADOWS said the accident was most likely when the pelvic brim was contracted.—Dr. ROPER stated that he had modified the shape of the bags, and would exhibit them at the next meeting.—Dr. GALABIN said that the present was the only case in which the head had been displaced from using the bags, but it was a not infrequent accident. He thought considerable risk would be run by the amputation of an epitheliomatous cervix, in a case of ascertained pregnancy, from septicæmia.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 17TH, 1876.

G. D. POLLOCK, F.R.C.S., President, in the Chair.

THE minutes of the last meeting were read and confirmed. The President then announced that the second meeting of the Society in the month of January next had been set apart for the discussion of a special subject. The Council had further decided that the subject should be "visceral syphilis". He next exhibited a copy of the *Transactions* of the last session, which have not yet been sent to the members, in consequence of a fire at the bookbinder's causing delay. They would be ready next week. The work of the meeting then commenced.

Medullary Sarcoma of Lung and Bronchial Glands, causing Obliteration of the Inferior Vena Cava.—Dr. T. B. PEACOCK exhibited this specimen. It occurred in a man of 38, who was a patient at the Victoria Park Hospital. He came in at the end of July last; his arm and neck were tumid; there was some dyspnoea and dulness on percussion. He remained two months in the hospital, during which time the swelling greatly subsided. He came in again afterwards with great oedema of the lower extremities. After death, the heart was found to be larger than normal; the inferior vena cava was greatly implicated, the superior to a less extent. The bronchial glands were enlarged, but did not contain the same material. One lung was broken down. He could not be precise about the histological elements, as the tumour had not yet been fully investigated. The patient had spit up a quantity of thin currant jelly fluid, which was very characteristic of medullary sarcoma. In answer to a question by Dr. Green, Dr. Peacock said that he could not say absolutely that it was pathognomonic of medullary sarcoma. It was unlike any other form of blood-spitting.—Mr. WAGSTAFFE proposed that it should be referred to the Morbid Growths Committee.—Dr. COUPLAND asked as to the character of the expectorated fluid in cancer of the lung.—Dr. PEACOCK replied that, in ulcerated cancer, pus mixed with blood was expectorated.—Dr. DOUGLAS FOWELL said that he had seen cases where this peculiar fluid was not present.—Mr. HULKE said that he had seen many cases of cancer, but that it had not fallen to his lot to see this sputum.—Mr. WARRINGTON HAWARD said he had met with cases where this jelly-like sputum was not present.

Absence of Kidney.—Dr. GREENFIELD brought forward a case in which the right kidney was absent. It occurred in a female aged 19, who died of hepatic disease. There were no traces of the kidney or its vessels. The left kidney was almost normal in size and shape, the lower end being somewhat thicker than usual. There were two ureters and two pelves which did not communicate with each other. The artery gave off a branch to each part. The upper and lower ureters were near each other, the left one occupying its normal position. The bladder was normal. There was but one ovarian artery, the left, which sent a branch to the right ovary. A second case came from a man aged 59, where the right kidney again was wanting, but the left one was enlarged. The vessels were wanting. There was one ureter. The renal artery was single. The right vasum seminale was absent. There was, in fact, atresia of the right genito-urinary apparatus, including the testis. Only five such cases are recorded in the *Transactions* of the Society; in all the other reported cases, there

were rudimentary organs.—Dr. COUPLAND brought forward a similar case of absence of kidney. The remaining kidney was lobulated, and the upper two-thirds of it were formed by the left kidney with its ureter; the lower third from the right kidney. The organ weighed six ounces and a half; it came from an adult male, and he was indebted to Mr. Balding of Royston for it.

Aortic Aneurism.—Dr. P. IRVINE exhibited this case, which had occurred in a patient of Dr. Silver. It was found in a woman, aged 44, who, three years ago, suffered from substernal pain; then followed some dysphagia and, later on, some cough and dyspnoea. There was a swelling at the top of the sternum. All the symptoms greatly abated. Then a second tumour appeared about the size of a walnut, with but few signs of an aneurism, except a systolic murmur. The aortic second sound was thumping. The patient died suddenly. On *post mortem* examination, an aneurism was found implicating the whole arch of the aorta and extending down to the sixth rib. In reality, there were two aneurisms. The larger one involved the organs on the right side, but the other and smaller portion had done the most mischief, as it had caught the left bronchus and perforation had followed. The case was interesting in so far that, if the lower aneurism had existed alone, no signs of its presence would have been present, as the left lung was disorganised, due to pressure on the bronchus rather than on the nerves.

Cancer of the Bladder.—Mr. BUTLIN showed this case. It was a hard carcinoma, which did not form a tumour, but infiltrated the whole walls of the bladder, diminishing its size. Scirrhous of the bladder was rare, and only one case was recorded in the Society's *Transactions*. The bladder was hard and generally adherent to the surrounding parts. The disease had eaten into the pubic bone. There was cystitis with sloughing, and the disease extended up the left ureter to the kidney. Drawings of the tissue were sent round. When hollow viscera were affected with this disease, there was no tumour, but just diminution in size. The specimen came from a man of 44, who was first seized with sudden hæmaturia. There were no special symptoms. The liver was secondarily affected. In answer to a question, Mr. Butlin said the prostate was almost entirely healthy.

Pulmonary Tuberculosis.—Mr. FREDERICK ROBINSON exhibited this, which was a fresh specimen. It came from a young soldier of 29, who came into hospital with hæmoptysis, each day coughing up some blood. On the *post mortem* examination, two cavities were found, one full of fresh blood. Both lungs were studded with tubercles of various kinds. The man had syphilis in 1870 and again in 1874, having been in hospital some weeks on each occasion. There were no gummata anywhere, and the body was well nourished.—Dr. DOUGLAS POWELL proposed that the specimen be referred to the Morbid Growths Committee, inquiring if there were no signs of syphilis present.—Dr. MURCHISON said that, so far as the question of the connection of syphilis and lung-disease was concerned, this was not a fair case; for there were no traces of syphilis in any organ.

A Case of Tumour of the Upper Lip containing Cartilage.—Dr. GOODHART brought forward this case. This he obtained from Mr. Gay, which contained a piece of good bone in the centre of a mass of cartilage. Another was furnished to him by Sir William Fergusson. It consisted of myxomatous tissue with lymph-spaces. He regarded it rather as a connective tissue than a glandular tumour. The first came from a man aged 36, the other from a female of 45.—Mr. HULKE said these cases were not very rare. The tumours were small. He was inclined to think them glandular. Specks of ossification were often found.—Mr. BUTLIN also thought they were glandular in their commencement, but that, later on, the connective tissue elements preponderated.—Dr. GOODHART replied that, if they consisted of connective tissue elements, they could not be glandular.—Dr. GREENFIELD said that allied growths were found in the parotid and even in the testis.

Popliteal Aneurism.—Mr. BARKER exhibited this specimen from a man aged 25. Amputation had been performed for spontaneous gangrene. The arteries were entirely split up and exhibited. In the aorta, there was no disease. In the iliac arteries, there were plaques in the inner coat. They were bilateral, and in each case on the posterior aspect, where the vessels were in contact with the pubic bones. The vessels, again, were free from disease till they came to the hard structures of the knee-joint, and then they were much diseased. The parts affected were those in contact with hard structures, and even that side of the vessel only. Where the vessels touched the pubic bone, their posterior aspect was affected; at the popliteal space, the anterior surface alone was diseased. In the basilar arteries, the under surface was chiefly diseased. The cause of atheromatous change was now known to be overdistension, but contact with hard substances might be found a factor.—Mr. MORAY pointed out that the aorta

was unaffected, and for most of its length was in contact with bone.—Dr. CRISP did not agree with Mr. Barker.—Mr. HULKE said these points in contact with bone were also points of strain, and the disease had fixed upon the convex side of the curve, which was also that in contact with the hard structures. In consequence of the lateness of the hour, the discussion went no further, and the meeting adjourned.

PATHOLOGICAL SOCIETY OF DUBLIN.

HENRY KENNEDY, M.B., President, in the Chair.

Intercurrent Scarlatina in Enteric Fever.—Dr. NIXON exhibited specimens from the body of a girl, aged 18, who suffered from "abortive" typhoid fever. On the fifth day after her admission to hospital, a scarlet rash came out all over her body. Next day, sore-throat with coryzal symptoms ushered in an attack of malignant scarlatina. Diffuse cellulitis and diphtheritic exudation in the throat supervened, and speedily proved fatal. The soft palate, pharynx, and neighbouring parts were coated with a true diphtheritic membrane. Peyer's patches were engaged, and the characteristic appearances of *psorentrie* were also observed.

Difficulty of Diagnosis of Non-existence of Thoracic Aneurism.—Dr. FINNY detailed the particulars of a remarkable case. The specimens were taken from the body of a Frenchwoman, aged 22, who, ten weeks before admission to hospital, had given birth to a child after a difficult labour. There was no history of syphilis or of intemperance. Shortly after seeking admission to the City of Dublin Hospital, in December 1875, for an attack of dry pleurisy of the right side, a systolic murmur was discovered over the heart, and especially towards its base and to the left side of the sternum. After six weeks' daily observation and careful examination, diagnosis of an aneurism of the left side of the ascending portion of the arch of the aorta was come to, based on the following signs and symptoms. 1. There were no symptoms or signs of constitutional disease, such as phthisis or cancer, the patient being plump, healthy-looking, and, except for the pains felt in the chest and the pulsation at the second left sterno-costal articulation, being quite well. 2. There was evidence of intrathoracic tumour, such as dullness over an area extending from the midsternum up to the left sterno-clavicular articulation, two inches to the sternal end of the clavicle and thence to the third rib one inch and a half to the left of the sternum. Over this space, no breath-sounds were heard; but a loud ringing single murmur, heard, indeed, over the base of the heart, but at a maximum towards the lower edge of the clavicle; not heard in the carotids nor along the spine. It conveyed the idea of being very superficial. Over the same place, a diastolic pulsation, with a marked fremitus, was observable; and at the left side of the sternum above the second rib the pulsation could be seen; the heart's apex-beat being normal in force and position. 3. The signs of pressure of an intrathoracic tumour were present. *a.* Stridor from below; *b.* Laryngeal spasmodic cough; *c.* Dysphagia; *d.* Diminution of the left side by two inches; *e.* Feeble respiratory murmur over the whole left side, while breathing outside the area of dullness was prolonged and whistling; *f.* The left radial pulse was markedly smaller than the right; *g.* The left pupil was for a time dilated, and perspiration was noticed to be confined to the left side of the face and neck; *h.* The occurrence of phthisical softening at the left apex towards the last month of life, and catarrhal pneumonia of the whole left side. The variability of some of these signs pointed still more to aneurism. The patient died on March 6th. No aneurism was found; but over the left side of the pulmonary artery a great many peribronchial glands were found enlarged; one of the size of a small walnut lay at the side of the aorta where Botalli's duct enters it, and here the aorta had a mark as if passed by the enlarged gland, while at the same spot its calibre was reduced to admit with difficulty the little finger. This particular gland engaged the left pneumogastric nerve, the left recurrent, and the cardiac and pulmonic bronchus. The apex of the lung contained a cavity of the size of a large walnut, while the whole of the lung was in caseous degeneration and commencing softening. The pleura was also thickened and adherent. On examining the heart, the chambers and walls were normal; the aortic orifice was a little narrower than normal, but the aortic valves were perfectly natural and healthy. The pulmonary valves presented thickening at the corpora aurantii, and a small fourth valve existed between the anterior and left valves. The common pulmonary artery was somewhat dilated. No communication existed between the right and left sides of the heart, nor at the ductus Botalli. The aorta just at this spot became so narrowed as hardly to admit the little finger, and continued small for the next six inches. The explanation of the signs and symptoms was as follows. The murmur was generated at the pulmonary valves and carried up that vessel to its bifurcation. Here the overlying bronchial glands conveyed the murmur

up to the clavicle, while the cavity in the lung just outside gave it intensity of tone, and caused the idea of superficiality of the sac. The engagement of the nerves by the enlarged glands explained all the other symptoms except the smallness of the left radial; and this only can be explained with deviation of the blood in the aorta due to the lateral pressure of the enlarged gland. The case exemplified the difficulty of diagnosing the *non-existence* of aneurism when all its signs and symptoms were present; and illustrated a condition of parts, not generally known, which might closely simulate aneurism of the aortic arch. The age of the patient, and the area of loud murmur not being accompanied by an equally strong impulse were the only points which threw doubt upon the diagnosis of aneurism.

Narrowing of the Aorta.—Dr. WALTER G. SMITH exhibited the lungs and heart from a boy, aged 14, who died cyanosed in the Adelaide Hospital on April 24th. He was a fat, strong boy up to seven years of age, when he began to suffer from cough and pain in the chest, which troubled him off and on ever since. He was admitted into hospital in September 1875, with general anasarca, extreme dyspnoea, and livid turbidity of the face and neck. There was an occasional apical systolic murmur, easily developed by muscular exertion; no basic murmur. He left the hospital in February 1876, free from anasarca and in fair health; but was obliged to seek readmission at the end of March, on account of urgent dyspnoea and thoracic distress. He gradually lost ground, became more deeply cyanosed, and died after a long struggle at the end of April. *Post mortem*, nothing abnormal was found in the abdomen beyond moderate congestion of the liver, kidneys, and spleen. The lungs were in the state of brown induration, and exhibited one or two wedges of infarction. The heart was scarcely enlarged; it contained no firm clots, and all the valves and orifices were healthy. There was no imperfection of the auricular or ventricular septum. The ductus arteriosus was completely obliterated, and the only abnormality was a moderate constriction of the aorta above the sigmoid valves. It scarcely allowed the passage of the little finger, and its internal diameter at narrowest part was about five-eighths of an inch. The tissues at the roots of the great vessels were matted together, and the superior cava was pressed upon by a bunch of enlarged pigmented bronchial glands.

Large Thoracic Aneurism: Collapse of Lung: Sudden Pleural Effusion.—Dr. J. W. MOORE showed the thoracic viscera of a man, aged 67, a moderate smoker, not a hard drinker, who had stated that his health was good up to two months ago, when bad breathing and a troublesome dry cough set in. The cough was soon accompanied by a frothy spit, and the "smothering" increased. He was admitted to hospital on Wednesday, May 3rd, 1876. The external jugular veins were permanently full, non-pulsatile; the superficial thoracic veins also were full. The heart was weak, irregular in rate and volume, and occasionally intermitted. Extensive dulness on percussion and a strange absence of respiratory sounds existed over the left side of the chest. He was aphonic, speaking in a whisper. After some hours, intense dyspnoea, amounting almost to apnoea, suddenly occurred; and, after rallying under the hypodermic injection of ether, he died quietly at 8 p.m. on May 5th. The heart was healthy, except for the superficial deposition of fat over the right side. The aorta was extensively atheromatous. An enormous aneurism occupied the upper half of the ascending portion and the transverse portion of the arch, and pressed backward on the lower end of the trachea and the left bronchus. The mucous membrane of the trachea was deeply injected and almost ulcerated through. There was total collapse of the left lung, and the left pleura was full of clear straw-coloured serum—*hydrothorax vacuo*—the effusion being facilitated by the distended state of the intercostal veins. There was hypostatic congestion at the base of the right lung.

Absence of Spleen in Enteric Fever.—Dr. C. J. NIXON showed a remarkable example of this lesion.

TESTIMONIAL TO DR. A. B. STEELE, LIVERPOOL.—We have much pleasure in announcing that our well known and able associate Dr. A. B. Steele of Liverpool has been presented by his professional brethren of Liverpool and the neighbourhood with a testimonial consisting of a silver salver bearing a suitable inscription, and a purse containing one hundred sovereigns, in recognition of his many public services in connection with the profession, especially in connection with the Association. During Dr. Steele's tenure of office as secretary to the Lancashire and Cheshire Branch, the number of members has largely increased, almost doubled; while all the numerous duties which belong to the secretary's office have been most efficiently performed. The subscriptions to the testimonial were limited to one guinea; hence the list comprises more than a hundred names: a gratifying proof of the esteem in which Dr. Steele is held by his professional brethren, and of their appreciation of his services.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 21ST, 1876.

THE VIVISECTION COMPROMISE.

THE *Contemporary Review*, in its current number, publishes an article by the Right Hon. Robert Lowe on the Vivisection Act, which discusses with great spirit the compromise of last session, and expresses clearly and forcibly the objections which Mr. Lowe was known to entertain to it. Mr. Lowe points out again the much debated inconsistency of the proposals of the Royal Commissioners, who "recommended restrictions which they themselves had proved to be utterly superfluous"; forgetting, however, that in the desirability of some restrictions nearly all the most eminent official medical representatives of the universities and corporations fully concurred in their evidence before the Commission. Mr. Lowe then proceeds to dissect Lord Carnarvon's ill-devised Bill. He repeats one by one—urging them with point and clearness—the objections to the Bill, on the grounds that it was levelled exclusively at men whose occupation is, if considered with reference to its end, the most humane that can be imagined, and whose feelings the Commissioners had reported to be remarkable for humanity; that it created a new offence, in that, out of an innocent act done for an innocent, nay, even a praiseworthy motive, the Bill, by a kind of parliamentary chemistry, compounded a crime; that it cast a slur upon the medical profession; and that it left untouched cruelty to non-domestic animals inflicted from motives of gluttony, gain, amusement, or any other motive than that of extending knowledge.

Mr. Lowe then proceeds to consider the modifications made in the Bill as it was allowed to pass; and he blames those who consented to it. He shows, however, an incompleteness of information which could hardly have been anticipated, and a misinterpretation of the actual powers and working of the Bill which are still more surprising in a person of his legal skill and acumen. It is not the fact that "the principal effect of a licence will probably be the exclusion of youth, of the unknown and untried"; nor that "an experimenter will, with penal consequences hanging over his head, be very slow to make known the exact nature of his experiments". Nor is it correct, as the Bill is now framed, to say that physiologists are yet treated as persons whose misconduct is to be presumed until those whose duty it now is to watch them are satisfied of their innocence. All this applied to the Bill of Lord Carnarvon, but not to the Bill as amended by Mr. Cross. As the Act is now framed, great facilities are afforded for any one, however young, provided he be also competent, to undertake any kind of physiological investigation, and the facts of the moment are evidence of this: far from being under any fear of penal consequences, the experimenter is now, by the force of the Act and of his licence, expressly protected, and is no longer open to persecution such as was initiated at Norwich. Instead of being treated as persons assumed to be guilty of misconduct under the Act, physiologists are not even required as an ordinary rule to send any report whatever to the Secretary of State, but only if for any special reason such report is required. Moreover, even then, only when a strong case of misconduct is made out against the person charged, if any ever be charged, and when the Secretary of State is satisfied that his intervention is necessary, can any proceedings be taken.

The protection is, therefore, complete: the physiologist being taken

out of the provisions of Martin's Act, under which he was heretofore liable, occupies a more dignified and much more highly protected position than heretofore, while the public have the security which was widely demanded, that no unqualified person or rashly ignorant experimenter shall inflict unreasonable pains in the name of science. He would be a bold man who would say that none such have ever been inflicted, even in quite recent times, by persons ignorant of the rudiments of science, and quite unfit for original research.

On the whole, we believe that Mr. Lowe has formed and given currency to a very erroneous estimate of the operation of the Act. He has evidently paid but little attention to its modifications, or he could not have penned the account which he has written of its passage through the House of Lords, for these paragraphs misrepresent the facts from beginning to end.

There are some things which it is desirable to alter in the Act. By a piece of carelessness, Mr. Cross did not include, as he promised, among those who may give certificates the professors in "Chartered" Colleges as well as those instituted by Act of Parliament; and by a lamentable breach of faith, he assisted in the substitution of the word "invertebrate" for "cold-blooded" animals in the clause of excepted animals. But it would probably not be desirable to attempt next session to make any effort to amend the Act in these respects; and, on the whole, we believe that it is right and will be useful that its operation should be watched for some time before any attempt is made to interfere with it. If any further defects are manifest, then the time for action will arise. Meanwhile, we believe that the profession and the cause of humanity generally lose nothing, while they gain substantially by its provisions as they now stand.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE profession and the public will have cause to be grateful to the Registrar of the College of Physicians if the interest he has shown and the action he has taken in promoting the study of psychological medicine should bear fruit in the examinations of the College and in the increased knowledge of mental disease hereafter to be required from the candidates for its qualifications. To a great extent, psychological medicine must, we suppose, continue to be a specialism; for the enormous difficulties which it presents can only be partially overcome by concentrated study and use. The more intimately allied, however, it is to general medicine, the greater will be its vigour and development. Formerly, the doctor who took charge of mad folk was scarcely looked upon as a medical man engaged in the treatment of disease; but of late years a new spirit is abroad, and the alienist physician is now not behind his compeers in the profession in his devotion to the physiological and pathological conditions of his work.

But the action taken by the College of Physicians has no direct reference to the specialty, and indeed it will tend rather to unspecialise the study of mental disease than the contrary, by making, at least, its initial stages much more general.

The main question mooted, and to a certain extent decided, on Monday last was, whether it be desirable that all medical men holding the qualifications of the College should have a larger and better knowledge of mental disease than that which exists in the profession at the present time. Dr. Bucknill spoke strongly of the ignorance which he had met with among medical men in this respect in his experience, both as an official and as a justice of the peace; and remarked that he was not surprised at the low estimate which lawyers generally entertained of the evidence of medical men in general on questions of insanity. It is not to the remote country practitioner alone to whom this ignorance may be imputed, for we remember one of the more highly and widely cultured Fellows of the College and a leading London physician declaring, at an inquisition held upon one of his patients, that he knew nothing of insanity, and that his only care was to

get rid as quickly as possible of any case which might occur in his practice.

The law of the land, however, does not recognise the right of such ignorance in medical men. The legislature has been compelled to confer certain powers and to impose certain responsibilities with regard to lunatics upon defined and indicated members of the community, and it has naturally chosen the members of the medical profession for this charge and duty.

It is not the special alienist only, but every man whose name is on the *Medical Register* who is liable to be called upon to sign a certificate of insanity, whereupon a fellow subject may be deprived of his liberty. Moreover, no medical man, however unwilling or sensitive he may be, can avoid an occasional encounter with the facts of insanity which may place him in the witness-box to support or overthrow a will, to excuse or accuse the commission of a crime. Insanity attacks sick people; and, among his customary patients, a physician cannot see much of common maladies without witnessing many invasions of mental disturbance. Indeed, it may be truly said that, in a large proportion of cases of ordinary disease, the physician who cannot, or will not, take into consideration the state of the mind, as well as that of the body, shuts out light and limits his own efficiency. Among occasional patients, the physician is still less at liberty to choose sane subjects only, for he may be summoned to the house expecting ordinary disease, and at the bedside find himself in the presence of suicide and madness.

Obstetric practice is not a parallel case, for any medical man would be at liberty to decline attendance upon child-bearing women unless under any peculiar and extraordinary circumstances. Midwifery he may refuse, but madness is thrust upon him.

We, therefore, very heartily hope that the Council of the College of Physicians will see their way to carry into practical results the desire of the Committee to extend the knowledge of psychological medicine.

THE HEALTH SECTION AT THE SOCIAL SCIENCE CONGRESS.

IF the object of the Social Science Association, in the selection of a President of the Health Section of the recent Congress, were to secure an address which would form a dramatic contrast to that which was delivered by Dr. Benjamin Richardson at Brighton last year, the Association may be congratulated upon their success. From any other point of view, however, the address of Mr. Hawksley, C.E., at Liverpool on Monday last cannot be regarded as a success. Dr. Richardson may have shown a somewhat over-sanguine temperament, and may have taken a slightly visionary view of the sanitation of the future; but his address was eminently useful in attracting public attention to public health by dwelling upon the hopeful side of a subject which it is essentially difficult to popularise. Mr. Hawksley, however, who fortunately represents a school of sanitarians that has well-nigh passed away, appeared in his address to be bent upon proving that the sanitary efforts of the past forty years have been entirely unproductive, and upon urging a species of sanitary fatalism, the acceptance of which would throw us back into that state of public apathy in health-matters from which we are only slowly emerging. Dr. Richardson would have had us believe that the span of human life could be almost indefinitely extended. Mr. Hawksley said: "Apart from the disturbing influence of epidemic diseases, over which sanitary measures can exercise only a very limited control, we may, I think, with tolerable safety, pronounce that sanitary science, although in other ways of infinite benefit to the community, is not capable of materially extending those limits of life which Nature has in her wisdom prescribed." He confidently asserts that, between the years 1838 and 1873—a period of thirty-six years—there "has not been an atom of movement towards the extension of the duration of human life in England, notwithstanding that during that period there have been published heaps of pub-

lications, official and otherwise, on the subject of health"; unnumbered Acts of Parliament have been passed, and millions of money expended on making sewers, supplying water, and building baths and wash-houses. Mr. Hawksley appears to lose sight of the fact that nearly 45 per cent. of the English population now live in large towns, whereas in 1841 the proportion was only 35 per cent.; that it is principally during the past forty years that our rivers have been turned into sewers; and that a sanitary organisation of a national character only dates from the passing of the Public Health Act of 1872. Are we, then, with these drawbacks, to allow ourselves to be discouraged because the death-rate has remained comparatively stationary during the past quarter of a century? That the national death-rate has not, as the result of the rapid aggregation in towns, shown an increase, may be safely accepted as a sign of progress. If slow but steady sanitary progress had not been made, the inevitable result of the rapid growth of our large towns would have been an increase in the national death-rate; but this has been kept in check, and since 1872 we have been laying the foundations, which are scarcely yet settled, of a future decrease of the death-rate and of a prolongation of the mean duration of life.

The Social Science Association has produced, in 1875 and 1876, two health addresses, on sanitation of the future and on sanitation of the past; may we venture to hope that the next address will deal with sanitation of the time present. Among the increasing number of eminently qualified and thoroughly practical men who are now devoting themselves to the study and practice of public hygiene, it ought not to be difficult to select and name a fit President for the Health Section at the Congress in 1877. The selection of a President who only believes that sanitary measures can exercise a *very limited* control upon epidemic diseases; who urges that an effort to check the pollution of rivers, at the risk of injuring trade interests, is "snatching at the shadow and leaving the substance"; and who informs us that the River Trent, at Nottingham, after receiving the sewage of two millions of people, is clear, sweet, and free from all noxious constituents; cannot add to the reputation or influence of the Health Section of the Social Science Association, or in any way serve to further the progress of public sanitation, which, we presume, is one of the objects for which the Association exists.

We learn with great pleasure that letters received in town this week from Sir William Fergusson speak of his health having greatly benefited by his sojourn at his seat in Scotland during the autumn. Unless the mildness of the weather tempts Sir William Fergusson to a more prolonged stay, he will probably return to London at the end of next week.

We learn with regret that Mr. Simon's term of office under the rules of the hospital having been concluded and the limit of age being reached, St. Thomas's Hospital loses this month the valuable services of this eminent surgeon as a member of its active working staff. Mr. Sidney Jones thus becomes senior-surgeon of the hospital, and Mr. Francis Mason, the senior assistant-surgeon, will receive promotion to the office of full surgeon, with beds.

For the vacancy in the office of assistant-surgeon thus vacated, Mr. McKellar, the resident assistant-surgeon, now serving with great distinction in the Servian Hospitals of the National Aid Society, will, we presume, be selected.

SCARLET FEVER AND DIPHTHERIA ON BOARD AN EMIGRANT SHIP. FROM the emigrant ship *Hurricane*, detained at Plymouth in consequence of the outbreak of scarlatina and diphtheria on leaving Gravesend; twenty-two persons were landed and conveyed to the hospital of the workhouse. Only about seven actual cases of disease were amongst the number. The Admiralty have granted a hulk for the use of the emigrants whilst the ship is being disinfected.

ON account of the continuance of cholera in Cashmere, the Viceroy's projected tour in that province has been abandoned.

CÆSAREAN section was performed on October 8th, at the Temperance Hospital, by Dr. James Edmunds. The mother and child are progressing favourably.

MEDICAL STUDENTS: 1876.

THE following is a list of the numbers of students of medicine registered at the Royal College of Surgeons of England this session, from the metropolitan schools, distinguishing the new entries for the session. It will be seen that the number of new students is large, especially at the great city hospitals.

1. St. Bartholomew's	374	including 131 new entries.
2. Guy's	317	" 95 "
3. University College	279	" 79 "
4. St. Thomas's	177	" 43 "
5. St. George's	136	" 33 "
6. London	123	" 35 "
7. King's College	105	" 28 "
8. Middlesex	101	" 38 "
9. St. Mary's	82	" 26 "
10. Charing Cross	70	" 29 "
11. Westminster	28	" 9 "

The gross number registered amounts to 1,793, including 546 new entries, distributed in the following numerical order. 1. St. Bartholomew's, 131; 2. Guy's, 95; 3. University College, 79; 4. St. Thomas's, 43; 5. Middlesex, 38; 6. London, 35; 7. St. George's, 33; 8. Charing Cross, 29; 9. King's College, 28; 10. St. Mary's, 26; 11. Westminster, 9. The above includes dental students.

THE PATHOLOGICAL SOCIETY OF LONDON.

THE first ordinary meeting of this Society was held on Tuesday evening, the 17th instant; the President, G. D. Pollock, Esq., occupying the chair. There was a good muster of members. The President announced that a discussion on Visceral Syphilis would take place on the second meeting in January next. He also explained that the delay in the issue of the *Transactions* of the last session was due to a fire at the bookbinder's. The copies would all be issued next week. The work of the session was commenced by Dr. T. B. Peacock exhibiting a specimen of medullary sarcoma of the lung and bronchial glands, causing obliteration of the inferior vena cava. Several cases of absence of one kidney followed; and in several instances the whole genito-urinary apparatus of that side was wanting. Drs. Greenfield and Coupland were the exhibitors here. Dr. P. Irvine showed an interesting case of double aortic aneurism; after which Mr. Butlin brought forward a case of scirrhus of the bladder, where the whole of the walls of the organ were infiltrated and thickened. Dr. Frederic Robinson showed the tuberculous lungs of a soldier who had two attacks of syphilis, of which there were no traces remaining. Dr. Goodhart exhibited a tumour of the upper lip, consisting of cartilage, with a speck of good bone in the centre. The last exhibit was one by Mr. Barker of University College. It derived its chief interest from the fact that the points of endarterial swelling corresponded on each side to points of arterial contact with hard substances. An interesting discussion was arrested by the lateness of the hour, several Fellows disputing the ingenious hypothesis advanced.

THE MEDICAL SOCIETY OF LONDON.

THIS society held its first meeting of the session 1876-77 on Monday evening, in Chandos Street. There was a large muster, and the room was crowded. Among those present were the President of the College of Physicians and ex-presidents Mr. Bryant and Mr. Gay. A warm welcome was given to the President, Mr. William Adams, in taking the chair. The President, in his address, first alluded to the loss the society had experienced during the recess by the death of two ex-presidents—Dr. Sibson and Mr. Victor de Méric. He then gave an

account of the visit of himself and the senior secretary, Mr. Richard Davy, to the United States. They were received with the greatest hospitality and courtesy by their American *confrères*, and Mr. Adams had been made vice-president of the International Congress. After describing the meeting, which was most successful, and giving a sketch of the different institutions connected with medical teaching in Philadelphia, Mr. Adams gave some account of the Museum of the War in Washington, which is located in the theatre where President Lincoln was shot. He then referred to surgical matters in New York in the following terms. "In passing through the wards of the various hospitals, we saw the same mechanical appliances used in the treatment of fractures and other injuries that we are accustomed to see in London hospitals. The principle of weight-extension we should expect to see everywhere adopted, when we remember that it is to American surgery we owe the introduction of this plan into surgical practice both for the treatment of fractures and for the relief of acute pain in hip-joint disease. Dr. Gurdon Buck of New York was, I believe, the first to apply the principle of weight-extension to the treatment of fractures of the thigh; and Dr. Davies of New York was undoubtedly the first to apply this plan of weight-extension for the relief of the acute pain which occasionally occurs during the progress of hip-joint disease. Dr. Davies also gave the explanation of the relief afforded by weight-extension, which has since been generally admitted; viz., that it acts mechanically in relieving articular pressure when the surfaces are brought into contact by reflex muscular contraction. This was undoubtedly a great advance on the former practice of treating the acute pain by local and general antiphlogistic treatment and counterirritation, and it is now pretty generally practised in this country, though not to the extent it deserves. American surgeons are good anatomists and dexterous operators. There seems to be a mechanical genius in the American people, and the ingenuity of American inventors in machinery, whether for railway purposes, water-supply to their great cities (the works of Chicago and New York are among the wonders of the world), for the ordinary domestic purposes of every-day life, and for surgical purposes, is universally acknowledged. In practical surgery, we know there is much need of mechanical skill and ingenuity, both for inventive purposes and in the adaptation and application of existing instruments, and this is certainly displayed in a remarkable manner by American surgeons." Mr. Adams's tribute to American surgery was received with cordial applause. As a memento of the visit of the delegates of the Medical Society of London to the Congress in Philadelphia, four distinguished American surgeons were made honorary members of the Society; viz., Professor Gross, Mr. Pancoast, senr., Professor Austin Flint, and Inspector-General Barnes of Washington. The meeting then broke up; but, in scattered groups, the Fellows remained some time in earnest conversation, not having seen much of each other during the recess.

METROPOLITAN LUNATIC AND SMALL-POX PATIENTS.

UNDER the pressure of the Local Government Board, the managers of the Hampstead Asylum are taking active measures to remove the present occupants of that institution, and, within a fortnight, the whole of the imbecile and lunatic population now happily and advantageously housed there, will be removed under circumstances of great disadvantage. As no other available accommodation really exists for them elsewhere, we understand that the managers at Hampstead are under the necessity of transferring their lunatic and imbecile charges to Leavesden and Caterham Asylums. Both of these are, however, practically already full; the complement of the two latter asylums, fixed for two thousand, will be exceeded. The inconveniences of thus treating imbecile and lunatic asylums as a temporary institution, of which the inhabitants and administrative officers are considered as migratory, will be obvious; and we feel sure that the Metropolitan Asylums Board must feel acutely the disadvantage of such an arrangement. Emergencies must, it is true, be met occasionally by extraordinary expedients. But we very much doubt whether, by a little more sagacious

expenditure of energy, provision might not have been made for meeting the possibilities of a metropolitan epidemic of small-pox without expatriating the Hampstead lunatics. The Metropolitan Board possess lands at Fulham and Brompton intended for the erection of fever asylums; and the "administrative blocks" are, we believe, already in a state of more or less advanced completion. The previous experience of the Hampstead temporary fever asylum shows that very respectable and quite adequate iron and wood buildings may be erected in the course of a week or two for the reception of fever cases. The epidemic has not arisen very suddenly; nor is it growing with alarming or acute rapidity, and a very little foresight and very inconsiderable energy would render it unnecessary to precipitate the removal of a settled community of four hundred lunatics to asylums already taxed to the utmost.

A CANDIDATE FOR DISSECTION.

PROFESSOR FLOWER, the able Conservator of the Hunterian Museum, who is ever on the look out for preparations to enrich the collection, and who some time ago expressed a regret in his annual report to the Council of the Royal College of Surgeons on the state of the museum, that so few contributors sent pathological specimens, received lately, we hear, with no little surprise, a visit from a lady—who perhaps had seen the report in question, and who at once stated the object of her visit, and handed him a document, sealed, signed, and duly executed, to the following effect.

"This is the last will and testament of me. I appoint the President at the time of my decease of the Royal College of Surgeons of England the executor of this my will. Believing that it is the duty of every member of the human family to devote their bodies after death to scientific examination until the principles of physiological science are thoroughly established, I direct that, in the event of my decease in the United Kingdom, my executors shall give my body immediately after my decease to the authorities of the Royal College of Surgeons of England. I desire that such body shall be completely dissected in the most thorough manner known to science. I desire that all possible facilities shall be given for the inspection of such body in its various stages of dissection by any person desiring to inspect it, and more particularly by persons of the female sex. I also desire that any facts that may come to light in consequence of such dissection, that may be new or in any other way advantageous to be made public, should be published. I also desire that, after such dissection as aforesaid, my body shall be destroyed in the most economical and expeditious manner possible, except that I should wish that some remnant thereof, if it can be preserved in an innoxious state, should be preserved in the College and identified as a portion of my remains. I should also wish, that if any of my friends should desire to have a remnant of my said body, they should be at liberty to do so."

The document was duly executed and attested by an eminent firm of solicitors. It is dated September 20th, 1876. The President having been requested to accept the trust, the proceedings were duly reported to the Council on the 19th instant for confirmation.

THE CONCEALMENT OF BODIES.

ON Monday, Mr. Humphreys, Coroner for the Eastern Division of Middlesex, concluded an inquiry (which had been twice adjourned) on the body of an infant discovered in a coffin concealed in a cellar at No. 70, Bethnal Green Road. The premises had for many years been in the occupation of Mr. S. W. Burridge, an undertaker; and he gave up possession in September to a Mr. Miller. During the execution of alterations, the workmen found a quantity of bones, which were placed in heaps, and, it is supposed, sold by the men. A Mr. Seir, of Aclater Street, found the coffin containing the body of the child (the subject of the inquiry), and gave it to the police. Mr. Bate, surgeon, examined the body, which was that of a well-nourished male child; but he could not form an opinion as to how long it had been dead. The explanation of Mr. Burridge was, that "he had received the body of a male child for interment on the 11th or 12th ult. The mother was a Mrs. Smith, and the nurse brought the certificate of death on the 13th. He did not know the doctor who gave it, but believed he lived in Hackney Road." He produced a receipt from the clerk of the Victoria Park Cemetery for the intended interment of the child, and this bore date October

4th. He said he had repeatedly asked the men at work at the shop to look for the coffin containing the deceased; but they said they had not seen it. He last saw the body on a shelf in the shop. This statement was flatly contradicted by three witnesses. At the adjourned inquest on Monday, Mrs. Smith, wife of Robert Smith, a carver, said that she lived at No. 8, Old Nichol Street, Bethnal Green, and was confined on September 11th of twins, one of which was either still-born or died shortly after its birth. Mr. Burridge was the undertaker engaged, and 4s. 6d. was paid as burial-fees. The body, when removed, was partially dressed. She believed that the socks produced were those of the child wore, and she was under the impression that the body was buried on the 13th. This statement was corroborated by Harriet Beecroft, the nurse. The coroner informed the jury that he had been to the cemetery office and examined the books; and it appeared that on October 4th, when the body was discovered, Burridge had gone to the cemetery, paid the fees, and obtained a certificate. Mr. Burridge was recalled, and the coroner informed him that the jury considered his conduct highly reprehensible. He had received the body for burial on September 11th, and it remained unburied on October 4th, three weeks afterwards. It was not only a gross neglect of duty, but endangering the lives of the inhabitants. The jury found that the body was that of a still-born child; and that the conduct of Burridge was highly censurable. This case shows clearly that some supervision over the premises of undertakers is required to prevent the repetition of such scandals. We are left in doubt as to who was the medical practitioner who gave the certificate of still-birth or death; and there are no less than thirteen residing in Hackney Road, according to the *Medical Directory*. Again, if the statement were true, that a large quantity of bones were removed and sold by the workmen, why was not this cleared up, or at least inquired into? May they not have been the remains of other children whose burial had been paid for, but not duly performed? We trust that steps will be taken to ensure a proper inquiry in all cases where bones or other remains are found during alteration or removal of any buildings, but more especially if they have been tenanted by undertakers.

THE PORT OF LONDON SANITARY COMMITTEE.

THE half-yearly report of the medical officer of health for the port of London has recently been issued. It is instructive to compare the number and nationality of the vessels inspected with the number and nationality of the patients treated at the Seamen's Hospital, as such a comparison shows that the state of the vessel as reported by the port sanitary authority has much to do with the number of seamen sent to hospital from the different ships. Thus the report states: "It is observed, as a rule, that Dutch vessels are the cleanest and Spanish and Russian vessels are the dirtiest frequenting the port." And we find, on inquiry, that a far larger relative proportion of Russian and Spanish seamen are admitted into the Seamen's Hospital than of Dutch. It appears that ships coming from home and Mediterranean ports are very badly supplied with water, and that "several very bad specimens have been found; some actually stinking of sulphuretted hydrogen". So active, however, have the sanitary officers been in this matter of late, that very few cases, comparatively speaking, are now met with. A total of 2,460 vessels of all descriptions have been visited and examined. The work of disinfecting the clothing of seamen dying abroad of some infectious or contagious disease is now much facilitated, owing to the action of the Board of Trade, who, at the suggestion of the sanitary authority, have directed that, whenever such effects of deceased seamen are sent home, a special notice should be enclosed to the shipping master at the port of arrival. By this means, the necessary fumigation is completed without any delay or obstruction to commercial interests. Another satisfactory feature is the healthy state of the boys on board the training ships on the river, the sanitary condition of which at the present time is reported as "eminently satisfactory". We are glad to find that the authorities of the training-ship *Worcester* have fitted up a small hospital on shore, in accordance with the sug-

gestions made by us some months ago. The report, in speaking of this little hospital, says: "All cases of illness can now be removed immediately, thus diminishing the risk of contagion and placing the patient in all cases under the most favourable conditions for a speedy recovery." It would be well if every other training-ship had a similar hospital on shore in connection with it, as, until this necessary sanitary precaution is taken, the managers will continue to be unable to effectually grapple with an outbreak of fever or other infectious disease. The present is a favourable time for the managers of these ships to take the necessary steps to provide hospital accommodation on shore, as the recent typhoid epidemic has disappeared and all are at present vacant. Will they not avail themselves of so excellent an opportunity?

INFRINGING THE MEDICAL ACT.

MR. KAHN of Sidmouth Street, Gray's Inn Road, was last week summoned for falsely pretending to be, and for using the name and title of, "doctor of medicine". Detective Fordham of the E Division proved the case, and stated that when he went to the residence of the defendant he asked for Dr. Kahn, and the defendant saw him and gave him a book. Mr. Ricketts, for the defence, produced a certificate from a College in the United States, showing that the defendant was a qualified man in that country, and he contended that, as the defendant had on his door "Dr. Kahn, U.S.", he had not infringed the provisions of the Medical Act. Mr. Cooke said he thought this was a proper prosecution, and ordered the defendant to pay a fine of £5.

A SURGEON'S CLAIM.

AT the Birkenhead County Court, before Mr. W. Wynne Ffoulkes, Judge, Mr. Matthew Jennett, a surgeon of Birkenhead, claimed a guinea from Arthur Doherty of Cathcart Street. The plaintiff said the case was one of interest to the medical profession. The defendant's wife, being about a month from her confinement, engaged the plaintiff to attend her, but when she was confined did not require or demand his services. The defendant's wife said the agreement was a conditional one; that the doctor was only to be called in if wanted; that she was confined, and had the services of a neighbour, and did not need a doctor at all. His Honour felt some doubt as to the power of a married woman to pledge her husband's credit for medical attendance, except in the case of absolute illness; and, there being no proof of damage by the plaintiff, non-suited him.

RECENT URBAN MORTALITY.

DURING last week, 5,675 births and 2,945 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 19 deaths annually in every 1,000 persons living. The annual death-rate was 18 per 1,000 in Edinburgh and Glasgow, and 19 in Dublin. The annual rates of mortality per 1,000 in the twenty English towns were as follows: Birmingham, 14; Bradford, 15; Newcastle-upon-Tyne, Hull, and Sunderland, 17; Brighton, Bristol, and Wolverhampton, 18; London and Sheffield, 19; Plymouth, 20; Liverpool, Leeds, and Portsmouth, 21; Leicester, 22; Norwich, Manchester, and Nottingham, 23; Oldham, 24; and Salford, 29. The annual death-rate from the seven principal zymotic diseases averaged 2.9 per 1,000 in the twenty towns, and ranged from 1.6 and 1.7 in Brighton and Sheffield, to 7.5 and 8.3 in Portsmouth and Salford. Thirteen deaths were referred to scarlet fever in Portsmouth. Small-pox caused 8 more deaths in Salford, 7 in Liverpool, and 16 in London. In London, 2,358 births and 1,257 deaths were registered. The births exceeded by 20, whereas the deaths were 163 below, the average of the week. The 1,257 deaths included 16 from small-pox, 7 from measles, 57 from scarlet fever, 8 from diphtheria, 14 from whooping-cough, 38 from different forms of fever, and 34 from diarrhoea; thus, to the seven principal diseases of the zymotic class, 174 deaths were referred, against 171 and 170 in the two preceding weeks. These 174 deaths were 102 below the corrected average number of the week, and were equal to an annual rate of 2.6

per 1,000; this zymotic rate ranged from 1.5 in the central, to 3.6 in the south groups of districts. The deaths referred to each of these seven zymotic diseases, except small-pox, were below the corrected average. The 57 fatal cases of scarlet fever corresponded with the number in the preceding week. All the 7 deaths from measles were returned in the east and south groups of districts. Two fatal cases of diphtheria occurred in Islington. The 38 deaths referred to fever exceeded those returned in any week since January 1875, but were 5 below the corrected average number for the corresponding week in the last ten years; 6 were certified as typhus, 25 as enteric, and 6 as simple continued fever. The Asylum District Fever and Small-Pox Hospitals at Homerton and Stockwell (which are certified for 576 beds) contained 392 patients on the 14th instant, of which 76 were under treatment for fever, 124 for scarlet fever, and 175 for small-pox. The London Fever Hospital contained 60 patients on Saturday last (against 69 at the end of the previous week), including 44 cases of scarlet fever, and 15 of enteric fever. In greater London, 2,799 births and 1,468 deaths were registered, equal to annual rates of 34.1 and 17.9 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 13.8 and 1.8 per 1,000 respectively, against 18.8 and 2.6 in inner London. At Greenwich, the mean reading of the barometer last week was 29.45 inches. The mean temperature of the air was 57.3 degs., or 6 degs. above the average of the week. Rain fell on five days of the week to the aggregate amount of 0.99 of an inch.

MIDLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

It is proposed to hold, during the ensuing winter months, a short series of evening meetings of members of the Branch, for the reading and discussion of papers, etc., on subjects of professional interest. The first meeting will take place on Friday evening, November 3rd, at half-past seven o'clock, at the house of Mr. White, Oxford Street, Nottingham (the President of the Branch), when a paper on Hospital Sanitation will be read by Dr. Marshall, Resident Surgeon of the Nottingham General Hospital. Coffee at 7.30; paper at 8.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A MEETING will be held at the Town Hall, Selby, at 2 P.M., on Wednesday, October 25th, 1876; at which the following general business will be transacted: 1. Discussion on paper read by E. B. Hicks, Esq., at the last meeting, on Sanitary Reform from a rural point of view. 2. Paper by T. Britton, M.D., the History of an outbreak of Enteric Fever. 3. Paper by G. Goldie, Esq., What has Sanitation done for the promotion of public health and prevention of disease in Leeds during the past decade? 4. Paper by H. F. Parsons, M.D., on the Reduction of Mortality effected by Sanitary Improvements in Selby.

MR. RUSSELL GURNEY'S BILL.

THE *Dublin Medical Press* of this week has the following announcement:—"The first fruits of Mr. Russell Gurney's Bill of last session, which afforded all licensing bodies the option of admitting women to their degrees, if they see fit, have been already reaped, and we may look upon the women doctors' controversy as finally settled by the recent decision of the College of Physicians of Dublin. The Fellows of that body have deliberately determined to admit Miss Edith Pechey to the examination for the L.K.Q.C.P.I., and have thus thrown open the portals of the profession to all comers, whether they be "persons" of the male or female sex. However pregnant of results this decision may be, it does not seem to us that any other conclusion was possible, and we expect to see a similar ingress allowed to the ladies by all other bodies. The Queen's University, it is anticipated, will be the next to follow suit, and, these fortresses having surrendered at discretion, it is impossible that others can long sustain the siege. The only barrier now across the path of the lady doctors is the difficulty of producing the same hospital, lecture, and dissection certificates as are required from male students, but this they will, no doubt, readily surmount

when the schools understand that their status is recognised by the colleges. We congratulate our fair *conscours* on their success, for, though we are ungallant enough to entertain doubts of their ultimate position as practitioners, we deprecate strongly the exercise of any exclusiveness towards them. They are certainly entitled to "a clear stage and no favour" both as students and as doctors, and, if they have the energy or talent to stand aside male competitors, they are entitled to our best wishes."

SMALL-POX IN THE METROPOLIS.

ON Saturday last, a special meeting of the managers of the Metropolitan District Asylums was held at Spring Gardens, for the purpose of receiving and considering a communication from the Local Government Board calling upon the managers to make arrangements as soon as possible for the removal of imbeciles from Hampstead to the Leavesden and Caterham Asylums, with a view of making the hospital at that place available for the reception of small-pox patients; Dr. Brewer presided. Mr. W. F. Jebb (the Secretary) read a communication from the Local Government Board to the effect that there was no alternative, but that preparations should be made at once to make the building at Hampstead available for small-pox patients. The letter further stated that the Board trusted that the completion of the buildings on the Deptford site would be hastened so far as practicable, in order to obviate the necessity of so large a number of patients being placed in Hampstead as on the occasion of the previous epidemic. A letter was also read from Mr. Shaw Stewart, Chairman of the Stockwell Small-pox and Fever Hospitals Committee, pointing out that the time had now arrived when the Hampstead Hospital must resort to its original use. Dr. Griffiths moved, and Mr. Sarsen seconded, a resolution in accordance with the suggestion of the Local Government Board, which, after some discussion, was agreed to.

DEATHS FROM SMALL-POX IN LONDON.

THE Registrar-General states that the fatal cases of small-pox, which had been 15 and 11 in the two previous weeks, rose to 16 last week, of which 1 was recorded in the West, 7 in the North, and 8 in the South groups of Districts; 1 occurred in Notting Hill, 1 in Pancras, 5 in Islington, 1 in Stepney, 4 in Southwark, 2 in Walworth, 1 in Lambeth, and 1 in Lewisham. Of these fatal cases, 6 were certified as unvaccinated, 5 as vaccinated, and in the 5 other cases the medical certificates of the cause of death did not furnish any information relative to vaccination. The 5 deaths from small-pox, after vaccination, were all of adults, who had been vaccinated in infancy, but not one of whom was stated to have been revaccinated. Only 5 of the 16 deaths from small-pox last week were recorded in the Small-pox Hospitals; of the 11 other cases, 9 occurred among the working classes living under circumstances rendering isolation practically impossible. The two Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell contained 175 patients on Saturday last, against numbers increasing steadily from 72 to 153 in the five preceding weeks.

DEATH FROM SULPHURIC ETHER.

THE *Boston Medical Journal* gives a brief résumé of the facts of "the Fisher case"; recently referred to; where death occurred during the administration of ether. The patient, a young school-teacher, had suffered for two years or more from dysmenorrhoea, and had been treated by a number of physicians without relief. A few months since, she placed herself under the care of Dr. Sinclair, who recommended an incision of the os, with the hope of thus effectually relieving a painful and obstinate affection. The operation was postponed until the summer vacation, when the patient would be able to give a proper amount of time to convalescence. Accordingly, early in July, the patient was seen again, but was advised to wait until the approaching catamenia had passed. They having ceased on the 15th, the operation was performed at the private hospital of Mrs. Ware; on the 19th ether was administered, and the patient was placed in Sims' position, the ether towel now being intrusted to a female attendant. Dr. Vogel,

who assisted Dr. Sinclair at the operation, felt the pulse soon after the operation had been begun, and found that it had ceased to beat. Breathing had ceased also, and in spite of all efforts made, the patient could not be resuscitated. The autopsy, performed by Dr. Treadwell, showed, in addition to Bright's disease, a chronic pleurisy on one side of the chest, and an engorgement of the pulmonary artery, indicating that death resulted from asphyxia. The testimony on the condition of the ovaries and uterus pointed to a miscarriage at some time previous to the operation. The jury found "that the said Clara T. Fisher came to her death on Wednesday, July 19th, 1876, between the hours of 11 and 12 o'clock a.m., at No. 4, Ferdinand Street, in Boston, by reason of suffocation, caused by the administration of sulphuric ether for a simple surgical operation, under the direction of Dr. A. D. Sinclair, assisted by Dr. Frederick W. Vogel; and the jury further find that, in their opinion, there was a lack of caution in said administration of ether, in not allowing a due quantity of atmospheric air to pass to the lungs of the patient during etherisation; and the jury are also of the opinion that there was a too hasty abandonment of the means for the resuscitation of the patient, and that the diseased condition of the patient may have contributed, in some slight degree, to her death."—The *Boston Journal* remarks: "The great superiority of ether over chloroform in point of safety has, we think, engendered among many physicians a certain want of appreciation of the amount of care necessary to be employed in the use of this, as indeed of any, powerful agent. A feeling of too great security, followed by the inevitable calamity, frequently places the blame where it is undeserved. It is not the individual nor the agent, but custom, which is at fault. With precautions such as should always be taken, and which, undoubtedly, a large number of physicians think unnecessary, the warning signals will always be displayed in ample time to avert impending danger."

THE TREATMENT OF DIABETES AT NEUENAHN.

In a pamphlet just published, Dr. Richard Schmitz relates the results of 205 cases of diabetes which he has treated at Neuenahr. It appears that, in ninety-one cases, all traces of sugar and all symptoms of illness had disappeared when they left his care. These cases included many in which the amount of sugar reached 5 and 6 per cent., and many in which the disease had lasted for years, and had not previously answered to treatment. There is a deficiency of detail in the account of the subsequent history of these successful cases; but Dr. Schmitz says that, if this improvement have not continued in all, it has in most; and that he can report many cases where three, four, and even five years have elapsed since the treatment and traces of sugar can only be found in the urine after a distinct indiscretion in diet. In a further number of ninety cases, there was a very large reduction of the amount of sugar and a complete disappearance of all subjective symptoms: an improvement which in most cases continued. In twenty-four cases, the result of the treatment was unsatisfactory. Of these, two were scarcely a week under treatment; and in the rest the disease had either already arrived at its last stage or was accompanied by other and incurable diseases, such as Bright's disease, tuberculosis of the lungs, brain-disease, heart-disease.

QUARANTINE AT GIBRALTAR.

IN consequence of the recent occurrence of a case of cholera on board a man-of-war lying at Gibraltar, it became necessary to send the vessel to sea at considerable expense and risk to those on board. This has, we understand, brought to the notice of the Colonial Office the desirability of establishing a quarantine hulk or lazaretto at Gibraltar, and the matter is now under consideration.

UNQUALIFIED MEDICAL PRACTITIONERS.

DR. THOMAS held a long inquiry on the 13th instant, at the Orange Tree, Euston Road, relative to the death of Sarah Saunders, aged 54, a widow, who resided at 10, George Street, Euston Road. The case excited much interest from the fact that deceased had been attended

and prescribed for by a herbalist who was not qualified to act as a medical man. An attempt had been made to register the case as a death from bronchitis, and, on the coroner being informed of the case, he ordered a *post mortem* examination of the body to be made, to ascertain whether the death was really from that disease. The evidence of John Saunders, son of deceased, showed that his mother had suffered; as he was informed, from asthma, and more recently from bronchitis. She always sent for Mr. Foster, a herbalist, when worse, and refused to have a proper medical man. A few days before death, deceased was confined to her bed with her old complaint, and he went again at her request to Mr. Foster, who sent some medicine and promised to call and see her. On Tuesday last, she was much worse, and he again went for Mr. Foster, who returned with him to see deceased, and ordered the medicine to be continued. On Wednesday, deceased was found dead in bed.—Mrs. Robb, a neighbour, said she advised deceased three weeks ago to have a proper doctor, but she refused.—Eirid Foster, of 5, Little North Street, Grove Road, St. John's Wood, said he was a medical herbalist, and had the degree of doctor of medicine of Philadelphia, and had acted as assistant to surgeons. On Tuesday evening, he was called in by the son, and ordered deceased to take the medicine he had supplied, and he had hoped to see her get better. He had attended her formerly for disease of the lungs. He believed she was suffering from asthma and bronchitis.—Dr. Barles of Somers Town, who had made an independent *post mortem* examination, said the cause of death was syncope from obstruction in the pulmonary artery by a fibrous clot whilst suffering from consumptive lungs. The death was not from asthma or bronchitis. Deceased, however, would not have lived long.—The coroner observed that the degree from Philadelphia was not available in this country. Persons could not practise and be entrusted with the lives of the people without their having gone through a course of study and examination in proof that they possessed at least the minimum amount of knowledge required by the law. An attempt had been made to register this as a death from bronchitis, whereas the law required that, by a careful diagnosis of disease, the deaths should be carefully and correctly registered to ensure the value of the statistics of the country. This might have been a very serious case for Mr. Foster, but the medicine did not appear to have caused the death.—The coroner cautioned Mr. Foster, and a verdict as per medical evidence was agreed to.

SCOTLAND.

SUICIDE OF A SURGEON.

A SUICIDE of unusual character was committed on the 9th instant at Pathhead, Ford, by a young surgeon, Alexander Martin, about twenty-one years of age, who had for some time back been acting as assistant to Dr. Craig of that place. He was said to have been in depressed spirits for some time before, but no reason was assigned for it. Dr. Craig had accordingly advised him to take a few days' holiday. About midnight on the 8th, Dr. Craig was called out to see a patient, and, before going, went into Martin's room. He was then in bed, and spoke in answer to questions. On returning about three o'clock, Dr. Craig again went into Martin's room, and, being struck with his appearance, put one hand under the bedclothes, and found, on withdrawing it, that it was smeared with blood. On further examination, it was found that he had cut the right femoral artery with a pocket-knife, and had bled to death. The knife was found lying by the side of the body.

THE UNIVERSITY OF EDINBURGH.

AT a recent meeting of the Edinburgh University Court, the Principal reported that he had received official intimation of the death of Professor Laycock. It was ordered that intimation of the vacancy of the Chair of the Practice of Physic should be made to the patrons. The appointment of Dr. D. J. Cunningham as the Assistant to the Professor

of Anatomy was approved. Dr. David Foulis was recognised as a Lecturer on Pathology in Glasgow, whose lectures should qualify for graduation in Medicine in the University, in terms of Ordinance No. 8. W. J. Fleming, M.B., was recognised as a Lecturer on Physiology in Glasgow, whose lectures should qualify for graduation in Medicine in the University, in terms of the same ordinance.

ROYAL INFIRMARY OF EDINBURGH.

DURING the course of the past twelve months, several handsome legacies and donations have been made to the Royal Infirmary of Edinburgh, amounting in all to over £14,000. This sum includes: from Miss Jane Robertson, £3,500 to the Infirmary and £1,650 to the Convalescent House; from Miss Millar of Farnoch, a further sum of £1,100; from R. Marshall, £450; from P. Stead, Helensburgh, £900; T. B. Campbell, for the Infirmary £500, and for the Convalescent Houses, £250; from Thomas Allen of Bushellik, a further sum of £3,000 from his estate; and others of smaller amount. The managers, while deeply grateful for these legacies, desire to state that a very considerable sum of money will still be required for the completion of the new Infirmary.

ABERDEEN UNIVERSITY.

At a recent meeting of the Aberdeen University Court, it was resolved to postpone the election of Examiners in Medicine until candidates had been invited to apply in reference to the special subjects embraced in the medical examinations. James Simpson, M.B., was appointed Assistant to the Professor of Anatomy; Alexander D. Davidson, M.D., Assistant to the Professor of Materia Medica; and Francis Ogston, jun., M.D., Assistant to the Professor of Medical Jurisprudence.

THE LATE DR. T. S. WRIGHT.

WE regret to record the death of Dr. T. Strehill Wright, of Northumberland Street, Edinburgh, which occurred on Friday last. Dr. Wright was a man of high scientific acquirements, and made many valuable contributions to various scientific journals, more especially in the domains of natural philosophy and natural history. He was an examiner at the Royal College of Physicians, and was formerly one of the physicians to the Royal Infirmary.

CLASS OF PRACTICAL PATHOLOGY.

A CORRESPONDENT in Edinburgh writes to us:—A long felt want in the University of Edinburgh has been, during the past winter and summer sessions, supplied by the inauguration of classes for the practical teaching of pathology. Since the appointment of the present distinguished occupant of the chair—Professor Sanders—pathology has been well taught, and illustrated both by naked-eye and microscopic preparations; but, from the necessarily short time each member of a large class could examine any given specimen, the really practical teaching was limited. During the last winter session, Professor Sanders, with a laudable desire to promote the thorough teaching of his science, instituted practical classes for the teaching of pathology. To conduct these classes, he was fortunate enough to secure the services of Dr. D. J. Hamilton, the Astley Cooper prizeman of two years ago. Conducted by this gentleman, and under the supervision of Professor Sanders, these classes have proved a complete success, and now share with the practical physiology classes in the popularity of the students. A part of the old Natural History Museum, with a good northern light, has been fitted up as a laboratory, and serves the purpose well. The class is divided into workable sections of about thirty students. Each student is provided with a Hartnack microscope and a complete set of microscopic reagents and staining fluids. One day a week is set apart for naked-eye demonstrations, and the remaining days of the week are devoted to a microscopic examination of the morbid tissues, the naked-eye appearances of which have been already demonstrated. Sections having been previously made, each student receives a section, which, if necessary, he stains, and then mounts. The lesion is now explained; and each, with the section under his

microscope, examines the different appearances to which reference is made. The sections are mounted in preservative fluids, so that each member of the class has a complete set of microscopic preparations of the most frequent pathological lesions. In this way, a more accurate knowledge of morbid processes is attained than by lecturing or book-reading. Dr. Hamilton, having studied in France and Germany, is enabled to impart the most recent continental methods, and, by continued reading, is able to keep the class *au courant* with continental investigation. Students and graduates are now, in the University of Edinburgh, permitted to obtain the pathological instruction for which they formerly had to resort to Vienna, Berlin, Munich, or Paris.

THE SEWAGE OF TOWNS.

IT is in contemplation to effect certain improvements in the water and sewage arrangements of the city of Aberdeen, and a Town Council meeting was held last week to consider the subject. One of the schemes in view is the utilisation of the sewage of the town for purposes of irrigation. The sewage of the more low-lying parts discharges itself into the harbour in the meantime; and the proposal is to pump it up, so that it may be used for irrigation purposes, along with the sewage from the higher lands, which is at present utilised on the Spittal Irrigation Farm. On this subject, a report was read from the burgh surveyor, in which two alternative schemes were proposed, the one costing over £30,000, and involving an annual outlay for pumping of £1,000; the other being less in gross amount, and only requiring an annual expenditure of £500. Six hundred and twenty-four acres of land will be required to fully utilise the sewage. The most expensive scheme was recommended for adoption, as "the best and most satisfactory under all the circumstances". A second scheme is the connecting of Rosemount, a large and important suburb, with the city by means of several new streets. The matter was adjourned for further consideration. All, however, were agreed that it was advisable to obtain from Parliament a new Improvement Act in the course of next session.

IRELAND.

THE Lord-Lieutenant has appointed Dr. Owens (Lord Mayor) a Governor of the Richmond Lunatic Asylum.

A RESOLUTION was unanimously carried at a meeting of the guardians of the South Dublin Union, held last week, that where stimulants were ordered by the medical officers of the workhouse not in accordance with law, that is, to parties not being inmates in the sick and lunatic wards, those ordering should be surcharged the amount. The resolution appears to be absurd; if the guardians do not choose to supply alcohol in any given case, they have the power to withhold it. On the other hand, the medical man acquits his conscience by prescribing what he thinks necessary. If the guardians find that anything is supplied against their order, they can discuss and apply the remedy as against their purveyor; but they certainly have no power, and of course they have no right, to "surcharge" the medical practitioner, whose prescriptions represent only what he thinks necessary. The resolution is, therefore, illogical, absurd, and illegal.

SMALL-POX IN DUBLIN.

THERE are at present two cases of small-pox in the Mater Misericordiae Hospital; one a man who brought the disease from Manchester; and the second the nurse who attended him in his illness; both are doing well, and are almost convalescent.

MILITIA SURGEONS.

ON October 9th, a meeting of the surgeons of the Irish militia regiments was held at the College of Surgeons, relative to the Warrant of July 19th, 1876, respecting the future status, pay, and emoluments of militia surgeons. It having been stated that English militia surgeons propose appointing a deputation to confer with the Secretary of State

for War in reference to the new Warrant, it was arranged that no steps should be taken by the Irish militia surgeons to be placed on the departmental list until the result of the conference of the English deputation was known. The English deputation will be accompanied by three members from the Irish militia surgeons.

WATER-SUPPLY OF WEXFORD.

At a special meeting of the Corporation, held on October 10th, it was resolved that the necessary steps should be taken for applying to the Board of Works for a loan of £2,000 for the erection of the new water-works for this town.

QUEEN'S UNIVERSITY IN IRELAND.

At the annual meeting of Convocation, held in Dublin Castle on October 12th, the report of the Annual Committee for the year 1875-76 was read, from which we learn that a deputation from the members of Convocation had an interview last January with the Chief Secretary for Ireland, when the subjects brought under his notice were:—The representation of the University in Parliament; intermediate education in Ireland; University buildings; the inadequacy of the salaries and superannuation allowances of the professors and other officers of the University. On the subject of representation in Parliament, which the Committee consider most essential to the permanent welfare of the institution, and the question of intermediate education, but little encouragement was given by Sir Michael Hicks-Beach; but, with regard to the remaining matters, the Chief Secretary thought that the University should have suitable buildings unconnected with the Castle, and stated that he had in contemplation an arrangement for the purpose, which he hoped soon to be able to carry into effect; whilst the salaries and superannuation allowances of the professors would be brought under the consideration of a Commission, who, we believe, have suggested an increase of some £4,000 towards these objects.—The period for which Dr. Mac Cormac of London, who was elected three years since as a representative in the Senate, being expired, he was re-elected.—The degrees in Medicine and Surgery were conferred on October 13th, by the Duke of Leinster, Chancellor of the University; the honorary degree of Doctor of Medicine being bestowed upon Fleet-Surgeon Eustace of the Royal Navy, who highly distinguished himself in his care of the troops placed under his charge after the Ashantee war.

HEALTH OF DUBLIN: QUARTERLY REPORT.

DURING the quarter ending September 30th, the number of births registered in the Dublin district amounted to 2,229, being equal to an annual ratio of 1 in 35.3, or 28.3 in every 1,000 of the population; and the deaths registered, to 1,603, affording an annual ratio of 1 in 49.1, or 20.4 per 1,000; and, omitting the deaths (55) of persons admitted into public institutions from localities outside the district, the rate for last quarter was 19.7 per 1,000. The average number of deaths in the third quarter of the previous ten years was 1,745. The deaths from zymotic diseases amounted to 335, or 20.9 per cent. of the total deaths, and equal to an annual rate of 4.3 per 1,000 of the population; in the corresponding quarter of last year, zymotic affections proved fatal in 396 instances. Diarrhoea caused 132 deaths; fever, 52; scarlet fever, 42; whooping-cough, 20; measles, 12; croup, 11; diphtheria, 7; and small-pox, 1. To convulsions, 137 deaths were ascribed; bronchitis was the cause of 133 deaths; pneumonia, 40; heart-disease killed 88 persons; liver-disease, 21; apoplexy, 26; paralysis, 32; whilst 189 fell victims to phthisis, 33 to hydrocephalus, 28 to mesenteric disease, 41 to cancer, and 20 to dropsy. The mean of the mean weekly temperature for the quarter was 58.6; and the rainfall during thirteen weeks measured 7.064 inches.

THE Manchester papers announce that Mrs. Crace Calvert has presented to Owens College the sum of £700 for the foundation of a Scholarship in Chemistry, in memory of her late husband, Dr. Crace Calvert, F.R.S. The Scholarship will be of the annual value of £25, and will be competed for by members of the evening classes.

ROYAL COLLEGE OF PHYSICIANS.

MEETING OF THE FELLOWS.

Sir William Gull and Dr. George Johnson.—Conjoint Scheme of Examination.—Admission of Women.—Psychological Medicine.

At the meeting of the Fellows of the College, on Monday last, communications were read from the Colonial and Foreign Offices. The one on the treatment of leprosy, which was referred to the Leprosy Committee, reappointed for the occasion. The other, relating to the recent outbreak of disease in Mesopotamia, was laid on the table, and printed copies were placed at the disposal of the Fellows.

The minutes of the Council and Censors' Board were read; and from the latter, it appeared that the Censors had held two meetings to consider the letter from Sir William Gull and reply from Dr. G. Johnson, relating to their evidence at the Bravo inquiry; and they had arrived at a decision on the subject, which had been communicated to Sir William Gull, and a copy of which had been sent to Dr. George Johnson.

Considerable interest was manifested at this brief intimation; and it was expected by many that some one of the Fellows would ask for further information as to the nature of the reference and the decision, and the expectation had brought a crowded meeting. Although, however, the propriety of doing so had been pretty generally admitted, no Fellow put any question.

We subjoin fuller information on the subject.

A letter was read from Sir James Paget, the Chairman of the Conference Committee on the Conjoint Scheme, submitting, first, that committees of reference should in future be constituted of two members from each of the Corporations and Universities in England mentioned in Schedule (A) of the Medical Act; and, secondly, that if such constitution were approved by the bodies generally, the selection of examiners should be in that committee; but the appointment of such examiners should be vested in the three medical bodies only. The College unanimously agreed to the suggestions of the letter.

We may here take the opportunity of adding that the like proposal was unanimously approved on Wednesday by the Senate of the University of London, with which body, indeed, it originated.

A third proposal was submitted to both bodies with regard to the admission of females to examination by the Conjoint Board, thus admitting ladies to a licence to practise without membership of a College. The consideration of this proposal was postponed.

The following resolution was proposed by the Registrar.

"That it be referred to the Council to consider, and report to the College, whether it is desirable to institute a special board of examiners to conduct an examination on psychological medicine; and if so, under what conditions such an examination should be conducted, and what form of certificate should be granted to those who have passed such examination."

Dr. Bucknill proposed that the resolution should be altered, with the view of indicating the desire of the College to increase the knowledge of mental disease among all its members, rather than the intention to educate a class of specialists; and he submitted the following modification of it for Dr. Pitman's consideration.

"That it be referred to the Council to consider and report to the College, upon the best manner whereby an increased knowledge of psychological medicine may be required from all the candidates for the qualifications of the College."

The Registrar at once asked leave to withdraw his own resolution in favour of the one submitted by Dr. Bucknill; and upon this a very interesting debate took place, the arguments resting, on one side, upon the undesirability of specialisms, and, on the other, upon the necessity which the law and the accidents of medical practice imposed upon all medical men to have a competent knowledge of mental disease.

Upon the question being put, Dr. Bucknill's resolution was declared to be carried by a large majority.

SIR WILLIAM GULL AND DR. GEORGE JOHNSON.

THE Censors of the London College of Physicians have arrived at, and communicated to the parties, their decision on the matters referred to them by Sir William Gull in respect to the conflict of evidence of himself and Dr. George Johnson at the Bravo inquiry.

Their conclusions are, we understand, in substance, that the perusal of Sir William Gull's evidence was calculated to lead ordinary reader:

to conclusions prejudicial to the position of Dr. Johnson and the other medical attendants of Mr. Bravo; and that such portions of his evidence were, therefore, "very objectionable"; although they entertain no doubt that there was no intention on his part to disparage the professional character of Dr. Johnson and his medical colleagues.

They refer to the by-law of the College, which we quoted at the time as governing the rules of professional conduct; viz.:

"If two or more physicians, Fellows or Members of the College, be called in consultation, they shall confer together with the utmost forbearance, and no one of them shall prescribe, or even suggest, in the presence of the patient or the patient's attendants, any opinion as to what ought to be done, before the method of treatment has been determined by the consultation of himself and his colleague; and the physician first called to a patient shall, unless he decline doing so, write the prescription for the medicines agreed upon, and shall sign the initials of the physician or physicians called in consultation, he placing his own initials the last. If any difference of opinion should arise, the greatest moderation and forbearance shall be observed; and the fact of such difference of opinion shall be communicated to the patient or the attendants by the physician who was first in attendance, in order that it may distress the patient and his friends as little as possible."

They observe that the infringement of the spirit at least of this rule by Sir William Gull on this occasion was "disastrous," and the consequences which have arisen from such infringement prove the great importance of a rigid observance of it by physicians in consultation.

Believing that Sir William Gull did not anticipate the probable interpretation of the parts of his evidence referred to, they regret that Dr. Johnson did not, before his second appearance in court, give to Sir William Gull the opportunity of publicly disavowing the interpretation given to his evidence. They consider that Dr. Johnson's further evidence showed considerable warmth of feeling, and might naturally give offence to Sir William Gull; but they are of opinion that, in giving his further evidence, Dr. George Johnson was actuated by the desire in the interests of justice as well as in self-defence "to correct and supplement" Sir Wm. Gull's evidence. We have only to observe in regard to this decision, that while its spirit is in every way worthy of the College, and fully maintains the principles of professional action by which physicians ought always to be strictly guided, yet it is fraught with a logical error arising out of the peculiar manner in which the issue was submitted to the Censors. They do not seem to have had before them anything more than the letter of Sir William Gull and the rejoinder of Dr. George Johnson; and their decision savours of the incompleteness of their information. As a matter of fact, although Sir William Gull's statement in evidence implied conduct such as the College justly rebuke, his actual course at the consultation gave no ground of offence, and has never been complained of.

All the medical men in attendance were fully acquainted with the fact that Mr. Bravo was dying of poison. Mr. Bravo himself was well aware of it, and had been questioned by them so often and so much that, as the butler gave in evidence, he had said with impatience to the doctors, "If I knew of what poison I was dying, why the devil should I send for you?" There was, therefore, nothing unprofessional or unexpected in Sir William Gull saying to the dying man once more that "he was dying of poison". That which was incorrect in his evidence was his statement to the jury that "he was taken to a man believed to be dying of disease, and found him to be dying of poison"; and thereupon, "on his own responsibility and without consulting with his colleagues", told him he was dying of poison. This little bit of self-glorification, founded, as all the mass of evidence conclusively shows, upon a defective memory, gave just ground of complaint; but it was his evidence at the inquest, and not his conduct at the consultation, which was impugned by Dr. Johnson. The Censors, however, have impaled Sir William upon both horns of the dilemma, and have censured him for his conduct at the consultation, of which they take his own version; while they hold also that his evidence needed to be corrected and supplemented in relation to it. Moreover, inasmuch as all Mr. Lewis's efforts to jog Sir William Gull's memory failed in cross-examination, we doubt whether the Censors are right in thinking that a satisfactory result could have been attained by a private communication of Dr. Johnson to Sir W. Gull, or by any other means than that adopted—the re-examination of Dr. Johnson at the same court in which Sir William Gull's evidence had been given, and in which the inquiry was still being continued. This was the more necessary because Sir William Gull's evidence tended directly to support the theory of suicide.

We are very glad to learn that, since the decision of the Censors was communicated to Sir William Gull, he has addressed to Dr. Johnson a letter expressive of a desire to resume mutually friendly sentiments and relations, to which Dr. Johnson has replied in the same spirit.

ROYAL COLLEGE OF SURGEONS.

At a meeting of the Council on the 19th instant, a report from the Museum Committee was received announcing that Dr. Thomas Beville Peacock of Finsbury Circus, Consulting Physician to St. Thomas's Hospital, and lately one of the Examiners in Medicine to the College, had presented an extremely valuable collection of 176 pathological specimens, mostly illustrating malformations and diseases of the heart, all in excellent condition, and accompanied by a manuscript catalogue, together with references to the publications in which very many of them have been described. In accepting this fine addition to the Hunterian collection, the Council passed a special vote of thanks to Dr. Peacock, and a resolution was passed to present him with the gold medal of the College. The following are the dates and the recipients of this rare acknowledgment:

- 1809.—Professor James Wilson.
- 1822.—Mr. James Parkinson.
- 1825.—Mr. Joseph Swan.
- 1834.—Professor George Bennett.
- 1869.—William Lodewyk Crowther.

THE CHAIR OF MEDICINE IN THE UNIVERSITY OF EDINBURGH.

At a meeting of the Curators of the University of Edinburgh, held on Monday, it was resolved to meet on Monday, the 30th instant, for the purpose of electing a successor to the late Professor Laycock. The following gentlemen have become candidates:—Dr. G. W. Balfour, Edinburgh; Professor Gairdner, Glasgow; Dr. D. R. Haldane, Edinburgh; Dr. MacLagan, Dundee; and Dr. T. Grainger Stewart, Edinburgh.

We mentioned last week the strong feeling which is entertained by many eminent persons, and, we believe, in the profession generally, that the appointment of Professor Gairdner to the Chair of Medicine would be one in every way honourable and beneficial to the University, of which he is so distinguished a son. The appointment of Professor Gairdner to his present office in Glasgow was made by the Government of the day after a full investigation of his scientific and medical claims, and solely on the grounds of his high and recognised competency for the office. Those claims are, indeed, recognised not only throughout Great Britain, but wherever the name of British medicine has reached. Since his elevation to this Chair, Dr. Gairdner has increased and strengthened his medical reputation, and has now reached a ripened and mature eminence which would peculiarly fit the occupant of the Chair of Medicine in the first University of Scotland. He has, moreover, acquired claims which cannot be overlooked in the teacher of medicine to the coming race of practitioners. In addition to the scientific movement in the precision of diagnosis of disease in which he has taken part, he has thoroughly imbued himself with that intimate knowledge of the application of the principles of preventive medicine, which must play a more and more important rôle in the duties of the practitioner. Nothing can be more important in the training of students of medicine now than that they should be brought up at the feet of a physician who has fully entered into the spirit of this modern development of medicine; and that they should, like him, learn that air, water, earth, and soil, the influences of hygiene, and the laws of the dissemination of disease must never be absent from the mind of the doctor, but must now more than ever be always present to his mind, influential in his practice, and suggestive of timely utterance by his lips. The complete study which he has given to this aspect of medicine, as well as to its clinical and scientific developments, confers on Professor Gairdner a strong and peculiar claim to the Chair, and would help him to fill it in a manner specially conducive to the complete instruction of the students and to the promotion of the highest interests and reputation of the University as a teaching body.

THE LORD ADVOCATE ON PATENT MEDICINES.

THE Lord Advocate has published a letter on the subject of his views on the Scottish Poor-law Amendment Bill, which is in every respect satisfactory. It appears in our advertisement pages. We have also received a copy of the subjoined letter, referring to another subject of some medical and great public interest, addressed by him to Dr. John Crombie, in reply to a communication from that gentleman.

6, Mount Street, Edinburgh, October 18th, 1876.

MY DEAR SIR,—I have to thank you for your note of the 16th and accompanying pamphlet. I have no hesitation in stating that, if returned to Parliament, I shall cheerfully use any influence I may have towards suppressing the sale of quack medicines. Of the dangers to which the public are at present exposed from that cause I am well aware. Whilst I should, as at present advised, prefer a remedy by which patents may still be granted to inventors of truly useful and wholesome medicines, I would support the total abolition of such patents if their existence cannot be safely continued without affording protection to quack inventions.—I am yours faithfully,

John M. Crombie, Esq. M.D.

W. WATSON.

POISONED DRINKING-WATER.

AN outbreak of typhoid fever, occurring among the residents of the best-built part of the city, having been this week reported from Lincoln, we have ascertained, on investigation, that the facts reported are, substantially, correctly stated, as to the probable causation of the deaths by the use of some popular wells. A further death has to be added to the list of those already published. One of the gentlemen stated to be lying dangerously ill has since died, and two servants sent home from the school are suffering from the disease.

Although continued fever is generally under treatment in Lincoln, of late years the disease has not assumed any serious epidemic form; the deaths being, in 1867, 14; in 1868, 11; in 1869, 23; in 1870, 26; in 1871, 22; in 1872, 11; in 1873, 19; in 1874, 13; in 1875, 10; in 1876 (three-fourths of the year), 8. The disease is not more, but rather less, prevalent than usual at this season of the year.

Public attention has, no doubt, been excited in consequence of the disease appearing in some of the better-class houses of the town.

Lincoln as yet is not provided with any thorough system of drainage. Many of the best houses are compelled to drain into cesspools. The existing sewers mostly discharge themselves into the river Witham, which runs through the centre of the town. The Town Council, after resisting for some time the orders of the Local Government Board to provide proper drainage, are, since the issuing of the mandamus, taking steps to carry out the plans of Mr. Manseigh, the appointed engineer; and have applied to the Local Government Board for sanction to borrow £84,000 for works of sewerage and outfall; and an inquiry into the subject matter of such application was to be held at the Guildhall on the 20th instant.

With regard to water-supply, in 1867, samples of water from two public wells and from the company's main were analysed by Dr. Frankland and Dr. Letheby, who both condemned the well-waters, but differed in opinion as to the company's water. The Town Council published the result of the analyses, but did not stop the supply from the polluted wells, the water from which is still used, and no ill effects have been directly referred thereto; the water which has been reported to have been the cause of the present attacks being from private sources (wells or springs) over which the Town Council have no direct control. The waterworks are now in the hands of the Town Council; and the supply therefrom has been frequently analysed, and not found to be impure. It generally contains from 18 to 24 grains per gallon solids; 2 to 2.5 chlorine; 6 degrees of total hardness; from 0.7 to 0.9 albuminoid ammonia. At the beginning of the present month, after much rain, the analysis made by the medical officer of health was: total solids, 24.5 grains per gallon; chlorine, 2.5 grains per gallon; free ammonia, 0.1 part per million; albuminoid ammonia, .08 part per million; permanent hardness, 2 degrees; total hardness, 7 degrees. The supply, on the whole, is of good average quality.

ASSOCIATION INTELLIGENCE.

STAFFORDSHIRE BRANCH.

THE third annual meeting of this Branch will be held at the Star and Garter Hotel, Victoria Street, Wolverhampton, on Thursday, October 26th, at 2.30 P.M.

An address will be delivered by the President, W. MILLINGTON, Esq., M.D., M.R.C.P. Lond.

Dinner at 5 P.M. precisely. Tickets (exclusive of wine), 10s. 6d. each. Members intending to be present are requested to communicate as soon as possible with the Honorary Secretaries.

VINCENT JACKSON, Wolverhampton.

RALPH GOODALL, Silverdale.

Wolverhampton, October 2nd, 1876.

} Honorary Secretaries.

YORKSHIRE BRANCH.

A MEETING of this Branch will be held at the Royal Hotel, Scarborough, on Wednesday, October 25th, at 2.30 P.M.

After the meeting, the members will dine at the Royal Hotel, at 5.30 P.M. Tickets, 6s. 6d. each.

Gentlemen intending to join the dinner, or to bring forward communications, are requested at once to communicate with the Secretary.

W. PROCTER, M.D., Local Secretary.

York, October 3rd, 1876.

BATH AND BRISTOL BRANCH.

THE first ordinary meeting of the Session will be held at the Royal Hotel, Bristol, on Thursday evening, October 26th, at half-past Seven o'clock: H. F. A. GOODRIDGE, M.D., President.

E. C. BOARD, Clifton.

R. S. FOWLER, Bath.

} Honorary Secretaries.

Clifton, October 2nd, 1876.

SOUTH DEVON AND CORNWALL BRANCH.

THE quarterly meeting of this Branch will be held at Truro, on October 31st, at 3 P.M.

Members having papers to read, or desiring to attend the dinner, must give the Secretary one week's notice. Tickets to dinner, 5s., exclusive of wine.

WM. SQUARE, F.R.C.S., Honorary Secretary.

Plymouth, October 7th, 1876.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Cancer of the Kidney.—Ligature of the Lingual Artery for Epithelioma of the Tongue.—Felt Splints.—Changes at the Hospitals and the Faculty.

SHORTLY before the lamented death of the late Professor Béhier, one of his last clinical lectures at the Hôtel Dieu was on cancer of the kidney. This affection, he premised, was far from common; and its diagnosis was consequently attended with the greatest difficulty. The following is an extract of this very interesting lecture, which I have taken from my notes.

Pain and hæmaturia are the most prominent and constant symptoms of the malady, of which a patient aged 52, who was then lying in the ward, afforded a fair illustration. The pain in this case was the most urgent symptom, as the patient described it as being intolerable. It was a dull pain, deep, continued, with radiations occupying the sacro-lumbar region and the base of the thorax. In some cases, the pain follows the course of the sciatic nerve, and may lead to the supposition that the patient is suffering from simple sciatica. The pain may also be confounded with that emanating from other affections, such as nephritic colic and pyelitis; but what would distinguish one from the other is, that the pain in cancer of the kidney never extends to the testicle; nor is it accompanied by retraction of the spermatic cord and scrotum, as is the case in the affections just noticed. Hæmaturia is another important sign of cancer of the kidney, though, like the pain, it has been found to be occasionally absent; but, when associated with the other signs, such as tumour, cachexia, etc., there can be no doubt as to the nature of the malady, as was proved by the necropsy of the patient under notice. But, as pointed out by the late Dr. Rayer, hæmaturia may be the only sign or symptom present, in which case it would be expedient to distinguish the different forms of hæmorrhage that has its exit in the urethra. When the blood is intimately mixed up with the urine, as it was with the patient, there can be no doubt as to its source, as it is considered the classical sign of renal hæmaturia; but, when the hæmorrhage is from the bladder, the blood is less intimately mixed up with the urine, and the former is frequently found in clots. This, however, may happen in renal hæmaturia, when the blood has remained for any time in the bladder. As for urethral hæmaturia, the diagnosis is, unattended with much difficulty, as it is generally the result of gonorrhœa or traumatism. In this case, the blood escapes by drops from the urethral orifice, and takes place independently of micturition, or it may be mixed up with the first portions of the urine, that which follows being clear. Hæmaturia may be the result of certain other lesions of the kidney, such as that caused by the presence of concretions in that organ, in which case the hæmaturia would be accompanied by other signs peculiar to renal calculus: gravel

and pus in the urine, which is voided with undue frequency, often mixed with blood. The presence of renal calculus is also manifested by pain at the end of the penis, and, above all, by paroxysms of nephritic colic. Cancer of the kidney may be primary or secondary. In the former case, the disease is generally unilateral; in the latter, both the kidneys are affected. As for the nature of the affection, it is generally the encephaloid variety that predominates. Colloid cancer is rare, and the scirrhus variety is still more so. Carcinoma of the kidney is not always limited to the organ affected, but it extends by contiguity to the neighbouring organs.

There is a great lull in medical matters just now; for, although the general holidays are over in Paris, the medical men (I allude here only to those holding official appointments) are still enjoying their annual recess, as their vacation continues to the beginning of November. The doors of the learned societies are closed; and even the Academy of Medicine, which recognises no holiday for its members, is deserted. The hospitals, though as crowded as ever, lack the activity that is observed in the wards during the sessions; for then the physicians and surgeons, with their pupils, are hard at work, and the very patients seem to contribute their share in the movement.

In going through the wards of the Hôtel Dieu about a week ago, in company with an English physician, we were shown a patient, a man aged about 57, who had just been operated on by what is termed a new operation for the cure of epithelioma accompanied with hypertrophy of the tongue. The operation consisted in tying the lingual artery for the ostensible purpose not only of cutting off the supply of blood to the hypertrophied organ, but the morbid elements which conduce to the maintenance of the epithelioma. This theory seems plausible enough, but the results will show whether such an operation was justifiable. I may, however, remark that it was nevertheless urgently called for, as the patient would have died from inanition or suffocation, as he could neither breathe nor swallow, owing to the hypertrophied condition of the tongue. The operation, I should mention, was performed by M. Ledentu, an *agrégé* of the Faculty, who has been acting for Professor Richet during the holidays.—[The operation is not at all a new one, but has repeatedly been performed in this country, especially by Mr. Moore and the surgeons of the Middlesex Hospital, and in France; we believe also especially by M. Demarquay.—Ed. B. M. J.]

It is well known that felt, when moistened with boiling water, possesses the property of becoming softened, so that it may be perfectly adapted to the parts to which it may be applied. When dry, it becomes hard again, and retains the form it had assumed. Taking advantage of this property, M. de Saint-Germain, Surgeon to the Children's Hospital, has employed felt treated in the above manner for the cure of morbus coxae. The limb being previously bandaged with a dry roller, in order to prevent motion, the felt, cut to the shape required and dipped in boiling water, is applied to the limb. The whole is then enveloped with linen steeped in cold water, which has the effect of immediately rendering the felt hard and resistant, and remaining so for a long time. But, as the felt may become softened again by contact with the fluids, M. de Saint-Germain applies over it a coat of ordinary varnish, or that composed of white resin dissolved in ether, which renders the felt impermeable to water. In this way, the patients may even take a bath without running the risk of wetting the felt. M. de Saint-Germain has also applied this method to rheumatic knees, which enabled the patients so treated to walk about without pain, and they rapidly got rid of their rheumatism.

Owing to the death of Professor Béhier, the following changes have taken place in the department of Clinical Medicine of the Faculty of Paris. Professor Sée is appointed to the Hôtel Dieu; Professor Hardy to the Charité; Professor Potain to the Necker Hospital. Professor Leségue remains at the Pitié.

You are aware that it is only within the last two or three years that pathological laboratories have been attached to the different hospitals where clinical lectures are delivered in Paris, where students may be taught to examine microscopically for themselves the various morbid preparations submitted for their study. These laboratories are mostly of a temporary character, and have been, in the hurry, more or less imperfectly fitted up, with the promise that in the course of time, when the finances will admit of it, they will be established on a better footing and be second to none in the world. This promise is being fulfilled, as a new laboratory has been erected on the premises of the Charité Hospital. It is a splendid building, and fitted up with all the requisites for the prosecution of microscopical researches. Important improvements have been effected in the micrographical department of the great Anatomical School of Clamont; and the Hôpital Saint-Louis is also to have its laboratory for the more intimate study of skin-diseases.

It was reported in the daily papers that the Academy of Medicine will shortly be removed to a more eligible situation in town; but, on personal inquiry at the office, I have been informed that there was no foundation for the rumour. The wish is, perhaps, father to the thought; and a legitimate wish it is, for the present building and its situation are a disgrace to the nation.

Great improvements are also being effected at the Lariboisière Hospital, which is to be considerably increased in extent by having another wing added to it, so that it will contain nine hundred instead of six hundred and six beds as at present, which will be none too many, as the space now allotted to the building has for some time been found insufficient, owing to its proximity to the Northern Railway Station, where accidents are almost of daily occurrence.

Dr. Trélat, Surgeon to the Charité Hospital, has had his leg broken by a fall whilst enjoying his holidays in the country. It was a simple fracture of the fibula, and I am glad to be able to say that our esteemed *confrère* is doing well.

The opening of the winter session of the Faculty of Medicine takes place on November 6th, and the following is a list of the professors, with the subjects to be treated of:—M. Gavarret, General Physics; M. Ollivier, Medical Pathology; M. Sappey, Anatomy; M. Chauffard, Pathology and General Therapeutics; M. Wurtz, Medical Chemistry; M. Dolbeau, Surgical Pathology; M. Le Fort, Operative Surgery; M. Robin, Histology; M. Parrot, History of Medicine and Surgery. Clinical Medicine: M. G. Sée, Hôtel Dieu; M. Laségue, La Pitié; M. Hardy, La Charité; M. Potain, Necker Hospital. Clinical Surgery: M. Gosselin, La Charité; M. Richet, Hôtel Dieu; M. Broca, Hôpital des Cliniques; M. Verneuil, La Pitié. Clinical Obstetrics: M. Depaul, Hôpital des Cliniques. Supplementary Lectures—Diseases of Children: M. Blachez, Hôpital des Enfants. Ophthalmology: M. Panas, Lariboisière. Syphilitic Affections: M. Fournier, Saint-Louis. Diseases of the Urinary Organs: M. Guyon, Necker.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

AT a meeting held at the County Hall, Carlisle, it has been decided to establish a home for incurables for the Border Counties.

THE Corporation of Ipswich are about to erect an infirmary for infectious diseases.

THE Local Government Board have declined to constitute the parish of Holt, Norfolk, a local government district, in accordance with the resolution passed at a meeting of owners and ratepayers.

THE CHARGE OF NEGLECT AGAINST THE MASTER OF A WORKHOUSE.

AT the last sitting of the board of guardians for the parish of St. Matthew's, Bethnal Green, the Chairman (Mr. W. D. Collins) read a letter from Mr. Humphreys, coroner, informing the guardians that the jury, on the inquest of William Lee, had in their finding censured the master of the house for not having obtained prompt medical attention to the deceased on his admission to the workhouse. It will be remembered that Lee was taken to the workhouse in a dying state, and, owing to the absence of the resident medical officer, he was not visited for fourteen hours after his admission. In the course of a discussion, Mr. Henderson remarked that, after hearing the explanation of the master and the resident medical officer, if it had not been for the want of proper accord between the master of the house and the doctor, this unfortunate occurrence would not have taken place. Both officers were called in, and the Chairman informed them that they had both neglected their duty, and that if they did not agree better their conduct would be reported.

METROPOLITAN POOR-LAW MEDICAL OFFICERS.

A MEMBER of the Association and a constant reader of the JOURNAL most respectfully begs to inform the Editor that the statement made in the number of September 23rd, under the heading Public Health and Poor-Law Medical Services—viz., "That no workhouse medical officer in the metropolis has found any medicines whatever for some years past, such being always found by the guardians under the provisions of Mr. Gathorne Hardy's Metropolitan Act of 1867", is perfectly correct as regards the Marylebone workhouse. Since the year 1867, the guardians have found all medicines and appliances, and from that year the medical officers to the workhouse and infirmary have been paid fixed salaries for professional attendance only. The writer in the JOURNAL of October 7th has hence made a mistake.

POOR-LAW MEDICAL APPOINTMENTS.

ALLKIN, William J., M.R.C.S.L., appointed Medical Officer for the Second District of the Ashton-under-Lyne Union, *vice* Edward T. O'Brien, L.K.Q.C.P., deceased.

BRAMHILL, L., L.R.C.P., appointed Medical Officer to the Third District of the Ross Union, *vice* Dr. John George, resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-MAJOR J. GREIG has been granted an extension of leave from India from July 24th to January 23rd next.

SURGEON-GENERAL J. M'C. GRANT, M.D., lately promoted from Principal Medical Officer at Bermuda, is about to retire upon pension under the age limitation clause in the recent Royal Warrant.

HIS Royal Highness the Field Marshal Commanding-in-Chief has been pleased to approve of Deputy-Surgeon-General H. C. Foss, who is about to be promoted to the rank of Surgeon-General, being appointed Principal Medical Officer in Ireland, *vice* Surgeon-General J. D. M'Ilree.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on October 16th, 1876.

Collins, Floyd, Ware
Downes, Edmund, St. Mary's Hospital
Dunbar, James John Macwhirter, 77, Ladbroke Grove
Fry, John Blount, Swindon
Greenish, Robert, 20, New Street
Khory, Rustomjee Naserwanjee, 49, Elsham Road
Merriman, John William Conyers, 43, Kensington Square
Page, William Henry, 27, Flaxman Road
Street, Alfred William Frederick, Royal Free Hospital
Thompson, Arthur Hirst, Gomersal, Leeds
Tomlinson, Edward Denham, Preston
Traill, Mark Windeyer, University Hospital
Woollett, Charles Jerome, Monmouth

The following candidates, having passed in Medicine and Midwifery, will receive the College Licence on obtaining a qualification in Surgery recognised by this College.

Byam, Samuel Henry, 14, Milner Street
Goulder, Frank Samuel, 16, Holford Square
Sugden, D'Arcy, St. Bartholomew's Hospital

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 12th, 1876.

Cree, Percy Kimbarn, St. John's Park, Holloway
Gamble, Henry Warburton Banton, Brunswick Villas, Grosvenor Park, S.E.
Skerman, Sidney, Waltham Abbey, Essex
Taylor, Henry Edward, Manor Road, Bradford
Whitsed, John, Sutton St. Edmund, near Wisbeach

The name of John Lloyd Thomas was omitted in the pass-list (Second Class) of the Arts Examination on the 29th and 30th September last.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BAKEWELL UNION—Medical Officer for the Cromford District. Salary, £15 per annum.
BURY UNION—Medical Officer for the Workhouse.
CENTRAL LONDON SICK ASYLUM DISTRICT—Assistant Medical Officer and Dispenser. Salary, £110 per annum. Applications to Cleveland Street Asylum on or before October 21st.
DONCASTER UNION—Medical Officer of Health. Salary, £250 per annum. Applications on or before October 28th.
EAST LONDON HOSPITAL FOR CHILDREN—Assistant-Surgeon. Applications on or before November 2nd.
ESSEX and COLCHESTER HOSPITAL—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before November 2nd.
FRIENDLY SOCIETIES' MEDICAL INSTITUTE, Northampton—Medical Officer. Salary, £180 per annum, with residence. Applications on or before October 23rd.
GLENORCHY and INISHAIL, N.B.—Medical Officer. Salary, £60 per annum, and cottage. Applications on or before October 24th.
GREAT YARMOUTH PARISH—Medical Officer for the North District.
KENSINGTON DISPENSARY—Resident Medical Officer. Salary, £150 per annum, with furnished apartments. Applications on or before October 28th.
LONDON LOCK HOSPITAL, Harrow Road, W.—Assistant House-Surgeon. Applications to the Secretary.
METROPOLITAN FIRE BRIGADE, CENTRAL DISTRICT—Medical Officer. Applications on or before October 24th.
MIDDLESEX THIRD COUNTY LUNATIC ASYLUM—Medical Superintendent. Salary, £700 per annum, with house, gas, and coals. Applications on or before November 8th.
MUTFORD and LOTHINGLAND INCORPORATION—Medical Officer. Salary, £110 per annum. Applications on or before October 23rd.

NORFOLK and NORWICH ASYLUM—House-Surgeon. Salary, £100 per annum, with board, coals, etc. Applications on or before November 3rd.
NORTH LONDON CONSUMPTION HOSPITAL—Physician. Applications on or before November 2nd.
ROYAL SOUTH LONDON HOSPITAL—Honorary District Surgeon. Applications on or before October 31st.
SALOP MEDICAL AID ASSOCIATION—Medical Officer. Salary, £150 per annum, with house, coal, and gas. Applications on or before November 4th.
SANDSTING and WELLS, Shetland—Parochial Medical Officer. Salary, £50 per annum. Applications to the Inspector of Poor.
SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with apartments, washing, and board. Applications on or before October 31st.
SOUTH UIST, Lochmaddy—Parochial Medical Officer. Salary, £90 per annum. Applications to the Inspector of Poor.
SUNDERLAND INFIRMARY—Junior House-Surgeon. Salary, £60 per annum, with board and residence. Applications on or before October 21st.
TINGWALL—Parochial Medical Officer. Salary, £30 per annum. Applications to the Inspector of Poor.
TISBURY UNION—Medical Officer. Salary, £74:10 per annum. Applications on or before October 25th.
TONBRIDGE UNION—Medical Officer. Salary, £105 per annum. Applications on or before November 2nd.
VICTORIA HOSPITAL FOR SICK CHILDREN, Chelsea—Assistant Physician. Applications on or before October 26th.
WORCESTER GENERAL INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before November 6th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

GARLICK, George, M.B., appointed Medical Registrar to the Hospital for Sick Children, Great Ormond Street, *vice* Dr. Burness, resigned.
HICK, Henry, M.R.C.S., appointed House-Surgeon to the Clayton Hospital, Wakefield, *vice* Mr. Hugh Marriner, resigned.
*RENTON, J. Crawford, M.B., appointed Extra Dispensing Surgeon to the Western Infirmary, Glasgow.
*SNELL, Simeon, L.R.C.P.Lond., appointed Lecturer on Diseases of the Eye to the Sheffield School of Medicine.
*TANNER, John, M.D., M.R.C.P., F.L.S., appointed Assistant Physician to the Metropolitan Free Hospital.
WILLIAMS, C. L., M.R.C.S., appointed Surgeon to the Tasmanian, West Indian Royal Mail Steampacket Company.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

BURMAN.—At Devizes, on the 16th instant, the wife of *J. Wilkie Burman, M.D., Medical Superintendent of the Wilts County Lunatic Asylum, of a daughter.

MARRIAGES.

FRANKLIN—DENNE.—On Tuesday, 17th instant at St. Saviour's, Eastbourne, by the Rev. H. R. Whelpton, M.A., Incumbent, *George Cooper Franklin, F.R.C.S., Leicester, elder son of George B. Franklin, Stoneycote School, Leicester, to Lucy Hannah, younger daughter of William Denne, F.R.C.S., Eastbourne.—No Cards.

RENTON—MILL.—At 2, Forres Street, Edinburgh, on September 20th, by the Rev. Abn. O. Laird, Dundee, assisted by the Rev. J. D. McCulloch, Lathorn, *J. Crawford Renton, M.B., F.F.P.S.G., 18, St. James's Terrace, Hillhead, Glasgow, to Margaret Annie, fourth daughter of the late Dr. James Mill, Thurso.

DONATIONS AND BEQUEST.—Mr. John D. Barborn has given a donation of £50 to the Belfast Royal Hospital; Dr. Henry Stewart has given £100 to the Building Fund of the Stewart Institution for Imbeciles. Mr. A. Findlater has bequeathed £500 to the same Institution.

A BOY, 13 years of age, named Patrick Brady, has died in Glasgow from the effects of a pea lodging in his ear, and causing inflammation. The accident was the result of some boys firing peas on the street with what is known as a "pea-shooter".

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—At the annual meeting of this College, held on the 18th instant, the following office-bearers were elected for the ensuing year. *President*: Henry Duncan Littlejohn, M.D. *Secretary and Treasurer*: Joseph Bell. *Librarian*: David Wilson, M.D. *President's Council*: Andrew Wood, M.D.; William Walker; Joseph Lister; Patrick H. Watson, M.D.; John Smith, M.D.; James D. Gillespie, M.D.; *ex-officio*, Joseph Bell. *Examiners*: Archibald Inglis, M.D.; Peter David Handyside, M.D.; James D. Gillespie, M.D.; Henry D. Littlejohn, M.D.; Patrick H. Watson, M.D.; David Wilson, M.D.; John Smith, M.D.; Argyll Robertson, M.D.; Joseph Bell; Thomas Annandale; John Duncan, M.D.; Robert J. Blair Cunyngame, M.D. *Assessors*: Wm. Brown; James Spence; William Walker; James S. Combe, M.D. *Conservator of Museums*: Robert J. Blair Cunyngame, M.D. *Clerk*: James Robertson. *Officer*: John Dickie. *Assistant Conservator*: James Grandison. At the same meeting, Dr. Andrew Wood was unanimously re-elected Representative of the College in the General Council of Medical Education and Registration of the United Kingdom for the period of three years from the 9th instant.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY ... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Sansom, "Two Cases of Croup and Diphtheria"; Mr. Chas. F. Maunder, "Cases which have been subjected to Subcutaneous Osteotomy"; Mr. Richard Davy, "On Degenerative Cysts on Muscles".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. W. Miller Ord, "On a Case of Pseudo-hypertrophic Paralysis, and on Surface Temperature"; Sir P. C. Brodie, M.A., "On the Use of the Magnet in the detection of a Needle broken in the Leg".

WEDNESDAY.—Hunterian Society, 8 P.M. Mr. Stevens will exhibit an Abnormal Fetal Heart. Mr. Barrett, M.B., will read a paper on Dental Septicæmia.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Daly and Mr. Maunder, "Fatal Case of Gallstone"; Dr. Cayley, "Case of Empyema in which washing out the Pleural Cavity was followed by Convulsions and Death"; Dr. Gowers, "Case of Lymphatic Leucocythæmia treated by Phosphorus"; Dr. Theodore Williams, "Sequel of a Case of Contracted Cavity in the Lung communicated in 1871".—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Ordinary Meeting.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT. We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

DEAF-MUTISM.

SIR,—Mr. Blenkarne has a communication last week, "Deaf-mutism not Hereditary". Having attended the Liverpool School for Deaf-Mutes for nearly twenty years, and also for some length of time having given my services to the Adult Deaf-Mute Society, I venture to give you the result of my observation. I do not know an instance in Liverpool of the children of deaf-mute parents being themselves deaf-mutes. If the parents themselves came from families in which there had been relatives deaf-mutes, you might get as a result deaf-mute children. Dr. Buxton, Principal of the Liverpool Deaf and Dumb Institution, read a paper before the Liverpool Medical Institution on "Intermarriage of the Deaf and Dumb", published in the *Liverpool Medical-Chirurgical Journal*, vol. i, 1857, p. 167, in which he says: "The probability of congenital deafness in the offspring is nearly seven times greater when both parents are deaf than when only one is so"; and concludes by saying "that there is no sufficient reason for prohibiting the marriages of deaf persons with the hearing, but that it is at the same time highly inexpedient that the deaf and dumb should marry with each other". The Blue-Book on the Census of Ireland, 1871 (Part ii, Vital Statistics), contains much useful information on the hereditary taint of deaf-mutism.—Yours faithfully,

Liverpool, Sept. 19th, 1876. FRANCIS JAS. BAILEY, L.R.C.P. Lond., etc.

A MEMBER (Bradford).—The following is an extract from the printed report of the General Medical Council: "Thompson Whalley, name erased from the Register by order of the Executive Committee on the 2nd February, 1866, on the ground of his having been convicted of a misdemeanour." Write to the Secretary of the College of Surgeons.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

FIRST CONVICTION UNDER THE VIVISECTION ACT.

SIR,—In your issue of the 7th instant, you express your approval of the conviction recorded against me for an alleged offence under the Vivisection Act at Sunderland. In that spirit of fairness which I have found generally animates journalists in this country, you will doubtless afford me an opportunity to place my view of the case before your readers. My position is this: I did not break the law, therefore I deserved not punishment. First, let me state the legal objections to this conviction. Section 6 of the Act says, "Any exhibition to the general public, whether admitted on payment of money or gratuitously, of experiments on living animals calculated to give pain, shall be illegal"; and a subsection runs, "and any person publishing any notice of any such intended exhibition, by advertisement, in a placard, newspaper, or otherwise, shall be liable to a penalty not exceeding one pound". I was summoned under the subsection. The announcement in the placard to which so much objection has been taken was as follows: "Interesting experiments will be made, showing the effects of poisons on animals." Concisely stated, the technical objections to my conviction are these: 1. The alleged offence was not the complete offence intended by the Act to be furnished, the experiments not having been made. 2. The words in the placard did not come within the meaning of the Act, inasmuch as (a) I did not state in the placard that I intended to experiment on vertebrate animals; therefore, it ought to be assumed that I meant invertebrate animals, experiments on which are permitted by the Act; (b) I did not say I intended to experiment on living animals; and (c) I did not say I would cause pain to living animals. But what were the real circumstances of the case? I may premise that I am a German, therefore can scarcely be expected to know the provisions of every new law passed at Westminster. While, as I now learn, the Vivisection Act, then a Bill, was before Parliament, I had given instructions for the printing of the placard, and within three days of the passing of the Act the placard was issued. Up to that time, I had not been aware that there was anything in the laws of England that would prevent me making the experiments I proposed; but on the existence of the Vivisection Act being brought to my knowledge a few days afterwards, I at once abandoned the idea of illustrating my lecture in the way I had intended, and no experiments were made during my address. I was, however, fined by the Sunderland magistrates for publishing my intention, my abandoned intention. "If," as the *Standard* observes, "the clause which is taken as rendering the mere announcement of an intention a misdemeanour must be considered on such a subject unreasonable," what must we feel when we find a person convicted under it who has voluntarily abandoned the intention on learning that it is illegal for him to make the experiments? "Ah," but say my prosecutors (or as many of the inhabitants of Sunderland who know the circumstances maintain, persecutors), "you spoke disrespectfully of the Act." I did condemn the Act, as it interferes with my professional studies; but surely it is not a criminal offence, an offence to be urged against one in a court of law, that the defendant spoke disparagingly of an Act of Parliament. At any rate, I can find no clause in the Vivisection Act under which a person can be punished for speaking disrespectfully concerning it; nor is there, so far as I can see, any clause providing punishment for a person who has merely said that if the Act had not come into operation he had intended to experiment on animals. Then it is urged against me, that I declined to express regret for having broken the law. Had I published anything which I believed to have been a breach of the law, no one would have been readier to apologise; but as I believed I did nothing of the kind, I had nothing to regret. Yet, although my able legal agent, Mr. Hines, forcibly stated these arguments, the Sunderland justices convicted me, though in the smallest penalty. I attribute their decision to the way in which the prosecutors were allowed to conduct their case—that is to say, in admitting evidence not bearing strictly on the offence charged. If, as a talented local justice, Mr. Ritson, who presided at my lecture, recently observed, the magistrates occasionally be too lenient, may it not happen that in some cases they are too harsh, and even convict when they should not? If others murder justice, I will not. I will doubtless some day be in a position to relate the secret history of the case; how certain medical men, living in my own locality, inspired by professional jealousy, stirred up in a few well intentioned gentlemen in London, who had assisted to induce Parliament to pass the hard measure for the prevention of cruelty to animals, the desire to pursue me as they would pursue a hare—a desire which ought to be very foreign to their natures, but a desire fed by an anxiety which made them eager (almost regardless as to whether the opportunity was a good one or not) to show the world what a wonderful instrument for the suppression of cruelties they have badgered the legislature into giving them. I may say here that I am a subscriber to the local branch of the Society for the Prevention of Cruelty to Animals, who, I may add, declined to prosecute me.

A word as to the alleged unprofessional character of my conduct in giving the lecture on "The Balham Mystery", in which I maintained that Mr. Bravo was poisoned with tartar emetic and laurel-water. Being a legally qualified medical practitioner, I hold that if I see medical evidence degrading to the medical profession, I have just as much right to criticise it as the editor of any medical journal. The word "doctor", as you are aware, means teacher. I am a teacher, who likes to instruct all who seek instruction—not secretly, but openly, so far as decency will permit. I trust I shall always fulfil the first motto given me by my earliest schoolmaster, "Do thy duty in thy calling".—I beg to subscribe myself, yours truly,

Sunderland, October 14th, 1876.

A. T. (Ventnor).—A licentiate in dental surgery of the Royal College of Surgeons has no right to have on his doorplate "L.R.C.S. Eng." (omitting the "D"): the title does not exist.

ANÆMIA.

SIR,—The article of October 7th, 1876, lays before us, as students of medicine, several important hints in regard to the diagnosis of the cause in different cases of spasmia. According to this account, we can treat most of these causes with success, when discovered. There is, however, one cause which appears to me to have been omitted—namely, a congenitally contracted aorta, which, although not common, might lead a young practitioner not aware of such a condition, which, so far as I have ascertained, is incurable, into giving a favourable, but at the same time a wrong, prognosis.

Apologising for thus far trespassing upon your space and time, I am, etc.,

October 1876.

M.B.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

REVACCINATION.

SIR,—Absence from home prevented my seeing, in the JOURNAL of September 23rd, your criticism of my report on the effect of revaccination in the late outbreak of small-pox at Swinton Schools, or I should have asked earlier to be allowed a few words in reply. The question as to the age at which revaccination is necessary is certainly one of great importance; and, as you take exception to my conclusion, based upon our recent experience at Swinton, that (in the presence of an epidemic, at all events) the operation is necessary at an earlier age than usually practised, I shall be obliged if you will allow me, though so late, to give a few additional details.

You say, "It would have been of value if Dr. Williams had stated the exact date of his revaccinations; whether the eight cases which occurred between June 25th and July 7th occurred after the general revaccinations, and in revaccinated subjects; and the state, as to quantity and quality, of the vaccinations in those attacked, as compared with those who escaped." I will now supply these particulars, and beg at the same time to explain that I should certainly have entered more minutely into these points had my report been written for the profession; but I wrote it at the request of the guardians, without the slightest idea that they would publish and disseminate it so widely.

The exact dates of the admission to the Infirmary of the twenty-three cases of small-pox were these: June 4th, one case; 8th, one; 17th, two; 18th, two; 19th, three; 20th, one; 21st, three; 22nd, two; July 3rd, four; and July 7th, two cases. Up to June 22nd, I contented myself with strict isolation from the first appearance of suspicious symptoms, and revaccination of those boys only who were known to have been in direct contact with the patients; but as these measures failed to check the spread of the disease, I then considered it my duty to revaccinate the whole of the boys as quickly as possible. Accordingly, between June 22nd and June 30th, I revaccinated 129 boys; on July 1st, 146; and on July 3rd, the remaining 69. Of the 350 boys thus revaccinated, six were subsequently seized with small-pox, at intervals varying from three to nine days after the operation. With regard to the primary vaccination marks in the twenty-three small-pox patients, I found two unsatisfactory, one with one good mark, five with two, eight with three, and seven with four good marks; so that, so far as these marks are evidence of protection, these children were quite as well protected previous to revaccination as those who escaped.

You ask, "If the revaccinations checked the spread of small-pox, how is it to be established that, before a single revaccination took place, the disease had not reached its acme, had not attacked all susceptible subjects, and was not disappearing of its own proper motion?" Of course, it is impossible to prove that this was not the case; but it would be equally impossible to prove that small-pox had not reached its acme in this country about the end of the last century, and that its virulence would not have abated if vaccination had never been practised at all. I certainly think, however, that the majority of your readers will consider the evidence in favour of the effect of vaccination extremely strong in the former case as well as the latter, when they take into consideration the fact, that for a week before the general revaccination, boys were breaking down with small-pox at the rate of two and three a day, that these boys were in constant close contact with their schoolfellows in the dormitories and schoolrooms, and, moreover, that they almost invariably concealed their illness as long as possible, and yet that, in spite of these conditions, after the revaccinations had had time to take full effect, not a single case occurred.

In the case of the girls, I freely admit that their escape was probably due to strict isolation, and not to revaccination. We could not, however, be certain that in spite of every care the contagion might not be conveyed to their department, and therefore I decided to afford them the same protection as the boys.

Your somewhat bitter taunt about the seven years' notion being worthy of the time in which it arose, falls quite harmless in my case, as I have no seven years' notion to defend. My only reason for fixing upon the age of seven is, that that is the age at which our children are drafted from the infants' to the boys' and girls' schools respectively, and as I did not revaccinate the infants, my experience in this matter does not extend below the age of seven.—I am, sir, yours truly,

Swinton, October 9th, 1876.

JOHN WILLIAMS, M.D.

. The letter of Dr. Williams is open to considerable criticism, if our space permitted. We have room only to say that Dr. Williams, whilst giving some information asked for in the article referred to, leaves the criticism therein untouched.

X. L. (Liverpool).—The prosecution of Inspector Annis appears to have been a very disgraceful affair, and the "Society for the Repeal of the Contagious Diseases Acts" would do well to express its pain at having been misled into taking part in proceedings so discreditable, with which it is impossible to suppose that the better-minded members of the Society can have any sympathy.

THE PHOSPHORUS PILLS OF THE "BRITISH PHARMACOPŒIA".

SIR,—Will you kindly permit us to add a word or two to Dr. Owen Rees's contribution on the subject of the phosphorus pills of the *Pharmacopœia*, recorded in the BRITISH MEDICAL JOURNAL of October 7th? Dr. Rees, after explaining his objection to the pills passing through the alimentary canal undissolved, concludes by expressing himself sincerely glad that this imperfection of the *British Pharmacopœia* has been so "early shown."

May we be allowed, sir, to point out the fact, that two years and a half ago, at the evening meeting of the Pharmaceutical Society, May 9th, 1874, almost immediately after the issue of the appendix containing the formula, Mr. Martindale gave particulars of his experience of them as follows. "Having made the pills as directed, it occurred to him that they might not be really soluble, yellow wax requiring a temperature of 140 deg. Fahr. to melt it, that of the body being under 100 deg. Fahr.; and, therefore, bearing in mind the old saying, *fiat experimentum in corpore vili*, he had tried them upon himself, taking one in the morning and one in the afternoon. As he expected, he found them both next morning perfectly globular, as slightly acted upon as possible, and not appreciably decreased in weight." Six months afterwards, in the following November 1874, Mr. Postans, in a paper read before the Pharmaceutical Society on various phosphorus preparations, again drew the attention of pharmacists and others to the insolubility of this *Pharmacopœia* phosphorus pill, and proposed a remedy—namely, the adoption of the formula published in Mr. Squire's *Companion to the British Pharmacopœia* for 1867, p. 182, as follows:—"Melt the phosphorus in prepared suet in a closed vessel, afterwards roll out the pills, and coat them with gelatine."—We remain, sir, yours faithfully,

Pharmaceutical Laboratory, 35, Baker Street, W.

YOUNG AND POSTANS.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

LOSS OF TASTE AND SMELL FOLLOWING AN ACCIDENT, WITHOUT INJURY TO THE CRANIUM.

SIR,—Your correspondent Chirurgus will find that a case precisely similar to the one he mentions was reported by me at a meeting of the Clinical Society, held on the 10th May, 1874, a full account of which will be found in the *Transactions* of the Society for that year. A report of the interesting discussions which followed, and in which Sir William Gull, Dr. Hughlings Jackson, Dr. Lockhart Clarke, and others took part, will be found in the BRITISH MEDICAL JOURNAL of May 25th, 1874.—I am, sir, yours, etc.,

I. BURNEY YEO, M.D.

44, Hertford Street, May Fair, October 16th, 1876.

SIR,—Having seen a question under the above heading asked by Chirurgus in this week's number of your JOURNAL, I beg to state that I have noticed in several instances a remarkable stimulation of the power of the gustatory nerves under small repeated doses of podophyllin. In one case I ordered five or six drops, to be taken three times daily, of a mixture containing two grains of podophyllin to half an ounce of rectified spirit, with most satisfactory results.—I am, yours truly,

73, Albert Street, Regent's Park, Oct. 1876.

LOUIS LEWIS.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; The Harrogate Herald; The Dumfries and Galloway Standard; The Glasgow News; The Buxton Advertiser; The Wexford Constitution; The Yarmouth Independent; The Islington Gazette; The Manchester Courier; The Newcastle Daily Chronicle; The Sunderland Daily Post; The East Lancashire Echo; The Wigan Observer; The Northampton Herald; The Blackburn Standard; The Architect; The Western Morning News; The Western Daily Mercury; The Hereford Times; etc.

. We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, &c., have been received from:—

Mr. Henry Morris, London; Mr. Wm. Mac Cormac, London; Dr. G. H. B. Macleod, Glasgow; Dr. George Johnson, London; Dr. A. B. Shepherd, London; Mr. R. Kershaw, London; Dr. G. F. Burder, Clifton; Dr. W. M. Banks, Liverpool; Mr. J. Priestley, Manchester; Mr. G. Cowell, London; Dr. J. Curnow, London; Dr. W. Wadham, London; Dr. F. Taylor, London; Mr. A. Jackson, Sheffield; Dr. Mackey, London; Dr. F. Taylor, London; Mr. J. E. Moreton, Tarvin; Dr. Wadham, London; Dr. S. Wilson Hope, Peterborough; An Old Correspondent; Dr. Alex. Collie, Homerton; Mr. Samuel Lee, London; Dr. Thomson, Peterborough; Mr. J. Groves, London; Dr. Campbell Pope, London; Dr. Herbert M. Morgan, Lichfield; The Secretary of the Hunterian Society; Mr. F. Payne, London; D. R.; Dr. Syson, Huntingdon; M.D.Ed.; Mr. Sampson Gamgee, Birmingham; Dr. Douglas Powell, London; Mr. Louis Lewis, London; Dr. Percy Boulton, London; Dr. Harrison, Lincoln; Mr. Topham, London; Our Paris Correspondent; Mr. F. Lowndes, Liverpool; Mr. Clement Lucas, London; Dr. Moorhead, Weymouth; Mr. Gilruth, Edinburgh; Surgeon-Major Porter, Netley; Dr. Norman Kerr, London; Dr. Leonard W. Sedgwick, London; Mr. G. D. Brown, Ealing; Dr. Laidlaw Purves, London; Dr. G. Owen Rees, London; The Secretary of Apothecaries' Hall; Dr. Edis, London; The Registrar-General of England; Mr. T. M. Stone, London; Mr. Wanklyn, London; Dr. Tripe, Hackney; Mr. Eastes, London; The Registrar-General of Ireland; Dr. J. Milner Fothergill, London; Mr. Hugh Robinson, Preston; Dr. Goldie, Leeds; Mr. J. Ingpen, London; Mr. C. F. Maunder, London; Dr. James Edmunds, London; Inquirer, Northampton; Clyde, Gourcock; J. C., Sheffield; Dr. Simeon Snell, Sheffield; Dr. John Tanner, London; The Registrar of the Royal College of Physicians of London; Dr. G. F. Duffey, Dublin; A Member of the Association; Dr. Pollard, London; Dr. Cayley, London; Dr. W. L. Lane, Crossgate; Our Edinburgh Correspondent; Dr. Galton, London; The Secretary of the Quekett Microscopical Club; Dr. Farquharson, London; Dr. J. Wilkie Burman, Devizes; Dr. Abrath, Sunderland; Mr. J. Wright, Pitlochrie; Dr. Burney Yeo, London; Dr. Paul, London; Dr. Oliver, Preston; Mr. Lennox Browne, London; Mr. F. Denison, Elton; Mr. Culshaw, Liverpool; Mr. Nettleship, London; Dr. Purdon, Belfast; The Secretary of the Clinical Society; Mr. H. Burdett, Greenwich; Enquirers; Mr. F. W. Lowndes, Liverpool; Dr. Harrison, Lincoln; Dr. Bucknill, London; Spes; Dr. Young, Edinburgh; Dr. W. Ord, London; Dr. James Russell, Birmingham; Dr. Squire, London; Mr. W. H. A. Jacobson, London; Dr. Lombe Athill, Dublin; Dr. Marshall, Nottingham; C. W., Dunse; Mr. F. S. Turner, London; Mr. F. Wright, London; Dr. Eddison, Leeds; Dr. Grainger Stewart, Edinburgh; Mr. Henry Thompson, Hull; Dr. J. B. Sanderson, London; Mr. Hancock Wathen, Fishguard; Dr. Cornelius Fox, Chelmsford; etc.

BOOKS, ETC., RECEIVED.

Atlas of Skin-Diseases. By Tilbury Fox, M.D., F.R.C.P. London: J. and A. Churchill. 1876. Part 13.

AN ADDRESS

ON

ARMY MEDICAL STUDIES AND MILITARY HYGIENE.

Delivered at the opening of the Thirty-third Session of the Army Medical School, Netley.

BY F. DE CHAUMONT, M.D.,

Professor of Military Hygiene.

GENTLEMEN,—The duty of addressing you on this, the opening of the thirty-third session of the Army Medical School, having devolved upon me, I must commence with what both custom and courtesy dictate; namely, by welcoming you to Netley in the name of my colleagues and myself. And this I do not as a mere matter of routine, but with the strongest wish on our parts that your stay here may be pleasant as well as profitable. That it has been so to many of your predecessors we have reason to know, from the kindly and even affectionate terms in which they have spoken of Netley in after-times. That we have not always been able to please everybody, is simply to say that we have not been able to effect an impossibility; but the most frequent conclusion has been, I believe, that there are a good many worse quarters than this, even though it be coupled with the irksomeness of lectures and examinations. Some of our critics, both in and out of the public services, have been inclined to question the necessity of lecturing and teaching at all to men who come as you do with legal qualifications for the practice of your profession. To this we may reply, that we in no way lose sight of the fact that, although here so far *in statu pupillari*, you are in a very different position from that of students in school or college under ordinary circumstances. You bring with you (or are supposed to bring, which, however, in some cases is not synonymous) such a general knowledge of the science and art of healing as your systematic instruction on the one hand and your own experience on the other—where you have had opportunities of gathering it—have enabled you to acquire. But this is not wholly sufficient for the work you have before you; and it was with the view both of making you more profitable servants of the State, and also of making it more easy for yourselves to perform the duties required of you, that this course of instruction was instituted.

When a young medical man proposes to start for himself in civil life, he must serve an apprenticeship in some shape or another before he gets into the full tide of practice. He must be an assistant to some other practitioner; or, if his means allow, he must bide his time and gain experience slowly and laboriously on his own account. Even when a young man can step into a practice ready made, he but rarely commands the confidence of his *clientèle* at once, and not unfrequently suffers from the want of those nameless but necessary qualifications which can only come by matured experience. Some acquire them sooner than others, but they must be acquired for true success. Again, if a practitioner desire to take up any speciality in the profession, how much training must he go through, and how long a time must generally elapse, before he can make himself a sufficient reputation to induce the public to employ him! In former days, this preliminary acquisition of knowledge and experience the medical officer in the public services had to work out for himself. He passed a time, varying in length as the exigencies of the State demanded, at Chatham or Haslar, and was then sent to doctor soldier and sailor “with all his imperfections on his head”. No instruction was given in military surgery, in the dietary or exercise of troops, the duties in camp or field, the precautions in epidemics or the like; whilst the man who was to take service with John Company went out to India without the slightest prejudice on the subject of tropical disease, his mind on that subject being usually a perfect blank. That mistakes were made on all sides we know well and freely acknowledge; but the blame certainly attached less to the medical officer than to the system that placed him in so anomalous a position. The truth is, the position of an army or navy surgeon is a most peculiar one, for there is no other man in the medical profession from whom so much may be demanded at any time, and who is so frequently thrown upon his own resources. Of course, to the mind of the

public, when his name is mentioned, the first idea that occurs is the cutting and carving of his fellow-man on the field or in the cockpit; but this, important though it be, can, in the nature of things, be but a part, and only an occasional part, of his duties. Although it is for war that we are instructed, retained, and paid, yet we are not and cannot be always in the field; whilst many most valuable and professionally distinguished officers have never seen a shot fired in anger. But the medical officer has to deal with medical as well as surgical cases, and with varieties of them such as are likely to puzzle a novice or one who has not received special instruction in the matter. He is also bound by the regulations to investigate the cause of death, as well as to diagnose and treat disease; and therefore he must be prepared not only to make *post mortem* examinations, but to give an intelligent and rational account of what he finds. Were these all his duties, they would be considerable; but they would not be far different from what an ordinary practitioner has to do in many cases, except in degree and variety. But there is still another wide and most important field of work, and that is the prevention of disease. Even at the risk of appearing to magnify my office as a teacher of this department of study, I may call it, without hesitation, *the most important work*; and it is here very specially that your duties differ from those of practitioners in civil life, whose main work is treatment, and to whom prevention means loss of money. It is, however, to the lasting honour of our profession that, as a body, they have ever been foremost in promoting the health of the people, without a thought that by so doing they were really taking the bread out of their own and their children's mouths. Still it is obvious that the duty of preventing disease cannot properly be carried on by a practitioner in active practice; and this has been, though imperfectly, recognised by the State. Unfortunately, in this matter, too much has been left to local and interested authority, and we see, as we do in this county, the Poor-law surgeon entrusted with the functions of health-officer, which he has not time to exercise properly; besides the fact that it places him in a position of difficulty, in having to deal with conflicting interests. Now, this duty of prevention of disease the army and navy surgeon is especially called upon to exercise, happily without the difficulties in most cases that surround his civil brother, although he has his own troubles, as you will, doubtless, find hereafter. Let me briefly point out the work before you in this line. You will be called upon to give opinions on the salubrity of sites, on the sufficiency and means of ventilation, on the quantity and quality of water-supply, on the sufficiency or otherwise of dietary, on the quality, purity, or adulteration of food and beverages, on the amount of work to be demanded from men, on the amount and character of their clothing; on the arrangements of camps and cantonments; on the precautions in time of, or in anticipation of epidemics; besides the special duties in time of war which occur in almost endless variety. To those I may add, for the naval officer, the various specialities of a sea life in addition. Besides all these, there are constantly questions cropping up which are referred to the doctor, not because they properly belong to his province, but because no one else can answer them. Now, I may confidently ask, which of you is prepared to undertake, without previous instruction, the multifarious duties I have thus briefly sketched forth? It would, of course, be easy to give an opinion on those or on any subject; but, now-a-days at least, a man requires to give a reason for the faith that is or is not in him; and empty words without true knowledge are more or less quickly detected. I can only record my own experience, and I am sure it has been that of many of my contemporaries, that I was frequently called upon, when I first entered the service, to decide upon questions of which I not only knew nothing, but of which I had never had any opportunity of learning anything.

In a letter I received recently from a distinguished teacher of hygiene, whose name I shall frequently have occasion to mention, viz., Professor von Pettenkofer of Munich, he says: “It becomes more and more clear that the duties of a military surgeon form a speciality just as much as ophthalmic surgery or obstetrics, and that hygiene forms a most essential part of that speciality. Hitherto the young practitioner has too often had to plunge into the practice thereof without ever having received instructions in the principles.” The speciality of the military and naval services has long been recognised in this country by those most competent to form a judgment, and it is now more than a century since the foundation of a school such as this was urged upon the Government of the day by the renowned Robert Jackson. At that time, however, the Government was too much occupied in wasting the country's substance in useless wars and alienating the affections of its own colonies, to have any time or money to spare for the establishment of an institution that had only public utility to recommend it. Who can say what blood and treasure were lost in consequence?

From that period down to the Crimean war, the history of the public

services has been one of struggle on the part of the respective medical departments to get the authorities to recognise what was for the true interest and efficiency of their fleets and armies, and in this our Government did not stand alone; it was the history of all, and it has only been after bitter experience and a waste of both men and money that would amount to an appalling total, that the victory of science has been won.

It was after a long period of peace, unbroken in Europe by anything like a real war, that the terrible disasters of the Crimean campaign awakened the rage and shame of the nation. An army which had left our shores amid much excitement and in high hope was, in a few months, reduced to a mere shattered remnant of scurvy-tainted and typhus-stricken scarecrows. The hospitals on the Bosphorus were crammed, whilst in the field whole regiments were represented by a corporal's guard. In the meantime, the casualties in action were comparatively few; and the people of England had the mortification to learn that, while money had been freely supplied, their soldiers were perishing from sheer want of administration and neglect of the simplest precautions. While 22,000 men perished in the campaign, barely one-sixth of those fell by the hands of the enemy. It is gratifying to know, however, that much as the medical department was blamed, it was really the one that least deserved it; for the late Sir Andrew Smith was able to show that he had not only foreseen the possibility of what occurred, but had actually warned the Government of it without effect. The same fate followed the medical officers of the French army, who foretold the terrible outbreak of typhus which occurred in 1855-56, and who were not only snubbed and their warnings unheeded, but in too many cases themselves fell victims to the very visitation they had too surely foreseen but had been powerless to prevent. Out of evil, however, good often comes; and those sad disasters were the cause that, as soon as peace was declared, a Royal Commission was ordered to sit and inquire into the health of the army and the organisation of the Army Medical Department. The body of evidence brought together is of a most valuable kind, and may be profitably consulted by medical officers of both services. The recommendations were very numerous, and, in many cases, have been carried out with most marked good effect. On some other points, however, they were before their time, and will only bear fruit when the people, and especially their rulers, are educated up to them.

One of the recommendations concerns us very specially to-day, for it is to it and to the enlightened efforts in carrying it out by the late Lord Herbert of Lea that we owe our being here to-day. It was, in fact, to give effect to the old suggestion of Robert Jackson and establish a school of instruction for the army medical officer, in which he might learn at least the principles that should guide him in the performance of his duties, which principles he had neither time nor opportunity of learning during his ordinary curriculum. Accordingly, the Army Medical School was established in our old quarters at Fort Pitt, Chatham, and opened with an address by my colleague Professor Longmore exactly sixteen years ago. On that occasion, its illustrious founder, Lord Herbert, was present, and said a few weighty and earnest words in wishing God speed to an institution, which was a new, but destined to be a most successful, experiment. The school was peculiarly fortunate in its constitution, but especially so in the selection of those who were to fill its chairs for the first time. It would, of course, be unbecoming in the presence of my colleagues, who still happily fill some of them, to say much of them; but there is one in whose praise too much could not be said, and who, alas! is no longer here amongst us. Of those who were present on the opening day of the school, three have gone to their rest—Lord Herbert of Lea survived but a short time to see the success of his work; Sir James Gibson, our then director-general, died about eight years afterwards; and, six short months ago, the grave closed over Edmund Alexander Parkes, who may be truly called the founder of the science of hygiene. Of his pure and guileless life, his wonderful sweetness of character, and his scientific worth, my colleague Dr. Aitken gave us a most touching and eloquent account at the opening of last session, and since that the subject has received treatment at the skilled and loving hands of Sir William Jenner, Dr. Orsborn, and others of his friends and admirers. He was a man who never lost a friend and never made an enemy. Of his worth as a writer, you will have ample opportunity of assuring yourselves, as his work will be in your hands. Of the personal charm of his presence, which you, alas! can now never know, I can speak, having worked with him so many years; but it can only be to record what must remain a life-long regret, that the place that knew him can know him no more for ever. It is accepting no light responsibility to undertake to fill the chair of such a man, and I can only do so in the hope that I may be able to impart to you some of the principles he taught in the spirit that he brought to all he did, even although

I may fall far short of so great an example. But to him I may apply the beautiful apostrophe of Lucretius to Epicurus:

"E tenebris tantis tam clarum extollere lumen
Qui primus potuisti, illustrans comoda vitæ;
Te sequor, nostræ gentis decus, inque tuis nunc
Fixa pedum pono pressis vestigia signis,
Non ita certandi cupidus, quam propter amorem
Quod te imitari aveau."

Of him truly in matters sanitary might be said:

"Tu pater, et rerum inventor;

and his words may well be called—

"Aurea dicta,
Aurea, perpetuâ semper dignissima vitâ."

The apostrophe is especially applicable, seeing that, before the publication of his *Manual of Hygiene*, twelve years ago, most thick and palpable clouds of darkness surrounded the whole subject, and hygiene, both public and private, was for the most part a mass of scattered and ill-digested material, a mere jumble of empty sayings or else a farrago of absurd and ridiculous maxims. That facts and observations had been accumulated is true; but, unless facts be made use of and reduced to some sort of usable order, they are unproductive. So well, however, was this done by my renowned predecessor, that his book has been the model of all others, the authors of which have done little else than copy the form, whatever they may have supplied in the details. It is a trite saying that there are no classics in science, and happy it is that it is so. It was not so once, when authority was allowed to have a voice in matters of fact; now, happily, we believe the facts, and, if the authority be at variance with them, we reject the authority. But, if there can be such a thing in science as a classic, at least for a time, we may certainly accord that high place to the work of Parkes, for our generation, at all events. And this is due, not only to the industry in collection and the judgment in selection of data, but to the remarkable absence of bias displayed and the eminently judicial character of his mind, which permitted him to give every fact and statement its full value. As one of his friends said, in speaking of his writings and researches, "He died without a theory"; not that he was not fully alive to the importance of theories or the advantages even of hypotheses as aids to investigation, but he was so anxious to establish a sound basis of fact that, with a wisdom as rare as it is valuable, he left the theories to take care of themselves.

On this point let me not be misunderstood: when a man sees a law, he is not only entitled but he is bound to enunciate it; but if he cannot distinguish between a law proper and a crude generalisation, his enunciation of it will only result in his own confusion, unless he take his stand like the famous Abbé who wrote a certain book, and, when he was informed that facts were against his conclusions, replied, *Tant pis pour les faits, mon livre est fait*. Theories wane and disappear, unless they are really the expression of laws; but facts, if they be facts, are eternal, and he who establishes one furnishes at least one stone for a *πύλος* à l'éternité. The work of Parkes, both as a teacher and inquirer, was a good type of the kind of instruction it has been the endeavour to give at this school, where the effort has always been to make practical work its most prominent feature. Of course, principles must be taught as far as they are known, but in a profession like ours a practical acquaintance with all parts of it is the only means of becoming a valuable member of it. I have already referred briefly to the work in general that lies before you in the public service; but, although the same principles must guide all of you, there are differences of detail in each branch of it.

For you, gentlemen, who are about to make India your home, there lies before you a varied and useful career, of which the more especially military duty will form only a small part, the greater part of that being discharged by your brethren of the military service. But to you will be entrusted another and not less important work—namely, the care of the health and well-being of all those millions that crowd the teeming land of the East. You will have opportunities of exercising every department of your profession, both practical and scientific; you will be the civil surgeons of the country, not only trusted in ordinary practice, but those to whom the Government will look for advice and information in everything that concerns the health of the people. On you also will devolve the instructing of the native population in science—natural, physical, and medical—a duty certainly not the least important and valuable when we consider that it probably forms the sole means of breaking down that superstition and prejudice which in all lands, but especially in India, are the great barriers to human progress. I look upon it that the office of the Indian medical officer is one whose importance can hardly be exaggerated: he is, above all others employed there, the true pioneer of civilisation. Descartes has said that if the perfectibility of human nature be possible, it will be through the medium of the medical sciences; and it will be certainly through their

influence that the deepest and most lasting traces of our rule will be left on the vast empire of India. Although the distribution of State honours and rewards has been but meagre in the Indian Medical Department, there is this to be said for the Government of India, that it has shown enlightenment in the fact, that it has been seldom slow to recognise a good man, in whatever branch of the state service he might be. A man, therefore, who will really work, and has a fair share of ability, may be well assured that he has in that country a career of both honour and profit before him. This has been so well recognised, that the service has never wanted men eager and ready to engage in it, and a long roll might be made of names great in science and literature, administration and diplomacy. The position of the medical officer in the navy or in the home army is so very different as hardly to be comparable with that of the Indian officer: all three are servants of the state; they have much the same grades and titles, and all may be called upon to serve in India among other stations; but there, I conceive, the resemblance ends. With the exception of the first few years of his service, during which he is liable to a good deal of knocking about, the Indian officer has a fixity of tenure in his posts which is next to impossible elsewhere; and, unless his health fail him, he rarely leaves a good post except to better his condition. In the navy, on the other hand, "knocking about" is, so to speak, the normal condition of the surgeon during the greater part—in fact, I may say up to the closing years—of his career. When to this came to be added other well grounded reasons of complaint, it was not to be wondered at that men were slow to respond to the call of the state for naval surgeons. Now, happily, many of those causes of complaint have been removed, and old-standing grievances redressed, so that now, although not all a bed of roses, the naval medical service offers a good career to a man who likes a sea-life, and especially to a man with a taste for travel and scientific inquiry. Apparently, however, the attractions of a sea-life are not so great as to induce many to adopt it at the time of life when medical men can enter. When a lad enters young, like a midshipman, he gets inured to his condition in the plastic period of life; but it is difficult in later years to accommodate oneself to the inevitable annoyances of shipboard, among which, speaking for myself, I should include a continual tendency to sea-sickness, from which, however, neither Nelson nor Collingwood was entirely exempt to the end of their career. Another thing that has had an influence in limiting the supply of naval surgeons has been the monotony of life on board, the work being, under ordinary circumstances, comparatively small. On this point it is important to urge upon you all as much as possible to have some occupation or hobby with which to fill up vacant time. Many of your predecessors in the service have done this most successfully, and become distinguished both in art and science. Some occupation is certainly necessary, were it merely to check the tendency to pipes and grog, which is too often the outcome of idleness and vacancy of mind.

The medical service of the army, like that of the navy, has of late years suffered from a dearth of applicants; and we have seen the curious fact, that although better paid as a whole than other branches of the service, the number has fallen short of the requirements, whilst there are for every commission vacant in the line three or four candidates, poorly paid though it be. For this there are several reasons: in the first place, the comparatively late period of life at which the medical officer enters; in the second place, the increasing market value of his services, on account of fewer men proportionately to the population entering the profession, and the numerous new openings in civil life in all parts of the world; and, in the last place, the possibilities open to him are few, in this point differing materially from his Indian brother; whilst in the case of the subaltern there is, theoretically, no limit to his advancement, or the nature of his employment. Of course, only the few draw the prizes of life; but still there is a chance for all, and this forms an element of attraction which has been too often lost sight of.

The above are probably the fundamental causes of the difficulty, but there are of course others, among which we may reckon the frequent moves to which the army surgeon is exposed, a condition that will always operate more or less unfavourably. The consequence has been that the changes in the service have been numerous and frequent of late years, various plans having been tried and proposed. You are now, gentlemen, about to enter upon a career in the army which is novel in character, and of which, as such, it is impossible to say very much, bearing in mind the maxim of the American humourist, "Never prophesy unless you know!" It remains to be seen whether or no the present will be better and more successful than the schemes that have been already tried. The success or otherwise of the scheme is, however, a matter so far beside the question that it does not in any way alter the duties and responsibilities that will be thrown upon you. To you will be entrusted the care of the health of

the army, by means of which we not only guard our own country, but also retain the dominion of our vast Indian empire and protect those of our other possessions that are exposed to the attacks of a foreign foe. Compared with Continental forces, our army looks small on paper, but, small though it be, it is a most costly article, and, therefore, its health and strength require to be husbanded with most jealous care. Our troops are estimated to cost about £100 a man *per annum*, our army vote for home and colonial service (excluding India) being between £14,000,000 and £15,000,000. We keep generally about 60,000 men in India, so that we must add at least £6,000,000 for them, but in reality far more, for the cost of a white soldier in India is very great. There are, therefore, at least £20,000,000 *per annum* required to keep our army on its existing footing. When war breaks out, I need hardly say the value of the soldier is greatly enhanced, and the importance of your services in the prevention of disease vastly increased.

Let us consider briefly what has been done of late years for the health of the soldier. The Royal Commission, appointed after the Crimean war, showed that our troops were dying at home, up to the date of that war, at the rate of nearly 18 per 1,000, or more than double the rate of men in civil life of the same ages. Had this continued, we should now be losing by death about 2,400 men annually, or a body equal to three battalions. As it is, the death rate has now been reduced to one-half, so that at least a battalion and a half annually are saved; and, during the twenty years that have elapsed since the close of the Crimean war, a whole *corps d'armée* has been preserved to the state. In India, again, the death-rate was (in the prehygienic age) about 69 per 1,000, although the more violent fluctuations render it difficult to state an average with more than approximative accuracy. Now, the death-rate in India has been reduced below one-third, so that in round numbers 50 per 1,000 may be considered saved to the state. As we keep an army of 60,000 there, this means 3,000 men a year saved, who, under other circumstances, would have died. We have thus a body of more than 5,000 men annually, who are preserved from otherwise certain death by the more enlightened measures taken for their protection. In a mere money point of view, this represents an annual sum of half a million sterling, or more than the whole medical staff of white troops at home, in India, and in the Colonies, costs the state in pay and allowances. We may safely conclude from this, that, whatever may be his faults, the army medical officer has not been an unprofitable servant.

It may be useful to inquire into the causes of so advantageous a change in the health of soldiers and of so great a saving to the state. These have been carefully set forth from time to time in different ways, starting from the first report of the Royal Commission above referred to, and passing through the various reports, works, and papers that have appeared since. Although one cause appeared to be paramount, yet there were, as may well be supposed, several which worked together to the same end. The inquiry was instructive, because England was not alone in the position it held with regard to its army. The same thing existed in France, in Germany, in Austria, in Russia—in short, everywhere where the exigencies of defence or attack compelled the keeping of a standing army on the modern footing. In every case, the soldier died more rapidly than the civilian of his own age and class, even including the most unhealthy—and excluding the most healthy trades and occupations—such men as night-printers, bakers, miners, night-policemen, watchmen, etc., had all a less serious mortality. Two diseases mainly caused this difference, neither of them, however, by any means strangers to the civil population; these were phthisis and enteric (or typhoid) fever. Now, although to these many influences contribute, there are certain master-causes which statistics and experience have shown to be especially powerful. For phthisis, crowding and bad air; for enteric fever, bad sewage and indifferent drinking-water. To know the cause of a disease is to be at least half on the road to its prevention, and accordingly an intelligent and enlightened use of the knowledge obtained from careful inquiry has resulted in the great reduction of mortality above referred to.

Although much, very much, remains to be done to reach the standard of perfection we hope one day to attain to, the results as yet have been so encouraging that we need not fear that we shall be less successful in our further attempts. Thus, the amount of fresh air at present supplied to the soldier is not much more than one-third of the amount we believe to be necessary, still it is a great advance upon his former condition, and the statistics of phthisis show us the good effects. What may we not hope for hereafter, when the full conditions of sanitary dwellings are attained to? Again, we have in too many cases much left still to desire in the matter of drainage in many stations, but such improvements as have been accomplished have reduced typhoid or enteric fever to an amount that would have seemed almost hopelessly small not many years ago. There seems, therefore, no reason to

despair of stamping out that dreadful disease entirely, perhaps at no very distant date.

Other causes of amelioration of the soldier's condition may be found in his better dieting, especially in its variety and cooking; his improved clothing; and the better arrangement of his accoutrements, and the weights he carries. By these ameliorations, several diseases have either disappeared entirely or else become of extreme rarity. Among these, we may note all those of a scorbutic character, and the true contagious exanthematic typhus. Scurvy in any form is now hardly ever met with in the army; and typhus, which was by no means uncommon in my own recollection, is only met with on very rare occasions in time of peace. That the same causes will produce the same effects has, however, been shown again and again; and the amount of typhus and scorbutic dysentery in the Crimean war was a warning that our administration can never afford to disregard again, except at the peril of the indignation of the whole people. On the subject of diet, we have still much to desire, the constituents being but badly arranged, here redundant and there deficient—the same mistakes occurring in other armies as well as in our own. With regard to the knapsack and accoutrements, the improvement has been great; and for this the greatest credit is due to the Committee which so long and so carefully inquired into the question, of which Committee my distinguished predecessor was the most active and useful member. We have now in our army a pack and a set of accoutrements which will challenge favourable comparison with that of any army in the world. Indeed, we may say that, other things being equal, men will go further and do more without distress, if equipped on our present plan, than under any other conditions that a soldier could be placed in on service. As regards the influence of the old style of equipment, I may refer you to numerous papers and monographs, especially the writings of Dr. Parkes and the Commission before referred to; those of my colleague Dr. Maclean, and the work of Mr. Myers of the Coldstream Guards.

As regards the question of drinking-water, it is less possible to point to positive improvement than in other things; still, much more interest is being taken in the matter, and extended investigations are being made. In places where the water was bad or doubtful, new sources have been opened up, either of a special character or by obtaining water from existing companies whose supplies were presumably pure. The same march of improvement has taken place in India, with equally gratifying results, and to a great extent in those Colonies where we still retain a garrison. Unfortunately, it has in many cases been uphill work; for we have had to contend, not only with difficulties of a physical and local character, but still more severely with the ignorance and prejudice of both uneducated people and those who are called educated. Perhaps the latter are the more dangerous of the two. The former may be got to follow a leader, if an enlightened man of strength of mind and steadfastness of purpose can be found; the latter, in their pedantic ignorance, assume a cynicism that tries to pooh-pooh the earnest efforts of science, and to push them aside with a little ridicule—often a fatally effectual method with the vulgar mind. We have, however, this consolation that, no matter what rebuffs we receive, science is progressive, and the future belongs to her and to those who worship reverently at her shrine. As it is, much ground has been gained, although in some cases we are merely recovering that which was lost (at least in Europe) during the period of darkness that followed the collapse of the Roman Empire. The precepts of personal hygiene are laid down with much judgment and with wonderful precision, considering their opportunities, by both Celsus and Galen, not to speak of others even older. But, when dirt became the odour of sanctity, under the influence of fanatical devotees, personal washing went out of fashion, and every other sanitary precaution with it; and it was not till the revival of learning that people began to think that a little water, judiciously applied to the skin, might be rather beneficial than otherwise. How different from the days when Seneca exultingly spoke of the amount of bathing in cold water that he indulged in—"Tantus ego psychrolutes."

Again, the principles of the hygiene of camps are very well laid down by Vegetius; but how many scores of armies have perished since then from their sheer neglect! Aristotle carefully advises a separate source of drinking-water to be obtained—different from that used for other purposes. In how many modern cities is this attended to? Perhaps in one or two places, where dire necessity compels it under penalty of the most terrible consequences—such as Holland and such like places. To some extent it has also been done in Paris. The consequences of all this neglect was that the middle ages were devastated by plagues and epidemics, of which we find no recorded parallel in classical times. Throughout all the histories of Greece and Rome, the plagues there noted took place in times of forced circumstances, such as sieges, famines, and the like; but even then they pale before the records of the black death or the sweating sickness of later days. Even now, the

reappearance from time to time of, as yet, mysterious maladies, but apparently resembling some of those so dreaded formerly, is a warning of what might befall ourselves if we took no precautions to ensure our sanitary condition. Fortunately, such precautions are being taken more and more carefully, so that now the cholera, or even the plague itself, would in all likelihood make but little way, if either did reach our shores. Even since our last serious visitations of cholera, we have acquired more sure grounds to work upon, and more extended knowledge of the conditions favouring the propagation of disease. The choice of a good site for a habitation has been insisted upon, from time to time, for many ages back; and what constituted a good site was a point but vaguely understood. Although the solid material of the ground is a matter of great importance, it is not the only point in the question. We now know that we have a subterranean as well as a superterranean ocean to deal with; that there is, at a varying depth beneath the surface of the ground, a vast sea, which makes sober fact of the imagination of the poet, when he said that

"—Alph, the sacred river, ran,
Midst caverns measureless to man,
Down to a sunless sea."

We know that this sea is perpetually in motion, and that, if we allow impurities to pass into it, it is capable of returning them to us with interest, either in the water we drink or in poisonous emanations. We know also, further, that we have a telluric atmosphere to deal with as well as our ordinary meteoric one; that this atmosphere contains a variety of constituents, and that its composition forms an index of some value of the impurities to which the soil has been exposed. Indeed, so great appear the telluric influences, that a most important school of hygienists, of which Professor von Pettenkofer is the distinguished leader, is inclined to accord to them the paramount power for good or evil, to the exclusion of almost everything else as a direct cause. Whilst we cannot quite accede to this view at present with the evidence we have, we still must admit, after the researches that have been made, that the soil is at least a most powerful factor in the question. At the same time, the localists admit that other insanitary agents help, if they do not cause, the propagation of disease. But, in the case of the action of drinking-water, we can, I think, go further; for there are groups of cases where cholera has been propagated under circumstances which could hardly leave a doubt that the water was the active cause. Thus, in Holland, it was found those people who drank the water of the Polders (or reclaimed lands) died of cholera at the rate of 17.7 per 1,000; those who drank well-water, 16.8 per 1,000; those who drank river-water, 11.9 per 1,000; those who drank rain-water filtered, only 5.3 per 1,000. The city of Amsterdam itself, supplied by an aqueduct with rain-water from the downs near Haarlem, had only 4 per 1,000.

Another striking point is, that in Rotterdam during the epidemic, as soon as fairly pure water was supplied in the public streets by the authorities, the mortality diminished immediately by one half, in spite of the difficulty experienced in getting the inhabitants to take it. I shall have occasion to cite other cases to you in the lectures on water during the course.

On the questions of air and ventilation, we have also certain definite data which serve as a basis of action in the supply of fresh air to habitations. So short a time ago as in the days of Arago, that distinguished philosopher thought three hundred cubic feet an hour a sufficient supply for one man; we now demand ten times that as a minimum for health, and as much more as we can get in disease. In fact, our sole object now is to imitate natural open air conditions as much as possible by removing limitations whenever we can and letting nature accomplish the ventilation itself. Of course, rigour of climate introduces special difficulties which have to be provided for. Many other points of interest might be touched upon, which, however, I shall have an opportunity of calling your attention to during the course. I may say, however, in conclusion, that a bright future is dawning for sanitary science, not only in our own but in many other lands. Formerly health was talked about and sung about, called the first blessings, *πρῶτα βελήματα*, and what not, but comparatively little was really done. Now, however, the public is being steadily educated up to the level of knowledge, and a proof of it is the interest excited by the Congress of Hygiene and Sauvage at Brussels, from taking part in which I have just returned. It is still in session, and has brought together many of the most distinguished men from the various countries of Europe. A variety of questions have been discussed and debated, and whatever may be the immediate practical result, it cannot fail to be the commencement of a great movement, connected as it is with an exhibition of sanitary life-saving appliances from almost every nation. The truth is, that the time may, perhaps, come, when people will think it less worth their while to fly at each other's throats, and

more so to vie with each other in the common cause of humanity. Then, perhaps, they may come to acknowledge the truth of the saying of Cicero in his oration *Pro Ligario*, "Neque enim ullâ aliâ re homines propius ad Deos accedunt, quam salutem hominibus dando".

EPIDEMIC CEREBRO-SPINAL MENINGITIS: REPORT OF POST MORTEM EXAMINATION IN THREE CASES OF THIS DISEASE.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the General Hospital, Birmingham.

THE two *post mortem* examinations which I here record represent the sole occasions on which I have had an opportunity of making a dissection after death from epidemic cerebro-spinal meningitis; they will, therefore, be conveniently detailed apart from the clinical history of other cases which have lately fallen under my care at the Birmingham General Hospital or in private practice, leaving an opportunity of inserting hereafter the clinical details of these cases.

The two examinations which follow afford confirmation of the truth of Mr. Simon's observations on this subject, that "for practical purposes, the state of the covering membranes of the nervous centres may be regarded as a mere index of changes more or less distinctive which these centres, in their own intimate composition, have at the same time undergone; and hence it is that the essential phenomena of the disease during life consist in disturbances, more or less grave, of the functions of those all-important organs" (Reynolds's *System of Medicine*, 2nd ed., p. 513).

CASE I occurred in the person of a girl, aged 14, who was admitted on June 22nd, on the eighteenth day of the disease, and died on July 16th. I shall merely record here that the origin of the disease was acute, and dated from June 5th; it was referred to the child having fallen into some water and remained in her wet clothes. Certainly, she felt ill the same evening, and shivered and vomited the following day; the vomiting ceased in three days. The headache was the prominent symptom; it was seated in the occipital and frontal regions. The intellect was clear from the second or third day. The symptoms assumed somewhat of an intermittent type, but, during the last ten days of life, settled into a state of apathy, with much depression of vital power, ending in torpor and death by asthenia. The urine was very phosphatic. The temperature manifested a tendency to morning remissions and evening exacerbations, very decided in two quarter periods, very imperfectly marked in the other two quarters. The maximum temperature never exceeded 102 deg.

POST MORTEM EXAMINATION.—No external marks on the body; a loose fibrinous riband in the longitudinal sinus; fluid blood in this and in the lateral sinuses; very marked injection of the minute vessels over the entire surface of the brain; but the arachnoid and pia mater retained their normal transparency, and could be stripped off the brain with ordinary facility. To this statement there are the following exceptions.—Just at the anterior extremity of the superior vermiform process of the cerebellum was a collection of not very recent yellow lymph in the pia mater, over a space not half an inch square; a similar deposit at the base of the cerebrum covered the chiasma, and a few broad streaks existed in the membrane at each Sylvian fissure, running for a short distance along the vessels. The lateral ventricles had plainly been subjected to distension; at the present time, they contained a moderate quantity of opaque highly albuminous fluid, in which Dr. Saundby found blood-corpuscles and small round granular nuclear cells. Their ependyma was sufficiently thickened to float in water as a consistent semi-transparent membrane. The surface of all the nervous masses in the ventricles showed minute branching vessels filled with blood, and the surface-tissue was rather soft. The blood-points throughout the white tissue of the brain were large and numerous, and on the surface of the convolutions the perivascular spaces were very distinct. The grey substance throughout the cerebrum was deeply tinged with pink; this pink colour, very apparent in the convolutions, was especially striking in the large ganglia. The ganglion-cells in the corpora striata were well formed. Dr. Saundby examined some of the minute vessels of the grey matter of the brain, and reported them simply loaded with blood. In all other respects, the brain-substance was healthy. The spinal cord presented nothing abnormal, excepting injection of the pia mater, which, though considerable, was less marked than in the brain. There was the same strongly marked pink colour of the grey matter as already noticed on the cerebrum. The tissue of the cord was of

normal tenacity; the rest of the nerves were healthy. The muscles of the back presented a granular appearance in the sarcolemma. There were fibrinous clots in the heart. The spleen was small but healthy. Nothing else was presented worthy of note. The blood was not unusually fluid.

CASE II.—The patient was 24 years of age. He was admitted for pleurisy. He had a very cachectic appearance, and gave a confused history of some foregoing illness; but neither in his description nor in the symptoms he presented was there anything to lead to the supposition of peculiarity in his case. He was recovering from his pleurisy, when, with no apparent reason, he was attacked with purposeless vomiting and retention of urine; the vomiting continued for three days and then ceased; but the man became rapidly apathetic, then torpid, and died *asthenic* on the sixth day of this last illness. The retention of urine passed into involuntary evacuation. Inquiry from the friends elicited a manifest history of cerebro-spinal meningitis, and ample confirmation was afterwards obtained from Mr. Bradley, who had attended the patient. Mr. Bradley described to me the symptoms of the simple form of the disease. The attack commenced on the 7th of last February; a brief relapse occurred; but convalescence was sufficiently established to permit of Mr. Bradley taking his leave on March 23rd. Of the subsequent attack of pleurisy, Mr. Bradley knew nothing; the patient came into the hospital on May 13th and died on the 29th.

POST MORTEM EXAMINATION.—The arachnoid and pia mater had undergone remarkable thickening over a limited space at the base of the brain, presenting a tough semitransparent membranous web covering the chiasma, stretching across the interpeduncular space, enveloping the pons Varolii and medulla oblongata and enclosing the cerebral nerves at their origin. The adhesion of the membrane to the pons and medulla was so close that it was impossible to separate it without damaging the nervous tissue. It covered the fourth ventricle and thence extended down the cord. The thickening extended on the under surface of each cerebellar lobe for about an inch in breadth, thence gradually ceasing; it appeared also as a broad band running across the anterior edge of the cerebellum, above the mesocephale. A very scanty deposit of firm yellow lymph existed in the pia mater, upon the chiasma, and beneath the parietal layer of the arachnoid upon the basilar process. In all other parts, the membranes of the brain were quite healthy. The ependyma of the lateral ventricles was much thickened, and could be raised as a semitransparent membrane of considerable tenacity. The lateral ventricles were largely dilated, but no unusual quantity of fluid was found in them at the time of the *post mortem* examination. The tissue enclosing the ventricles had an unusually fibrous appearance, as though it had been subjected to stretching. No abnormal appearance existed in the brain, except that its tissue was generally softer than usual, but not in any one part particularly. The pia mater and visceral arachnoid of the cord were much thickened through the entire length, closely encircling the cord with a dense envelope, which bound down the roots of the nerves and adhered to the cord itself along the posterior surface only. The apex of one lung was broken up, and there were remains of fluid in the pleural cavity. No other morbid change existed in the body.

CASE III.—In a third *post mortem* examination on a patient of my colleague (Dr. Fletcher), who died after an illness of six weeks, the principal appearances consisted in the presence of a soft flocculent lymph over a very limited space extending from the chiasma to the posterior edge of the pons Varolii; of a small patch of the same material over the root of the right suboccipital nerve; and of two or three similar patches within the subarachnoid space of the upper dorsal region of the spinal cord. The cerebral arachnoid was more resistant than usual, and was opaque where stretching across the sulci: in the upper dorsal region the spinal arachnoid was also opaque. The ventricles were distended. The condition of the cerebral tissue closely resembled that in my first case. One kidney was excessively atrophied, thereby accounting for the presence of a considerable amount of albumen in the urine during life.

RECURRENT EPISTAXIS FROM MALARIAL INFLUENCE.

By E. M. SINCLAIR, M.D., Surgeon-Major Royal Artillery.

WITH reference to the paper by Surgeon-Major J. H. Porter of Netley, on Intermittent Hæmorrhage from Malarial Influence, read before the Royal Medical and Chirurgical Society in February last, the following case of intermittent epistaxis from the same cause may prove of interest.

G. —, aged 25, in the service two years, by trade a shoemaker, an intemperate man and not of good character, arrived at Kamptee (from England) in December 1874. In 1875, he had four admissions into hospital for accidental injuries, and one in October under the head of simple continued fever, treated by quinine.

In January of the present year, he became an inmate of the military jail at Secunderabad, and was, after five months' imprisonment, admitted to hospital at that station in a debilitated state, complaining of muscular pains in the trunk and limbs, anorexia, and want of sleep. The temperature was normal; bowels very sluggish; tongue rather foul; urine clear and normal, of specific gravity 1016. He was ordered a mixture of citrate of iron and quinine; and twenty-five grains of hydrate of chloral at bedtime.

On the sixth day after admission, he complained of tingling sensation in the legs, with pain in the back and abdomen, through the thin walls of which the pulsations of the abdominal aorta could be felt most distinctly on very slight pressure, simulating somewhat an aneurism. There was a *bruit* of anæmia, but no tumour or enlargement of the artery, which could be distinctly traced to the bifurcation. He was ordered beef-tea, milk with lime-water, a small quantity of brandy and water occasionally, and a mixture of chlorate of potash, hydrochloric acid, and tincture of iron; also a morphia draught at night. Little or no change occurred till the twelfth day, when he was suddenly seized, about 8 A.M., with epistaxis, and lost blood to the extent of about two ounces. This was checked for the time by the application of ice, but recurred to about the same extent at 1 P.M. Temperature 100.5. On the following two days (thirteenth and fourteenth days), he had epistaxis twice daily, though to rather less extent. Morning temperature normal; evening 99.4. He was given tincture of ergot in draught, and also added to the chlorate of potash mixture; and equal parts of tincture of perchloride of iron and water were thrown up the nares with a syringe. He improved slightly. The epistaxis was less in quantity, but recurred, at irregular hours, once in the twenty-four hours until the nineteenth day, when it came on with increased severity twice, about the same hours as at first, viz., 8 A.M. and 1 P.M. These attacks were preceded by a "shivering"; but there was no hot stage, the temperature not rising above 99.4. He was now put upon quinine, fifteen grains a day, with generous diet. On the twentieth, twenty-first, and twenty-second days, there was recurrence twice daily of the epistaxis, but it gradually became less in quantity. On the twenty-third and twenty-fourth days, there was no bleeding. On the twenty-fifth day, it occurred once, in the morning, having been preceded by a longer "shivering" than usual some hours before; but, as the man had failed to call an attendant at the time, as directed, his condition was not noted. The quinine was continued for ten days longer; but he had no return of the epistaxis or "shivering," as he described the cold stage.

The question in the above case seems to be this: Was the epistaxis in any way attributable to malarial influence? This would appear to be answered in the affirmative, from its cure and prevention by the administration of quinine.

The station of Secunderabad has a red gravelly soil, and is wonderfully free from malaria, a case of true ague *originating* in the station being a rarity; while Kamptee, whence the man came and where he was previously stationed at for one year, is just the reverse, the soil being that known as "black cotton-soil," and intermittent fevers of all sorts the prevailing diseases. Had we here, as Dr. Lauder Brunton considered to have happened in Surgeon-Major Porter's case above referred to, "the poison of ague remaining in the portal system, and being directed into the systemic circulation," owing to the debilitated condition the man had fallen into from the five months' confinement in jail? or was the poison all the time in the systemic circulation like that of syphilis, making itself evident in the same manner when the vital powers were debilitated and brought below par?

CASE OF ACUTE TUBERCULOSIS IN A CHILD AGED FOUR MONTHS.

By THOMAS BARLOW, M.D., B.S.,

Assistant-Physician to Charing Cross Hospital and to the Hospital for Sick Children, Great Ormond Street.

R. W., a boy—a triplet—aged ten weeks, was brought to my out-patients' room at Great Ormond Street on June 30th. He was an eight months' child, and, like his brother and sister who were born at the same time, he had been fed almost from birth on Robb's biscuits, baked flour, etc. His sister had succumbed, and he and his brother were in an extremely marasmic condition. General atrophy, very

severe stomatitis, diarrhoea, and sore nates were the features of his case. The diarrhoea improved, but the stomatitis was very obstinate; it was accompanied by slight superficial loss of substance just within the margin of the lower lip.

On July 28th, some lumps were noticed under the chin. They were evidently slightly enlarged glands. There was no redness and no heat of the skin over them. No enlarged glands were felt elsewhere. On August 11th, the boy looked greatly pinched; the diarrhoea, which had been before then quite controlled, recommenced. The stomatitis had ceased. His voice was weak, and he had a very occasional slight cough. The spleen was felt two finger-breadths below the thoracic margin. The diagnosis at first had been atrophy from bad feeding, but the enlargement of the spleen noticed on this day, taken along with the group of other symptoms, viz., the stomatitis, which had gone on to ulceration, the sore nates (albeit not characteristic), and the weak voice, led my colleague Dr. Lees and myself to question whether, after all, it was not a case of congenital syphilis.

The child died in two days with convulsions, and our doubt was solved in the negative at the *post mortem* examination. The glands under the chin, though only very slightly enlarged, had probably undergone rapid caseation and softening. This was the case also with the glands on each side of the trachea, although there was scarcely any enlargement of them. It was so also with the mediastinal glands and with two or three glands situated in the fissure between the upper and lower lobes of the lungs of each side. In all these glands, the central portion was softened purulent stuff; in some of them, the peripheral part was slightly firmer and opaque, greenish-yellow in colour. The pharynx was natural. The larynx showed, behind the posterior extremity of the right vocal cord, a small cavity bigger than a mustard-seed, exposing part of the arytenoid cartilage of that side. It was just such a loss of substance as one often sees in cases of old phthisis, but I failed to detect any caseous matter in it. There was no ulceration of the trachea or bronchi. The lungs were crepitant, but there were sparingly disseminated grey discrete tubercles, in a few places becoming yellow. Near the base of the left lung was a cavity of the size of a Barcelona nut, which had apparently ensued on acute softening of a group of tubercles. There was no lobular pneumonia. No tubercle was seen on the pleuræ. The spleen was enlarged, firm and crowded with tubercles, just becoming yellow, mostly about the size of a mustard-seed. The organ weighed one ounce. The liver, intestines, and mesenteric glands showed no sign of tubercle; but there were some distinct grey and white granulations in the cortex of one kidney.

Tuberculosis in children under twelve months old has not been regarded in England as a common disease. Dr. Duckworth has put on record the case of a child eight months old in the *Pathological Transactions* for 1875. Dr. Powell has recorded under the head of fatal hæmoptysis a case of tuberculosis in a child seven months old (*Pathological Transactions*, 1874). But my patient was just under four months old when he died, and I own that the idea of tubercle never occurred to me before the *post mortem* examination. With the exception of a rather weak voice and a very occasional cough in the last few days of his life, he had no respiratory signs; and, having at first satisfied myself that there was no congenital heart-disease to account for his atrophy, I had paid no further attention to his thoracic organs. I see from Steiner's book on *Children's Diseases* (Tait's translation) that the Prague physician has found tubercle in sucklings of two months old.

The question arises, whether some of the cases of *young* infants, which we write down as marasmus from bad feeding, may not be tubercular. But this case leads one strongly to believe that the tuberculosis may be secondary rather than primary. In this boy's family, there was no history of phthisis whatever.

The succession of events seems to have been as follows:—Bad feeding, diarrhoea and stomatitis; glandular inflammation, first of the glands under the chin, subsequently extension to glands along the trachea, in the mediastinum, and in the fissures between the lobes of the lungs, probably caseation, but, at all events, breaking down of inflammatory products; last of all, acute tuberculosis of the lungs, spleen, and kidney. I have carefully avoided the use of the word infection, but it seems impossible to doubt that the local inflammation was primary, and not necessarily specific, and that the specific products were secondary.

I wish to draw special attention to the enlargement of the spleen. Everybody is familiar with the disseminated small round caseous masses found *post mortem* in the spleen in acute tuberculosis; but the enlargement which goes along with the above condition, and which makes the spleen palpable below the thoracic margin has not received sufficient attention as a clinical feature.

REMARKS ON THE TRANSIT OF INVALIDS.

By RICHARD DAVY, F.R.C.S., Surgeon to the Westminster Hospital.

AN extended experience in the use of hammocks for invalid transit has confirmed their utility, and it is now my desire to place some additional facts on record with reference to a new stretcher and hammock-van.

Stretchers.—The diagram shows the form of stretcher in use at the Westminster Hospital for carrying patients from the wards to the open air. (Fig. 1.) The poles are placed on the shoulders, or borne at

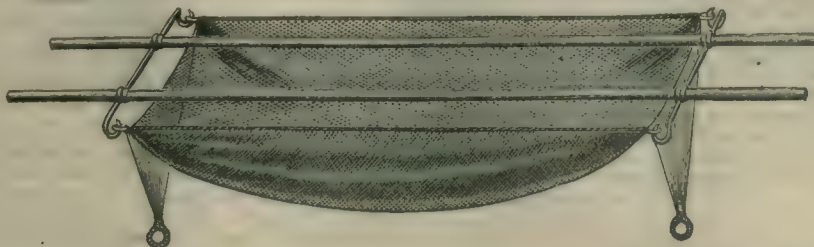


Fig. 1.—Stretcher.

arm's length by the porters; the depth of the hammock necessitates shoulder carriage on going up or down stairs; the capacity of the hammock is much increased by the spreaders, and this arrangement gives also a feeling of security to the occupant; the shift from the stretcher to the hammock-van is readily performed by the mechanism here shown, for experience soon proved that, without it, there was a difficulty in freeing the poles. (Fig. 2.) The spreader (1) supports the weight of

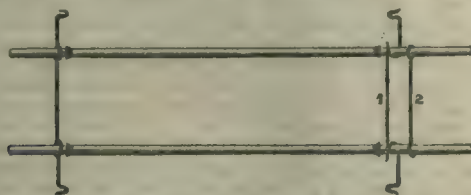


Fig. 2.—Mechanism for Shifting Patient.

the invalid. The patient can readily be shifted by removing (2) and sliding the poles right and left. The pendants shown in Fig. 1 have, of course, been previously attached to the permanent hooks in the van or railway carriage.

Hammock-van.—The British public have practically evinced a far higher regard for the removal of valuable furniture than for the transit of delicate Christians. The method pursued in removing furniture in large vans by road, or rail, or sea is most convenient; and I have to introduce to public notice a hammock-van for the convenience of invalids. (Fig. 3.) This carriage may be drawn by one or two horses;

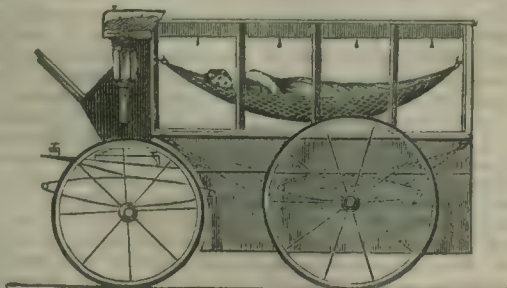


Fig. 3.—Hammock Van.

permits of two hammocks being swung in it (the dotted line shows the position of a second); is furnished with strong springs, India-rubber tires, seats for attendants, lavatory and its accompaniments. I have found, in transmitting my patients from London to country places, great inconvenience on reaching the rural terminus, by reason of having to hunt up some suitable conveyance to complete the last stage of the journey. By employing the hammock-van, the patient is subjected to the least amount of inconvenience, being slung in the van at his own

door. The van is placed on a railway truck at the station, and, on reaching the railway terminus, the van is shunted off, and is ready to receive horses for the last stage; so that the invalid suffers no intrusion from the time of leaving one house until arriving at the door of the other; the poles and stretcher are packed away in the van; and thus all arrangements can be satisfactorily completed. I am sanguine enough to hope that sea-sickness may by this arrangement be lessened, and shall avail myself shortly of a practical test to this end.

I have recently been informed that Surgeon-Major Porter of Netley has repeated all my experiments with hammocks on railways, and that he has expressed himself satisfied with the results. My object will be attained if these suggestions lead to the better management of

invalid transit, and thereby economise the pain and distress of all sick persons that travel by land or by water.

Messrs. Seydel and Co. of Birmingham have heartily assisted me in my experiments, and are the sole makers of these hammocks and appliances.

THE PHOSPHORUS PILLS OF THE BRITISH PHARMACOPŒIA.

By J. ASHBURTON THOMPSON, M.D.

I REGRET that absence from England has hitherto prevented me from commenting upon a note on the phosphorus pills of the *British Pharmacopœia* by Dr. Owen Rees, published in the *BRITISH MEDICAL JOURNAL* of October 7th. In the meantime, Messrs. Young and Postans have stated that, during May 1874, Mr. Martindale related to the Pharmaceutical Society an experiment, by which he had ascertained that these pills are indigestible.

I wish to say that the fact is stated in my work, *Free Phosphorus in Medicine*, published two years ago. At page 40, a formula is referred to, which consists of phosphorus and white wax alone. It was published, along with some clinical reports of cases in which it had been used, in 1849. From these reports, I have inferred that such a formula is inactive. At page 80, the indigestibility of wax is referred to, and Mr. Martindale's experience described a little farther on; and then the conclusion is drawn from these data that wax is not an useful vehicle for the internal exhibition of phosphorus. In another part of the same work, many reasons are given for believing that a solution of phosphorus in fat or oil will be found the safest and most certain, as well as the most active, form in which this metalloid can be administered.

It was on account of the reputation for uncertainty of action conferred upon it by its use in combination with improper vehicles, that phosphorus had fallen into almost entire disuse for a very long period subsequent to its first employment as a medicine and previous to the last ten years. It is much to be regretted that by the introduction of the formula under consideration to a work of so much authority as the *British Pharmacopœia*, such an useful remedy should have been needlessly brought into the same danger again at a critical period of its history. When properly prepared, phosphorus is neither an inactive nor an uncertain drug.

Dr. Rees, in the same note, refers to certain cases of two kinds of disease in which he has found phosphorus useful; and, in another part of the same issue of the *JOURNAL*, I observe a brief record of the fact that two cases of yet two other kinds of disease have been successfully treated with phosphorus by a correspondent. I venture to say that more particular accounts would have been of interest to the profession. Very little indeed has as yet been precisely ascertained of the therapeutic powers and clinical uses of phosphorus. Nevertheless, it seems unlikely that information upon these points is wanting for lack of experience; for I have been informed from time to time by the various manufacturers that the sale of phosphorus compounds is not only very

large, but still increasing; and that, in the case of one preparation, the right of, or reputation of, best manufacturing it is now a valuable piece of property to those who possess it. The practitioners who prescribe these large quantities presumably find it to the advantage of their patients to do so, and would, therefore, render much service to the profession if they made known their experience in the matter.

THERAPEUTIC MEMORANDA.

CALABAR BEAN AS A LACTAGOGUE.

IN THE BRITISH MEDICAL JOURNAL for 1874 (vol. ii, p. 549) and 1875 (vol. ii, p. 396), I brought before the profession various uses to which Calabar bean might be put, from its power of dilating the peripheral blood-vessels. Wishing, a few days ago, to restore the secretion of milk after it had disappeared from the breast for about three days, I thought this dilating power might be made useful. I accordingly prepared an ointment of the strength of twenty grains to the ounce, and ordered it to be applied, and washed off carefully before the baby was allowed to suckle. After two applications, *the baby not having been put to the breast in the meanwhile*, the milk returned in full flow.

W. MUNRO, M.D., C.M.

ARTIFICIAL DRUM-HEADS.

I ASK permission to place on record the correction of an error made by Mr. Lennox Browne in his description of Yearsley's so-called "artificial tympanum". It is not a "thin disc of cotton-wool of the shape of the membrane", etc., as he says, but a "small pellet" of moistened cotton-wool, applied to a certain part of the membrana tympani, or, in the absence of this structure, to one of the ossicles. (See Yearsley's paper in *Lancet*, July 1st, 1848, reproduced in his work on *Deafness*, 6th ed., 1863.)

JAMES PATTERSON CASSELLS, Glasgow.

TREATMENT OF TAPEWORM.

ALTHOUGH most cases of tapeworm can be readily cured by the usual remedies, such as male-fern, kousso, or turpentine, it sometimes happens that all are resisted, however carefully given. Such a case occurred to me about a year and a half since. The gentleman, a Canadian, suffering also from lung-disease, had for more than two years been the subject of inveterate tapeworm, with all its attendant evils and discomforts. Before leaving Canada, he had undergone the usual round of remedies, and, under all, great lengths of the worm were expelled, but, as the results proved, never the whole parasite. After coming to Torquay, he again took, under my superintendence, large doses in succession, at intervals, of the above three remedies, as well as a full dose of kamala; but with still the same results—large portions of worm expelled, and on one occasion so narrowed that it was hoped the head had only escaped observation. Comparative freedom from discomfort for some time seemed to confirm this hope, but once more the signs were manifest. Just then, the formula to which it is my purpose to call attention was sent over from Canada. My patient being in a weak state of health, the first dose given was not of full strength, more especially as one minim of croton-oil only was added. Success was not complete. After an interval of a few weeks, the full dose was taken, and within two hours the entire parasite, including the head, was expelled alive.

The bulk of medicine to be taken is large, but my patient said he found it much less disagreeable than the kousso; and I believe the mucilage from the pumpkin-seeds renders the medicine at once more palatable and easier in action.

The following formula is exactly as it was sent to me. I believe it is largely employed both in Canada and the States.

Take of pomegranate bark 3ss; *pumpkin-seeds, 3j; ethereal oil of male-fern, 3j; ergot (freshly bruised), 3ss; powder gum Arabic, 3ij; croton-oil, mij. Upon the pomegranate, pumpkin-seeds, and ergot well bruised, pour eight ounces of water. Bring to the boil, stirring constantly whilst boiling for fifteen minutes; adding water to keep up the eight ounces. Make a smooth emulsion, with a small quantity of water, of the croton-oil, oil of male-fern, and gum Arabic. Strain the decoction through a coarse cloth and express strongly, and mix with the emulsion.

The patient should have a full dose of aperient (Rochelle salts 3j) on going to bed; and the following morning the above dose about eight o'clock, before any food.

* From yellow field-pumpkin.

I may add that, when I heard of my patient a considerable time after the last dose of the medicine, there had been no return.

SPENCER THOMSON, M.D., Ashton, Torquay.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

UNIVERSITY COLLEGE HOSPITAL: SIR WILLIAM JENNER'S CLINIQUE.

IN the course of recent visits to the *clinique* of Sir William Jenner, we have collected some notes of his teaching, in respect to current cases of disease under treatment.

Heart-Disease in Children.—In an attack of rheumatism, the disposition to inflammation of the heart and its membranes is in direct proportion to the youth of the patient; the younger the heart, the more readily it is affected; and this is a form of malady likely to increase with years. Parents often hope "the child will grow out of it": the heart, of course, must grow; but, if the valves be imperfect, they must become more patent as the size increases; whereas, in older patients, the heart having ceased to grow, the mischief at least remains stationary. The fact is, then, that, as regards valvular diseases, children rather *grow into* their trouble than out of it. The pathology of heart-disease is also largely a question of age; for instance, if I were to be affected, it would probably be of degenerative character; but, if a child, or even one of you, it would almost always be rheumatic. You must, however, bear in mind its possible connection with albuminuria, with syphilis, or with congenital defect. Independently of these, it will almost surely be the result of rheumatism, though the attack may have been so slight as to have been forgotten. If you find evidence of cardiac disease, and if you do not get a history of ordinary causes, you must have very unequivocal evidence to prove they did not exist. The more improbable any point is, naturally the stronger must be the evidence of it. If Dr. Slade tell me he gets spirit-writing, his proofs ought to be above suspicion. If endocarditis in a child be the *only* symptom present, still it must be taken as strong evidence of rheumatism. I remember a boy who came with no definite complaint; but we found a loud friction-sound over the heart; a week afterwards, he got swelling of the joints and other evidence of rheumatism. Another case was more striking, and occurred in the young child of a medical friend. It was found late at night suddenly suffering from great dyspnoea: I was sent for hurriedly in the absence of the father, and found a loud mitral *bruit*, which had never been suspected before. Half an hour afterwards the father returned, to find dead the child that he had left apparently well. It was two years old, and, after much consideration, they remembered that, about twelve months before, its limbs had seemed very tender, and it was uneasy in walking; but these symptoms had passed away and been forgotten; no doubt, they indicated the commencement of the attack. The least sign, then, of such trouble in children should be most carefully watched; and remember the great tendency of the malady to recur, so that, after one attack, care should be constant. *Chorea* has been considered a rheumatic inflammation of the spinal meninges. The rheumatism may be a coincidence, but it is certainly a common one. If there be active endocarditis at the time, I consider it certainly rheumatic; but, in estimating the importance of a *bruit*, inquire whether it varies, is absent from certain beats, or whether it be constant; for, if the former, it will often be dynamic from irregular action of the papillary muscles. I remember a child with chorea and a *bruit* of organic character, but no other evident rheumatism. In a week, however, he got urticaria, and later a marked attack of acute rheumatism. Another baby with chorea was intensely fretful, and I found the explanation in signs of acute pericarditis, which, indeed, proved fatal soon afterwards.

Ascites is never directly produced by heart-disease, but only after organic disease of liver has occurred.

Rachitis.—Sir William Jenner observed that a very large mortality is due to this malady, though it has no place in the Registrar's returns. If a child be brought to you with (1) sweating of the head and upper part of the body; (2) tenderness of limbs; (3) strong desire to lie cool, that is, to throw off its bedclothes; (4) or fetid stools; let the child be stripped, and observe its position and the state of its bones. Rickets is popu-

larly associated only with crooked legs; but it really occurs before the deformity, and the latter is the result of mechanical pressure on softened bones. Observe this child bending forward as it sits, and resting on its hands; note the *clavicles* bent at almost an acute angle in their middle. This is from transmitted pressure. Its legs are not bent, for it is never on them; the thighs are sometimes bent from the position of sitting, and sometimes the humerus just below the insertion of the deltoid, from the weight of the arm when raised by that muscle. The back is curved, and this is mistaken sometimes for angular curvature; but observe, you can straighten it out with your hand. Next, see the ribs, and note a groove just external to their cartilages, which feel like "beads". At each inspiration, the atmosphere presses most on the weakest part, *i.e.*, the growing part, near the cartilage, and the groove deepens. The action may be imitated with a piece of lung in a glass jar with artificial diaphragm; depress this, and air enters the lung; now insert in the side of the jar a piece of India-rubber, and see how that also is pressed in by the air at the same time. The child is almost in the condition of a frog as to breathing, the inspiratory power is so feeble. The ribs are so soft, and assist so little, that the whole occupation seems to be to breathe. Such children are very liable to catarrh and bronchitis, and a plug of mucus in a bronchial tube may cause death. Observe the shape of the chest, of small diameter laterally, but deep from before backwards.

The bones are enlarged at their ends, as at the wrist and ankles, or at any part where ossification is going on; thus the parietal bones are thickened along their suture. When the bones do harden, they become harder even than normal, and their development is generally arrested—the scapula especially is small and thick—and, if the affection be severe, the child becomes a dwarf. The head, like the thorax, is narrow across, long from before backwards—nearly an opposite shape to that of hydrocephalus. A prominent forehead, or what may be called a "lofty brow", generally means rickets. We had a classical instance here at one time in the porter at the dissecting-room, whose cranium came afterwards into our museum; and a lady phrenologist, examining our selection, singled it out with "*This is the grandest*". The fontanelle is often unclosed and depressed; in hydrocephalus, it is raised. Dentition is retarded; this child, nineteen months old, has only two teeth. Recognising rickets, you will not feel bound to lance gums in expectation. With regard to the general tenderness of surface, it leads to the child keeping as quiet as possible. Whilst a healthy baby will occupy itself in putting its toes in its mouth, etc.: the rickety child also will, as a rule, be "good", contrasting strongly with the tuberculous, who will be irritable.

The *Fætid Stools* are like putrid meat. The belly is large; but, remember, all children have large bellies. This is well known to painters who paint from nature. You will observe either they paint it so, or they arrange the position so as to hide it from view. The reasons that make it large are particularly active in the rickety; the parietes are thin, the muscles weak, digestion impaired, the chest-wall ineffective, the diaphragm has to do more, it descends lower, and the liver and viscera are pushed forward.

As to the *cause of rickets*, it is clearly traceable to mal-hygiene. Very rarely is the first child rickety; but, when one is so, mostly the subsequent ones also. I speak of the lower ranks. Say a coachman marries a servant. They have at first room enough and comfort enough, and the first child is healthy; others come; the mother nurses long; the condition of her blood is impaired, the air is less pure. If work be not good, the food is less; and the result is seen in the children. Amongst the wealthier classes, you may get an occasional rickety child in a family, traceable often to oversuckling or temporary troubles.

Treatment.—In the infant, if the mother be ill, provide a nurse; in all, attend carefully to the feeding. You must see it yourself. It is your instrument of cure. What should we say of a surgeon who did not look at his instrument before using it? Milk is good, but do not press too much of it. You must see the stools, and, if undigested curd be passed, you must lessen the milk or thin it; a little pepsine will help. Softened bread or barley may be given, not corn-flour as a rule. Minced-meat is often advised, but is not good; if any meat be given, let it be well pounded, and pressed through a sieve. Beef-tea, well made, is better. Of remedies, cod-oil is so successful that we have been cautioned how we give it, lest "it should set the bones too quickly and induce deformity"; but this is nonsense. It gives admirable results.

Hydatid Cyst: Diagnosis.—A man presented a rounded projection at the ensiform cartilage and lower ribs of right side; no pain, no jaundice, feels well; the swelling is in the liver, for you can feel its lower margin rising and falling with respiration, and the swelling is above the lower margin. Note that the diaphragm is not so damaged as to be inactive, whilst in malignant and inflammatory disease it com-

monly is so. The liver is probably unchanged in texture; the growth has been gradual, and revealed only by the present swelling; the upper surface is free; there is obscure fluctuation, but no "hydatid fremitus"; the absence of this is not strongly negative, though its presence would be positive.

Addison's Disease.—The points that were specially described by Addison were—1. The brown coloration; 2. The anæmia; and 3. The weakness. Observe that exposed parts are most coloured, as the knuckles; also blistered surfaces, parts that are naturally pigmented, and parts that are pressed upon: the nipples and umbilicus, the margins of eyes, roots of eyelashes, the buttocks, and hips. Often the suprarenal capsules are diseased, but I have seen a case where they were not diseased, but branches of the sympathetic ganglia passed through the lymphatic glands. It is possibly the sympathetic which is at fault.

Enteric Fever: Beef-tea & Milk: Hemorrhage.—"In a case, now at the fourteenth day, there is looseness of the bowels. On examining the stool, I find a separate undigested curd of milk. This curd has acted as an irritant and induced the diarrhoea, therefore you must thin the milk, and replace it more or less by beef-tea. It has been too much the fashion to give much milk without due regard to its digestion. As remedies, you may give some starch with bismuth in enema." At the next visit, some hæmorrhage (of which the patient was kept in ignorance) was reported by the nurse. On inspection, it was found to be about half a pint of dark fluid blood. "Now, the most important point is, that this patient do not sit up for any purpose. A case which occurred during my student days impressed me very much. He had had hæmorrhage like this, but did not seem very bad; his pulse was 84; his mind clear; he was allowed to rise to the night-stool; the hæmorrhage recurred, and ended fatally in a few minutes. A mesenteric artery had been opened. You must then, by position, take off the weight of the blood-column. Omit milk altogether, the curd might irritate; give beef-tea and arrowroot; a little softened bread; a little brandy, two drachms every three or four hours, to improve the nerve-tone; give him three grains of acetate of lead with acetic acid every four hours, and an opiate enema night and morning. Observe there is no great distension of abdomen, and there is no tremor. I conclude the ulceration is not deep. When tremor is disproportionate to other nerve-symptoms, it indicates more depth of ulceration." The patient did well.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 24TH, 1876.

Sir JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

ON THE USE OF THE MAGNET IN THE CASE OF A NEEDLE BROKEN IN THE LEG.

BY SIR BENJAMIN C. BRODIE, Bart., M.A., F.R.S.

The son of Sir Benjamin Brodie, a boy, aged 11, had a sewing-needle accidentally broken in the calf of his leg. The needle could be rather indistinctly felt; and there was inability to use the limb. The boy was seen by Mr. Charles Hawkins, who recommended that no attempt at removal should be made, and prescribed rest. It was determined to try the effect of a magnet, both with regard to the detection of the locality of the foreign body and the possibility of moving it. The experiment was made at the Royal Institution with a powerful electro-magnet, in the presence of Sir B. C. Brodie, Mr. Charles Hawkins, Mr. Prescott Hewett, and Dr. Tyndall; the result being that the exact position of the needle was indicated by the disturbance of a magnetised needle, while no change was produced in the position of the foreign body. The body was now allowed to move about as usual, the pain and inability to move the limb having ceased. In course of time, the needle passed to the other side of the leg—its change of position being indicated by the magnet; and, having at last been found sufficiently near the skin, it was successfully extracted.

Mr. BRUDENELL CARTER referred to a paper by Dr. McKeown, in the *Dublin Journal of Medical Science*, on the Use of the Magnet in the Diagnosis of the Presence of Steel or Iron in the Eye. In this paper, several cases were related, in which the magnet was used for the detection of the presence of iron in the eye, and also for extraction. In one case, a fragment of iron was removed from the vitreous chamber. —The PRESIDENT had read of powerful magnets being kept at iron-foundries for the removal of fragments imbedded in the conjunctiva or

on the surface. He hoped that the paper of Sir B. Brodie would lead to further investigation.—Mr. CARTER said that the practice alluded to by the President was mentioned by Fabricius Hildanus.—Mr. SAVORY referred to a paper, published thirty years ago by Mr. Smee, on the Detection of the Presence of Needles by the Magnet.

NOTES OF A CASE OF PSEUDO-HYPERTROPHIC PARALYSIS, WITH A FEW OBSERVATIONS ON SURFACE-THERMOMETRY.

BY WILLIAM M. ORD, M.B.

WILLIAM MARSHALL, aged seven years, had been weak on his legs for four years, and had fallen down very often, without any convulsion or loss of consciousness. His father was consumptive. His mother had chorea before marriage, and was still "excessively nervous". Of the children, the eldest was the subject of the notes; the second brother, aged six, was beginning to develop the same disease; the third, a sister, died of convulsions during teething; the fourth, aged two and a half, was healthy; the fifth, an infant, was very weakly. There was no known history of syphilis. William Marshall had enlargement and unnatural hardness of the calves, of the right deltoid, and to some extent of the sacro-lumbar muscles. His attitudes and positions indicated general weakening of muscular power in the back and lower limbs. There was no loss of sensibility in the skin. There was no change or unnatural character in the appearance of any part of the skin. The electrical sensibility of the muscles in general was diminished for faradic currents. For continuous currents, the calves were less sensitive than the thighs, the thighs than the sacro-lumbar muscles. Microscopic examination of the muscles of the calves revealed the presence of a very great excess of adipose tissues, and the commencement of fatty degeneration in many of the muscular fibres. A few notes were given respecting the brother Henry Marshall, who was beginning to show slight enlargement, and to manifest the same sort of weakness, though in small degree. The question of the relative temperature of the thighs and calves was then discussed, reference being first made to a previously recorded case, in which the author found the calves to be decidedly warmer (from 1.9 to 3.8 Fahr.) than the thighs. In the present case, surface-thermometers, made after a pattern originally used by Dr. Sibson, and provided with non-conducting pads by which loss of heat was prevented, were used. In each experiment, two carefully calibrated thermometers were used together. The skin was kept covered; the instruments were always applied to corresponding parts; were kept on from twenty to thirty minutes; and being non-registering, were read *in situ* with the least possible exposure. The general results were that the thighs, in ten careful observations, were found to be 1.07 deg. Fahr. warmer than the calves. This is still, however, different from the result of seven examinations of healthy persons, in whom the average temperature of the thigh was 1.5 higher than that of the calves. Reference was made to observations of Dr. John Davy on the temperature of different parts of the surface, from which it appeared that different parts of the leg will show greater discrepancies of temperature than similarly conditioned parts of leg and thigh: also to observations of Mr. A. H. Garrod, upon the effect of exposure of the skin to cold in altering the temperature of internal parts, and on the effect of heating certain parts in depressing the temperature of others. Lastly, remarks were made in regard to the apparatus used; and the author gave reasons for trusting their indications. The value of the results to be expected in the future from the use of thermo-electric apparatus was recognised; but the difficulties at present attending the use of such apparatus were regarded as rendering them unsuitable for clinical purposes. The observations and apparatus of Becquerel and Breschet, and of Dr. Montgomery, were particularly noticed and discussed.

Dr. GOWERS said that the paper was of value in regard to the pathology of the disease. It lessened the evidence formerly brought forward by Dr. Ord to connect the disease with the sympathetic system. A section of a tumour in the dura-matral sheath of the spinal cord presented the same microscopic appearances as a section of muscle affected with pseudo-hypertrophic paralysis. The tumour, which contained muscular tissue, was probably congenital. If the muscular tissue in the tumour underwent the degenerative change described, then it might be supposed that in other parts the muscles might undergo the same vice of development. Several of the conditions under which pseudo-hypertrophic paralysis occurred, such as its tendency to occur in males and in several members of the same family, favoured this view.—At the request of the President, Dr. ORD demonstrated the apparatus which he had placed on the table; viz., various thermometers (including those used by Dr. Sibson) for taking surface temperatures; the thermo-electric apparatus used by Dr. Montgomery, etc.

Direct Transfusion of Blood.—Dr. ROUSSEL described an apparatus which he had devised for the direct transfusion of blood, and demonstrated its use on the human subject (as blood-giver).

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETING.

THURSDAY, OCTOBER 12TH, 1876.

Instruments, etc.—Dr. HOLMAN exhibited an instrument, in which a patient with fracture of both thighs and left wing of the ilium had been brought from Paris.—Mr. ADAMS stated that a similar splint was used by Bonnet of Lyons and by Phayre of New York after hip-excisions.

Dr. WALTERS read a *résumé* of a year's practice in the Reigate Cottage Hospital; and exhibited Volckman's scoop, which had been used for scooping out strumous abscesses after incision.

Mr. DURHAM exhibited the new apparatus for applying actual cautery.

Tapping the Urethra.—Mr. DURHAM explained the operation for tapping the urethra in front of the prostate in cases of severe impermeable stricture of the urethra, commonly called at Guy's "Cock's operation". It is performed without guide in the urethra. The effect is to empty the bladder and place the stricture at rest; after a time, a catheter may be passed. The patient is placed absolutely straight in the lithotomy position. By the index-finger of the left hand in the rectum, the prostate is felt, and a soft depression at its apex corresponds to the dilated membranous portion of the urethra. A broad double-edged scalpel (straight) is passed into the perinæum in the middle line between the anus and the scrotum till opposite the tip of the left index-finger; then raise the knife upwards a little and withdraw it, passing a grooved probe or catheter into the bladder. The operation is useful in cases of ruptured urethra, also in extravasation of urine.—In reply to Dr. Holman, Mr. DURHAM stated that puncture *per rectum* was to be preferred in sudden retention of urine with slight stricture.—Mr. CHALDECOTT stated that he had seen the operation described performed by Mr. Simon twenty years ago.

Hydrophobia.—Mr. R. STEELE read notes of a case of hydrophobia. It occurred in a boy, aged 9, bitten six weeks before the symptoms, which lasted nine days, till death. The bite was freely cauterised at the time with nitrate of silver. The treatment was by injections *per rectum* of chloral. The temperature never rose above 100 deg.; the pulse was always dragging, occasionally irregular. There was a little albumen in the urine; no glucose. The spasmodic state subsided towards the close, and a typhoid condition came on.—Mr. STILWELL referred to Abernethy's recommendation to insert a skewer into the bite and cut it out with surrounding tissues.—Sir THOMAS WATSON had seen four cases, in all of which there was an accumulation of sticky mucus about the fauces, which was absent in this case. In three of his cases, there was incontinence of urine.—Mr. SCHOLICK mentioned a case in which the skewer operation was performed.—Mr. HEARNDEN saturated one patient bitten by a mad dog with half-drachm doses of sulphate of soda, with free local application of the same. The patient was bitten through thick trousers. No symptoms followed.—Dr. BRAXTON HICKS advocated the application of potassa fusa, strong nitric acid, or liquor potassæ.—Dr. DYCE DUCKWORTH called attention to the long period of life after symptoms in this case. Recently, in St. Bartholomew's Hospital, a boy, aged 5, bitten ten weeks before, lived eight days. On *post mortem* examination, no naked-eye change was found. In the same hospital last year, great changes in the upper part of the spinal cord were found under the microscope. In this case, chloral appeared to relieve the symptoms.—Sir THOMAS WATSON stated that his first case died on the eighth day, and its long duration was attributed to opium. He inquired as to symptoms of recrudescence in the wound.—Dr. DYCE DUCKWORTH stated that there were no symptoms of recrudescence in this case, or in the one at St. Bartholomew's.

Missed Labour in a Cow.—Mr. HAWKEN read a case of missed labour in a cow treated by the use of Barnes's bags. Special bags were made for the case, and labour came on four days after their use. The animal was five months over time; a dead calf of about eight months was delivered, and recovery ensued.—Dr. BRAXTON HICKS considered "missed labour" a misnomer. These were cases in which the fœtus died before term, and the dead fœtus failed to excite the uterus to contract. With a living child, he did not know of its occurrence.

Osteotomy of the Femur.—Mr. MAUNDER exhibited two patients, upon whom he had performed osteotomy of the femur for ankylosis of the hip, with extreme lordosis. A narrow-bladed knife was passed down to the bone below the lesser trochanter, and the division of the bone made by a cold steel chisel and mallet, the patient then being kept in bed for eight weeks, and treated as for fracture. Photographs of the cases before operation were exhibited, and the admirable results were most evident.—Mr. ADAMS described three classes of cases suitable—1. Ankylosis after rheumatism; 2. After pyæmia; 3. After early and arrested struma. He enumerated three modes of operation: that recommended by Mr. Maunder, Mr. Gant's, and his own,

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 28TH, 1876.

CERTIFYING SURGEONS AND THE FACTORY ACTS.

Two Blue Books, a larger and a smaller, contain a large mass of very interesting evidence, together with the report of the Commission appointed to inquire into the working of the Factory and Workshops Acts, with a view to their consolidation and amendment. We publish on another page a review of the recommendations, so far as regards the certifying surgeons, by one of large experience acting in an important centre, to which we refer the reader who has not time to master for himself the contents of the volumes. In looking at the evidence even cursorily, no one can fail to be struck by the contradictory nature of parts of it; and the Commission must have found their task of summarising the whole, and then of offering suggestions founded upon it, one of no common difficulty. One, if not the only, cause of the divergence of opinion which is manifested so strikingly by different members of the inspecting and certifying staffs is, no doubt, the existence of a dual form of administration in the working of the Acts. With the exception of Mr. Inspector Baker and Mr. Sub-Inspector Rickards, both of whom are medical men, and to whose practical opinions we would direct special attention, the inspectorial staff are laymen, for the most part retired officers, while the certifying surgeons are all medical men of recognised position. Between these two classes of officials there ought, of course, to be no feeling, except as to how they may best carry out in concert the intention of the Acts; and, speaking generally, no doubt, this is in the main the feeling which does actuate both. That differences of opinion should exist was to be expected. Things seen by general eyes have a different aspect from that which they have when looked at through professional spectacles; and, on the whole, though this is natural, no great harm, but some benefit, results, as all aspects of the questions raised obtain their proper importance. But there seem to us to be some indications that, occasionally, judgments are not so free as they might be from class prejudices; and it is impossible for us to repress altogether a feeling of injustice when we read in the evidence of an inspector that, though he is compelled to admit that the certifying surgeons perform important duties under the Acts, he is not prepared to allow that they do them in such a way as to assist his officers. In the face of opinions of quite an opposite character expressed by equally high—we may say, practically speaking, of even greater authority—in face of the facts themselves, notorious to all who have paid even a slight attention to the matter; and in face of the cordial manner in which the Commissioners speak of the way in which the certifying surgeons, as a body, perform their duties,—we cannot help regretting such an expression of opinion as that referred to. We hope, indeed, that further reflection will lead to its withdrawal, and shall dismiss this portion of the subject with the expression of the wish that, as both professional and general workers are absolutely necessary to the proper carrying out of the provisions of the Factory Acts, there may continue to be between these two official elements that harmony and cordial co-operation which have in the main existed in the past and, on the whole, obtain now.

The importance of the sphere of factory legislation is indeed very great. On a moderate computation, there are at least one million factory operatives in the United Kingdom; and of these seven hundred and fifty thousand or so are women, young persons, and children. Among the rank and file of this large industrial army, the mortality is greater than in any other portion of the community. Thus, Dr. Purdon of Belfast, who has given immense labour to the statistics of this portion of our population, shows that the mortality among children of the gentry, professional, and mercantile classes under $2\frac{1}{2}$ years of age is 15.8 per cent.; among the artisans and labouring population, it is 20.3; while, among the factory operatives, it reaches the large figure of 38.5. That is to say, of all the children of factory operatives, about two-fifths die before they reach the age of two and a half years, while, among the labouring and artisan portion of the community, only one-fifth die. This disparity is striking, and calls for serious consideration on the part of the legislature. It was stated some time ago by Dr. Ferguson of Bolton that, in addition to the great mortality among the children of factory operatives, there was a marked deterioration in progress of the *physique* of those who survived; and, although this statement has not been fully corroborated by further inquiries, it still calls for careful consideration. The great influence which a given occupation may have on the *physique* of the *employees* is, of course, universally admitted, and is a particular case of the general law, that the organism tends to adapt itself to its surroundings. Even a diminution in physical strength does not necessarily imply any lowering of vitality or diminution of fitness for work. No one would demand the strength of a navvy as a condition for doing factory work. Such a development of bone and muscle would probably rather be objectionable than otherwise. But shortening of life and incapacity for work through illness are very different conditions, against which all the efforts of the legislature ought to be directed. Without doing more than referring here to the chief causes of the infant mortality above referred to among factory operatives, improper feeding and baby-farming, we pass on to some recommendations of the Royal Commission to which we wish to draw special attention.

With many of the recommendations we cordially agree. Thus it will be, no doubt, advisable that factories and workshops be brought under a single Act of Parliament; that all children employed in these places be passed under the examination of the certifying surgeons; that vaccination be a condition of employment; and that accidents should be reported directly by the surgeon to the district inspector, and not, as at present, to him and to the factory office. But there are at least three other recommendations to which we feel that objection must be taken, since, if they be carried out, the Acts will, to a great extent, be made powerless for good.

The first of these is the proposal to convert the factory inspectors into sanitary inspectors, displacing the certifying surgeons to make room for the former. This proposal seems to us a very remarkable one. Surely, sanitary inspection is peculiarly medical work, and one would think that medical men were particularly qualified to perform such work. What, then, are the reasons which induce the Commission to propose so retrograde a movement? It appears to us that this proposal, utterly wrong as it seems, depends upon another, or at least is closely connected with it, to which we would next draw attention. In place of examining the factory operative from time to time, as is necessary if his fitness for work is really to be determined and maintained, it is proposed by the Commission that he should be examined only at his original hiring. If he be then found fit for his work, the Commission propose that he shall have a certificate to this effect from the surgeon, which certificate shall be his passport to changing his place of occupation as often as he thinks fit. Now, besides that this system is open to the very serious objections that the certificate may be tampered with, handed from operative to operative, and its effect otherwise nullified in

any of those almost innumerable ways which will occur to every one, it is evident that it is founded on a quite erroneous principle. It does not at all follow, as is implied by this plan, that a factory operative who is once passed as fit for employment shall always remain so, any more than it follows that persons in other spheres of life always remain fit for work. Accordingly, the certifying surgeons point out that, if their certificate is to be of any value, it should be made necessary for the operative to obtain it at each hiring; and it is suggested that, if yearly contracts were made between employers and the surgeons, the latter could visit the factories as often as might be required, and could exercise a constant superintendence over the health of the hands. By the contract system, the cost of the surgeon's work would be reduced to a minimum, and both employers and employed would benefit. The medical profession has always been noted for the fairness and even the generosity of its charges, and it may be taken for granted that the smaller and poorer employers would not find such contracts any exception to the general rule.

For some reason or other—perhaps from a desire to keep down the cost as much as possible—the Commission seem to be averse to frequent visits from the surgeon, and hence they propose the certificate plan, which says virtually that once a hand is fit for work he is always so; and then they propose to hand over the work of sanitary inspection, which could be easily done by the surgeons if they were constantly visiting the work-places, to men who have had no special training for that kind of work. It is quite evident that, if the factory legislation is to be of any practical value, both these provisions must be altered. The fact seems so plain to us, that it is difficult to understand how it does not commend itself to every one. There is nothing whatever to prevent a contagious or infectious disorder from spreading through a workshop or factory except the constant watchfulness of the visiting surgeon, and there can be no doubt that this, as it is the only effectual means of preserving the health of the operatives, will be found the cheapest in the end; at least, no narrow views as regards economy ought to be allowed to practically nullify the beneficent intention of the Acts.

The last recommendation of the Commission to which we would take exception, is the proposal to make the certificate of the surgeon obtainable for sixpence—a fee not recognised in the profession, while the remuneration of the registrar is fixed at a shilling for simply filling up a form. And here we ought to say that, throughout the evidence of the witnesses examined by the Commission, a misconception seems to exist as to the nature of the surgeon's certificate. It seems to be supposed that the surgeon under the Acts certifies to the age of the operative, while, in fact, he is asked only to state his opinion as to age, but certifies to the fitness of the operative for work, and to his freedom from infectious disease. The general misconception as to the functions and position of the surgeon, which is exemplified by this error, finds expression also in other forms; thus we are at a loss to understand why the Commission, who recognise the unpleasantness and inconvenience which is felt by the inspectors by their having the operatives come to their houses, see no unpleasantness or inconvenience to the surgeons by the visits of the same operatives to the surgeons' houses. The Commission propose to relieve the inspectors of this inconvenience, but coolly propose it should continue in the case of the surgeons, who are at liberty to provide offices for themselves, indeed, elsewhere than at their own houses, but must, if they make any such arrangements, do it at their own cost. We allude to this suggestion only to condemn it as most unworthy and unreasonable; while, as regards remuneration, we hope that some equitable scale of charges will be proposed which will meet the interests of all parties.

It appeared to us that the testimony of some who gave evidence before the Royal Commissioners—a few of the inspectorial class not excepted—was calculated to convey to the minds of those not thoroughly

acquainted with the subject, the erroneous impression that the certifying surgeon was simply a certifier of age alone; totally ignoring, either ignorantly or designedly, the true duties of his office. Under these circumstances, we cannot help suggesting the advisability of the title of "Medical Inspector" being substituted for that of "Certifying Surgeon", as one less likely to mislead or be misconstrued.

SEWER-GAS IN HOUSES.

THE attention of the public is being aroused to the daily and hourly dangers to which the inhabitants of towns particularly are exposed from what ought to be a means of ensuring health if properly carried out. When bodies of men are aggregated together, many dangers to health arise; but, in the present day at any rate, none is greater than that which threatens from the system in general use for removing the effete matters from their habitations. A long and valuable letter from Mr. W. W. De la Rue (not the renowned astronomer, but his eldest son) has struck the right key-note in the matter by suggesting some plain and simple methods of *keeping out* the sewer-gas, instead of attempting to neutralise it when once it has entered the house. There can be no doubt that the crying want of our modern houses is a method of embarrassing ourselves of our fecal and other effete matters in such a way as that we shall hear no more of them, except in an indirect way as manure or the like. So far, however, are we from such a blessed consummation that, in a large number of cases, not only does the volatile part of the excreta return to sicken and kill us, but we allow it, through neglect or ignorance, to poison the water that is delivered to us pure. Sanitarians have been preaching for years the necessity of proper traps to soil-pipes and sink-pipes, and the disconnection of the overflow-pipes of cisterns; yet builders continue to build, and the ignorant public to inhabit, houses unprovided with either the one or the other. It is curious to see how some people take it as a matter of course that there must be a continuous connection between the sink-pipes, for instance, and the common sewer. In the *Times* of the 3rd instant, "L." writes to complain of a smell of sewer-gas that renders his kitchen uninhabitable and the house generally unhealthy. The inspector had visited it, and admitted the nuisance; but nothing was done. In the paper of the 5th, the inspector replies by saying that he "visited the house in question, and found that, in consequence of a trap in the kitchen-sink having been suffered to become dry, there was necessarily an escape of foul gas from the drain." He further adds: "It is no uncommon occurrence for the common area and sink-traps in dry weather, and where no water has for a certain time been thrown down, to become dry; and, when this is the case, there is *always* an escape of foul air from the drain." The italics are ours; but we would ask, Why *necessarily*, and why *always*? Simply because of the radically faulty method of disposing of slops and soil. Surely the pipes flowing from the house to the drain ought to be so arranged that so slight a cause should not produce so frightful a result. It is a terrible punishment to inflict loss of health and possible death upon an ignorant householder because he has omitted (probably through sheer want of knowledge) to pour a little water down his sink-trap. It is surely, however, the business of the landlord, if he take to investing in house-property, and of the builder, if he offer himself as a competent person, to be acquainted so far with the rudiments of sanitary science as to protect the tenant even against himself, if necessary. But too frequently the landlord looks upon the tenant merely as a person created to pay him the quarter's rent and be distrained upon in default; whilst the builder looks upon a job simply as a job, to be scamped in any way that will yield a profit.

It is clear that steps must be taken by the legislature to secure more certainly the lives and the health of the community; and, in the matter in question, the only way is absolutely to prevent the ingress of sewer-gas in any way. Traps are good, but fallacious, especially the water-syphons lately so much relied upon. Ventilation of the sewers is absolutely necessary, but will not be sufficient alone to remedy th

evil. There are but three ways of accomplishing the wished-for end: 1. A dry method, applicable with difficulty to large towns, although it has been tried successfully in some, such as the Goux system in Halifax; 2. The Liernur system, which is, however, expensive and involves large immediate outlay; 3 and lastly. Where a water-system exists, as in most towns, total disconnection of all house-pipes, drains, etc., from the main sewer. The plan proposed by Mr. De la Rue is simple, and would certainly answer in some cases; viz., carrying away sink- and overflow-pipes to fall over a grated trap, and making the house soil-pipes debouch in a ventilated dip-stone trap before reaching the sewer. Various other methods might be employed, such as Banner's, which effectually disconnects the soil-pipes and ventilates the drain. In the meantime, it cannot be too forcibly impressed upon the public that at present every dwelling-house is a suction-pump, drawing disease and death out of the drains; and that the sooner they bestir themselves to remedy it the better.

THE case of Cæsarean section performed by Dr. Edmunds, assisted by Dr. Sibley, which we last week mentioned, has, we are informed, continued to progress favourably.

MRS. GIBBS of Tyntesfield has laid the foundation stone of a hospital for incurables at Cheddar. The cost of the site, building, furnishing, and endowing, will be defrayed solely by Mrs. Gibbs, at a cost, it is said, exceeding £40,000.

A CONFERENCE took place at the Society of Arts on the 24th inst. on the house-drainage of the metropolis. In the discussion, it was generally admitted that a greater uniformity of action amongst the local authorities was advisable; it was, therefore, decided to communicate with Mr. Sclater-Booth on the subject.

LAST week, a woman at a village near Frodsham put a child two years old to bed and gave it a bottle containing carbolic acid to play with, as she stated, to "pacify it". The child drank some of the acid from the bottle, and was more effectually "pacified" than the careless mother had contemplated when she gave it so dangerous a plaything.

PROFESSOR PICK, in an address delivered before a medical assembly in Carlsbad, has expressed his belief that the cutaneous itching and boils, which often precede and accompany diabetes, are not directly dependent on that malady for their development, but that the skin affections and the diabetes spring from a common cause, which is to be sought in some affection of the nervous centres.

OBSTETRICAL SOCIETY OF LONDON.

WE understand that a successful case of gastrotomy for extra-uterine foetation, both mother and child surviving, will be brought before the Obstetrical Society, on Wednesday next, by Mr. Jessop of Leeds, when an interesting discussion is expected to take place.

THE LONDON HOSPITAL MEDICAL SOCIETY.

ON October 20th, an attempt was made by the London Hospital Medical Society to follow up the recent change in the College Board by a similar extension of its own constitution, and the form of its annual *soirée*. Four or five hundred visitors, including many members of the staff, of the Lay Committee, and of the profession in the east of London, met by invitation at the Medical College. A full and varied programme was provided, combining results of recent research and inventions of scientific interest on the one hand, with excellent music and art-specimens of high order on the other. In all respects the meeting was most successful, and will, it is believed, lead to good results. The ordinary meetings of the Society are now thrown open, not only to members of the staff and College, but also to neighbouring medical men and members of similar societies elsewhere. It is hoped that thus greater unity of action will be obtained, and a stronger *esprit de corps* developed.

NORTH LONDON MEDICAL SOCIETY.

The following officers have been appointed for the ensuing year. *President*: Thos. S. Dowse, M.D. *Vice-President*: George Henty, M.D. *Treasurer*: Robert Hilliard, M.D. *Secretary*: W. H. Kesteven, M.R.C.S.

BUXTON HOSPITAL.

THE last quarter's report states that, deducting the usual average of one-eighth of the cases as not having been of rheumatic character, between 500 and 600 cases of rheumatism will have been more or less relieved by the residence in the hospital during some three or four weeks, and the use of the Buxton baths and waters, the air of Buxton, and the care and comforts and medical treatment of this hospital. It should, moreover, be stated, that a very large majority of these are chronic cases, known to be peculiarly intractable by all ordinary medicinal means, and for the relief of which all such means had commonly been tried in vain before these poor persons had submitted to the unavoidable trouble and expense of leaving home and journeying to and from Buxton. In order to confirm previous statistical results, it was determined, two years ago, to give to every patient on leaving the hospital a printed postal card, on which "well", "improved", "no better", etc., might be written, and returned to the hospital six weeks after discharge. Of these cards, 614 have been received during the nine months of the present year; and 498 of the patients are reported as improved, 113 as no better, and 3 as having died. Such a result needs no comment.

OUTBREAK OF TYPHOID AT BORROWDALE.

A WIDELY SPREAD epidemic of typhoid, many of the cases occurring in large isolated houses, has happened in this rural township, and lasted for some months, but fortunately without causing any deaths. The illness is stated in most cases to have been very protracted, running a course of many weeks, and very prostrating, so that most of the visitors have left the place. It appears that Mr. Fox, the medical officer of health, pointed out some time since the necessity for a good water-supply and proper means of drainage; but, when a meeting of the Borrowdale vestry was held, of which he did not receive notice, "not a single hand was held up for the various proposals which were submitted". He further says, that unexceptionable water with proper fall is close at hand, and can be obtained at trifling cost, so that there is the less excuse for the course taken. Now that this mischief is done, a large owner of property has taken the matter up, so that private enterprise will accomplish what the local authority has refused to do. As to the drainage, Mr. Fox says that that is a matter of greater difficulty, as most of the houses are on the same level; but he considers that, with a good outfall sewer, which can be easily provided, the whole of the drainage can be diverted from the stream, and prevented also from fouling the wells, but that, up to the present time, "ignorance, incredulity, pensioning, and procrastination, have been allowed to hold their well-nigh fatal sway", and reforms clearly advocated and justified by subsequent events have been set aside as useless and unrequired. Now, however, when visitors have left, and much pecuniary loss has been incurred, the Borrowdale authorities seem willing to do what is necessary, but that some time must elapse before Rothwaite will reacquire its position as a health-resort. It is to be hoped that this will be the case; for, as Mr. Fox truly says, "nothing should be more clear than that those who receive and make a gain of confiding visitors should, in these days, be specially careful of all their sanitary surroundings". It would be well if Margate, Herne Bay, and other popular places of public resort kept this more frequently in mind; but the chief object of the townspeople appears to be the obtainment of the largest possible amount of rent in return for the smallest possible accommodation and attention. The course of the epidemic has made it quite clear that the outbreak was induced by a general cause, as the cases occurred in houses which were remote from one another, and which had nothing in common excepting a water-supply derived from

a stream fouled by the house-refuse and human excrementitious matter, or from wells which received the surface-drainage of the houses. The water of many of the wells was discoloured, and had an unpleasant smell; that those persons chiefly suffered who drank of the water, whilst others living in the same hotel or house who avoided cold water, and partook of light summer beverages, escaped the disease. Referring to cases of poisoning by drugs, Mr. Fox remarks, "how can we consistently abhor the use of these agents and yet cherish and cling to unhygienic conditions? For such conditions, namely, polluted air and water, are poisons sure and subtle, operating on a far larger scale than all the poisons of design or of commerce put together. The water-bottle is often as much to be dreaded as a noxious drug, and the air of a room may be as deadly as a mine."

DISTRIBUTION OF MILK AND SMALL-POX.

THE joint distribution of milk and small-pox has been once more successfully accomplished; this time by a woman at Liverpool, who supplied customers with milk whilst she was in constant attendance upon two persons suffering from variola. A little girl who bought some milk from Sarah Stout, the woman in question, took the disease and died. Sarah Stout was summoned before the Liverpool police-court for being abroad in a public place while her clothing was infected with small-pox; she was fined 40s. and costs, the legal, but it seems to us very inadequate, penalty for her offence. The same process of distributing milk and scarlatina was attempted on a large scale lately at Sunbury, by a milkman who was nursing a scarlatina patient, but was unpunished. The story is told by Mr. Barnett of Kenton Court, in the *Sanitary Record*, but the results of the milkman's conduct have not been made known.

RESULTS OF THE CONTAGIOUS DISEASES ACTS.

MR. LOWNDES of Liverpool in his recent pamphlet says: "A very striking instance of the diminution of disease in the district since the Acts were first put into operation is shown in the appended tables. I have corresponded with the medical officers of these workhouses—Mr. Thomas of Plymouth, Mr. De la Rue of Devonport, and Mr. Leah of Stonehouse, and they all assure me that the returns are perfectly correct, and attribute the marvellous result to the working of the Acts." But the reduction of the disease is, he finds, by no means the only good which has been effected. The number of prostitutes in this district, which, as we have seen, was at first 1,770, has been reduced to about 400; the 356 brothels to 98. The state of the streets now presents a most remarkable contrast to what it was ten years ago. It was his first visit to Plymouth, hence he was unable to make any comparison; but he has been informed by professional and other friends, who remember Plymouth as it was in past years, and who describe its state then as very bad. It was impossible to walk the streets without being solicited, or even insulted, by the lowest of women, whose language and demeanour were shocking. He could hardly believe that he was in a seaport when Mr. Anniss escorted him in the evening through the town. No crowds of drunken seamen and shameless women round public-houses were to be seen; and even those streets where brothels now exist were remarkably quiet and orderly. He observed the same state when he went by himself the next evening; and he feels sure that the freedom of the streets from the rampant solicitation which is to be seen in the lower parts of our great seaports, must be attended with the happiest results both to seamen and the inhabitants generally. He observes that Mr. Anniss has been singled out, in a most cowardly and unjustifiable manner, by opponents of the Acts, who have subjected him to a series of most malignant attacks; simply, as it would appear, because his work has been so well and efficiently performed. Such attacks will only recoil on those who make them; and having had the advantage of seeing him, of examining his returns, observing the care with which they have been prepared, and the full explanations he is able to give of every detail, he is able to add his testimony to his worth. The authorities are to

be congratulated on possessing so efficient and valuable an officer. In the district which is the sphere of his labours, Inspector Anniss is held in the highest esteem by all classes. Mr. Lowndes could not imagine anyone more thoroughly competent to be entrusted with such difficult and delicate duties as the officer who has been subjected to such gross attacks. The other places visited by Mr. Lowndes—Chatham, Aldershot, and Windsor—showed results no less satisfactory than the above, though, as they are not seaports, he does not give details. At Dartmouth (which is included in the Devonport district), out of eight women examined on the first introduction of the Acts, six were found seriously diseased. The number of prostitutes in Dartmouth has been reduced to two or three, and disease is almost unknown. At Sheerness, syphilis has been almost entirely eradicated from among the women of the town, this port possessing special advantages of situation. At Portsmouth, the reduction has been most considerable; though, from its situation, it is peculiarly liable to fresh importation of disease from unprotected stations.

SPIRITUALISM.

RECENTLY there has been quite a sensation in "spiritualistic circles", by the exposure of a medium fraud in Portland, Maine, U.S. Drs. Gerrish and Greene of Portland were instrumental in bringing about the issue, and no small credit is due to their audacity and perseverance. The medium in question was a female, who, after hiding herself behind a suitable screen in the corner of her parlour, was enabled to send out "spirits" for the inspection of her select audiences. Attired in the ordinary way, she would allow her skirts to be pinned to the floor, and while she was seated upon a stool, the lower portion of the screen being some distance from the floor, the audience were invited to satisfy themselves that the medium did not move from her position. Dr. Greene on one occasion, while the so-called spirit was moving around, asked it to shake hands. This request being granted, he firmly grasped the hand and found the spirit to be the medium herself, who struggled in a very unbecoming way to free herself. While Dr. Greene thus secured the medium, Dr. Gerrish quickly drew the screen aside and discovered the apparel of the lady in a heap at the foot of her stool, and still pinned to the floor. The trick was then shown to consist in wearing undergarments, with which she could emerge from her external apparel with ease, and to all outside appearance without any disturbance. But, after all, says the *New York Medical Record*, in recording the circumstance, this is the old story, whenever sensible and brave men are willing to take the pains to solve what would otherwise appear to be a mystery.

ATTEMPTED SUICIDE WITH A PAIR OF SCISSORS.

THE example set by the late Sultan Abdul Aziz was followed last week by a tradesman living in Mile End Old Town. It appeared in the course of inquiry held respecting the circumstances of the case, that the unfortunate deceased had been in a large way of business, but by false ventures had lost the whole of his capital, and ultimately had to seek a home in the workhouse. His reduced condition preyed on his mind, and he had been frequently heard to wish he was dead. On the 8th of the present month, a nurse at the Mile End workhouse found him in the bath-room bleeding from the wrist. He was at once removed to the infirmary and treated by the house-surgeon, who found that he had severed one of the arteries of the arm with a pair of scissors. He repeatedly tore off the bandages which were placed over the wound, and the great loss of blood brought on exhaustion, which terminated his life.

DISPENSING AND PRESCRIBING DRUGGISTS.

LAST week, at the Bloomsbury County Court, before Mr. Lake Russell, J. Statham had an action brought against him by the Pharmaceutical Society for the recovery of the penalty of £5 incurred in "selling or keeping open shop for the retailing, dispensing, or compounding poison or poisons", contrary to the provisions of the Pharmacy Act, 1868. Mr. Flux, solicitor, appeared for the plaintiffs, and

Joseph Ward, his clerk, proved that he called at the defendant's shop, 15, Broadley Terrace, Blandford Square, and had a prescription of a mixture containing prussic acid made up by defendant. It appeared that the defendant had the control of the shop, and Mr. Claxton, the landlord, stated that the defendant was his tenant and had a lease of the house. Defendant said he had sold the business at the time to a medical man for whom he was acting. The day he received the lease he assigned it to the gentleman who bought the business. Judgment was given for the Pharmaceutical Society for £5, with full costs. The Pharmaceutical Society is justly active in prosecuting unqualified persons who engage in dispensing. Pharmaceutical chemists need not then be surprised, if they are themselves prosecuted when illegally and without qualification they undertake the much more delicate and responsible duty of prescribing.

RECENT URBAN MORTALITY.

DURING last week, 59,57 births and 2,947 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 19 deaths annually in every 1,000 persons living. The annual death-rate was 12 per 1,000 in Edinburgh, 21 in Glasgow, and 16 in Dublin. The annual rates of mortality per 1,000 in the twenty English towns were as follows: Newcastle-upon-Tyne, 12; Brighton and Wolverhampton, 15; Hull, 16; Nottingham and Bradford, 17; Plymouth and London, 18; Bristol and Sunderland, 19; Liverpool and Birmingham, 20; Norwich, 21; Manchester, Sheffield, and Portsmouth, 22; Leeds, 23; Salford, 26; Leicester and Oldham, 30. The annual death-rate from the seven principal zymotic diseases averaged 3.0 per 1,000 in the twenty towns, and ranged from 1.5 in Plymouth, Newcastle-upon-Tyne, and Hull, to 7.5 and 8.3 in Portsmouth and Salford. In Portsmouth, 17 more deaths were referred to scarlet fever; small-pox caused 22 deaths in London, 7 in Liverpool, and 3 in Salford. In London, 2,641 births and 1,224 deaths were registered. The births exceeded by 289, whereas the deaths were 253 below, the average of the week. The 1,224 deaths included 22 from small-pox, 18 from measles, 60 from scarlet fever, 4 from diphtheria, 15 from whooping-cough, 28 from different forms of fever, and 16 from diarrhoea; thus, to the seven principal diseases of the zymotic class, 163 deaths were referred, against 170 and 174 in the two preceding weeks. These 163 deaths were 104 below the corrected average number, and were equal to an annual rate of 2.4 per 1,000; this zymotic rate ranged from 1.5 in the west, to 3.4 in the south groups of districts. The deaths referred to each of these seven zymotic diseases, except small-pox, were considerably below the corrected average. The deaths from whooping-cough were less than half the corrected average number. The 28 deaths referred to fever were 10 less than in the previous week, and were 13 below the corrected average. In greater London, 3,186 births and 1,435 deaths were registered, equal to annual rates of 38.8 and 17.5 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 13.8 and 1.8 per 1,000 respectively, against 16.3 and 2.4 in inner London. At Greenwich, the mean reading of the barometer last week was 29.67 inches. The mean temperature of the air was 53.7 degs., or 4.1 degs. above the average. No rain was measured during the week.

SMALL-POX IN LONDON.

DURING last week, the fatal cases of small-pox, which had been 11 and 16 in the two previous weeks, further rose to 22, a higher number than in any previous week since July 1872; of these, 11 were registered in the north, and 11 in the south group of districts. The 22 deaths from this disease included 5 and 9 which were respectively recorded in the Metropolitan Asylum District Small-Pox Hospitals at Homerton and Stockwell, 1 in the Small-Pox Hospital at Highgate, and 7 in private dwellings. Five of the fatal cases originated in Islington; 2 each in Hackney, Camberwell, Lambeth, and Brixton; and one each in St. Giles's, Finsbury, Whitechapel, Clap-

ton, City Road, Walworth, Battersea, Stockwell, and Clapham. Twelve were certified as unvaccinated, 5 of persons aged upwards of fourteen years as vaccinated; and, in the 5 other cases, it is to be regretted that the medical certificates of the cause of death did not furnish any information relative to vaccination. The two Metropolitan Asylum District Small-Pox Hospitals at Homerton and Stockwell contained 180 patients on Saturday last, against numbers increasing steadily from 72 to 175 in the six preceding weeks. The Registrar-General further states, that the future of the now threatened epidemic of small-pox in London depends much upon the metropolitan sanitary authorities having early information of all cases of small-pox, and it is satisfactory to report that, of the thirty-nine vestries or district boards, who constitute those authorities, thirty-five have made arrangements to have their health officers supplied weekly with the registered particulars of all the deaths recorded in their respective districts. The vestries of St. George, Hanover Square, and Clerkenwell, and the district boards of Holborn and Whitechapel, are now the only authorities who persistently fail to recognise the necessity for supplying their health officers with this information.

THE ADMINISTRATION OF SEDATIVES TO YOUNG CHILDREN.

MR. POOLE, the Furness Coroner, in his last report to the Quarter Sessions at Lancaster, remarks that the use of laudanum is much on the increase, and fears that it is often given to young children. He expresses a strong desire that some more stringent enactment to prevent its purchase should be added to the laws already in force.

ENTRIES AT THE MEDICAL SCHOOLS.

BY way of supplement to the information published in the BRITISH MEDICAL JOURNAL of last week, we may state that the new students who have entered at Charing Cross Hospital Medical School are 40, 31 having entered for the whole course, and 9 for less than the full period. The total new entries at the Leeds School of Medicine are 38, there being now, altogether, 86 students at that school. At the University of Durham School of Medicine, Newcastle-upon-Tyne, the total number of entries is 56, of which 13 are first year students.

AN AMERICAN VISITOR.

DR. BILLINGS of Washington, U.S., the curator of the fine medical library of Congress, and the officer in charge of the department of hygiene in the Army Medical Service, is at present in London, charged with the double mission of securing a collection of missing pamphlets and medical periodicals to complete that fine library, and to collect such further information in respect to hospital construction and University organisation as may be utilised for the Hopkins University and hospital in course of erection by the trustees of that splendid benefactor. The leading English authorities have shown every desire to facilitate Dr. Billings's labours. He is already widely known here by his Specimen Fasciculus of a Catalogue of Medical Literature, which has been issued by Congress, and which will, when completed, be a key to medical bibliography; and by his plans for the Johns Hopkins Hospital, and other important reports. We bespeak for Dr. Billings the same liberal and courteous reception which his countrymen have given, and are always willing to give, to British physicians who visit their shores. His mission, moreover, is one which commands the sympathy of the profession, irrespectively of personal or national considerations.

AWARDS TO MEDICAL ARTISTS.

WE are pleased to notice that the *London Gazette* of October 13th notifies the fact that an award of a medal, etc., has been made at Philadelphia to Dr. Arthur Evershed for his etchings (dry point) and to Mr. Francis Seymour Haden for his etchings on copper. Both these gentlemen exhibited their works at the Centennial Exhibition, and their awards were gained in the class of "Engravings on Steel or Wood, Etchings, and Drawings in Pen and Ink".

SCOTLAND.

DR. J. C. OGILVIE WILL has been unanimously appointed surgeon to the county prison at Aberdeen, in the room of Dr. Dyce Brown, resigned.

DR. ANDERSON KIRKWOOD (Liberal), proposed by Dr. Mitchell, and seconded by Professor Robertson, and the Lord Advocate Watson, proposed by Mr. King, and seconded by Professor Ogston, were nominated on Wednesday for the representation of Glasgow and Aberdeen Universities. The polling is fixed for November 6th, and the four following days.

PHYSICIAN TO THE QUEEN IN SCOTLAND.

WE understand that one of the two appointments as Physician to the Queen in Scotland, which had been rendered vacant by the death of Dr. Laycock, has been filled by the appointment of Dr. Gairdner of Glasgow—an appointment which will be ratified by the voice of the whole profession in Great Britain; nor will the approval be confined to these islands, for Dr. Gairdner's reputation as a physician and teacher of the highest attainments and character extends throughout Europe. The Senior Physician to the Queen in Scotland is Sir Robert Christison, Bart.

THE LATE SIR JAMES SIMPSON, BART., M.D.

THE bronze statue of the late Sir James Simpson is now in the artist's hands, and stands ready to be removed to the site fixed upon for it, viz., in the East Princes Street Gardens, as soon as the pedestal on which it is to stand shall be erected. The casting produced by Messrs. Masfield of Chelsea turns out to be one of unusual excellence. The statue represents the subject in the sitting posture, and is eight feet in height, corresponding to a standing height of twelve feet; the pedestal is to be ten or eleven feet high. Sir James is represented in academic robes, sitting erect with the face turned towards the left shoulder, in the attitude of a man earnestly enforcing his convictions; while the right hand supports one side of a large book which rests on the knees, the left is engaged in turning over the leaves. In modelling the massive head, Mr. Brodie had the busts executed by himself from the life, and he has been very successful in reproducing both the features and the tenacious expression of the original. This part of the casting is peculiarly effective in the sharpness and precision with which it gives every touch of the graving tool; and the same may be said of the hand, in which the sculptor has vividly realised another characteristic feature.

THE GLASGOW PATHOLOGICAL SOCIETY.

DR. JOSEPH COATS took the chair as President of the Glasgow Pathological and Clinical Society on October 24th, as successor to Dr. W. T. Gairdner, who was its first chairman. A number of interesting demonstrations were given. Those by Dr. McKendrick, the newly appointed Professor of Physiology in the University of Glasgow, were received with great interest. Dr. Gairdner and Dr. Cowan took occasion to welcome Dr. McKendrick publicly to his new academic home; Dr. Cowan observing that Dr. McKendrick had shown himself fully qualified to adorn the new Professorship to which he had been appointed, a thorough master of his subject, and a competent instructor.

EDINBURGH MEDICAL SCHOOL.

THE Edinburgh Medical School opens next week for regular lectures and work. The University dissecting-rooms have, however, been open since the beginning of October, and a large number of students, fully one hundred, have been dissecting. The supply of bodies is, we are told, unusually large this year, and there seems every prospect of a highly successful winter. The session of the extramural school will be opened on Tuesday, the 31st, by the usual inaugural address, to be delivered this year by Dr. Wyllie. The classes begin in earnest on the

following day. The election of Dr. McKendrick to the Chair of Physiology in the University of Glasgow, coming as it does at a time so very near the opening of the session, has left the extramural school of Edinburgh in considerable difficulty as to a successor. Several names have been mentioned in connection with the office, but no one has as yet come forward to take up the work. It is only a year or two since there were two extra-academical lecturers on physiology, each drawing fair classes, but promotion has removed them to other spheres of duty, and Edinburgh runs the risk of being left in the lurch. Dr. Matthews Duncan has promised to deliver an address on the opening night of the Royal Medical Society, November 10th.

HEALTH OF EDINBURGH.

THE mortality of Edinburgh last week was at the rate of 12 per 1,000—only on one other occasion, viz., during the week of the Queen's visit, has the mortality been so low. More than one-third of the deaths occurred in persons above sixty years of age. The total number of deaths registered was 48, 12, or one-fourth, being in children under one year. Only 3 of the deaths were returned under the head of zymotic diseases, 2 being due to scarlatina and 1 to erysipelas. The weather during this period has been close and wet, and considerably warmer than is usual in October.

IRELAND.

DEATH OF DR. ATKINSON OF LIMERICK.

THIS gentleman died, after a severe illness, on last Sunday, aged 75. Dr. Atkinson was a Justice of the Peace for the County of Limerick, and held the office of Sheriff for Drogheda in 1834.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

AT the annual stated meeting of the College held on St. Luke's Day, the following officers were elected for the ensuing year:—*President*: Samuel Gordon. *Vice-President*: Thomas Hayden. *Censors*: Thomas Hayden, Wesley B. Jennings, T. Wrigley Grimshaw, J. W. Moore. *Registrar*: J. Magee Finny. *Treasurer*: Aquilla Smith. *Examiners in Midwifery*: Edward B. Sinclair, Fleetwood Churchill, jun. *Professor of Medical Jurisprudence*: Robert Travers. *Representative on the General Medical Council*: Aquilla Smith. At the same meeting, the following licentiates of the College were elected to the fellowship: Walter Bernard, James Cuning, Christopher John Nixon, John Mallet Purser, Richard Newman Townsend.

PREVENTION OF SCURVY.

MR. ROBERT GALLOWAY, Professor of Chemistry in the Royal College of Science for Ireland, has recently published a pamphlet in reference to the prevention of this malady. His proposal is to restore to the salted meat the saline constituent which is removed from the flesh by the process of salting. This constituent is the phosphate of potash; and he suggests that it should be employed with salted meat, in the same manner as common salt is used with fresh meat. Mr. Galloway, who has a high reputation as a practical chemist, has brought the matter under the notice of the authorities, but, up to the present, has not been allowed a trial either in the navy or mercantile marine.

DUBLIN DENTAL HOSPITAL.

ARRANGEMENTS have recently been in progress for the establishment of a Dental Hospital in Dublin; and we are now enabled to state that suitable premises have been secured in Beresford Place, and that the institution will be opened this week. The following officers have been appointed:—*Consulting Physicians*: Dr. Hayden, Dr. Duffey. *Consulting Surgeons*: Mr. Mapother, Mr. Croly. *Dental Surgeons*: M. J. Bloom, Francis McClean, John O'Duffy, Frederic Ryding, Henry Sherlock. *Honorary Treasurer*: J. H. Longford. *Honorary Secretary*: John O'Duffy.

CERTIFYING FACTORY SURGEONS.

THE Factory Act of 1874 was nominally passed with the intention of protecting "the health of women and children"; but very few of those not actually engaged had the slightest idea how materially the interests of the whole of the workpeople employed would be affected. It was completely overlooked that a reduction of sixty to fifty-six and a half hours per week implied a diminution in the work-time of *all* the operatives in textile factories, men or women, young or old, weak or strong. The employers, of course, reduced the wages in proportion to the hours. The operatives were no less taken aback when they found that less time meant less money; and, with the exception of those who were on "standing wages", instead of acknowledging their own short-sightedness, were loud in their expressions of disgust; and, after the accounts in the local papers of "strikes", "turnouts", etc., we feel justified in saying that the amended Act has not been so successful as its advocates on both sides of the House were led to anticipate. No doubt all this has been borne in mind by the present Government; they have taken into consideration the large amount of evidence adduced, the variety of opinions expressed on many important points, the great difficulty of dealing satisfactorily with so momentous a question; and we feel sure every one will admit that they have decided wisely in waiting to give the country an opportunity of studying and expressing a matured opinion on the Report, before introducing any legislation based on the recommendations of the Royal Commission.

The factory laws were made for evil doers, and not for those who do well. They assume that avaricious masters may overtax their workpeople; that lazy and ill-conditioned husbands may oppress their wives with work; that the greed of parents may compel their too young, weak, or deformed children to undue and unfit labour; and, with sorrow be it confessed, every-day experience proves the assumption only too correct.

To secure the complete administration of these Acts two classes of Government officials are employed, Her Majesty's inspectors and the certifying surgeons, the concurrent action of whom is necessary to efficiency.

The duties of the former consist in taking steps to secure the due observance of the law. Those of the latter are essentially sanitary; and, for the benefit of those who are unacquainted with the subject, may be more fully explained as follows:—

(A.) The reporting upon accidents from certain causes.

(B.) The granting of certain certificates, containing—

(a) *The belief (only the belief) that the individual presented has the appearance of the age certified; (b) a decided opinion that he has the ordinary or normal bodily strength, and development of that age; (c) in addition, that he is free from bodily infirmity and disease, and in a fit condition to be employed in the works he seeks to enter for the legalised number of hours.*

Mr. Inspector Horner says (*Report*, vol. ii, p. 67, c. 1,267), "The declaration which the surgeon makes in his certificate has no reference to the actual age of the person named; it states that, in his opinion, the person who has appeared before him is of the ordinary strength and appearance of the particular age which he inserts. *The surgeon must form that opinion from the physical condition of the person without regard to the actual age; he ought even to abstain from asking any question as to the age, for the probability is that a true answer will not be given him.*"

According to the *Standard*, there are 7,294 factories in the United Kingdom engaged in textile manufactures alone, and working under the Act of 1874, to say nothing of the workshops or any other kinds of manufactures. The total number of persons employed in these factories is 1,005,685. But, in the ranks of this immense industrial army, there are only 248,349 males above 18 years of age; the remaining 757,336 are women, young persons, and children. Of this number, there are 125,886 children; 84,486 males between 13 and 18 years of age, and 546,964 females of 13 years of age and upwards. From this it appears, that the children are fully half as numerous as the men, and the men are not half so numerous as the females above 13 years of age. Those of these numbers who are over 18 years of age are more or less supposed to be able to take care of themselves; whether they are so or not is questionable, considering the proportion of them who are injured by cleaning or playing with machinery in motion contrary to orders and common sense. Every one will admit that children are

wholly unable to do so; few will deny that the "young persons" may, for the most part, be similarly classed, and that the "females" require efficient protection at this, the most critical period of their lives.

The tabulated replies given by certifying surgeons acting in all parts of the United Kingdom which appeared in the annual publication of the Association of Certifying Factory Surgeons for 1874, state, "That the percentage of the rejected as unfit for labour of those presented for examination, varies a good deal according to population and locality, but the average is from 20 to 50 per cent., and even about 19 per cent. of those who produce a birth-certificate proving them to be of the age required by law. The principal causes of rejection are, general debility, physical incapacity, being under age, imperfect development, lice, filth, itch, ringworm, scald head, ophthalmia and its sequelae, epilepsy, imbecility, incipient zymotic diseases, such as scarlet fever, etc., eczema, hip-joint disease, disease of spine, incipient cataract, abscesses, necrosis, laryngitis, scrofula, erysipelas, etc., to which might have been added many others."

Supplementing this with statistics of individual officials, we find, for example, that Dr. Purdon, the certifying surgeon at Belfast, says (vol. ii, ch. 17, 654): "In six months, 7,331 were presented to me, of whom 4,687 were passed. The causes of rejection were, 2,358 for being under age, 193 for physical incapacity, though of age; of these, 35 adduced proofs of being of age; 19 for scrofula, 23 for eczema, 3 for tinea capitis, 5 for curvature of the spine, 2 for hip-joint disease, 3 for being too weak, having but just recovered from 'mill fever', 1 for abscess of the foot, and 36 certificates were found to have been tampered with." Amongst others, the following extracts of evidence taken by the Royal Commission would show, that like supervision is even more required in the workshops than in the factories.

Mr. George Fred. Wills of Crewkerne, says (vol. i, p. 150, 19a): "I have myself seen more than once the hands of gloves (in one instance nine in a cottage) covered with itch, making gloves. Some were white, into which the children, whilst employed, would have to put their fingers, and thus leave the contagion. Imagine the horror of a bride in a high station of life having itch and totally ignorant where she got it. The system of learners entails the necessity of many children being taught in one room; thus, from three to ten, or even fifteen, children are crowded into a small room. Of course, when any infectious or contagious disease prevails, these rooms become as it were foci, from whence the disease is readily carried into all their homes and spread all round, and in this way scarlet fever, measles, etc., may be readily propagated."

Mr. H. J. B. Laurance, Secretary of the Bristol Branch of the Early Closing League, says, in reference to the *physical* health of shop-assistants (vol. ii, c. 20, 107): "I may say I have a list here of three who have died directly from the cause of excessive hours of labour within the last two years, in one of the early closing establishments in Bristol; also a list of ten others who have had to leave their situations owing to ill health."

Mr. Donald McAllen and other delegates, forming a deputation to the Royal Commission representing twenty-six trades, comprising about 10,000 workpeople, stated (vol. ii, c. 19, 756): "Three years ago, a case from Glasgow was tried in Edinburgh. One of the witnesses said, 'my boy took ill with typhus fever. Mr. Martland (the pursuer in the case) asked what was wrong with him, and I told him. The boy lay ill with the fever in the house for a fortnight, and Mr. Martland continued to send work all the time; the boy was removed to the fever-hospital and died there. Mr. Martland's machine-girl also came to my house with the work from his workshop to get machined during the time my boy was ill.'"

Mr. McAllen added (vol. ii, c. 19, 767): "I visited a house in Edinburgh where there were two fever-patients, one in a state of delirium; there was a young girl standing in front of their beds folding up books and small pamphlets. This took place on Saturday evening, and the work had to be returned on the Monday morning."

Dr. Littlejohn, the Medical Officer of Health for the City of Edinburgh, remarked (vol. ii, c. 19, 767): "That it had been clearly proved that work, especially tailor work, done in houses where epidemics were raging, spread the disease, and it was not uncommon to have garments made up in houses where fever was raging; and not very long ago, when scarlet fever occurred in New Town, the best quarters in Edinburgh—it could be explained in no other way how it had got there, but by the garments made up in the fever hot-beds of the poorer classes."

The recommendations of the Royal Commissioners which more particularly affect the certifying surgeons may be considered under two heads.

First, those which we believe, if thoroughly carried out, will not only "remove many anomalies and fertile sources of evasions of the

law", but also conduce to the sanitary well being of our factory population generally, may be briefly summarised thus, and considered as a direct step in the right direction.

I. Vol. i, p. 96.—The law regulating factories and workshops to be consolidated in a single Act.

2. Vol. i, p. 70, c. 187.—The examination of the certifying surgeons to extend to all children and young persons whose labour is regulated by the Consolidated Act.

3. Vol. i, p. 69, c. 183.—A certificate of birth, from a registrar, whenever practicable, to be a condition of employment.

4. Vol. i, p. 72, c. 192.—Proper vaccination to be a condition of the surgical certificate.

5. Vol. i, p. 71, c. 188.—Accidents to be reported directly by the certifying surgeon to the sub-inspector of the district, instead of both to him and to the office of the inspector of factories.

6. Vol. i, p. 71, c. 189.—In those districts, where a certifying surgeon cannot be obtained, the Poor-law medical officer, or dispensary surgeon, is to be appointed.

Secondly, the following three—

I. The proposed certificate system.

II. The sixpenny certificate at the certifying surgeon's house.

III. The appointment of the factory inspector instead of the certifying surgeon as sanitary inspector in places under control. The adoption of these, we believe, for the following reasons, confirmed by extracts of evidence taken by the Royal Commission, will tend rather to increase than to lessen the evils they seek to remove.

I. *The proposed certificate system* may be defined as follows (vol. i, p. 69, c. 184). A portfolio form of certificate, backed with canvas, so as to be durable, is to be provided by the factory office, and obtainable from the registrar for the fee of one shilling, on which the name and age of the child are to be inscribed so as to render alteration very difficult. This is to be endorsed by the certifying surgeon as to the child's general fitness for employment at its first hiring; at all times afterwards to be the property of the child, retainable by the employer for the time being, always producible when called for, and only returnable on change of employment; and, except in case of loss or forfeiture, no further certificate is to be required on change of situation.

The original design of factory legislation generally clearly pointed to the preservation of health as the main object to be attained, a principle still further confirmed by all succeeding Acts, from the Act of 42 George III, c. 73 (the Health and Morals of Apprentices Act), down to that of 1874, which even received the name of "a Bill to protect the Health of Women and Children"; and pronounced as "an essentially sanitary measure" by the Royal Commission, presided over by Sir C. B. Adderley.

As an essential condition to the complete carrying out of the intention of these Acts, the certifying surgeons contend, after many years' practical experience, that *not only is a medical examination and certificate necessary at each factory, but, in addition, at each hiring at the same factory.*

The proposed "certificate system", however, as we have seen, would simply require the examination of all children and young persons prior to first employment, and would dispense altogether with the necessity for it afterwards—thus suggesting a practice which involves an absurd principle, once qualified always qualified, as though the human machine must ever be in working order, and not subject to disease or the consequences of violence and overwork.

In vol. i, p. 69, the necessity is admitted by the Royal Commission of retaining the surgical examination of all children before employment, "because, below the age of thirteen, there are many who, from weak constitutions or bad nourishment, are unfit for factory work". The O'Connor Don may well ask, "If this surgical examination as to physical fitness be necessary on the first employment of the child, surely the necessity does not cease to exist afterwards; a child may be perfectly healthy, well developed, and physically strong, when he commences work as a half-timer, but afterwards he may fall into ill health. The very employment in which he is engaged may practically prove injurious to his health; and if it be necessary to have a surgeon to certify to his fitness for commencing work, surely it is equally necessary to have a periodical surgical inspection to ascertain whether the fitness for work continues. Again, a child may be physically fit for one sort of employment and totally unfit for another; and, if the certificate is to be a general one, upon what principle is the surgeon to proceed?"

Even prisoners in jail are examined, not only before being put to hard labour, but in addition once a month, to ascertain that the fitness continues.

We can, however, in addition to all this, point out an equal, if not a much greater, necessity, which, so far as we can judge, has been completely overlooked or forgotten by the Royal Commission, for the

re-examination of all children and young persons, as we have suggested. A child or young person may be passed at a factory, may leave, and again return to the *same* factory; in the interim, he may have contracted an infectious or contagious disease, and thus contaminate all his fellow-workers. Again, a child or young person may be excluded from one factory for such a cause as the above, and may straightway go to another, and, without medical examination, obtain admission to it, and thus set at nought the utility of sanitary arrangements as now provided. The re-examination having hitherto been a safeguard against this, we can only look forward with dismay should this precaution be withdrawn. Messrs. Redgrave and Baker forcibly recognised this in a circular they addressed to the certifying surgeons in 1871, on the subject of vaccination, during an epidemic of small-pox. Thus: "For so indifferent are many people to the risk of infection, that they may be found working, even though there may be one amongst them with the eruption out at the time."

Mr. Westwood, one of a deputation from the Black Country, says (vol. ii, c. 6, 308): "I knew a boy who began work too young; his father allowed him to go on; in the course of about two years something came in his legs, and the child is now a cripple".

Mr. W. H. Folker, certifying surgeon, says (vol. ii, c. 11, 209): "A boy was originally passed and worked at Cauldon-place; he left, and, after two years' absence, returned; seeing his name on the register, I examined him, and found him suffering from an infectious disease and totally unfit to work; but the man who employed insisted on his working, claiming, as I had once passed him, I had no control over him".

Important as this is in large factories, surely it is doubly important in the frequently overcrowded and badly ventilated workshops, many of which are at the employers' own houses, where infection or contagion may as easily be carried into their own families, as we have seen, to the public outside—for, says the Royal Commission (vol. i, p. 72, c. 793), "nowhere is contagion more likely to be disastrous than in crowded places of work".

Amongst many other cogent reasons which might be adduced against the proposed "certificate system", we would point out the following.

(A.) *The opportunities it would afford of fraud and personation* to parents, children, and other unprincipled persons, many of whom would be ready to avail themselves of them. We may add that, in large factory towns more especially, the certificate, as proposed, will eventually become a saleable commodity, commanding a certain market value, rising or falling in proportion as labour is in demand.

Sir James Ferguson, the Chairman of the Royal Commission, remarks of the so-called "bogus certificate" (vol. ii, c. 88): "I remember of the Scotch Education Commission, it was given in evidence that there were persons, who called themselves 'schoolmasters', in Glasgow, who regularly sold for sixpence certificates of attendance at schools".

Mr. M. Balme, in the Registrar's Office at Bradford, says (vol. ii, c. 13, 1010): "I think if the child or young person is not re-examined whenever it changes its appointment, it would be subject to a great many impositions".

In proof of the ease with which the "knowing ones" would soon get to know how to alter the proposed certificate, we may quote the following from the *Manchester Courier*. "Last Saturday a man went to one of the foreign exchange banks to change a five hundred franc note, for which he received an open cheque for £19 odd. The bank clerk, on examining the banker's pass-book, discovered that the cheque had, by a chemical process, been altered to £1,965, which the bank cashed, the manipulations having been so well done as not to arouse the slightest suspicion."

Mr. Assistant-Inspector R. W. Coles says (vol. ii, c. 2, 036): "I would have the attendance of the certifying surgeons, if only to examine the certificates. There may be wrong or falsified certificates about persons; in fact it would be no certificate at all".

Sub-Inspector Sir William Chaytor says (vol. i, p. 47): "They would be tampered with, handed about from brother to brother, and also from boy to boy, and besides they would be sure to be lost. I can only say in this district the effect would be most mischievous, and in six months' time the Factory Acts would practically become null and void, which no amount of inspection could remedy."

(B.) *The trouble and responsibility that would be entailed on employers* in examining, keeping, and returning each certificate. At present, the vast majority of them are content to pay a small yearly fee to the surgeon to save them from all this, and it would seem undesirable, in their interests, to interfere with a system which for so many years has given such general satisfaction. Mr. Sub-Inspector Rickards says (vol. ii, c. 12, 600): "I think they would find it very irksome, and I think they would complain very much of it. I am quite sure they would prefer to have the certifying surgeons." Sub-Inspector Sir

William Chaytor says (vol. i, page 47): "Employes in this district would, I know, rather pay a surgeon to come weekly than have it left to them to send for him when wanted."

(C.) *The trouble and responsibility that would be entailed on parents and guardians* in taking care of the certificates during the time the child or young person was unemployed. They would soon be lost, or become so dirty as to be quite illegible, and, in the long run, would prove a much greater expense to those they most wish to benefit; viz., the poorest. In the case of those who have really no home, who live where they can and how they can, the keeping of these certificates would be absolutely impracticable.

(D.) *In the interests of the employed*, it would seem undesirable that an employer might retain or refuse to give up the certificate in the case of a child or young person seeking to change its employment against his master's wish, and might thereby cause to such child or young person considerable annoyance, inconvenience, or delay. Many instances in proof of this have arisen during the present year, since the ages have been raised, where children under ten and fourteen, the latter not possessing the certificate of having passed the fourth standard, being employed in a textile factory, wishing to change their employment, have been unable to do so, owing to the masters refusing to give the necessary testimony of their "having been employed in a like factory before," and there being no provision in the Act to compel them to do so. Again, some employers will say; "I will only employ young hands who already possess the certificate; the chances are So-and-So will only stay with me so long, and will then go elsewhere. I do not see why I should be the one to pay for his passing, and others have the use of him afterwards."

(E.) *The tendency it will have to limit the practice which now generally exists of the certifying surgeon making annual contracts with the employers for a weekly visit. The employers are directly benefited by these contracts.* To say nothing of the "check" it is on the constant changing of young hands—an every-day complaint—the individual expense of the examination is reduced to such a minimum as hardly to be felt by the employers. Mr. Inspector Redgrave says (vol. i, c. 537): "It is much cheaper in large factories to have regular attendance, as contracts do away with the excess of charge." Mr. Robert Dempster, proprietor of extensive spinning and scutching mills at Newry, says (vol. ii, c. 17,891): "All the amount they would have to pay would not be much; would not press hardly on rich or poor employers." John Hind and Sons, Belfast (vol. i, page 186), "consider that the visits of the certifying surgeons to all manufactories are decidedly to the advantage of both workers and employers."

(F.) *The employed are directly benefited by the contracts.* Being rarely charged for these examinations, they do not allow children to work when in an unfit condition. Mr. John Beever, Huddersfield, says (vol. i, p. 153): "Some parents will drive their children to work when they are not at all able. If a child have a bad master, or one that cared only to get as much work as he could out of him, some children are more timid or frightened than others, and they would work in pain before they dare complain; as plenty are sent to them to work before they are quite well, having been at home through sickness, fever, or any disease. If we want sound minds, we must have sound bodies."

(G.) *The factory officials themselves are directly benefited by these contracts.* The unpleasantness of, and frequently abuse in, rejecting those who are manifestly unfit for work now falls on the certifying surgeon, and is removed from the officials; thus any idea of favouritism or partiality which would doubtless exist if the responsibility rested with them is thereby done away with.

(H.) *The employers, employed, and the public at large, are benefited by these contracts.* This is more especially in times of epidemics, by the check such examinations must necessarily put on the spread of infectious or contagious disorders; and, we may add, posterity receives benefit by the prevention of those who are physically unfit or bodily infirm from being employed.

(I.) *Lastly, Her Majesty's Inspectors are directly benefited by these contracts.* In addition to affording numerous opportunities for advice and instruction, the constant visits of the certifying surgeon tend to secure a due observance of the law, by keeping before both employers and employed the Factory Acts as stern realities. The registration of names of those employed, of the date of commencement of work, and of discharge, constitutes the very basis for all further dealings with the children and young persons employed in a factory; it furnishes the inspector with the only means of knowing who are at work on the premises when they seek to ascertain if the law have been complied with, with reference to their schooling, and other particulars; and it alone conveys particulars to the surgeon respecting the individuals to be examined. The weekly visits of the surgeon give security that the register is kept systematically; without such visits, it, as well as the other re-

quirements of the law, is neglected, and thus an immensity of trouble is entailed on the inspectors.

Mr. Sub-Inspector Cameron says; "An able and willing certifying surgeon is of the greatest assistance to the inspector in his district, and can and does render most important aid in the carrying out of the Factory Acts."

Mr. Sub-Inspector Richmond says: "I feel quite sure we could not do without the assistance now given by the certifying surgeon."

Sub-Inspector Sir William Chaytor says: "They are a great assistance to the sub-inspectors, and a great check on both employers and employed."

Mr. Sub-Inspector Bignold says; "The system of certifying surgeons appears to me excellent, and the success of the Factory Acts is largely indebted to it."

Mr. Sub-Inspector Mostyn says: "I have to speak of the greatest assistance rendered to me by my certifying surgeons in carrying out the Factory Acts. In all places where many hands are employed, the surgeon must visit at short intervals."

The Royal Commissioners say (vol. i, p. 172) that the certifying surgeons "have taken a recognised share in the administration of the Factory Acts, and contributed largely to the fair acceptance which those Acts are now receiving amongst all classes whom they affect."

(K.) As a corollary to the foregoing, the value of the appointments will be lessened in proportion as the weekly visits by contract are curtailed. Great consideration, responsibility, judgment, and sacrifice of time on the part of the certifying surgeons are demanded in honestly and judiciously testifying to the particulars required in the certificate, and the actual refusal in some places of the appointments. Vol. i, c. 189, proves that the holders of them are by no means overpaid, inasmuch as they have to give up other engagements to attend to these duties. Vol. i, c. 186, the importance of the duties is recognised. Vol. i, c. 187, the high class of professional men engaged is admitted. If the labourer be worthy of his hire, it naturally follows that a further depreciation of the value of the appointments will only command a correspondingly inferior class of applicants: a reality, we need hardly add, that would prove as unpalatable to both employers and employed, and as equally an unintentional result on the part of the Royal Commissioners.

II. The second recommendation to which we would refer is the *sixpenny certificate which is to be granted at the surgeon's private residence.* The Factory Act of 1867 brought a large number of smaller works under inspection. The Home Secretary then authorised, "in works where there are never more than five protected persons employed, the said young persons may be examined at the residence of the certifying surgeon, for which he is to receive a fee of sixpence a certificate, and no more, upon condition that a responsible person takes the certificate-book and accompanies the young person to the residence of the certifying surgeon at a time convenient to him."

In vol. i, c. 187, the Royal Commissioners propose "to raise the number from five, as at present, to ten"; and in vol. i, c. 190, also "to require the certifying surgeon to appoint some regular and published day and hour of the week, also some place either at his own dwelling or surgery, or at one more convenient to himself for the purpose, it always being competent to the employer, as now, to arrange by preference for his visit to the place of employment, provided no higher fee than sixpence be exacted from the parent in respect of each child."

From the foregoing, it would appear that, when the Home Secretary authorised the sixpenny certificate at the surgeon's own residence, the condition was, "a responsible person was to accompany the applicant at a time convenient to the surgeon." The present recommendation says nothing about the "responsible person"; and, moreover, requires the time and place of examination to be published, expecting, of course, the surgeon to be always punctual, and thus acting on the wrong assumption that a surgeon's time is always his own.

That the working of this recommendation would be unsatisfactory to all concerned is only too evident: unsatisfactory to the employed, in having frequently to wait for the certifying surgeon, and thus lose so much of their day's work; unsatisfactory to the inspectors, as to the number of complaints that would naturally be made to them by both employers and employed; unsatisfactory to the certifying surgeons, inasmuch, as their time being never their own, they could rarely or never keep these appointments as punctually as they would wish. In the long run, the system would prove a much greater source of annoyance to all concerned than the payment of a small yearly fee.

We regret to have to supplement this with adding that many of the applicants are not only filthy in their habits and vile in their language, but, in addition, injure the surgeon's property whilst waiting to see him to ten times the value of the certificate, to say nothing of the insolence and abuse he receives if he should dare to refuse it; and at times they altogether forget to bring the sixpence.

In vol. i, p. 180, Mr. C. Roberts, who was employed as medical assistant in the same inquiry as Messrs. Bridges and Holmes, thus describes the factory children: "The personal habits and condition of the factory children contrasted very unfavourably with those in the agricultural districts. They were dirty in both body and clothes; the hair unkempt, and almost invariably swarming with lice; an irregular form of prurigo, almost the only skin-disease found amongst them; the marks of scratching on the chest and back pointed to the existence of body-lice also. Few of the children were free from flea-bites."

Mr. Assistant-Inspector Coles says (vol. ii, c. 10,402): "It is not pleasant to have these people coming at all times to our houses."

The Royal Commissioners say (vol. ii, c. 261): "More than one sub-inspector told us plainly that he objected to, and could not permit, visits to his private residence by working people." They go on to add: "At the same time, we can understand that a sub-inspector might justly object to be liable to visits at his own residence."

The Royal Commissioners, thus recognising the great annoyance the visits of the factory operatives would cause to the sub-inspector at his own private residence, considerably recommend provision for an office for him elsewhere. We are at a loss to understand how, at the same time, they should so unfairly propose these very same operatives should visit the certifying surgeon at his own residence, or, if he have an office elsewhere to receive them, that he should pay for it himself.

This suggestion harmonises well with the one (vol. ii, c. 14,021), "That the child should bring a birth-certificate, which it could get for a shilling, and then go to the doctor's house and be passed as fit for work, which could be done for sixpence."

The questions may fairly be asked, Why should there be any distinction made between the two classes of Government officials? or why should a highly educated gentleman be required to give a professional certificate for a fee which is *not* recognised in the medical profession, and, at the same time, double the amount should be offered to a registrar for simply filling up an ordinary form?

The subjoined opinions of the inspectors will show the light in which they regard them.

Mr. Sub-Inspector Buller: "I regard the sixpenny fee that is now held by medical men as an insult to them."

Mr. Sub-Inspector Cramp: "The sixpenny fee for young persons and children examined at the surgeon's own house is simply an insult to any professional man, and I know they often refuse to take it when offered."

Mr. Sub-Inspector Beadon: "I do most strongly object to a sixpenny fee being offered to any professional man."

It is well worthy of notice that the Royal Commissioners propose to throw the whole of the expense on the employed, quite forgetting that the employers are equally benefited.

III. The third and last recommendation to which we would refer is *the substitution of the factory inspector for the certifying surgeon as sanitary inspector of the places under control*. Without in any way wishing to detract from the merits of the inspectors, we hold that such an appointment would be unwise, inasmuch as it would be unfair: unfair to the surgeon, as withholding from him duties peculiarly his own; doubly unfair to the inspector, as placing him in a false position, by requiring him to perform important duties of which he must necessarily be comparatively unacquainted, and, at the same time, recognising his ignorance by allowing him to call in the assistance of his certifying surgeon when he is in doubt, and making special provision for remunerating him for his services. On referring to the minutes of the Trades Council of Edinburgh presented to the Royal Commissioners by delegates representing twenty-six trades, comprising 10,000 work-people, in vol. ii, p. 936, c. 19,756, we find "they request that a sufficient number of *properly qualified inspectors* be provided to ensure the proposed Acts being effectually carried out, the present staff of factory inspectors being considered quite inadequate, as shown by the present Acts being systematically evaded". In vol. ii, c. 19,823, one of the delegates suggests "that the inspector should be a gentleman who is easy of access".

We would point out the following reasons why the certifying surgeons are better qualified to carry out these duties than the inspector, and why, if the Factory Acts are to be really efficient sanitary measures, their duties should be extended within the walls of the factories.

a. Because the certifying surgeons, from their previous education, are more competent to understand questions of sanitation and hygiene than the inspectors, and are consequently more fitting agents for suggesting the enforcement of the existing requirements of the Factory Acts, as to ventilation, overcrowding, and general hygienic conditions. Mr. Inspector Baker remarks (vol. ii, c. 1,123): "I doubt whether they (the inspectors) would be deemed quite competent."

b. Because, the inspectors having very large districts allotted to them,

it is only once or twice in a year, under ordinary circumstances, that they are able to visit the factories under their supervision; they consequently can know nothing of their individual requirements. Her Majesty's inspectors admit "that large numbers of establishments under inspection are never visited at all during the year; in fact, one-half visited is considered fair work". At page 12 of the Factory Inspector's Report for the half-year ending October 1872, it is stated that Mr. Redgrave had "63,431 workshops in his division, out of which number the whole of his staff during the year ending the same date only visited 17,201, leaving 46,230 unvisited" (vol. ii, c. 9,488).

c. Because the certifying surgeon is more easy of access, the working people always knowing where to find him. The inspectors, on the other hand, in the discharge of their duties, are frequently away, sometimes for long periods, from their stated head-quarters, and are consequently not "easy of access". In fact (vol. i, c. 211), the Royal Commissioners mention "the complaints made by witnesses of the working classes of the difficulties experienced in gaining access to the inspector in order to report circumstances requiring investigation"; also "that the inspectors, in order to avoid the annoyance of working people at their private residences, send out no official address beyond the name of the principal post town, an arrangement being made with the office to forward letters".

d. Because, if disease of an infectious or contagious character were reported to the inspector, the chances are that he would take great care to go in the opposite direction; the certifying surgeon, on the other hand, being daily accustomed to such cases, has not the same fear of contamination.

e. Because, the visits of the inspectors only taking place at rare intervals, their advent is made known, and due preparations are made to receive them. Mrs. Hatherley and a deputation of the Protective Provident League say (vol. ii, 2,814): "The sanitary inspection is what they (the hands) are all anxious for, only they do not see at present that it is of any use. I have heard of cases in which, when they knew the inspector was coming, the forewomen have sent some of the women into another room, and they do that in order that there should not be above the proper number of women in the room." A. B., a cotton yarn tape-machine dresser, says (vol. ii, c. 16,561): "It is quite a common thing in particular factories to put children and young persons under hiding, particularly in provincial towns, and the factory workers are perfectly well aware that it is practised." The experience of the certifying surgeons is, that this is almost daily practised. The visits of the certifying surgeon, on the other hand, are frequent, in addition to his greater opportunities and facilities of acquiring information; consequently they could not be open to the same objections. Mr. Sub-Inspector Astley says (vol. ii, c. 19,436): "It appears to me the services of the certifying surgeons are very valuable in a sanitary point of view." Mr. Sub-Inspector Cameron thinks (vol. ii, c. 18,347): "They would stand between employers and the complaints of workmen."

f. Because the factory inspectors having been already entrusted with the duties of sanitary inspector, and "the present Acts being systematically evaded" (vol. ii, p. 936, c. 19,756), we think it only fair to all concerned to submit them to the certifying surgeons, who are not only willing and able, but have more opportunities of attending to them. In vol. ii, c. 2,356, Mr. A. J. Mundella, M.P., says: "Although the inspectors have already the power to deal with the sanitary conditions of factories, the factories are often in a very bad condition in a sanitary point of view." In c. 2,355, he goes on to say: "I am afraid they will never be done by them in a thorough manner." But, in this particular duty, as in every other, the action of the two officials should be concurrent. The certifying surgeons should act in strict harmony with the inspectors, and under the control of the chief office, making reports to the office of whatever needs remedy or official notice, leaving to the factory authorities whatever punitive steps may be required. Each official would thus have his own peculiar duties definitely specified. On the one hand, the professional counsel of the certifying surgeons would strengthen the hands of the inspectors; on the other, the action of the inspectors would give weight and authority to the certifying surgeon, and the two would thus work together for the public interest. In vol. i, c. 861, Mr. Inspector R. Baker, in advocating this point, says: "The certifying surgeons have all the means within themselves of recommending, where they have the powers of visitation, the means and remedies by which many diseases could be prevented or ameliorated." In vol. ii, c. 2,586, Mr. Assistant-Inspector Walker says: "I think it very advisable that the certifying surgeon should report on the sanitary state of factories. I do not see why there should be any conflict of opinion with the sub-inspector, both having the same object in view. I think they would strengthen the hands of the inspectors very much." In vol. ii, c. 19,434, Mr. Sub-Inspector Astley

"would certainly recommend the certifying surgeons looking after the sanitary condition of workshops and factories. It appears to me that the services of the certifying surgeon are very valuable in a sanitary point of view."

We think it very desirable that any questions which admit of doubt, or are open to more than one construction, should, in fresh legislation, be so clearly expressed as to remove all grounds of misinterpretation. Amongst others that may arise, we point out the following that do exist as well worthy of notice.

1. In vol. ii, c. 15,732, the question is raised, *Can a certifying surgeon claim a fee for all presented for examination, or only for each person passed?* If he be only allowed to charge for those he passes, he may go to a factory and find fifty names on the register for examination. He has to wait for them to be hunted up from the different parts of a factory. Many do not come as soon as ordered, and thus a certain amount of time is lost. It may so happen that the greater number of the fifty are only "trying to pass", or are unfit from other causes. A certain time longer is taken up in examining and filling up the certificates. If he reject, an equally long time is taken in explaining why, and it may end in his having to reject forty-five out of the fifty. He consequently is paid for the five he passes, or 2s. 6d. for an hour and a half's work, and may have to walk a mile each way. If this be law, it is surely not equity.

2. *As to the necessity of Surgical certificates being required in factories where the hours of labour do not exceed nine per diem.* Mr. Redgrave holds that they are not required; Mr. Baker that they are. The inequalities that have arisen in the application of the Acts are manifest; and where Mr. Redgrave's interpretation is acted on, as in Glasgow, there is no inspection by a recognised authority in regard to health, age, or ability to work, and "children are employed as young persons for more than six and a half hours a day, contrary to the Acts, and without any check." (Vol. ii, p. 745).

3. *Has the Sub-Inspector the power to substitute his certificate for the Surgeon's in a disputed case of physical fitness?*—In vol. ii, c. 4,792, Mr. Milward, needle-manufacturer, Redditch, says, "A child was brought before the certifying surgeon with something wrong with its extremities; feet not right, or something of that sort. The certifying surgeon refused to pass it for 'full time'. The factory inspector came and said 'the child is quite right, and able to work'." The good taste or feeling displayed by one gentleman towards another needs no comment from us. How far the child could legally work "full time" without the surgical certificate, is open to question.

We consider that the present forms of granting certificates might be simplified and improved. The present system involves much needless repetition of statements and filling up of forms for each individual examined. The suggestion of the President of the Certifying Surgeons' Association is an exceedingly good and practical one: "That a book ruled in columns, after the fashion of the books kept by parochial medical officers, could be made to serve, not only the present purpose, but also additional ends. It would include the register; it would have columns for name, sex and age, names of father and mother, residence, date of hiring and of examination; nature of work undertaken; to be followed by the signature of the examining officer, if passed, and a column for signifying rejection and the cause of it. Separate books would be required for children and young persons. In the case of the former, a column would be appropriated to noting the school attended, and the other the name of the workman engaging the child." We feel sure that an adoption of a plan of this sort would save time and trouble to all parties; and also supply information calculated to facilitate both registration and certifying, and also the work of the inspector.

The certificate system as proposed can, unfortunately, only be considered in the light of nominally retaining the services of the certifying surgeons, and practically doing away with their utility, by directly limiting their recognised useful functions. The sixpenny certificate, and the substitution of the factory inspector instead of the certifying surgeon as sanitary inspector, are an uncalled-for and unmerited slight—to use no stronger expression—not only to the certifying surgeons themselves, but to the medical profession at large. The three recommendations, as a whole, are so imperfectly supported by fact and testimony, as to afford no justification for the legislation proposed; consequently, do not tend to carry out the suggestion of the appointment, which is as follows on this particular question: "To inquire into the working of the Factory and Workshops Acts, with a view to their consolidation and amendment"; and "whether any further provisions are requisite for the improvement of the health and education of young persons and children; and whether any further provision is needed for the due enforcing of such Acts; or, if not, in what way the existing provisions may be improved".

Grumblers will never be wanting against any Parliamentary enactment as an infringement of private rights and liberty; but we hold that the existence of such malcontents is no argument against the propriety and expediency of the enactments. Generally speaking, the loudest grumblers are usually the first to break the law, and require the sharpest supervision. As an instance of this, we would quote the evidence of a factory operative, A. B. (vol. ii, c. 16,552): "A partner of a firm stated yesterday his objections to the certifying surgeons visiting mills. In that particular factory, for seventeen years, I know that they periodically work women and young persons overtime, extending to as late as 6 P.M. on Saturday."

An analysis of the evidence taken would show that there were three classes of witnesses examined:

1. The certifying surgeons.
2. The employers and employed.
3. The inspectors, assistant-inspectors, and sub-inspectors.

The first two may be regarded as, more or less, interested parties; each with their own ends to serve; and, therefore, to a certain extent, the evidence of the one may be taken as a "set off" against that of the other. The third cannot be considered in this light; and, inasmuch as their evidence is confirmed by not only employers, but employed, it is all the more valuable, as their every-day duties should render them peculiarly well fitted to express an opinion; and, be it remarked, the longer experience the inspectors have had, the more strongly do they express themselves in favour of the certifying surgeons.

Whilst valuing the Factory Acts as amongst the most important outcomes of modern legislation, for the sanitary well-being of the factory population of our native land; believing that, if thoroughly carried out, they are the most efficient remedies against the degeneration of the race, threatened to proceed from over-work and undue work carried on amid all the exigencies of manufacture, and the gathering of people in large masses in manufacturing towns; maintaining that the medical officers under these Acts are the prime and essential agents in carrying on their sanitary and beneficial purposes, we confidently hope that, in any fresh legislation on this important subject, the position generally of the certifying surgeons—to use the words of the Report—"members of a profession distinguished by its scientific knowledge and intelligence, who have taken such a recognised important share in the administration of the Factory Acts, and contributed so largely to the fair acceptance which these Acts are now receiving amongst all classes whom they affect" (vol. i, p. 72)—will receive more fair, more just, and more substantial recognition at the hands of a Conservative Government than they have apparently done from the Royal Commissioners.

THE LATE DR. SIBSON.

At the meeting of the Committee of Council held on the 18th instant, as soon as the chair was taken, and previous to any business being transacted, it was moved by Dr. CHADWICK, seconded by Dr. E. WATERS, and resolved unanimously:

"That the Committee of Council hereby records its deep sense of the distinguished services rendered to the British Medical Association by the late Dr. Sibson, and of the irreparable loss it has sustained by his sudden death. Whilst his well earned professional eminence reflected much credit on the Association, the zeal, energy, and practical sagacity he unceasingly applied to the administration of its affairs, and the genial urbanity of his deportment, secured for him not only the admiration and confidence, but also the affectionate regard of his fellow-members.

"The Committee of Council, though well aware how inefficient is any expression of human sympathy for the mitigation of a sorrow so overwhelming as that of his bereaved widow, nevertheless trusts that, in conveying to her these sentiments, on behalf of the Association, some soothing reflections may be suggested; and likewise ventures to hope that, in her growing conviction of the wisdom of Him who doth not willingly afflict, true consolation may be found."

THE GENERAL MEDICAL COUNCIL.

THE Executive Committee of the General Medical Council held a meeting on Friday, the 20th instant, when the names of twenty-one candidates for the office of Registrar to the Council were submitted. The election will take place to-morrow (the 27th instant). Considering that the salary attached to the office is £500 per annum, and that the amount of daily work required of the registrar is usually from twelve to four o'clock only, it seems remarkable that the candidates for the

post were not far more numerous. The post requires especially secretarial knowledge and experience, with the power of office management; and, as the examples of the Royal College of Surgeons, of the British Medical Association, and of the Royal Academy show, professional qualifications are by no means indispensable in the holder of the office. It is, therefore, possible that the successor to Dr. Francis Hawkins may not be chosen from the ranks of the profession.

It was decided at the same meeting that the *British Pharmacopœia*, the last issue of which is now exhausted, should be reprinted for the third time, with simply such slight verbal alterations as may be required to rectify the few printer's errors that occurred when the last five thousand copies were issued. We believe there has rarely been an official publication dealing with such a wide range of subjects as those embraced by the *British Pharmacopœia* with which so little fault has been found as with this volume. We are, therefore, glad that it has been decided simply to reprint it. The advance in *materia medica* since the appendix was printed has not been sufficient to justify the issue of a new edition, which would compel all practitioners as well as chemists and druggists to purchase a new copy for a very small advantage.

DINNER OF MEDICAL GRADUATES OF GLASGOW AND ABERDEEN.

THE first dinner of the Glasgow and Aberdeen medical graduates was held at the Pall Mall Restaurant, Regent Street, on Monday, October 23rd. Professor Struthers of Aberdeen occupied the Chair, and Dr. A. P. Stewart acted as Vice-Chairman. Between forty and fifty gentlemen sat down to dinner, and great cordiality and sometimes enthusiasm were manifested throughout the evening.

In proposing "The Graduates of the two Universities", Dr. Struthers spoke of the advantages to be gained by the formation of an Association of the medical graduates of the two Universities. He said, the meeting to-night has no political colour, and has no reference whatever to the present contest. It is a social occasion, on which old fellow-students can meet, and also on which they can make the acquaintance of their fellow-graduates of the sister University with which they are linked. Besides its primarily social object, such an Association might be useful to the Universities in whose welfare the graduates must ever feel a deep interest. It might help them to secure the right kind of men to fill professorial vacancies; and, now that they are increasing the number of the examiners, it might furnish them with men of the right kind to act along with the local professors in that capacity. It might be useful more publicly by promoting a higher type of parliamentary representation on some future occasion; for he agreed with those who think that an academic constituency is not the arena on which mere political battles should be fought; that the purpose for which university graduates, who already possess votes in the ordinary parliamentary representation of the cities and counties, have had bestowed on them this extra privilege, is to enable them to send in some few parliamentary representatives from a higher point of view than the mere political. When medical representation is spoken of, it is not from the mere professional point of view, although it might well be said that the medical interest is no less entitled to be represented than the legal, the ecclesiastical, the commercial, or any other interest. No movement deserved to succeed which is not at the same time for the public good. Public health is one of the great questions of the day and of the future; and who so able to discuss it and press it on the notice of Parliament as an accomplished medical man? Then, who are better fitted to urge the importance of supplying the scientific side of education, regarding the value of which so much ignorance and prejudice exist in this country, than the medical profession, half of whose studies are not merely professional, but scientific? An effect of these studies, together with what it sees of the inner life of all classes, is to give the medical mind, more than any other, a tendency to sit loose to mere political and ecclesiastical antagonisms. Can it be said that any of the leading statesmen of our time, on either side of politics, have shown an appreciation of the value of scientific culture, although such culture is of great importance to the material and intellectual progress of the nation? The common notion that the clergy form by far the greater part of the united constituency is a greatly exaggerated one, as the following statistics of the constituency, so far as registered, show.

	CLERGY.	MEDICAL.	OTHERS.	TOTAL.
Glasgow.....	1,157	975	703	2,835
Aberdeen	829	837	716	2,382
	1,986	1,812	1,419	5,217

Add to this, that a considerable number—probably several hundreds—of the medical graduates are not registered; while he believed that very few of the clergy neglect that caution. Then, as regards the future, there is the important fact that in recent years the number of divinity students has greatly diminished, while the number of medical students has greatly increased. When he knew the Aberdeen School first, a dozen years ago, the number of medical students was one hundred and thirty-six, from which it has risen to two hundred and fifty; and there are probably now not more than fifty divinity students in Aberdeen, including those in the Free Church Divinity Hall as well as those in the University. Besides, there is the fact that the clergy are so divided among themselves in different churches, that the one ecclesiastical party almost neutralises the vote of the other. It is evident, therefore, that in the future the influence of the medical graduates will be much greater than it even now is with its already compact third of the whole.

Dr. A. P. Stewart, in an eloquent and impressive speech, returned thanks for Glasgow; and, in the unavoidable absence of Dr. Andrew Clark, Dr. Ligertwood replied for the Aberdeen graduates. Other speeches were made in the course of the evening, and the dinner was brought to an ending by the effective singing of several Scotch airs by some of the company.

There was a general feeling that an Association of the Medical Graduates of Glasgow and Aberdeen should be at once formed, and accordingly active steps are now being taken in this direction.

For the excellent initiative thus taken, the graduates are largely indebted to Dr. S. Mackenzie and Dr. Fancourt Barnes, whose energetic services as Honorary Secretaries were largely instrumental in securing a first reunion which, by its numbers and success, may well prove the commencement of a powerful, useful, and pleasant organisation of the graduates in these Universities.

MEDICAL OFFICERS OF HEALTH.

THE following memorial, on "Tenure of Office by Medical Officers of Health", has been forwarded to the President of the Local Government Board by the North-Western Association of Medical Officers of Health.

To the Right Hon. G. Sclater-Booth, M.P., etc., President of the Local Government Board.

The memorial of the North-Western Association of Medical Officers of Health respectfully sheweth:

That your memorialists are a body consisting of medical officers of health in the counties of Lancashire, Cheshire, Derbyshire, and the West Riding of Yorkshire, and of others interested in the effective working of the Health Acts, or engaged in the promotion of sanitary science.

That, in view of the expiry of the five years' appointments under the Public Health Act, 1872, your memorialists desire respectfully to draw your attention to the present unsatisfactory position of medical officers of health as regards tenure of office and salary, with a view to an amelioration of the same.

That your memorialists believe the interests of public health and sanitary science are prejudicially affected by the diminished interest taken in their work by medical officers of health, consequent upon the non-permanence of their tenure of office and salary.

That your memorialists are of opinion that every medical officer of health should continue to hold his appointment so long as he discharges his duties to the satisfaction of the Local Government Board and the local sanitary authority; and that under no circumstances should he be discharged, or receive notice of reduction of salary, without the consent of the Local Government Board.

Your memorialists, therefore, earnestly pray that you will take an early opportunity of endeavouring to obtain such an amendment of the law as will secure to medical officers of health perfect security from arbitrary dismissal or reduction of salary.

And your memorialists will ever pray, etc.

Signed on behalf of the North-Western Association of Medical Officers of Health.

JOHN MAULE SUTTON, Vice-President.

SAMUEL BUCKLEY, F.R.C.S., } Honorary Secretaries.

FRANCIS VACHER, }

FREDK. SCOTT, Secretary.

78, Cross Street, Manchester, October 17th, 1876.

In this memorial we heartily concur; but we doubt whether any mere representations of this kind will be effective in procuring the desired amendment. If the medical officers of this and other parts of

the country were to put the facts, in an effective form, in the hands of the Parliamentary Bills Committee of this Association, it is possible that such political pressure might be brought to bear on the Government as would greatly quicken their apprehension of the propriety of amending the present anomalous and unsatisfactory position of the Public Health Service.

SIR W. GULL AND DR. G. JOHNSON.

THE full text of the decision of the Censors of the Royal College of Physicians upon Sir William Gull's communication to the President having been communicated formally to the Fellows on Thursday evening, we lay it *in extenso* before our readers.

The PRESIDENT gave a history of the various communications which have passed, first between Sir William Gull and himself, and then with Dr. George Johnson. At length, Sir William Gull presented a formal statement of his grievances. This was forwarded to Dr. Johnson, and returned with his comments; and, upon a careful consideration of these documents, the Censors based their verdict; a copy of which was sent to Sir William Gull and to Dr. Johnson. These were courteously acknowledged by those two gentlemen; and he had hoped that nothing more would be heard of the matter. But, as the Fellows were aware, an imperfect and *ex parte* statement had been published in various papers, which he very much regretted. The matter was now taken out of his hands; and he wished the College to decide what course should be adopted. He asked the opinion of the Fellows, whether the judgment should be read to them; and, if so, whether it should be considered as among the *secreta Collegii*.

After some delay, it was moved by the Senior Censor, Dr. PACOCK, and seconded by Dr. RADCLIFFE, that the document should be received.

Sir WILLIAM JENNER and Dr. WEST expressed a wish that the document should be buried.

Dr. JOHNSON expressed a hope that he should say nothing calculated to give pain to Sir William Gull, of whom he wished still to speak as his friend. But, in his opinion, the judgment should be read. The publication of the partial report, and of the discussion which it had given rise to, rendered the publication of the original document absolutely necessary. He reminded the President and Registrar, three weeks ago, before the Censors had met to consider the matter referred to them, he had expressed his opinion that, whatever the verdict of the Censors might be, it should be made as public as the announcement which had appeared in the medical journals and in the daily papers, that Sir William Gull had brought the matter before the Censors' Board.

After some further discussion, the College decided by large majority that the Censors' judgment should be read, and that it should not be considered secret. It ran as follows.

Royal College of Physicians, Pall Mall East, October 11, 1876.

The Censors' Board have given careful consideration to the statement of complaint brought by Sir William Gull against Dr. George Johnson, and to Dr. Johnson's reply.

We exceedingly regret that any cause of complaint or misunderstanding should not have been removed by mutual conference, so as to have rendered any reference to the Censors' Board unnecessary.

An ordinary perusal of Sir William Gull's evidence in the *Bravo* inquest, as reported in the *Daily Telegraph*, must, we believe, have led most readers to the conclusion which Dr. Johnson appears to have drawn, we are, therefore, not surprised that he should have thought it calculated "to prejudice his position in the case". But when Dr. Johnson should have communicated to Sir William Gull his expression of opinion made on his mind, so as to have given Sir William Gull an opportunity of publicly repudiating the interpretation put upon his words. The course adopted by Dr. Johnson was one of which we cannot approve.

We also think that the answers given by Dr. Johnson on his second appearance in Court, and of which Sir William Gull complains, indicated considerable warmth of feeling, and were such as might naturally give offence to Sir William Gull. We do not, however, believe that Dr. Johnson intended to impugn the veracity of Sir William Gull, but that, as stated in Dr. Johnson's reply, he desired, for what he considered a sense of public duty and in self-defence, "to rectify and supplement some of Sir William Gull's statements" which were calculated to throw discredit on Dr. Johnson and the other medical attendants.

Portions of Sir William Gull's evidence appear to us very objection-

able from being so open to misinterpretation, but we do not believe that he had any intention to disparage the professional character of Dr. Johnson or "to prejudice his position in the case".

Any further detailed examination of all the features of this unhappy misunderstanding does not appear to us to be either necessary or desirable.

We must, however, observe that the infringement in this case by Sir William Gull of the spirit, at least, of the By-law of the College relating to the conduct of physicians in consultation was disastrous, and proves the wholesomeness of the By-law and the importance of its rigid maintenance.

(Signed)

JAMES R. BENNETT, President.
THOMAS B. PEACOCK, Senior Censor.
S. WILKS, Censor.
C. B. RADCLIFFE, Censor.
J. S. BRISTOWE, Censor.
HENRY A. PITMAN, Registrar.

After the reading of the document, Dr. JOHNSON said: "I desire to say that, since the President and Censors have expressed their opinion that I, before going into court, should have given Sir William Gull an opportunity of repudiating the interpretation which had been put upon his evidence, I regret that I did not adopt that course. He further said that he and his friends had considered the expediency of adopting that course at the time; but they thought that no satisfactory result would be arrived at. Nevertheless, he regretted now that the experiment had not been tried."

THE PROCEEDINGS OF THE ROYAL COLLEGE OF PHYSICIANS.

THE proceedings at the meeting of the College of Physicians, which we report in the preceding column, will serve to direct attention to the unsatisfactory and imperfect understanding which has prevailed for some time as to the degree and manner of publicity which should be given to the proceedings of the College. There was also an incidental discussion relating to the unofficial publicity which had been given in our own columns and elsewhere to the substance of the Censors' award on the grievance referred to them by Sir William Gull, and the replication and counter-complaint of Dr. George Johnson. It would, perhaps, hardly be worth while to refer to this part of the discussion, but that out of it grew the reference to the larger question, how far the proceedings of the College generally in *Comitia* are public property, and how they may with dignity and propriety be made known to Fellows not present; and to the other members of the College and of the profession who feel interested in the opinions, the affairs, and the decisions of this important medical corporation.

It was proposed that the decision of the Censors, after being read to the Fellows, should be treated as *secreta Collegii*; whereupon one of the Fellows rose and said that he had always understood that the whole proceedings of these meetings were secret; and another felt moved to inform the College that he had actually been asked by a member of the staff of one of the medical papers to act as its reporter of the proceedings of the *Comitia*, but "he hoped the Fellows knew him too well to suppose that he would accept such an office". The Registrar judiciously informed these gentlemen that the proceedings of the *Comitia* were not secret unless the President expressly declared them so; and it is, of course, within the memory of all persons who have at all felt interested in watching the affairs of the College, as we presume that the Fellows at least generally do, that the proceedings of the *Comitia* have been habitually reported in the medical papers for years. Not only have they been so reported for some years without any sort of dissent, but the approval of such reports by the most eminent officers of the College has been marked by the communication to the journals from time to time of the *verbatim* text of the more important addresses of the Presidents at the annual meeting, when the President summarises and reviews those proceedings for the past year. These observations, therefore, showed a singular confusion of ideas and a great lack of knowledge on the part of some highly intelligent and well-informed Fellows. But that such disorderly notions prevail as to the right of reporting the proceedings is in itself not creditable or advantageous to the College; and it is certainly not desirable that any junior Fellow of the College should ever again place himself in the position, whether from ignorance or otherwise, of standing up and characterising the conduct of some of his colleagues

in reporting these proceedings as being such that he trusted that no one could suppose that he was capable of it.

We think the College should take order in this matter; and, for its own convenience, it might either direct its Registrar to frame and forward for publication such proceedings as were not *Secreta Collegii*, or arrange for the admission of reporters. The present system of half-and-half reporting is in its nature imperfect: it not long since gave rise to a painful scene at one of the College meetings, and has again caused a very unsatisfactory display of feeling, which persons as imperfectly informed on the subject as the speaker on this occasion may at any time renew.

There is another matter to which Dr. Risdon Bennett referred in his opening remarks, to which it is, unfortunately, hardly possible to avoid alluding. Dr. Bennett expressed surprise and regret that the substance of the decision of the Censors in the Gull-Johnson matter had been made public in two of the medical journals; and he detailed the precautions which he had taken to avoid such publicity. To us that surprise is in itself most surprising, since it does not appear that in communicating the decision to the parties whose professional conduct was under judgment any desire was expressed that that decision should be kept secret, and it was not communicated to them under any seal of secrecy, or with any injunction of secrecy. The matter under consideration was conducted publicly described on oath, and evidence given in a court of justice. The fact that a complaint had been made to the College was publicly announced on behalf of Sir William Gull in the medical and daily papers. Dr. Johnson stated on Thursday that, when he handed in his reply, he informed the President that the result of the decision must be made as public as the fact of the complaint had been. When we remember these facts, and find that secrecy as to the nature of a decision having relation to these public facts was by no means enjoined on those whom it affected, we are lost in surprise at the imperfect means which the President took to secure the end which he had in view; and we think that the profession will concur in the belief that his expectation of secrecy was ill founded, even supposing that a policy of secrecy was either desirable or possible from a professional or public point of view.

In assuming most discourteously and inaccurately that the information which we last gave to the profession on this subject, and the observations with which we accompanied it, were published for other than the best reasons and the best motives, or that that information reached these columns by "illegitimate" or "surreptitious" means, Dr. Bennett spoke, we apprehend, without due reflection, as well as with a momentary forgetfulness of grave public considerations which the holder of such an office as he fills ought always to keep in view, and which in our estimation are superior to minor interests.

THE PEACOCK DONATION TO THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

THE interesting collection recently presented to the College by Dr. Peacock, to which we last week referred, includes about one hundred and seventy-six preparations, chiefly illustrating the malformations and diseases of the heart and drain of the blood-vessels and respiratory organs; and we believe that a brief notice of it will be of interest to our readers and of value to science. Its value is enhanced by the cases being in almost every instance accompanied by the history during life, and, in by far the largest proportion, the cases have been published either in the *Transactions* of the Royal Medical Chirurgical and Pathological Societies, or in Dr. Peacock's work on *Malformations of the Heart*, or in the Croonian Lectures on some of the causes and effects of valvular disease. The malformations of the heart are thirty-five in number, and include specimens of most of the forms of anomaly which have been recorded. Amongst them is a case of very defective development, the heart consisting of two auricles and only one ventricle, which, however, gives origin to two distinct vessels, and another in which there is only one vessel given off from the heart which represents the aorta, and the absent pulmonary artery is replaced by branches from the aorta. The cases of less complete defect in the heart are more numerous. Thus there are three specimens of entire obstruction of some part of the pulmonary artery or of the whole of the vessel, in which the transmission of blood to the lungs was effected through the persistent ductus arteriosus; and ten in which the pulmonary artery is of small size, either from defect in the valves, or from obstruction at the outlet of the right ventricle or at the points of union of the sinus of the right ventricle with the infundibular portion. In these cases, there are other serious defects probably originating in the former conditions, the septum of the ventricles being incomplete, or the foramen ovale or the ductus arteriosus still open, or there is a combination of these irregularities.

There are also specimens of stenosis of the pulmonary artery and of the right auriculo-ventricular aperture, originating in disease of the valves, probably of congenital origin. There is also a very interesting specimen in which, with other defects, the course of the aorta is irregular, and several in which the foramen ovale is unclosed, in hearts which are otherwise well formed.

With these specimens is included a series illustrating the mode of closure of the foramen ovale after birth, and intended to show that the process is due to muscular action, not to the mere floating up of the fold of the valve as ordinarily described.

The specimens of disease of the heart and blood-vessels are about seventy-five in number. They include affections of the pericardium, spontaneous rupture of the muscular structure from fatty degeneration, rupture of the valves from violent muscular effort, and true lateral or partial aneurism of the left ventricle and auricle; cancerous deposits on the surface of the heart, hydatid cyst embedded in its substance, aneurism of the coronary artery, etc. There are also numerous specimens of valvular disease, and especially of disease originating in malformation of the valves, with examples of rupture of the chordæ tendinæ and columnæ carneæ in hearts which were previously diseased. The specimens illustrating diseases of the blood-vessels include aneurism of the aorta and its larger branches, and show various modes in which such disease may terminate fatally. In one of these cases, an aneurism of the ascending aorta has formed a communication with the right auricle—spontaneous varicose aneurism. There are also several specimens of spontaneous rupture of the aorta—dissecting aneurism—and two preparations to show the mode in which such aneurisms are produced.

With this series are included several preparations, shewing small sacs which we found in vessels in which large aneurisms existed. The coats have been carefully separated, so as to show the sacs to be produced by the pressure of the inner coat through the middle tunic, in consequence the latter being destroyed by atheroma or its fibres being pushed asunder. It is probable that these cases illustrate the mode in which most of the larger aneurismal tumours are formed, though, in such cases, the continuity of the internal coat throughout the interior of the sac is no longer to be traced.

There are several specimens of obstruction of the larger venous trunks by coagula, and one in which the whole ascending vena cava is so rendered pervious, while the portion of it near the termination in the right auricle is converted into a ligamentous cord.

The specimens illustrating the diseases of the respiratory organs are less numerous, amounting to only about thirty-five in number. They, however, include some of much interest. They are specimens of diphtheria, of pharyngeal abscess, in which the symptoms during life closely simulated those of croup, cirrhosis of the lung, and dilatation of the bronchial tubes, gangrene of the lung and gangrenous abscess in a case of pyæmia, cancer of the lung, etc. There are also specimens of the disease of the lung in the French millstone-makers' disease, in which silicious material was found on chemical analysis, and of lungs from Gnish miners.

In this set are included various specimens of solid matters expectorated, sent fibrinous masses, moulded coagula after hæmoptysis, portions of mollary sarcoma, hydatids, etc. The fibrinous masses were obtained from three distinct cases, and there are specimens showing the mode in which the masses were expectorated, rolled up into a small ball surrounded by mucus, and the branched appearance of the bodies when subsequently teased out.

Besides these specimens, there are others of interest, including cases of internal strangulation, in one instance with a polypoid body projecting from the mucous membrane, of intussusception, of disease of the appendix vermiformis, etc. With these is a large portion of intestine which was passed by a patient who had symptoms of intussusception, and who entirely recovered. There are also specimens of pyelitis of the kidney, calculus in the kidney, disease of the suprarenal capsules, etc.

TESTIMONIAL TO DR. RYDER.—The following testimonial, handsomely illuminated on vellum, was presented to Dr. Ryder by the men employed at gas-works, Shoreditch Station, on September 28th, on his resigning his appointment of medical officer:—"The Gaslight and Coke Company, Shoreditch Station, Great Cambridge Street, London, E., Provid Fund. The Committee and members of the above fund desire hereby convey to Richard Ryder, M.D., their regret at losing his services. They also tender him their sincere thanks for the assiduous and kindly manner in which he for eleven years has discharged to himself and families the duties of medical officer to the above fund. Signed, on behalf of three hundred members, T. H. Cowe, Chairman; J. Jackson, Secretary."

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Fresh Students.—Manchester Royal Infirmary.—Cases of Aneurism.—Lecture at the Literary and Philosophical Society.—Manchester and Salford Sanitary Association.

FORTY fresh students have entered at the medical school, which, although two more than last year, must yet be regarded as a small number when the vast population of Lancashire is considered and the advantages offered to the medical student in this metropolis of the North are called to mind. Doubtless, the distance between the school and the hospital operates disadvantageously upon the number of entries; but, as the removal of the infirmary may now be looked upon as an accomplished fact, we may hope ere long that this drawback and physical hindrance to the growth of our school will be removed.

It is true that the final decision of the general body of trustees has not yet been taken upon this question of removal; but the reports of the Finance Committee, of Mr. Netten Radcliffe, and of Mr. Field upon the sanitary condition in general, and the drainage in particular, are so completely *en rapport* in their condemnation of the present building, that it would be quite impossible for any opposition to make a stand against such statements of fact. It is roughly estimated that a minimum of £500,000 will be obtained for the present site, of which perhaps £200,000 would be required for the erection of the new hospitals, the remaining £300,000 going to increase their endowment. The huts which it was decided to erect within the present infirmary enclosure for temporary purposes are in the meantime completed, and are constructed to receive a hundred patients; but it unfortunately happens that, though quite finished, they prove so damp as to be utterly unfit, in their present condition, for the purpose assigned. This annoyance might probably have been obviated if the simple precaution had been taken of leaving a space between the brickwork, which is just a foot in height, and the boarding to permit of a free horizontal circulation of the air.

Some interesting cases of aneurism have recently been under treatment in the wards of the infirmary. Dr. Simpson has had under his care three cases of aortic aneurism treated by electrolysis. Of the result in two cases, it is premature to speak, but one may be pronounced as almost completely cured. In the surgical wards, Mr. Heath and Mr. Bradley have each had a case of popliteal aneurism, in both of which Esmarch's bandage was applied for upwards of an hour. In Mr. Heath's case, the aneurism was small and the patient a healthy man of middle age. The elastic bandage was carried up to the ham, then a pad of lint was placed over the popliteal space and the bandage very lightly continued upwards until the tumour was surmounted, when firm constriction was again commenced and carried up to the groin. The pressure was kept up for fifty minutes, and, before removal, Carte's tourniquet was adjusted over the femoral artery. On removing the bandage, it was found that pulsation had ceased and the tumour felt much firmer. The next day, there was no return of the pulsation, and the aneurism was quite hard to the touch; in a word, the man was cured. In Mr. Bradley's case, which occurred previously, this method of treatment did not prove successful, which was possibly due to a slight variation in the application of the bandage. The patient, aged 35, was a fairly healthy man, who had never suffered from syphilis, and who had only had symptoms of popliteal aneurism for about seven weeks. On admission, the tumour was as large as an orange, and a tourniquet was applied over the femoral artery. After three days' rest in hospital, the limb was compressed by an Esmarch's bandage for fifty minutes; but the whole of the knee and popliteal space were left quite uncovered, all the blood being retained in the vessels. On removing the bandage, the pulsation almost immediately returned, and in less than a minute was as vigorous as ever. After another week, during which he almost continuously wore a Carte's tourniquet, the same plan was adopted, this time the bandage being left on for sixty-five minutes, and very gradually removed at the end of the time. As before, the blood found its way into the tumour almost directly, and in a very short time the pulsation was thoroughly re-established. Two days later, Mr. Bradley ligatured the femoral at the apex of Scarpa's triangle, and the man left the hospital perfectly cured in about a fortnight. The different result obtained by the use of the elastic bandage in these two cases can only be accounted for by the different management of the popliteal vessel. In the successful case, some pressure certainly was made, and, therefore, some emptying of the aneurismal sac ensued; in the unsuccessful case, no pressure was

exerted over the region of the tumour, so that all the blood which was in it prior to bandaging remained there throughout the period of strangulation.

At the last meeting of the Microscopical Section of the Medical Society, Dr. Ross and Dr. Dreschfeld showed some beautiful specimens of the spinal cord in states of health and disease; and the latter gentleman, in a paper on Progressive Muscular Atrophy, supported the view that the disease is due to a primary atrophy of the large motor ganglia of the anterior horns of the spinal cord; with other secondary changes in the lateral columns and in Goll's fibres, and not to any primary lesion in the muscles affected, or in the anterior roots of the spinal nerves affected: the hypertrophy of the neuroglia he regarded as concurrent and coincident rather than causal of the nervous lesion.

Mr. T. Harrison delivered, at the Literary and Philosophical Society last week, a lecture on Food and its Adulteration, in which he demonstrated by experiments how common the custom still was of adulterating bread with alum, milk with water, tea with refuse leaves and iron-filings, and vinegar with sulphuric acid. In almost every instance, the impure articles were obtained from small shops at low prices, and this taste for cheapness was, he thought, largely the cause of the adulteration practised. In speaking of the water-supply, he mentioned that Liverpool has endeavoured to prevent the contamination of her water with lead by lining the pipes with tin; but he showed by experiments that, at all events in the specimen supplied, this was not successful, as the water which it contained was very highly impregnated with the poison, though he did not know whether this was due to destruction of the tin coating by galvanic action or to erosion of the lining from its extreme thinness.

Typhoid fever has been prevalent in many districts in the neighbourhood of Manchester and Salford for some months past, and, in consequence of the continued virulence of the plague, the Manchester and Salford Sanitary Association has issued a circular to the surrounding boards of health, in which they point out the probable spread of the disease through the milk-supply, and, therefore, urge the necessity of periodical inspection of all dairy-farms.

ASSOCIATION INTELLIGENCE.

SOUTH DEVON AND CORNWALL BRANCH.

THE quarterly meeting of this Branch will be held at Truro, on October 31st, at 3 P.M.

Members having papers to read, or desiring to attend the dinner, must give the Secretary one week's notice. Tickets for dinner, 5s., exclusive of wine.

WM. SQUARE, F.R.C.S., *Honorary Secretary.*

Plymouth, October 7th, 1876.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

A MEETING was held on October 12th, at the White Hart Hotel, Reigate; C. HOLMAN, M.D., in the chair. Twenty-seven members and eight visitors were present.

Next Meeting.—It was agreed that the next meeting should be held at Croydon; Dr. Strong in the chair.

Communications were made by Dr. Holman, Dr. Walters, Mr. Durham, Mr. R. Steele, Mr. Hawken, and Mr. Maunder.

Dinner.—Twenty-four members and three visitors dined together; Dr. Holman in the chair.

SOUTH MIDLAND BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Town Hall, Woburn, on Friday, October 13th, 1876, at 3.30 P.M.; H. W. SHARPIN, Esq., President, in the chair.

New Members.—The following gentlemen were proposed and elected unanimously, viz.: Wm. Henry Bull, Esq., Stony Stratford; Dr. John Denton, Steeple Claydon, Bucks; W. L'Heureux Blenkarne, Esq., Buckingham; and Edward Swinson, Esq., Turvey.

Secretary's Report.—The Branch continues flourishing, with ninety members, and £4 balance in hand.

Papers.—The following papers were read.

1. Dr. PRIOR: The Woburn District: its Physical Characteristics and Sanitary History.

2. Dr. BUSZARD: Some Cases of Cancer presenting unusual features.

3. Mr. G. D. GOLDSMITH: Notes on a Case of Herpes Zoster.

4. Mr. R. R. KINSEY: Notes on a Case of Intussusception.

A *Vote of Thanks* was given to the readers of papers, and to the President and Honorary Secretaries; also for the use of the Town Hall.

Dinner.—The members then adjourned (twelve in number) to an excellent dinner at the Woburn Arms. The usual loyal and other toasts were given. Previously to the meeting, all gentlemen present went over Woburn Abbey and grounds.

The *Next Annual Meeting* is to be held at Northampton in June 1877, under the presidency of Wm. Moxon, Esq.

THAMES VALLEY BRANCH: ORDINARY MEETING.

A MEETING took place at the Richmond Infirmary on October 18th.

Papers, etc.—1. Dr. THOROWGOOD read a paper on Spasmodic Asthma, which was followed by a discussion.

2. A debate took place as to the Treatment of Burns.

3. Mr. MAUNDER exhibited two patients, who had been submitted to Osteotomy with the chisel and mallet.

New Members.—Two gentlemen were elected members of the Branch.

Dinner.—After the meeting, the members and friends (thirteen in number) dined together at the Greyhound Hotel.

CORRESPONDENCE.

THE REPRESENTATION OF THE UNIVERSITIES OF GLASGOW AND ABERDEEN.

SIR,—I regret that the suggestions contained in my letter of September 16th, respecting the chance opening up to us of securing a medical candidate for the representation of the conjoint Universities of Aberdeen and Glasgow, should, through the superior organisation of the lawyer, have fallen through. Had such medical candidate gone to the poll (although a Liberal from conviction), I should have urged every Poor-law medical officer in the three kingdoms who had a vote to vote for him, irrespective of the political principle such candidate might have held, because, above all things, it is most desirable that we should obtain some influence in the House, where at present we have none.

As, however, we have a Liberal and a Tory legal candidate before the constituency, the next best thing to be done is to vote for such gentleman as will render the most essential service to us; and, therefore, with your permission, I will point out the respective promises of each, leaving my professional brethren to exercise their discretion in selecting which of them they consider most likely to serve them.

Mr. Watson, the Conservative candidate, in his address on October 23rd, at Aberdeen, entered largely into the position which the medical service should occupy if sanitary questions are to be treated effectively; and he further promised to take up and carry through the Scotch Poor Bill, which, founded on the report of the Select Committee on Scotch Poor Relief, was originally brought before the last Parliament by the Chairman of the Committee, Mr. Crawford (Liberal), but which was lost. It was again taken up in the last Session by Lord Advocate Gordon, but was made a dropped measure by the Government. The medical clauses of that Bill are so drawn that, should it ever become law, it will contain all the provisions for which I have contended in my efforts to improve the medical administration of the English Poor-laws.

Turning to the Liberal candidate, Dr. Kirkwood, I learn from his published opinions that he considers it essential that very considerable modifications should be made in the laws relating to the medical profession; that he is an earnest advocate of efficient sanitary reform under its natural leaders; and, equally with the Lord Advocate, would urge forward Poor-law Medical Reform, with this essential difference, that he would extend such reform where necessary to the three kingdoms; as is proved by the following telegram, which I received from him on October 24th.

"Dr. Kirkwood, Glasgow, to Dr. Joseph Rogers, London.

"I regret that the state of my health prevents me from writing you at length. I generally approve of the principles laid down in your pamphlets; and I would give all the assistance in my power to have them carried into effect, if elected."

In conclusion, I may, perhaps, be permitted to state that the principles contained in the pamphlets referred to would, if adopted, make

very radical changes for the better in the condition of the Poor-law medical officers generally, and would get rid of the chaotic state into which our sanitary arrangements have been permitted to fall.

I am, Sir, yours obediently,
JOSEPH ROGERS.

Dean Street, Soho, October 26th, 1876.

THE PROSECUTION OF UNQUALIFIED PERSONS PRACTISING MEDICINE.

SIR,—Readers of the JOURNAL will already have seen that the Council of the South Wales and Monmouthshire Branch of our Association have recommended the establishment of a Branch of the Medical Defence Association for South Wales and Monmouthshire. The following gentlemen have already given their adhesion to the movement, viz.: Our President, Dr. Andrew Davies, and Dr. Griffiths, of Swansea; Drs. Taylor, Maurice Evans, Sheen, and Price, of Cardiff; Dr. Ball, Blaenavon; Messrs. Davies, Cymer; Llewellyn, Caerphilly; Samuel, Llanelly; George A. Brown, Tredegar; and Nell, Penarth. These names are proof of the movement being supported by men of weight and position in this district; and, with those already members of the Medical Defence Association, are more than sufficient to form a Branch (twelve being necessary). As the current year is so near its close, it is not proposed to formally inaugurate the Branch until January next; in the meantime, I shall be happy to forward copies of the rules of the Medical Defence Association to any gentleman residing in South Wales or Monmouthshire, and receive the names of those proposing to join the movement.—I am, sir, your obedient servant,

J. HANCOCKE WATHEN, Honorary Secretary *pro tem*.

Castle Hill, Fishguard, October 18th, 1876.

* * We should be very glad to see a "Defence Committee" formed in connection with every Branch of the British Medical Association. It is in the power of each Branch in this matter to act for itself, as Mr. Hoar suggested, and this would probably be the most convenient course.

ISOLATION OF FEVER-CASES.

SIR,—While thanking you for your excellent and well-timed article on the propriety of sewer and other local authorities arranging for the reception of their fever-stricken inhabitants at the London Fever Hospital, permit me to say that at St. Marylebone the guardians have for some years had such an arrangement. On the production of a certificate from any legally qualified practitioner, to the effect that a patient is suffering from fever, the relieving officer of the district is empowered to send the sick person at once to the hospital. All this is done on the distinct understanding that there is no suspicion of pauperism in the transaction; and I have repeatedly been enabled thus to send fever-cases to the hospital, and thereby prevented the affliction from being the means of pauperising either the patient or any member of his family. So anxious are the guardians to carry out this excellent system, that they provide a fever-ambulance, which can be used without charge, if the patient and friends be really unable to pay the small fee charged for the hire. No parochial medical examination is required; the simple production of the before-mentioned certificate from the private practitioner in charge of the case being all that is necessary. This system has worked remarkably well in Marylebone, and has frequently proved the means of arresting a local outbreak in particular courts and streets.—I am, sir, faithfully yours,

NORMAN KEER, M.D.

42, Grove Road, Regent's Park, N.W., October 14th, 1876.

THE FEES AT UNIVERSITY COLLEGE HOSPITAL.

SIR,—All who are interested in the subject of medical education will thank you for your powerful protest against the present misappropriation of the fees for clinical instruction at the University College Hospital. It is an evil quite great enough, that the labour of seeing out-patients by hundreds should be gratuitous; but the fact that such an immense amount of teaching as is done in the hospital should be also unremunerated, is preposterous. The hardship must press heavily on the junior members of the staff, by whom a large proportion of the work is performed.

The position and prospects of the young consultant and teacher unblest by means are not such as to inspire much envy. He commences on a miserable pittance as a demonstrator, eking out his meagre income with fees for private instruction paid by students often, if possible, in worse condition than himself. In this way he subsists the greater portion of the year, fattening himself in the long vacation for

his winter's work with the crumbs of consultation which fall from the absent rich man's table. If his constitution be good, he weathers the first ten years, in which many fall, and has some prospect of making a very moderate income at the end of another ten, and, if he be highly favoured, some day a large one, but only when he is beginning to grow bent, bald, toothless, purblind, and hard of hearing.

It is high time, sir, that the junior teachers of medicine should get their fair remuneration; and all will wish you success in your endeavour to remedy the injustice which you have pointed out at University College Hospital. There will also be many who will hope that such success will be but a beginning in the task of setting the remuneration of medical teaching generally on a juster basis, and even be the prelude to a movement directed against that bane of our profession, "gratuitous work", in whatsoever guise or shape it may be found.—I am sir, yours, etc.,

H. CAMPBELL POPE, M.B., B.S., F.R.C.S.

Broomegrove Villa, Shepherd's Bush, W.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

RURAL SANITATION IN SURREY.

THE Medical Officer of Health to the Rural Sanitary Authority of Hambledon has recently congratulated his authority upon the health of his district during the past year; and, indeed, the death-rate of 16.5 per 1,000, which he reports, must be accepted as trustworthy evidence of fairly satisfactory sanitary condition. It is evident, however, that, in spite of this low death-rate, sanitary matters in this rural union of Surrey are not quite *coulleur de rose*. Mr. A. A. Napper, the medical officer of health, commences his Report by regretting the great difficulty he experiences in obtaining necessary information, especially with regard to infectious and contagious diseases. Such difficulty, of whatever nature it may be, is to be regretted, as it must stand in the way of effective sanitation. The supply of water is, moreover, said to be generally very deficient in quantity, in many instances impure and unwholesome, and not unfrequently polluted by sewage. With regard to the dwellings of the poor, Mr. Napper reports improvement in most parishes, while many still remain unfit for habitation, and others are overcrowded owing to the great scarcity of cottages. If, under these conditions, the death-rate in Hambledon Union is so low as 16.5 per 1,000, it must be evident that a much lower death-rate than 17 per 1,000 might be looked for in such healthy rural districts under a more perfect system of sanitation. The fact that less than 25 per cent. of the deaths in this district are of children under five years of age, whereas in urban districts the proportion often exceeds 50 per cent., only shows how much less fatal to human life, especially among children, sanitary defects are to a rural than an urban population. Outdoor life in a pure air appears to a considerable extent to counteract the evil effects of defective water-supply and of overcrowding in unhealthy cottages. It is difficult to say how low the death-rate might be in such a rural population as that of Hambledon without these drawbacks.

THE ARTISANS' DWELLINGS ACT IN WALSALL.

THE Town Council of Walsall, at a recent meeting, finally decided to adopt, at an estimated cost of £10,000, the provisions of the Artisans' Dwellings Act for a part of that borough, containing one hundred and nineteen houses, inhabited by between five and six hundred persons, which, in an official representation from Dr. James MacLachan, the medical officer of health for the borough, had been pronounced to be an unhealthy area. One portion of the condemned area contains seventy-eight houses, standing upon 849 square yards of land. Another group consists of two public-houses, with a number of small houses of a low character at the back, with reference to which the Mayor lately expressed an opinion that they ought to have been closed by the Council or some other authority long since. The adoption of this improvement scheme has been the subject of discussion at several special meetings of the Town Council, and has met with but little serious opposition, although it was urged by one or two councillors that there were other parts of the town more needing attention than that included by the present improvement scheme. If this be true, it can only be a reason why the area to be dealt with should be increased, and cannot detract from the sanitary benefit which the town will derive from the adoption of the present scheme. Recent mortality statistics of Walsall, while they begin to show the natural result of

intelligent activity in sanitary matters, show that the amount of zymotic and preventable fatality has given warning of the necessity for reform. During the five years 1871-5, the death-rate in the borough from all causes averaged 23.4 per 1,000, and the rate from the seven principal zymotic diseases 6.1 per 1,000. Thus more than 26 per cent. of the mortality in the five years ending December last resulted from the principal zymotic diseases. The mortality statistics of 1875 were considerably more favourable than in the four preceding years, as the death-rate from all causes fell to 20.5, and the zymotic rate to 3.2, per 1,000. The rate of infant mortality was equal to 166 deaths under one year of age per 1,000 children born alive. Improved dwellings for the working classes, among other advantages, tend directly to the reduction of infant mortality.

ZYMOTIC DISEASE IN PORTSMOUTH.

THE severity of the epidemic of scarlet fever in Portsmouth has served the useful purpose of stimulating local interest in the state of sanitation in the borough. A serious defect in the sanitary condition of the town—the existence of large numbers of uncovered ashpits—has been the subject of a correspondence in the local papers, which, it may be hoped, will lead to the suppression of such an intolerable and dangerous nuisance. The medical inspectors of the Local Government Board have frequently pronounced the essential importance of roofing middens and ashpits in order to keep the contents as free as possible from water, which not only promotes decomposition, but increases the difficulty of removing the contents. Under the Public Health Act of 1875, no option is given to local sanitary authorities in this matter, as it is provided that, if any house appear to be "without a sufficient water-closet, earth-closet, or privy, and an ashpit furnished with proper doors and coverings, the local authority *shall*, by written notice, require the owner", etc., to supply such deficiency. The necessity and the authority for such action are equally beyond question; the will on the part of the sanitary authority alone appears to be wanting. It may be hoped that, in the approaching municipal election for Portsmouth, care will be taken to elect town councillors who will cheerfully accept their responsibilities as the urban sanitary authority for the borough, and thus assist in restoring the reputation of Portsmouth as one of the healthiest of our large towns.

THE HARROGATE COMMISSIONERS AND DR. DEVILLE.

AT a meeting of health-officers held a short time since, Dr. Deville stated his opinion that matters might be amicably arranged; but, judging from the report of the last monthly meeting of the Commissioners, there seems scarcely any chance of a final settlement at present. The question was asked, "if a demand had been made for the books and papers belonging to the Board which were retained by Dr. Deville", when the speaker was informed that the books are valueless, as a new set has been purchased and given to the newly elected medical officer. The chairman said that there were no parties to the late medical officer's appointment except the Board and Dr. Deville; and that, as they had not applied to the Local Government Board for any portion of his salary, their consent is not necessary to his dismissal; that this had been a medical officer's question; and they had, therefore, determined to pay the whole of the salary of their medical officer, otherwise he would become supreme, and they would have to submit that "all their hotels and lodging-house-keepers must have a certificate, which would be a most shameful state of things, and he hoped that he would never live to see the day when this was enforced". The old spirit of opposition seems to be more rampant than ever, except that the members have refrained from the obprobrium and vituperation indulged in at previous meetings. The present state of affairs is to be regretted for the sake of both parties, as most certainly the hotels and lodging-houses of Harrogate will be open to the suspicion of grave sanitary deficiencies existing on their premises, whilst Dr. Deville must remain in doubt as to his official position in the town.

THE HARDINGSTONE AND ST. JAMES'S END DRAINAGE.

MR. HAVILAND lately reported to the Local Board on the bad drainage of these districts, which had increased the mortality from scarlet fever then prevalent by inducing a malignant type of the disease. He said that he had pointed out long since the injury to health arising from the overflowing of the cesspools and middens which had so long existed in "this ill-fated district", and that he had lately seen a number of fever-

cases associated with the most loathsome sewage-sodden back-yards it is possible to imagine. Many of these filthy cesspools are situated near the wells, so that the water has become polluted. Mr. Haviland further said that he must report to the Local Government Board on the subject, unless immediate measures were taken to abate the nuisances; and he strongly recommended the adoption of the Goux system. After a long discussion, a resolution was carried that plans be prepared for dealing with surface-drainage and "swillage" of St. James's End District; so that there is a fair chance of something being done. If Mr. Haviland had not strongly pressed on the local authority the necessity for taking immediate action, and, apparently, if the Board had not feared that the Local Government Board would compel them to adopt some more expensive system, even this resolution would not have been adopted. As no proposition has been made for dealing with excrementitious matters, this cannot be considered to be a satisfactory adjustment of the difficulty. Mr. Haviland also called the attention of the Daventry Sanitary Authority to the pollution of the river Nene, and stated that he proposed making an inquiry into the causes of the evil. In the meantime, he advised the removal of the weeds from the river, to allow of an increased scour. He also reported to the Northampton Rural Sanitary Authority on several nuisances existing at Bugbrooke and elsewhere in their district.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE quarterly meeting of this Association was held on September 26th at the Town Hall, King Street, Oldham—Dr. J. M. Sutton presiding. The subcommittee appointed at the last meeting to consider the question of the tenure of office by medical officers of health, which was brought before the Association in a paper read at the meeting by Dr. Bird, presented its report, in which it was stated that the members fully endorsed the views propounded in the paper. They considered that the tenure of office of medical officers of health was at present in a very unsatisfactory condition, because of the short periods for which they were appointed, of the uncertainty of the office, the mode of election, the possibility of arbitrary dismissal, and the injury resulting to the cause of sanitary science and the public health from the diminished interest taken in the work because of the uncertainty of the office. The committee suggested that the appointment of medical officers of health should, as at present, be made by the local sanitary authority, that they should continue to hold the office so long as they continued to discharge their duties with satisfaction to the local authority, and in no case should be dismissed without the sanction of the Local Government Board. They suggested, further, that the assistance of kindred associations should be sought in laying these opinions before the Local Government Board.—The report was adopted.—Dr. Deville, the medical officer of health for Harrogate, who was dismissed from his office on some pretext by the local authority, was warmly received by the meeting when he entered the room. He stated that he wished to thank the public for the support they had given to him. The Local Government Board had refused to confirm his dismissal, and he hoped the result would be a re-establishment of amicable arrangements between himself and the local authority at Harrogate.—The Chairman said he hoped that would be the result. He regretted that some of the members of the Harrogate Sanitary Authority had spoken of this association as nothing more than a trade union, when what they had done had been done in the interests of the public.—Mr. Vacher of Birkenhead read a portion of a report on chemical works, and Dr. J. M. Wilson of Rochdale a paper on the Medical Inspection of Schools.—The Chairman, who had prepared a paper on Infantile Mortality, stated that, in considering the subject, he found the matter of so much importance, that it was impossible for him to condense his remarks into a short paper, and they had consequently extended to a length which would hardly warrant him in detaining the meeting to lay them before them. He proposed, however, to print the paper.

APPOINTMENTS UNDER THE LOCAL GOVERNMENT BOARD IN 1875.

FROM the Annual Report of the Local Government Board for 1875, it appears that during the year ending December 31st appointments of medical officers were approved by the Local Government Board in sixty-four additional instances; the appointments by rural authorities being eighteen, by urban authorities forty-five, and by combined authorities one. Approval also was given to the appointment of fifty-three additional inspectors of nuisances, being nine by rural authorities, and forty-four by urban authorities. During the year, ten com-

binations for the appointment of medical officers of health, and six combinations for the appointment of inspectors of nuisances, terminated. Separate appointments for the districts included in those combinations were approved in twenty-six instances with regard to medical officers of health, eleven being rural and fifteen urban; and in nine instances with regard to inspectors of nuisances, six being rural and three urban. The total number of appointments now existing, which have been sanctioned since the passing of the Public Health Act, 1872, is as follows:—Medical officers of health, by rural authorities, 389; by urban authorities, 347; by combined authorities, 71; making a total of 807. Inspectors of nuisances, by rural authorities, 501; by urban authorities, 276; by combined authorities, 31; making a total of 808. These figures do not represent the entire number of appointments which have been made, but only those where a portion of the salary is repaid from the Parliamentary grant. The repayments made during the year ending September 29th, 1875, amounted to £27,827 in respect to the salaries of medical officers of health, and £27,292 in respect to the salaries of inspectors of nuisances, or a total of £55,119, of which the urban authorities took £11,514.

POOR-LAW MEDICAL RELIEF IN THE NORTH OF SCOTLAND.

SIR,—I can, as a Scotch parochial medical officer, entirely corroborate all your editorial remarks on "Poor-Law Medical Relief in the North of Scotland", although I hold my appointment in the west part of the country. In the district where I am at present located matters are in as unsatisfactory a condition as in the north. All the same sinister influences are at work here; and what results is that injustice is done, not only to the rate-payers, but also to all the deserving poor on the roll. The rate-payers are taxed to keep up a system which does not bring about any proper supervision of the rates, and the poor suffer in many ways. All is left to the "Inspector of Poor" to settle; and many people are "enjoying" an allowance who have no earthly right to be classed as paupers. Then again, if the "Inspector", who usually has a voice in the matter, and rules very often the meetings of the "Board", be an inhumane and harsh man, the really deserving poor are doled out a miserable pittance of two shillings and sixpence per week per pauper, or are entirely neglected. There is not the least doubt in my mind that the whole system is a standing disgrace to the Government, and urgently requires remodelling. The medical profession of Scotland are greatly to blame for not sooner taking action in the matter; and it would well become some of our universities and wealthy corporations to bestir themselves to get matters rectified. Trusting that your able article on "Poor-Law Medical Relief in the North of Scotland" may enable the profession in Scotland to obtain speedy redress, I am

A "SCOTCH PAROCHIAL MEDICAL OFFICER".

INFECTIOUS DISEASES IN WORKHOUSE-INFIRMARIES.

SIR,—Under this heading, in the JOURNAL of September 16th, you refer to a recent meeting of the Croydon Board of Guardians, at which it was stated that the Union Infirmary contained 189 patients under medical treatment, including four suffering from typhoid fever, three from scarlet fever, and one from small-pox. The cases referred to were not patients in the Infirmary, but were under treatment at the Infectious Hospital, built expressly for infectious diseases, and situated two miles or more from the Infirmary. The medical officer of health for this district, Dr. Philpot, has in his last report spoken of these wards in the following terms. "The infectious wards of the union have been of the greatest service during the year, in the course of which 75 cases of enteric fever and 31 cases of scarlet fever have received admission. The wards are admirably adapted, by their situation and construction, for their purpose. In their absence, a special fever hospital would have been required for the district. By a wise regulation of the guardians, an application to the master of the union, or from any qualified practitioner, will secure the admission of a case of infectious disease, and the removal of the patient in a special conveyance." To provide hospital accommodation for infectious diseases is a matter of difficulty, especially when typhoid fever, scarlet fever, and small-pox occur at the same season.—I am, sir, yours faithfully,

ALF. G. ROPER, Medical Officer, Croydon Union Infirmary.

September 19th, 1876.

POOR-LAW MEDICAL APPOINTMENTS.

BAKER, Benjamin, M.R.C.S. Eng., appointed Medical Officer for the Missenden District of the Amersham Union, *vice* James O. McCreery, M.R.C.S.I., resigned.

HACKNEY, John, M.R.C.S. Eng., L.S.A., appointed Medical Officer to the Sellinger District of the Elham Union, *vice* Dr. D. S. E. Bain, resigned.

HURLEY, James, M.D., appointed Medical Officer for the Withern District of the Louth Union, *vice* W. McBeath, M.D., resigned.

MCDONNELL, M. A., M.D., appointed Assistant Medical Officer to the Workhouse, Toxteth Park, *vice* Roger Edwards, L.R.C.P. Lond., M.R.C.S., resigned.

SMITH, G. J. M., M.R.C.S., appointed Medical Officer to the Fourth District of the Cuckfield Union, *vice* Marshall Monckton, L.F.P.S. Glasgow, resigned.

VORRES, William M., M.B., appointed Medical Officer for the North District of Great Yarmouth Parish, *vice* W. J. Palmer, M.R.C.S. Eng., resigned.
WALLIS, Hugh, Esq., appointed Medical Officer for the Fourth District of the Eastbourne Union, *vice* Thomas F. Sanger, M.R.C.S., deceased.

MILITARY AND NAVAL MEDICAL SERVICES.

MILITIA SURGEONS.

SIR,—In consequence of the terms of the New Medical Warrant for Militia Surgeons, the following questions were put to the War Office, and answers were received as follows. Yours faithfully,

FREDERICK GOODCHILD, Hon. Sec. Militia Surgeons' Society.
Warwick, September 25th, 1876.

"War Office, September 21st, 1876.

"1.—*Question.* Whether, in accepting the terms of the New Warrant, the Surgeon relinquishes his present Commission, and will be considered as entering into an entirely new engagement.—*Answer.* In the event of the Surgeon electing to be placed on the Departmental List, he will not relinquish his present Commission; but, in common with other Militia Medical Officers accepting the terms of the recent Royal Warrant, he would, when embodied or out for training, be under the orders of the Director-General Army Medical Department.

"2.—*Question.* Whether, by so accepting, he will relinquish all claim to compensation for the loss of nearly the whole of his professional income, which will result, should the terms of the New Warrant be fully carried out.—*Answer.* His election to be placed on the Departmental List will be without prejudice to any claim he may consider he has to compensation for loss of emoluments."

THE ARMY MEDICAL WARRANT.

SIR,—I trust I may be permitted to quote from the remarks delivered by Dr. Richards at the meeting of the North Wales Branch of the Association, and reported in the JOURNAL of September 23rd, and comment thereon. "Mr. Hardy now saw that the time for acting had arrived, that the British public would not tolerate their brave soldiers being left without medical attendance, so a new medical warrant has been recently issued, restoring the rank, pay, and privileges which were taken away by Lord Cardwell, but introducing the system of ten years' service." Mr. Hardy's Warrant has secured promotion to the grade of surgeon-major at twelve years' service, but it has not restored a single privilege to those who were deprived of immense advantages by the ruthless Warrant of his predecessor. Had it done so, he would have secured the gratitude of the whole body of surgeons-major who were promoted after April 1873. "We still regard the Warrant of Sydney Herbert as our Magna Charta, and until relative rank shall carry with it all precedence and advantages attaching to the rank with which it corresponds, we shall continue to feel that gross and serious injustice, amounting as it does to a heavy annual deficit in our pay, has been done us, and unceasingly pray for a restoration of those conditions provided for us by the Warrant of the 1st October, 1858." The short-service scheme has, on its first trial, proved a failure, and, with the exception, perhaps, of Mr. Hardy and those who advise him on military medical matters, such a result was looked for by all. It is not a conservative measure, and I do not believe that Mr. Hardy would knowingly take part in any reform that had not the welfare of the soldier at heart, and the interest and wish of the service at large. He has combined with administrators who, in matters medical, are acting in direct defiance to the wish of those most intimately concerned, and therefore unnaturally.

If I were not so thoroughly convinced that things were going from bad to worse, I would not express my views so strongly. It is not too late to retrace steps; but the process of disintegration is now going on so rapidly, that if something be not done the department—its popularity having entirely disappeared—will become a ruin.—I am, etc.,
S. M., A.M.D.
September 25th, 1876.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 19th, 1876.

Gosling, Charles Edward, Richmond
Lee, Roger, Lullington, Burton-on-Trent
Sutton, Thomas Seagrave, Thame, Oxfordshire

The following gentlemen also on the same day passed their primary professional examination.

Potts, James Ashford, Queen's College, Birmingham
Poynder, John Leopold, St. Bartholomew's Hospital
Thorn, William H. Perceval, St. Mary's Hospital

UNIVERSITY OF CAMBRIDGE.—The following has been examined in Part I only, and has satisfied the examiners therein.

Skeen, A., M.B., M.C.

The following have been examined in both Part I and Part II, and have satisfied the examiners therein.

Deakin, C. W. S., M.R.C.S. Tatham, J. F. W., M.D.
Leach, J. C., M.R.C.S. Tomes, A., M.R.C.S.
Parsons, H. F., M.D. Williams, W., M.D.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BARVAS, Island of Lewis—Parochial Medical Officer. Salary, £150 per annum. Applications to the Inspector of Poor, Stornoway.
BURY UNION—Medical Officer for the Workhouse. Salary, £130 per annum. Applications on or before October 31st.
CERES, Fifeshire—Parochial Medical Officer. Salary, £23 per annum. Applications on or before November 6th.
CROYDON GENERAL HOSPITAL—House-Surgeon. Salary, £80 per annum, with board and furnished apartments. Applications on or before November 8th.
DONCASTER UNION—Medical Officer of Health. Salary, £250 per annum. Applications on or before October 28th.
EAST LONDON HOSPITAL FOR CHILDREN—Assistant-Surgeon. Applications on or before November 2nd.
ESSEX and COLCHESTER HOSPITAL—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before November 2nd.
KENSINGTON DISPENSARY—Resident Medical Officer. Salary, £150 per annum, with furnished apartments. Applications on or before October 28th.
MIDDLESEX THIRD COUNTY LUNATIC ASYLUM—Medical Superintendent. Salary, £700 per annum, with house, gas, and coals. Applications on or before November 8th.
NORFOLK and NORWICH ASYLUM—House-Surgeon. Salary, £100 per annum, with board, coals, gas, etc. Applications on or before November 3rd.
NORTH LONDON CONSUMPTION HOSPITAL—Physician. Applications on or before November 2nd.
ROYAL LONDON OPHTHALMIC HOSPITAL—House-Surgeon. Salary, £50 per annum, with board and residence. Applications on or before the 31st instant.
ROYAL SOUTH LONDON HOSPITAL—Honorary District Surgeon. Applications on or before October 31st.
ST. PETER'S HOSPITAL, Berners Street, W.—House-Surgeon. Applications on or before October 30th.
SALOP MEDICAL AID ASSOCIATION—Medical Officer. Salary, £150 per annum, with house, coal, and gas. Applications on or before November 4th.
SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—Assistant House-Surgeon. Salary, £65 per annum, with apartments, washing, and board. Applications on or before October 31st.
TONBRIDGE UNION—Medical Officer. Salary, £105 per annum. Applications on or before November 2nd.
WESTERN DISPENSARY, Westminster—Medical Officer. Salary, £105 per annum, with furnished apartments, etc. Applications on or before Nov. 6th.
WORCESTER GENERAL INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before November 6th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CLIPPINGDALE, S. D., M.B., appointed House-Physician to the London Hospital, *vice* Kyngdon, resigned.
PRONGER, Charles E., appointed House-Surgeon to the North Devon Infirmary, Barnstaple, *vice* E. O. Reynolds, M.R.C.S. Eng., resigned.
SMITH, Robert, M.A., M.B., appointed Assistant Resident Medical Officer to the Leeds Public Dispensary, *vice* S. Chadwick, M.R.C.S., resigned.
TURNER, W. P., M.R.C.S. Eng., appointed Assistant Medical Officer to the Kent County Lunatic Asylum, *vice* W. Arnold Thomson, L.K.Q.C.P.I., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

MOORE.—On October 23rd, at 40, Fitzwilliam Square West, Dublin, the wife of *John William Moore, M.D. Dubl., of a daughter.

MARRIAGE.

LITTLETON—LYNE.—On October 21st, at St. Andrew's, Plymouth, by the Rev. J. Erskine Risk, M.A., *Thomas Littleton, M.B., F.R.C.S., son of the late Nicholas Littleton, M.R.C.S., to Mary Sarah, elder daughter of Lewis Wadham Lyne, Esq.—No Cards.

DEATHS.

*BENNETT, T. Marshall, M.D., at Mill Crux House, York, aged 33 years, on October 18th.
CORMACK.—On October 4th, at 7, Rue d'Aguesseau, Paris, suddenly, when apparently convalescent from a severe attack of rheumatic pleurisy, Margaret Jane Anne, daughter of *Sir John Rose Cormack, M.D.

ROYAL COLLEGE OF SURGEONS.—At the last meeting of the Council, Mr. William Cormick, M.D. St. Andrew's, L.S.A., of Albany Street, Regent's Park, was elected a Fellow of the College, his diploma of membership bearing date July 17th, 1840; and Mr. Edmund Orange Wildman Whitehouse, of Harting, Sussex, having been elected a Fellow at a previous meeting of the Council, was admitted as such, his diploma of membership bearing date June 8th, 1876.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Mr. W. A. Smith, B.A. Oxon., has obtained the scholarship in Natural Science; and Mr. R. E. G. Cuffe, formerly of Epsom College, the extra scholarship in the same. Mr. A. Benson, B.A. Oxon., and Mr. L. Roche, were declared equal for the Classical and Mathematical Scholarship. The School Committee therefore increased its value, and divided it equally between the two competitors.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY	Medical Society of London, 8.30 P.M. Adjourned discussion on Croup and Diphtheria. Mr. Richard Davy, "Degenerative Cysts in Muscle"; Dr. John Brunton, "Pelvic Hematoma".
WEDNESDAY	Obstetrical Society of London, 8 P.M. Mr. Jessop, "Case of Gastrotomy for Extra-uterine Foetation: Mother and Child saved"; Dr. Budin (of Paris), "On a Diagnostic Sign of Vaginal Hemorrhage during Parturition"; Dr. Redmond, "On Secondary Puerperal Hemorrhage"; Dr. Elkington, "On Inversion of the Uterus"; Mr. Hickman, "On Inversion of the Uterus"; and other communications.
THURSDAY	Harveian Society of London, 8 P.M. Clinical Evening. Dr. Symes Thompson, "A Case of Cardiac Disease and Embolism"; Mr. Edmund Owen, "Cases of Psoas Abscess: a New Method of Treatment"; Dr. Wiltshire, "Post Partum Pelvic Cellulitis".

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

SAYRE'S SPLINT FOR THE KNEE-JOINT.

SIR,—If Inquirers would like to save himself some trouble, I would refer him to a "note" I published in the *Edinburgh Medical Journal* for March 1876.—I am, etc. A. G. MILLER.

SIR,—In answer to Inquirers' letter in the JOURNAL for October 14th, I beg to inform him that I have used a modification of Sayre's splint for the knee-joint, which I obtained from Archibald Young, the Edinburgh instrument-maker, and the results from it were very satisfactory; in fact, far greater than any I have yet been able to get from the hip-splint.—I am, yours truly,

CHAS. W. THORP, F.R.C.S.I., L.K.Q.C.P.I.

A. L. (Scarborough).—The name does not appear in Churchill's *Directory*. Further inquiries may be made at the office of the General Medical Council, Oxford Street.

TEXT-BOOKS.

SIR,—Would you or any of your readers kindly inform me what are at present considered the best books to read in anatomy and physiology for the F.R.C.S.E.? Quain's *Anatomy* and Todd and Bowman's *Physiology* used, I believe, to be considered the best, but they may have given place to others.—I am, sir, yours faithfully, J. H. SPES.

. For the Fellowship examination, the new edition of Quain and Sharpey well maintains the old reputation of earlier issues; in physiology, the most modern and exact text-book in the language is Hermann's *Physiology*, translated by Dr. Arthur Gamgee. We have not seen the new edition of Carpenter; Kirkes is largely "pre-scientific".

INQUIRERS.—I am registered as M.B., C.M., of Edin. University. Can I recover in a county court for medicine supplied along with attendance?—Yes.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, twelve o'clock.

PAPERS FOR PUBLICATION.

THE papers of Mr. Callender, Surgeon-Major Sinclair, Dr. Williams, and Mr. Parsons will appear, if possible, in the next number of the JOURNAL; and early in the following numbers the lectures and communications of Professor Macleod, Dr. Turnbull, Dr. Hector Cameron, Dr. Burney Yeo, Mr. Reeves, Mr. Nettleship, Dr. Dowse, Dr. Byrom Bramwell, Dr. Wilson, Mr. L. Browne, Dr. Fox, and Dr. Styrup.

We shall postpone till the next volume the publication of the valuable lectures by our lamented Associate Dr. Sibson, delivered before the Harveian Society, of which the MS. has been placed in our hands by Dr. William Ord, who has the charge of Dr. Sibson's medical MSS.; also the lectures of Dr. Burdon Sanderson, both of which we had hoped to be able to publish before the close of the year.

DR. MACKINTOSH (Caistor).—The Secretary of the Medical Defence Association in London is G. Brown, Esq., 12, Colebrooke Row, Islington.

FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—Would you kindly advise me as to the best books to read for the final Fellowship examination of the College of Surgeons?—I am, etc. A MEMBER.

. Mr. Holmes's new treatise, paying as much attention as possible to the more important papers referred to in the notes; the article on Regional Surgery, by Mr. Holmes, in the *System of Surgery*, vol. v; the chapters on Surgical Anatomy, at the end of Gray's *Anatomy*, together with the Anatomy of the Arteries, and the short account of fractures at the end of the chapter on the Muscles; or Roser's *Surgical Anatomy*, translated by Galton; the first half of Sir J. Paget's work on *Surgical Pathology*, and as much as possible of Billroth's work.

C. J. R. (Chester) is thanked for directing our attention to the article in question.

PROFESSIONAL CONSULTATIONS.

A. B. has been in practice in one town ever since he qualified as L.R.C.P. and M.R.C.S. fifteen years ago. Y. Z., who qualified as M.R.C.S. in 1873, and L.R.C.P. and L.S.A. in 1874, settled in the same town a few months ago. Both are in general practice, and on perfectly friendly terms with each other, socially and medically. A patient of A. B. (ordinary case of illness) does not make progress, and asks for a second opinion, to which A. B. at once consents, expecting a consultant from the neighbouring medical school; but the patient names Y. Z., the new comer, who is many years junior to A. B. To this proposal A. B. objects, saying that he cannot consent to have another practitioner brought to advise him (except in any very special case) unless the consultant be at least as old in experience as A. B. Y. Z. takes a different view of the matter. Which is right?

. In the multitude of counsellors there is wisdom, and age is not by any means the only factor to be taken into account. But A. B. has undoubtedly a right to express his objection to have a less experienced opinion called in to correct or strengthen his own, if he think it well to do so; and, although as a rule it is very desirable for neighbouring practitioners to meet in consultation freely on terms of perfect equality and mutual friendship and respect, we see nothing in the circumstances stated which need arouse the susceptibilities of Y. Z.

THE letter of Dr. Adams (West Town) has been handed to the General Secretary and Manager.

OBSTETRICAL SOCIETY OF LONDON.

IN the report of the last meeting of the Obstetrical Society of London, it should have been stated, in reference to the specimen of utero-vaginal rupture shown by Dr. Wiltshire, that the patient was not seen by him during life, the case not having occurred in his practice. He showed the specimen for some friends of his, who had referred the matter to him.

MR. WILLIAM TOWNSEND.—Dr. Gibbons, an eminent physician, was the first to introduce mahogany. It was brought to this country by his brother, a West Indian captain, as ballast, and the first article made of it was a candle-box.

UNQUALIFIED PRACTITIONERS AND DEATH-CERTIFICATES.

SIR,—I shall feel obliged if you will advise me under the following circumstances. A person calling himself "Dr. —, Surgeon and Accoucheur", commenced practice here recently. I have consulted the *Medical Directory* for 1876, and do not find his name there. I have also written to the Registrars of the General and Branch Medical Councils in London and Edinburgh, and find that, up till September 20th in London and September 22nd in Edinburgh, he was not registered. Having ascertained that he had signed a death-certificate, I made inquiry, and find that he put "Surgeon, etc.", to his name. I accordingly wrote to the Registrar-General of Births, Deaths, and Marriages in London, asking —'s qualifications, and stating that I had already communicated with the Registrars of the General and Branch Medical Councils. The Registrar-General replies that, "as you have already applied to the proper authorities, I can add nothing to the information with which they have furnished you". Would you advise me to take legal proceedings at once, or do you think the Registrar-General will save me the trouble? I shall look for a reply in the BRITISH MEDICAL JOURNAL of October 21st, and am, sir, yours faithfully, CLYDE.

. The Registrar-General of England has no jurisdiction over registration in Scotland, which is entirely under the control of the Registrar-General of Scotland, in Edinburgh. The Treasury, however, does not authorise the Registrars-General of England or of Scotland to take legal proceedings against an unqualified practitioner who assumes to himself the titles of Dr., Surgeon, etc. The Medical Council, moreover, do not hold themselves responsible for such prosecutions. It follows, therefore, that individual members of the profession meet with no assistance or support in instituting a prosecution against an unqualified practitioner, unless a local Defence Committee have been established in the neighbourhood. We advise the formation of such a Committee in connection with every Branch of the Association. A certificate furnished by an unqualified practitioner to a registrar is not accepted as a certificate for the purpose of the death-register, although, in cases where no registered practitioner has been in attendance on the deceased, the cause of death thus furnished may be entered in the register as an uncertified cause of death.—EDITOR.

DR. MCBRIDE.—The trustees of the British Museum appoint the "Swiney lecturer", who must be an M.D. of Edinburgh.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

TREATMENT OF PHIMOSIS.

SIR.—On glancing over the number of the BRITISH MEDICAL JOURNAL for October 7th, I see a paper by Dr. G. de Gorquerre Griffith, on a new method of curing phimosis. I have some difficulty in understanding the meaning of this title, when I read, as the third method of treating phimosis, on page 917 of Monsieur A. Jamin's *Manuel de Pathologie et de Clinique Chirurgicales* (second edition, Paris, 1870), as follows: "Dilatation forcée. Ce procédé, tout récemment appliqué par M. Nélaton," etc.; or, translated: "This method recently employed by M. Nélaton is accomplished by an instrument with three branches similar to that which M. Laborde uses to dilate the trachea in tracheotomy." Certainly, Dr. Griffith employs an instrument with only two blades; but if the novelty of the method lie in this, Dr. Griffith should say so.—I am, etc.,

"RENDER TO CÆSAR THE THINGS THAT ARE CÆSAR'S"

F.R.C.S. (Plymouth).—The late Mr. Anthony White, surgeon to the Westminster Hospital, was the first to excise the head, neck, and trochanter of the femur; the patient, who survived twelve years, then dying consumptive.

EXCESSIVE GROWTH OF HAIR.

SIR.—A lady consulted me a short time ago about a large patch of coarse dark hair that was growing under her chin on each side. It is certainly very unseemly, and, as it is growing pretty fast, and she is very sensitive, its presence causes her and her friends very great distress. Shaving has decided disadvantages, and I hope some of your correspondents will be able to advise something better, that will either effect its removal or prevent its being seen.—I am, etc.,

October 27th, 1876.

C. W. W.

A. M. A. Mr. Charles Hawkins is the Government Inspector of Anatomical Schools in this metropolis, and Mr. John Birkett, Vice-President of the College of Surgeons, for the Provincial Schools.

TO CLEANSE THE OS UTERI.

SIR.—I find that nothing answers better than cotton-wool, which has been boiled in a strong solution of potash and then dried. The alkali takes away the greasiness of the wool, and it absorbs fluids and semifluids like sponge. It can be prepared in quantities by one's servant for a few pence, and it seems to me a cheaper, cleaner, and readier plan than that of Professor Pajot.—I am, etc.,

October 1876.

PERCY BOUTLON.

DOES GENERAL DESQUAMATION OCCUR AFTER VARICELLA?

SIR.—I have been called to see a boy, aged 12, just returned to school after the vacation. His palms and soles present several patches of coarsely desquamating cuticle, and he states that the same thing has been occurring over the rest of his body for the past three weeks. There are distinct "fever-marks" in all the finger-nails (less evident on those of the toes). He says he had chicken-pox at home about five weeks ago, and scarlatina when three or four years of age. There are, moreover, two well marked "pits" on the skin, suggestive of a recent attack of varicella. Supposing the history had been less clear, and these cicatrices absent, how strong would have been the evidence in favour of scarlatina, and, under the circumstances, of what importance a correct diagnosis.

As chicken-pox seems very prevalent now, may I take the opportunity of asking the experience of some of your readers on the two following points: 1. Whether general desquamation has been a frequent sequel of varicella? 2. Whether a patient in this condition is capable of communicating the disease to others?—I am, sir, yours obediently,

October 7th, 1876.

G. F. R.

M. (St. Bartholomew's).—Wat Tyler was slain by Sir William Walworth in West Smithfield, when his body was carried into the hospital of St. Bartholomew's, and laid in the Master's chamber.

PARALYSIS.

SIR.—Can any of your readers give me a hint if electricity would be advisable, when all other remedies have failed, in the following case? A lady, aged 60, was slightly attacked with paralysis in both feet and hands. After the usual treatment, she recovered the use of both feet and hands, with the exception of a slight sleepy feeling in one foot and one hand.—Yours, etc.,

L.R.C.S.I.

MR. WILSON will see a portrait of Mr. William Wadd in the Council Room of the Royal College of Surgeons. He was the author of *Mems, Maxims, and Memoirs*, and a most amusing writer. He was a member of the Council of the College, and was killed in Ireland (of which country he was a native) by jumping out of a carriage, the horse attached to which had bolted. "*Quidquid agunt Medici, nostri est farrago libelli.*"

SUPERINTENDENTS OF TEMPERANCE SANATORIA.

SIR.—I have experienced so much difficulty in finding the right sort of persons to aid me in carrying out the onerous duties of superintendent to a temperance sanatorium, and there is such a dearth of information as to the whereabouts to apply for them, that I have induced my son, Mr. Charles Julian Holthouse, to establish an agency for the purpose. The great spread of temperance principles among all classes of society, especially in the medical and clerical professions, and the demand which has hence arisen for the employment of abstaining servants, nurses, attendants, assistants, etc., leads me to hope that this effort to supply the want may not be unsuccessful.

On Monday, the 16th instant, my son opened his offices at 18, Adam Street, Adelphi, where, assisted by a lady-manager, he will be ready to receive applications from all abstainers who need employment, and from all who wish to give it. Letters of inquiry, addressed as above, to the Secretary of the Temperance Agency Office, and enclosing stamped directed envelopes, will receive prompt attention. Hours of attendance at the office, half-past ten till five; Saturdays, till two.—Your obedient servant,

October 20th, 1876.

CARSTEN HOLTHOUSE.

MEDICAL STUDENT would be much obliged if the Editor of the BRITISH MEDICAL JOURNAL would inform him in the next issue if he could obtain the certificate in "midwifery" at the Rotunda Lying-in Hospital by attending the hospital practice and lectures for six months, after only having passed the preliminary examination and the examination as an assistant of the Society of Apothecaries, London.

. Inquire of the Secretary, at the hospital.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MANUALS OF PUBLIC HEALTH.

SIR.—Would some of your readers be good enough to inform me which, in their opinion, is the most useful treatise to guide a medical officer of health in performing properly his duties under the Public Health Act?—Yours faithfully,

October 18th, 1876.

A MEMBER.

QUACKERY.—A correspondent writes: Are the following lines from Quarles appropriate?

"Hold thy hand, health's dear maintainer,
Life, perchance, may burn the stronger;
Having substance to maintain her,
She, untouch'd, may last the longer.
When the artist goes about
To redress her flame, I doubt
Oftentimes he snuffs it out."

ON THE ABUSE OF TEMPERANCE.

SIR.—I fear the heading of my letter will appear to many of your readers quite inconsistent, but I think it expresses very nearly a state of affairs at present attracting great attention, both amongst the profession and the laity—so much so, that there seems great danger, in our haste and zeal after temperance, of forgetting the old proverb, *in medias res tutissimè*. At present, there is a determined attempt being made all over the country by total abstinents to prevent medical men, more particularly those holding union appointments, from prescribing alcohol to their patients. The medical men, I am sorry to say, seem in several towns to be encouraging and assenting to this prohibition. I say I am sorry, not because I do not rejoice at every attempt to lessen and prevent drunkenness and encourage temperance, but because I see medical men—men who, as a body, are supposed and who ought to hold the broadest views in the treatment and prevention of disease—allow their common sense to be carried away by the excited feelings of a few bigoted enthusiasts, and, by assenting to their views, virtually lay down as an absolute law that there is no medicinal use in alcohol.

I am not going to enter into the question of the medicinal action of alcohol, as I think that is quite irrelevant to the point, as to whether or not we shall say "we will not use it." Just imagine for one moment what the effects would be if such inquiries and objections as have been made about alcohol were made about any other drugs in our *Pharmacopœia*, such as opium, chloral, mercury, or the iodides and bromides. What pages could be filled with the occasional sufferings and harm produced by only a medicinal dose of any one of these remedies. What a handle could be made of these by some misguided enthusiast, who might take it into his head to attempt to prove these drugs useless, and that we should not use them. But in the great cry against alcohol, the worst that is said is, not that it does much harm in medicine, but that cases do just as well without it as with it, and that there are many substitutes for it, in the same way as chloral is a substitute for opium in some cases, is, I think, what most of us will admit. The *reductio ad absurdum* used to be a favourite mode of argument. Suppose we apply it to this one, thus: Prostitution is undoubtedly a vast and degrading vice, which, by engendering and fostering syphilis, is doing more perhaps in one year to undermine the health and vigour of our population than alcohol in all its ages has done. Well, because some vicious people encourage prostitution, the virtuous majority ought to become total abstinents—that is, ought not to marry, so as to set a good example to the vicious. Surely some other means would soon be found for preventing prostitution. Because we find water cures some of our patients and *placebos* others, is that sufficient reason for our becoming hydropaths or homœopaths? To say that we will not use alcohol in the treatment of disease is like a man walking over a broad plain following a mathematical straight line, from which he will not swerve, whatever the beauties on either side, not because he does not admire the beauties, but because he has made up his mind—what a term, forsooth—and will not alter it: a deviation from the line would disturb the beautiful symmetry of his conceptions. Surely this man's mind must be laid out like a Dutch garden. It is said of Nature that she can be bounded by no straight lines; but, by saying *we will not use alcohol*, are we not putting her in a strait jacket, assuming a power we possess not? forgetting

"Thus far and no farther," when addressed
To the wild waves, or wilder human breast,
Implies authority which never can
And never ought to be the lot of man."

Apologising for taking up so much of your valuable space, I am, sir, yours obediently,

W. M. I.

J. C.—The reason that the third or ring-finger cannot be parted (*i.e.*, extended) by itself is this: On the back of the hand, the tendon from the extensor communis to the ring-finger gives off two processes near the head of the metacarpal bone, which go obliquely to join the adjacent tendons of the middle and little fingers. From this arrangement, it follows that after flexing those three fingers, it will be found impossible to extend the ring-finger by itself, for by means of the above processes or bands the two adjacent fingers are extended at the same time. A similar but weaker band passes between the second and first fingers. The first finger can be separated by itself, as it possesses an especial extensor muscle; and the same, but to a less extent, holds good with the fourth.

PLAYGROUNDS FOR THE POOR.

SIR.—The only available space in this densely populated city for poor children to play is on the housetops. Find the money, and the whole thing can be done. For instance, at the back of my house is a block of stabling with rooms over, the roof of which is not over fourteen feet from the ground, and which never can be raised on account of obstructing the light of the surrounding houses. By removing the old roof, and spanning the whole block with slightly arched girders, filled in and covered with cement, a better roof than the present one would be substituted, and a space, sixty yards by twenty, obtained. Rail it round, and what a splendid playground it would make. Even the remaining chimney-stacks, if covered with Virginian creeper and ivy, would make a shady place, where John could sit of an evening and smoke his pipe, while Jean darned the family hose. The prophets of old lamented, howled, preached, proclaimed, etc., from the housetops, and why should not our poor children play there?—I am, etc.,

P. B.

MR. THOMAS.—The new regulations respecting the Fellowship examinations are not yet matured. All candidates, however, for that distinction not possessing a recognised medical licence will have to undergo an examination in medicine at the College.

DEGREES.

SIR,—One or two weeks ago, a correspondent (L.R.C.S.I.) replied to a letter of mine, doubting the fact that the licence of the Irish College of Surgeons can be got by instalments. In a copy of their regulations, dated January 1876, are the following words: "When presenting themselves upon a subsequent occasion, a rejected candidate will be required to answer on the subjects only on which he has been remitted" (page 18). What does F.R.C.S.I. make out of this?

A correspondent this week (M.B., F.R.C.S.I.) gives me some information about Pathology being included with Institutes of Medicine. I am not aware that I ever doubted this important fact. I can inform him that the matriculation examination of the University of London is a much more creditable thing than the B.A.T.C.D. An Irish clergyman a few days ago confirmed my statement as to three subjects out of the five passing for the B.A. He was prepared to give names of men privately who had graduated in that manner.—Yours truly,

October 3rd, 1876.

M.D. BRUSSELS.

SIR,—I am quite willing to cry *peccavi*, but at the same time must ask Vindex to echo it. How the shams and delusions contrived to get sheltered between inverted commas I am a loss to divine. I did not intend that they should have been thus protected; nevertheless, the fact remains. If Vindex now turn to the BRITISH MEDICAL JOURNAL of June 17th, he will find this paragraph in Justitia's letter: "I contend that the admission of such as have hurried to the Continent for two or three days (the italics are mine) ought not to be allowed to infringe on the privileges of the British graduate." This, I presume, proves beyond dispute that he is also liable to mistakes.

It is a sad misfortune that some of us were not born a few years sooner than we were. In 1859, if a man were then in possession of a M.D. degree—where he got it, or how obtained, signified but little—he was allowed to register it; but, forsooth, because our nativity did not occur in time for us to enjoy this eventful epoch in medical history, we are told that qualifications of a higher class do not entitle us to any distinction, save "by courtesy only". The idea is ridiculous, and the argument illogical. A case in point: a leading physician has long held the M.D. degree of Berlin, is registered, and acknowledged as such; his son, however, who has but recently graduated at the same University, is placed, according to the theory of Vindex, simply nowhere. Does not this strike him as somewhat unfair? The liberal profession to which we belong forbids the thought that there exist amongst our numbers one who would lead the public to believe that sailing under false colours is one of the common practices of the followers of the healing art, and who would, like the enterprising but antagonistic tradesman, disclaim any connection with the beggar opposite. How frequently it is forgotten that the leading medical journals form no small part of the daily mental pabulum of our patients, and how significantly these petty quarrels must expose an equally petty jealousy.

In spite of the opinion of Vindex, I shall still entertain the belief, erroneous though it may be, that if a medical man, duly registered, have a foreign M.D. degree, he is legally entitled to describe himself as such, and is *de facto* a doctor of medicine to all the world. Registration enables us to recover medical and surgical charges, nothing more.

A word or two relative to the last paragraph in the letter of Vindex. He assumes correctly that M.D. (Brussels), No. 2, "is proud of his foreign degree"; and if he do me the honour to read my last once more, he will cease to wonder that I think any benefit can be gained by the "fact of registration in England", for the very simple reason that I there put it interrogatively whether the foreign graduate should complain at being debarred the privilege, expressing also a negative opinion.

My nearly seventeen years' experience as a practitioner of medicine makes me see more and more that there is not amongst its members that *entente cordiale* which could be desired. The public know our weak points, hence the position we take as compared with the clerical and legal professions.—I remain, sir, obediently yours,

M.D. (BRUSSELS), No. 2.

HÆMORRHAGE FROM THE FUNIS.

SIR,—The case of fatal umbilical hæmorrhage reported by Mr. Lattey in the JOURNAL of July 20th, 1876, and commented upon by Dr. Bruce and Dr. Heywood Smith in the JOURNAL of September 16th, presents features of interest and importance. As Dr. Bruce observes, the account given of the case indicates that the hæmorrhage was from the funis. Hæmorrhage from the funis differs from umbilical hæmorrhage in this, that it is essentially a primary form of hæmorrhage, while hæmorrhage from the umbilicus is virtually a secondary form, hence it is important to distinguish between the two: for hæmorrhage from the funis, if promptly and efficiently dealt with, is a controllable affection. True umbilical hæmorrhage, however, has a far more serious and fatal tendency.

In Mr. Lattey's case, the hæmorrhage may have depended in a measure upon the condition of blood, associated with the imperfect respiration at birth; but the sudden resulting death a few hours after birth, with copious loss of blood, indicate the value and necessity of a careful inspection of the funis after division and ligation thereof. The application of one, or more extra ligatures above or below the original one may become advisable. Imperfect ligation, noted by Dr. Bruce, is a much more frequent source of trouble than is generally admitted; and a thick funis much distended with Whartonian jelly will require at least two ligatures.

A "spring clamp", the "elastic ligature", and "laceration", could no doubt be applied to the funis, but, like all ingenious contrivances, would exhibit a marked tendency in unskilled, and perchance in skilled hands, to fail. Laceration of the funis by art is a very potent agency to place in the hands of midwives and monthly nurses, calculated to foster the belief that it matters little whether a ligature be applied or not. In manufacturing districts, such a means is calculated to do irreparable harm, where the lives of so many infants become dependent upon the "experience" of the local midwife.

The time of application of the ligature is important. If tied before pulsation has ceased in the funis, hæmorrhage is more likely to ensue, perchance, if the ligature be insufficient and inefficient; but a far more important point is to wait and see whether the primary flaccidity of the funis, which occurs when respiration commences, continues or not after the respiration and circulation forces balance each other. Then it is that the necessity may arise to supplement the original ligation. Hence it is not sufficient, if the ligature be applied immediately after pulsation has ceased in the funis, to rest satisfied that it will prove a safeguard against hæmorrhage thereafter.

In conditions of extreme exhaustion consequent upon excessive hæmorrhage from the funis, the injection of stimulant enemata, or the hypodermic administration of ether, might prove of service, as the latter has already done, in the hands of Dr. A. V. Macan, in collapse attendant upon accidental and *post partum* hæmorrhage.—Faithfully yours,

H. CRIPPS LAWRENCE, L.R.C.P. Lond.

Queen's Road, Bayswater, September 30th, 1876.

ADULTERATED CREAM.

ATTEMPTS are constantly being made to purify milk by prosecuting those who adulterate it; but that horrible concoction called by courtesy "cream", which is supplied by milk-dealers to their customers, is seldom criticised too closely—perhaps on the principle of "where ignorance is bliss 'tis folly to be wise". At Glasgow, however, a farmer was charged before Mr. Sheriff Lees by the sanitary authorities with selling to the sanitary inspector's officer a quantity of adulterated cream. The city analyst found the cream to be adulterated with skimmed milk to the extent of 73 per cent.; and in a note to the analysis remarked—"The sample is the same composition as sweet milk enriched by the addition of 20 per cent. of cream." The defence was, that the cream supplied was the best that could be given on the day in question. The sheriff, however, found the charge proven, and, expressing his opinion that "it was a case of the most flagrant kind, and that he thought he should not be doing his duty if he did not inflict a sentence of unusual severity", ordered the accused to pay a modified fine of £10, and failing payment within fourteen days, to undergo forty days' imprisonment.

Dr. W. BIRD (York).—The address of the Turkish Ambassador is 1, Bryanstone Square, London, W. A letter may be addressed to him in English.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Leeds Mercury; The Glasgow Herald; The Manchester Courier; The Hull News; The Hastings and St. Leonard's Independent; The Nottingham Daily Guardian; The Worcester Chronicle; The Islington Gazette; The Bolton Weekly Journal; The Brighton Examiner; The Hastings and St. Leonard's Observer; The Metropolitan; The Whitehall Review; The Yorkshire Post; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Redditch Indicator; The Cambrian; The Bristol Daily Times; The Southport Daily News; The Jewish World; The Cork Constitution; The Broad Arrow; The Allahabad Pioneer; The Sussex Daily News; The Harrogate Herald; The Dumfries and Galloway Standard; The Glasgow News; The Buxton Advertiser; The Wexford Constitution; The Yarmouth Independent; The Islington Gazette; The Manchester Courier; The Newcastle Daily Chronicle; The Sunderland Daily Post; The East Lancashire Echo; The Wigan Observer; The Northampton Herald; The Blackburn Standard; The Architect; The Western Morning News; The Western Daily Mercury; The Hereford Times; The Liverpool Porcupine; The Liverpool Daily Post; The Royal Cornwall Gazette; The Liverpool Mercury; etc.

. We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Peacock, London; Dr. F. De Chaumont, Netley; Dr. George Johnson, London; Dr. J. W. Moore, Dublin; Mr. H. Eales, Birmingham; Mr. W. H. Bull, Stony Stratford; Dr. Fenwick, Montreal; Dr. Williams, Liverpool; Dr. J. Milner Fothergill, London; Dr. C. Harrison, Lincoln; Dr. Lombe Athill, Dublin; Dr. Ewens, Bristol; Dr. Cassells, Glasgow; Dr. Ashburton Thompson, London; Surgeon-Major Gore, Dublin; Mr. Darbishire, London; Mr. Pye, London; Mr. Carsten Holthouse, London; Dr. J. J. Mackintosh, Caistor; An Associate; Mr. W. H. Flower, London; Dr. Munro, Cupar Fife; Dr. J. W. D'Arcy Adams, West Town; Dr. Fitzgerald, Snodland; Mr. Linskill, Scarborough; Dr. Griffiths, Sheffield; A Member; Mr. Hugh Robinson, Preston; The Secretary of Apothecaries' Hall; Surgeon-Major C. Mackinnon, Woolwich; Dr. Edis, London; The Registrar-General of England; Mr. C. F. Maunders, London; Dr. Holman, Reigate; Mr. Marcus Allen, London; The Registrar-General of Ireland; Mr. G. Eastes, London; Dr. Jas. Turnbull, Liverpool; Mr. Prowse, Cambridge; Mr. A. Stewart, London; Dr. Braidwood, Birkenhead; Dr. James Russell, Birmingham; Dr. G. de Gorrequer Griffith, London; Dr. Wiltshire, London; Dr. F. T. Paul, Liverpool; M.D.; Dr. Byrom Bramwell, Newcastle-upon-Tyne; Dr. Call Weddell, Dartford; Dr. Lattey, Southam; An Occasional Correspondent; Mr. W. H. A. Jacobson, London; Dr. Edward T. Wilson, Cheltenham; Mr. R. G. Whitfield, London; Dr. Poole, Anerley; Mr. Russell Steele, Reigate; Mr. Gordon Brown, London; Dr. Burney Yeo, London; Dr. Spencer Thomson, Torquay; Surgeon-General Maclean, Netley; Mr. Holder, Hull; Mr. Charles Finn, London; Dr. Northcote Vinen, London; The Secretary of the Obstetrical Society; Dr. Thomas Barlow, London; Dr. Corfield, London; Dr. Mackey, London; Dr. Bond, Gloucester; The Secretary of the Harveian Society; Dr. Tripe, Hackney; Our Manchester Correspondent; Mr. T. M. Stone, London; Our Edinburgh Correspondent; Dr. Thorp, Todmorden; Our Dublin Correspondent; Mr. R. H. B. Nicholson, Hull; Mr. J. H. Crisp, Lacock; Dr. Abrath, Sunderland; Dr. Evans, Newquay; Mr. F. Vacher, Birkenhead; Mr. E. G. C. Snell, London; Mr. Sewill, London; The Secretary of the Royal Medical and Chirurgical Society; Mr. Clippingdale, London; Mr. Husband, York; Dr. Goodchild, Warwick; The Dean of St. Mary's Hospital Medical School; Dr. Donkin, London; X.; Dr. Alfred S. Taylor, London; Dr. Joseph Rogers, London; Mr. Shaw, London; Dr. F. Simms, London; Mr. T. Holmes, London; Dr. W. Bird, York; Mr. A. F. M'Gill, Leeds; Dr. Kelly, Dublin; Rusticus; Dr. Bruce, Edinburgh; Mr. Goddard Temple, London; Dr. R. D. Powell, London; etc.

BOOKS, ETC., RECEIVED.

Clinical Studies, illustrated by Cases observed in Hospital and Private Practice. By Sir John Rose Cormack, K.B., F.R.S.E., M.D. Edin., M.D. Paris. Vols. 1 and 11. London: J. and A. Churchill. Paris: The Galignani Library, 224, Rue de Rivoli. 1876.
Transactions of the College of Physicians of Philadelphia. Third Series. Vol. Philadelphia: 1876.
Lessons in Electricity at the Royal Institution, 1875-6. By John Tyndall, D.C.L.L.D., F.R.S. London: Longman, Green, and Co. 1876.

REMARKS

ON

THE TREATMENT OF ABSCESSSES BY
HYPERDISTENSION WITH
CARBOLISED WATER.*BY GEORGE W. CALLENDER, F.R.S.,
Surgeon to St. Bartholomew's Hospital.

WE are familiar with the good result which follows the washing out of the sac of an abscess with carbolised water, and afterwards draining it. In some cases, however, abscesses are divided by septa, or have extended amongst tissues so as to form several chambers communicating by narrow passages. They are practically multilocular, and, if washed out in an ordinary way, are not effectually treated, because parts of them are apt to be inefficiently cleansed. In the treatment of all abscesses, but more especially for those with branching sinuses, or with a sac broken up by imperfect septa, we have found it desirable not merely to wash out the abscess in what, for distinction, may be termed the ordinary way, but to throw in such a quantity of fluid as will distend the abscess-sac in all its parts; and this procedure we speak of as hyperdistension of an abscess-cavity. In this manner, abscesses complicated in the way I have mentioned may be cured as effectually as are those in which we have to deal with a single cavity.

The operation may be performed whilst the patient is under the influence of ether, or the integuments may be frozen by the ether-spray. The following are required:—A scalpel where an incision is needed, no open sinus existing; carbolic acid lotion (one part in twenty) diluted to one in thirty by the addition of warm water before using it; a perforated elastic drainage-tube; carbolised oil (one in twelve) on lint for dressing the wound, and gutta-percha tissue for covering this; some ordinary adhesive plaster; some tenax to receive any subsequent discharge (which, however, is very slight); an ordinary two or four-ounce syringe. When it is desirable to make continuous pressure over an abscess after opening it, a pad shaped to the needs of the case, and filled with shot, will be found useful. It acts more effectually than a sand-bag, and is easily made and adapted.

The operation is begun by cutting into the abscess (if no sinus exist), the opening made being of sufficient size to admit one of the fingers. The pus is then allowed to escape, the abscess being emptied as completely as possible. The nozzle of a syringe is next passed through the opening, and the skin is drawn closely around it by the operator with his left hand; the contents of the syringe are then passed into the abscess-sac. Care must be taken in doing this, that no pressure is made upon the abscess-wall, or the distension of the sac will be incomplete. Either by using a syringe which throws a continuous stream, or equally well by closing the wound with a finger whilst the syringe is being refilled by an assistant (very little fluid being lost in its reintroduction), the abscess-sac will presently distend quite to, or even beyond, its original size; and, under these circumstances, the carbolised water necessarily finds its way (as a rule, which has few exceptions) into all parts of the cavity, however irregular, and along any channels leading from it. When the abscess has been opened, the amount of injection may be roughly measured as being rather in excess of the quantity of pus let out. When distension has been effected, the fluid is allowed to escape, and, if much pus be mingled with it, a second injection may be practised. An elastic drainage-tube, its size varying with that of the abscess, is then inserted and secured, and over the end of this, and over the wound, a piece of lint, twice folded and soaked in carbolised oil, is laid. This is covered with a sheet of gutta-percha tissue and some tenax, and these dressings are secured with some ordinary plaster.

Subsequent treatment consists in the renewal of the dressings, which, to myself, it seems desirable to see to daily. The drainage-tube is gradually shortened as the abscess-wall contracts, and through its canal, if there be any sign of puriform discharge, a little carbolised water may be occasionally injected.

It is scarcely necessary for me to add that, under this treatment, the discharge of pus ceases; a limpid serous fluid in small quantity drains

away, and presently only a sinus remains; that is, in cases in which there is a persistent source of irritation. These are facts which surgeons have already described.

The point I wish to bring before the Section is, that by hyperdistension of an abscess-sac the carbolised water can be forced into cavities complicated and irregular, and that treatment can thus effect for such complicated abscesses (amongst which may be classed cases of empyema) the same result as an ordinary injection will ensure with a simple abscess.

As for the result of this treatment, so far as bone-caries is concerned, my observations do not at present allow my drawing any absolute conclusions; but that the abscesses connected with such disease can be emptied and reduced to non-suppurating sinuses, and this without causing the least constitutional disturbance, whilst the health of the patient is improved by the cessation of the suppuration, is clearly established.

I may add that, for these as for other cases, we do not employ the carbolised spray, or adopt any precautions during or after the operation beyond those mentioned, taking care only that the well established rules for surgical treatment are strictly attended to.

CASE I. Angular Curvature of the Spine, with Abscess.—C. B., aged 16, was admitted into Darken Ward on June 24th, 1876. He had been ill for three years. His health was first broken by an attack of rheumatic fever, and this was followed by symptoms of disease of the left hip, and later on by an abscess which formed in connection with the joint-affection. This abscess had been repeatedly aspirated in one of the London hospitals, and now discharged through a sinus. About eighteen months ago, he began to suffer from the spinal affection, and soon afterwards a swelling began to form in the right lumbar space. There was considerable deformity in the lower dorsal and upper lumbar regions, causing an angular curvature of the spine, and the swelling was an ordinary lumbar abscess formed in connection with the morbid changes in the vertebræ. The general condition of the boy was fair, but he was much emaciated, and was disturbed, especially at night, by pain, and he was unable to rest upon the back: a trouble which was considerable, because of the hip-affection, to which reference has been made, but further notice of which is not required. It may, however, be added that the patient suffered from rheumatic disease of the valves of the heart. On July 4th, the pain from the abscess had increased, and, on the 6th, it was thought desirable to relieve it.

An incision was, therefore, made into the abscess sufficiently large to admit the index-finger, and twelve ounces of pus escaped. By means of an ordinary syringe, the sac of the abscess was then distended with carbolised water. When tense, the fluid injected was allowed to escape. A second distension was then practised, and, after removal of this fluid, an elastic drainage-tube was introduced. The wound was covered with carbolised oil on lint, and this with a piece of gutta-percha tissue. A slight serous oozing followed, which has now (July 27th) ceased, and the sinus is a mere track leading to the diseased vertebræ. The pulse, which was affected by the heart-disease, varied from 106 to 112, the temperature from 99 deg. to 99.4 deg., on one occasion rising to 100.4 deg. There was no constitutional disturbance consequent upon the operation, and the boy was free throughout from pain. The patient remains under observation because of his other troubles.

CASE II. Disease of Upper Lumbar Vertebræ: Abscess.—A male child, aged 2, was admitted into Lawrence Ward, having for six months suffered from a tumour in the left lumbar region. This was found to be an abscess formed in connection with disease of the upper lumbar vertebræ, an angular curvature existing. The abscess was remarkable for its extension forwards in a branched manner, and, at two points in this direction, it threatened to break through the skin, and subsequent examination with the finger showed that it consisted of at least three chambers or cavities communicating one with another by narrow passages. On June 19th, the abscess was opened between the points at which it threatened to break and the middle line (posteriorly). The cavity having been explored by the index-finger, and its character recognised, the chambers were washed out by carbolic lotion, care being taken freely to distend all parts of the abscess-wall, a drainage-tube was introduced, and the wound was dressed as in the preceding case. A little serous discharge followed. There was no constitutional disturbance, the pulse varying from 108 to 84, and the temperature from 98.8 deg. to 99.8 deg. But, on the sixth day, some of the serous fluid was allowed, on purpose, to be retained, and the pulse rose to 140 and the temperature to 102 deg. On again cleaning the wound, they fell to—pulse, 96; temperature, 99.8 deg. On the eleventh day, I again allowed some of the discharge to be retained, and the pulse rose in the day to 120, and the temperature to 100 deg., falling again to the normal points immediately on the reintroduction of the drainage-tube. The wound has now (July 27th) closed to a simple sinus without

* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

purulent discharge, and the child is playing about in bed. He is kept in the hospital, as he is being fitted with a spinal support.

I relate this case, as it shows the rapidity with which irritation follows upon the withdrawal of the drainage-tube and the consequent retention of a small quantity of discharge. It also seems to me to point, as does the preceding case, to the possible good effects produced by the opening and cleansing of the abscess upon the quieting, perhaps even the arresting, of the carious affection of the spine. This point has attracted the attention of other observers.

CASE III. Perinephritic Abscess from Calculus in Kidney.—In this instance, the patient suffered from a large chronic abscess about a kidney, in consequence of the formation of a calculus in its pelvis (perinephritic abscess). W. L., aged 56, was admitted into Darken Ward on March 28th, 1876. He had been ailing for five years, his water being reported as at times having been very thick. Lately, he had been obliged to pass urine every hour or two, and had had symptoms which led to his being sounded for stone. The urine had latterly become clearer, but, three weeks ago, he had noticed a swelling in the left loin, where also there arose a great pain. On examination, a large abscess was found in the lumbar region, Pulse, 110; temperature, 102.4 deg.; respirations, 23. On March 31st, the abscess was aspirated, and forty-eight ounces of pus were removed. On April 10th, it was aspirated to twenty ounces; on May 11th, it was aspirated to twenty-one ounces and a half; on June 3rd, it was opened, and thirty-six ounces of pus were let out.

On introducing a probe, it met with septa in various directions; but, by manœuvring, it was at last directed towards the right kidney, and struck against a mass of impacted calculus. The patient was now in a very feeble condition. Pulse, 128; temperature, 101.2 deg.; respirations, 28. He refused food, and sordes were found about the lips and teeth. He was becoming exhausted by the discharge. The only good point about him was, that the urine was better retained, and was clear.

Whilst he was in this state on June 6th, I decided upon endeavouring to distend the abscess-sac, which was effectually done twice; a drainage-tube was inserted and the usual dressings applied. The next morning, the pulse was 92, temperature 99.2 deg., and the respirations natural. The patient felt better; was free from pain, and there was scarcely any discharge. For a few days, a small quantity of limpid fluid exuded, and occasionally the contracting sac was washed with a small quantity of carbolised water. I do not know that this was absolutely needed, but I was anxious to ensure perfect cleanliness. The patient's general condition rapidly improved, and, on June 27th, he was up and about. He was sent home into the country to recruit his health, having been instructed to keep the sinus open, and, when he returns, he will do so, that we may consult as to the propriety of practising an operation for the removal of the calculus from the pelvis of the kidney.

BULBAR PARALYSIS.

By THOMAS S. DOWSE, M.D., F.R.C.P.E.,

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THE disease whose especial clinical features my paper relates is best known in this country as labio-glosso-laryngeal paralysis, but I have adopted the name of bulbar "paralysis"—a name which was first introduced by Wachsmuth. It is much shorter, and directs the attention at once to the seat of the pathological lesion of the nervous centre—namely, the medulla oblongata, from which the facial, trigeminal, glosso-pharyngeal, pneumogastric, and spinal accessory nerves take their origin; and as, at some period or other during the course of the disease, all these nerves are implicated, it is evident that the term "labio-glosso-laryngeal paralysis" conveys a very inadequate idea of the parts involved.

The disease was first noticed by Trousseau in 1841; but it was not until twenty years later that its clinical features were more accurately described, both by himself and by Duchenne of Boulogne. Since then, however, scarcely any disease of the nervous system has been more written about, either directly or indirectly, than paralysis of the parts concerned in expression and speech. To our own countryman Dr. Hughlings Jackson, we are undoubtedly much indebted for the admirable and original work he has done in this as in other branches of nervous disease.

Statistics prove that this malady prevails more among men than women, in the proportion of two to one. It does not carry with it any history of heredity, unless we take into consideration those progressive forms of bulbar paralysis which are by no means infrequently found in

large lunatic asylums, and which are mere continuations of morbid changes in the nerve-substance of the brain and spinal cord.

It has been my experience, and I do not think it will found to be an exceptional one, that paralysis of those parts receiving motor power from nerves originating in the medulla oblongata is extremely rare, unless associated with change in the encephalon or spinal cord. Some few cases have been placed on record where the anterior pyramids, olivary bodies, and lateral tracts were the seats of morbid growths; but these are rare, and can scarcely be said to influence the general question. No one doubts that the medulla might be the seat of a primary interstitial neuritis, resulting in progressive palsy known as glosso-laryngeal paralysis; but this I must hold to be exceptional. I know that there are many men of the highest eminence who maintain that, in its etiology, this form of paralysis is essentially of syphilitic origin; but this does not accord with my own observation, and I am fully persuaded that, in many instances, it is an erroneous supposition. That syphilis is a fertile source of origin for many obscure forms of disease, I have no wish to deny; but I utterly repudiate the fashion which at present prevails, and which ascribes unknown morbid conditions to the effects of syphilis, because these conditions apparently yield after large doses of iodide of potassium have been administered.

I can hardly see how it is possible for syphilitic disease of the membranes, and of the vessels covering the medulla, to produce sufficient lesion of the bulbar roots to give rise to this distinct form of paralysis. The arterial change might advance to the most minute vessels supplying the various nuclei with blood. Then one can understand a lesion of the nerves as a sequence.

I have had a case of basic cerebro-spinal meningitis, where the medulla has been covered with corpuscular lymphoid material, invading its entire surface, yet, during life, there has been no lesion of the bulbar nerves. I have long considered that (as before stated), from its progressive character, the bulbar lesion is of an essentially inflammatory nature; although, in four of my cases, where the bulbar paralysis was most marked, it came on suddenly, associated with paralysis of the extremities.

Again, we know full well that a pseudo-bulbar paralysis can exist, caused by central brain-change, whether this change be the effect of hæmorrhage or of vascular plugging producing mere inanition; and this is more especially the case when such changes originate in the body of the pons Varolii, effecting absolute inhibition of the medullary nerve-centres, and in this case no lesion can be detected after death in the nuclei of origin in the medulla. And this leads us to the consideration of another cause, namely, reflex agency—a rare condition; but I have had one case, which I shall presently detail. I have seen many cases of diphtheritic paralysis, but never one where the tongue has been affected.

Hysterical bulbar paralysis I have never seen, and do not believe in; but I have at present under my care a case, which will be described further on, of amyotrophic lateral sclerosis of the spinal cord and medulla, involving all the cranial nerves, except the first, second, and third. In this case, no power can depress the lower jaw, or make the patient depress it by a conscious voluntary effort. When, however, food is brought to her, the lower jaw falls. I believe it falls by a process as purely automatic as is that of the sucking of the new-born child at the mother's breast.

Thus we find that the causes of bulbar paralysis are numerous, and can be divided into direct and indirect:

DIRECT.

1. Progressive interstitial neuritis
2. Thrombosis of medullary vessels.
3. Hæmorrhage.
4. Morbid growths.
5. Vascular spasm.

INDIRECT.

1. Reflex action from peripheral irritation.
2. Inhibition from shock to central cerebral ganglia.

To all who have considered the physiology of the nervous centres, it must have been apparent that the medulla oblongata constitutes a focus or centre, from which proceed those nerves intimately connected with the phenomena of vitality. Here, in fact, resides (possibly) the seat of sensation (Schroeder van der Kolk). Here, reflex movements pass over to the opposite side; here is the centre of automatic respiratory motions and of deglutition; hence the vagus nerve derives its remarkable influence upon the heart, and an irritated condition of this part produces an excitation of the sexual organs, and influences the secretory action of the kidneys.

And there is abundant proof to show that the vascular supply of the medulla, especially of the corpora olivaria, and the ganglionic cell-groups

which give rise to the bulbar nerves, exceeds that even of the grey cornua of the spinal cord itself. Hence I infer that, in the study of bulbar paralysis, we have a series of phenomena of such high physiological and clinical importance that one can scarcely be wearied in their investigation.

Until the last three or four years, we were accustomed to consider this form of paralysis as progressive and primary; but we now know that it may be stationary, retrogressive, or curable. Dr. Silver was the first physician in this country who drew the attention of the profession to what might be considered the retrogressive form of this disease; but I know of no single instance where a complete cure has been effected, except in the case of a young man, twenty years of age, who has been under my care for the past three years, and in whom all the



Fig. 1.

bulbar nerves were more or less involved. (See Case III.) Before giving the clinical history of this case, which is of great interest, I will draw attention to some of the principal features in the true or progressive type of bulbar paralysis; for although we meet with exceptional cases now and again, it is an almost invariable rule that the disease shall progress from bad to worse in the course of from two to three years. What is the objective sign which first gives us sufficient evidence to state that our patient suffers from a deadly disease, when, to himself or his friends, there appears to be little or nothing the matter with him? And the question arises, whether the first symptoms are really subjective or objective.

Let it be understood, again, that we have to deal with the nuclei of origin of the sixth, seventh, eighth, and ninth cranial nerves, and particularly of the parts which they supply with motion; sensation being rarely affected. Thus some interference of the ocular muscular movements might be evidenced by palsy of the external recti muscles of the eyeballs, but this nerve usually escapes. This is a clinical fact, but anatomically it is unaccountable, for both Stilling and Lockhart Clarke have demonstrated that the sixth and seventh nerves arise from a common nucleus, and, as a rule, where lesion of the sixth and seventh nerves co-exists, the seat of origin is said to be implicated rather than the trunk. Through the seventh, however, and its supply, we have made evident the most objective and primary phenomena; and if we attempt to diagnose disease of the root of this nerve, in the same way that we do some lesion of its trunk (as in ordinary facial paralysis), we shall be mistaken, and led into error.

The first of the facial muscles to become paretic is the orbicularis oris, and the mucous surface of the lower lip becomes exposed. The lip itself is drawn downwards and forwards. We shall see that this, in a later form of the disease, forms a cup, which will be constantly filled with saliva, and it will soon become evident that there is a want of voluntary power to bring the lips together, followed by inability to co-ordinate those movements usually brought into play for kissing and whistling. But before the labial condition arrives at this stage, the movements of the tongue will be interfered with—not the automatic, but the purely voluntary. For instance, the tongue and lips soon become fatigued. If a patient, with incipient glosso-labial paralysis (for in this stage it is confined to the seventh and ninth nerves) be asked to read, his powers of articulation are good enough at first; but in a short time the words are drawled out, and labials and linguals are most imperfectly pronounced, so that, from sheer fatigue, the movements of tongue and lips are rendered temporarily incoordinate. This condition belongs also to other voluntary muscles undergoing incipient atrophic change, where the anterior cornua of grey matter are degenerating. It is a point of clinical and therapeutical interest to which, I think, hardly sufficient attention is usually given.

Thus far we have arrived at the first stage of bulbar paralysis, which may be known as that of fatigue, inducing loss of voluntary power for the due co-ordination of combined muscular movements of the lips and the tongue. The patient may remain in this state for years, as mastication, deglutition, and insalivation are not interfered with. It is when the disease advances beyond this stage that it is most surely and fatally progressive. In the second stage, we find that the ordinary automatic movements of the tongue and lips lose their special characteristics. The patients' attention is constantly directed to the movements of these parts, and they now, for the first time, become conscious that something is wrong. It is this loss of automatic necessitating volitional power which is the sure indicator of central nervous change; the precise and measured character of the movements, the consciousness of the function of volitional activity being excited. With the knowledge that volitional co-ordination is not as formerly under the influence of the will, and the desire to will without the power of will, we shall see shortly, indicate, in the most direct manner, marked central change of the motor centres of the medulla, as distinct from a reflex action induced by lesion of the cortex or of the brain centres. It is now that we find, not the faculty of language, but the power of articulating, to become affected, and this varies according to the muscles or groups of muscles involved. The want of proper pronunciation invariably begins in the tongue. The difficulty of rolling the tongue to give effect to the letter R becomes strikingly manifest, and also of the lips to the utterance of O and U and P, F, B, and M. Then, as the disease advances, the lingual movements cause defective articulation of S, L, R, T, and in due sequence articulation becomes a mere jumble.

CASE I.—The following case, now under my care, will explain the symptoms and signs of the disease in its first stage. J. Maynard, aged 50, was under my care in September 1873. In the winter of 1872, he became for the first time very nervous and agitated, and his limbs would shake under him. When walking across the road he was so fearful that he became transfixed, and could not move a step. In fact, temporarily, he was cataleptic. There were no sensorial defects, giddiness or staggering; no objective signs of disease of cranial nerves; yet, under the least excitement, he seemed to lose all voluntary power. He said that a straw would trip him up, and a puff of wind blow him down. The loss of volition in this case was very interesting. He said that when he tried to do his best, or to exert himself at all, he was unable to do as much as under ordinary circumstances. All the extremities were more or less paretic to motion, but not to sensation. He was dis-



Fig. 2.

charged, and admitted again into the Central London Sick Asylum on July 12th, 1875, in the following condition. He was unable to stand. He said that he could not keep himself in the perpendicular. The first, second, third, fourth, fifth, and sixth cranial nerves were normal. There was defective power in the left arm as compared with the right, and commencing muscular atrophy of the thenar and hypothenar eminences. The under lip had fallen away from the lower row of teeth, and the orbicularis oris was very much weakened. He was able to pronounce some of the labials, but P and F very imperfectly. He had voluntary power to protrude the tongue—in fact, to move it in any direction, unless he became excited or fatigued. Then the lingual movements were at once defective, and heralded the approach of what might be expected.

The best letter-test for noting lingual muscular defect is the articulation of the letter R, and this letter he was unable to pronounce. There were no muscular fibrillations of the tongue (which is a common condition in bulbar paralysis); no impairment of sensation or of the sense of taste; neither could it be said that there was atrophy of this organ; but there was beginning over its surface that trophic change which is so

specific. I allude to almost complete atrophy of the papillæ, combined with a flaccidity and smoothness of the surface, presenting here and there regular furrows. There was some defect in swallowing fluids (not solids), arising from commencing paralysis of the palate. There was also the nasal twang; this, however, was much more marked when the disease was further advanced. (It is this condition which gives rise to the so-called "explosives" of Dr. Duchenne.) As soon as the paralysis of the palate is so advanced that an excessive quantity of air escapes through the nose, the formation of the letters B and P is prevented, because (as Duchenne says) the force of the stream of air which must pass through the mouth and lips for their production is insufficient to overcome the contractile tension of the lips. Here we have evidently medullary disease, which in all probability originated in the anterior pyramids, and is gradually invading the roots of the bulbar nerves.

The notes of this case have been made as brief as possible; and it must be observed that the central lesion was confined to the motor tract, and sensation was in no way impaired. The lesion is essentially progressive, and associated with muscular atrophy of the left upper extremity. In writing of muscular atrophy (and the same condition pertains to bulbar atrophy), Charcot supposes that the degenerative processes tend to creep among the ganglion-cells of the anterior cornua, so as to destroy some cells earlier, some later, some more and some less completely; while, at the same time, other individual cells and whole groups of cells remain unaffected by the disease. In the case just narrated, it will be seen that the lips and pharynx were paralysed before the tongue, and Dr. Duchenne has recorded several such cases.

We now come to the consideration of the more advanced stages of the disease. We have seen that the nuclei of the facial, or the nuclei of the hypoglossal, or even that of the spinal accessory or pneumogastric, may be primarily involved. In this order of sequence we see: 1. That the facial expression is altered; 2. That the lingual movements are interfered with; 3. That the articulation of certain letters is rendered impossible, until the only sound which the patient can utter is purely laryngeal; and, finally, when the laryngeal muscles themselves are palsied, the only sound coming from the larynx is a sort of grunt. It is now that other troubles become manifest. The third division of the fifth nerve not unfrequently is influenced, so that the movements of the lower jaw in mastication cannot be duly performed; and in some of my cases this has been a marked feature. I believe that, in the majority of instances where the medulla has been examined, no lesion of this nerve has been discovered, so that we are willing to admit that the part which it plays in bulbar paralysis is rather reflex than direct. Schroeder Van der Kolk, in speaking of this nerve, says: It is quite unnecessary to dwell upon the use of the connections of the trigeminus, considered as a reflex nerve, with the glosso-pharyngeal, vagus, accessory, and hypoglossal nerves in swallowing, inspiration, coughing, and sneezing. Hitherto, as far as the facial is concerned, we have seen that the orbicularis oris is the only one of the facial muscles involved in the first stage of this paralysis; and, as I have before stated, it is a point of great physiological importance. In what is commonly called facial paralysis, we know that invariably the trunk of the portia dura is affected, in all probability, before its entrance into the aqueductus Fallopii, and we have complete paralysis of all the facial muscles of one side. Yet, in bulbar paralysis, we find the converse of this, when its root is primarily involved, and (presumably) only some of its nuclei of origin. Romberg says: "A peculiar feature in the central paralysis of the facial nerve in disorganisation of the brain is that, with few exceptions, the entire distribution is not affected; but those fibres only are implicated which supply the muscles of *alea nasi* and the upper lip, and are the agents of the respiratory functions of the facial." Thus it seems to be diagnostic, as we find in primary bulbar paralysis that the orbicularis oris is first involved, and is diagnostic of central rather than of peripheral change; and, strange to say, this is made still more evident in hemiplegia, where we have a slight facial palsy on the side of the paralysis, arising from some of the superficial fibres, as they pass through the pons Variolii, being involved. From the investigations of Lockhart Clarke, we know that the facial nerve arises from a common nucleus with sixth; hence there ought to be some palsy of this nerve, if there be a lesion of the facial at its origin, but clinically this is not found to be the case. This, however, is a clinical fact: that the root of the facial shall be the seat of lesion when its peripheral supply to the orbicularis oris has been cut off, not unilaterally, but bilaterally. As the disease advances, the facial paralysis increases, so that the buccinators become involved, and a mask-like appearance of the face supervenes. Up to this period, although the movements of the tongue have been gradually more and more limited, yet its power of protrusion has not been annihilated. But now we see it lying immovable behind the lower row of teeth; saliva is constantly dribbling over the depressed lower lip;

mastication is very imperfectly performed; and the muscles of the palate, pharynx, and larynx are involved.

The following brief clinical notes of this stage of bulbar paralysis are typical.

CASE II.—J. S., aged 28, was in the army for some years, and served in Canada, where he had a sunstroke. For this reason, he was discharged from the army, and returned to England. In the summer of 1873, during a very hot day, he was brought home in a fit, and, when consciousness returned, he stuttered and had difficulty in bringing out his words. For more than a month, he frequently complained of great pain in the back of the head. In the following January, he was seized with another fit and partially lost consciousness, when he was admitted into the Central London Sick Asylum with well-marked bulbar paralysis. I find the notes of his condition in my case-book to be as follows.

The lower jaw could not be depressed for more than half an inch; the tongue was immovable; saliva was dribbling from the mouth, and



Fig. 3.

there was considerable paralysis of the muscles of each fore-arm, with deficiency of grasping and co-ordinating power—more marked, however, in the left than in the right. He walked slowly, but did not stagger or appear to be giddy. There was a calm and slightly idiotic expression of countenance, and, upon examining the head, a deep furrow of depressed bone was found in the direction of the left parieto-lambdoidal suture. When restrained to be fed by means of the stomach-pump, he was sometimes excited, and became rather violent; but this state was only momentary, and passed off with the cause. After he had been in the hospital about a week, the use of the stomach-pump was discontinued, and fluid nutriment was passed into the stomach through the nose by means of India-rubber tubing. Upon more than one occasion he was found partially unconscious, in a state almost amounting to asphyxia, which arose from the pressure of a bolus of food upon the epiglottis. When in this condition, the sphincters were relaxed, and feces and urine passed involuntarily. Notwithstanding this, there was at times a doubt as to the extent of voluntary power which he possessed over the paralysed parts. One day, when the tube of the stomach-pump was being introduced, some difficulty was experienced when it came to the pharynx, and one of the attendants gave him pain by pressing too hard upon his leg. This drew his attention away, and, not only did the tube at once pass easily, but his jaw dropped fully.

The parts paralysed, the amount of palsy, and the manner in which these conditions present themselves, will be best considered in the following order.

First, then, with regard to facial expression: it cannot be said that this case presents marked labial paralysis over that of several other muscles of expression. There is considerable paralysis, however, about the orbicularis oris, which prevents him from bringing the lips together, as in whistling, pronouncing some of the vowels, or expiring a column of air; and, from the lips being at all times slightly apart, there is constant dribbling of saliva from the mouth. When made to laugh, as a rule, those muscles which draw up the angles of the mouth—the *zygomati* and *risorii*—usually act incoordinately, giving one at first sight the impression that the muscles on one side of the face are considerably more palsied than on the other. This is true, in a measure, and presents a point of interest. Invariably, when this act is performed, the left angle of the mouth is drawn up before the right. The lower jaw is partially depressed, and the patient has no voluntary power to extend it beyond a given point; yet, when he performs an extra inspiratory effort, as that associated with yawning, when the shoulders are raised and the chest and head become fixed, the depression of the lower jaw—namely, the *digastric*, the *stylo-hyoid*, and the *genio-hyoid*—appear to come into play; the hyoid bone becomes elevated, and the jaw

drops, and returns to its former position by an apparently natural and voluntary effort. This appears to be the chief complication which makes this case to differ from other recorded cases of glosso-laryngeal paralysis. The tongue is almost motionless. When asked to protrude it, he can at times (this is not invariably the case) move it just over the edge of the lower row of teeth, and, when drawn out forcibly by a pair of forceps, it is smartly retracted—showing that the genio-hyoglossus muscle is not so much palsied as the hyo-glossi and linguales, as he is totally unable to render it concave, or move it from side to side. The nutrition and sensation of the mucous surface of the tongue does not appear to be interfered with. There was some difficulty in examining carefully the velum and pillars of the fauces and the interior of the larynx, from his not being able to depress the lower jaw sufficiently. After as exact an observation as possible, the isthmus faucium, including the palato-glossi, palato-pharyngei, uvula, as well as the levatores and tensores palati, seem almost devoid of all tactile sensibility. On stimulating these parts by means of a quill, the muscles do not respond, the uvula and velum pendulum palati remaining in their flaccid condition, and there is no reflex movement of the middle and inferior constrictors to produce the feeling of nausea which invariably accompanies this act; but, directly the posterior wall of the superior constrictor muscle is touched, it gives him pain. Trousseau says that, in these cases, sensibility was everywhere normal, and that irritation of the mucous membrane of the soft palate produces motion of the velum by reflex action. The patient is almost devoid of masticating power, not so much from absolute inability to raise and depress the lower jaw as from the absence of alternation of lateral movements, which are influenced by the external pterygoid muscles. He had scarcely any power to exercise the first or second stages of deglutition. This is readily accounted for by the almost perfect immobility of the tongue. It cannot be pressed upward against the hard palate; and its base cannot be retracted at the same time that the larynx and pharynx are raised. The epiglottis, which in the second stage would naturally fall upon and close the upper aperture of the larynx, remains partially inactive, and does not allow the food to pass over it to be grasped by the pharyngeal constrictor. Hence arises the condition of partial asphyxia, from which he had not unfrequently suffered. The method he adopts to take solid food is this: he crams the mouth until it can hold no more; and after the mass of food has become softened by saliva, he pushes it with his finger through the isthmus of the fauces over the epiglottis, where it falls by gravitation into the grasp of the inferior constrictor of the pharynx. When once here, this muscle acts to propel it onward. From this, it was concluded that the inferior constrictor does not participate to such a degree in the paralysis—at all events, in the present stage of the disease. This might perhaps be accounted for on the ground that this muscle receives a branch from the external laryngeal nerve, in addition to the supply from the pharyngeal plexus. It sometimes happens that the fluids which he is attempting to swallow are forcibly ejected, not only from the mouth, but through the nostrils. This is the result of some portion of the fluid finding its way through the chink of the glottis, in consequence of the incomplete closure of the aryteno-epiglottidean folds. The next point to be noticed, and a most important one, is that the man is absolutely dumb. He cannot pronounce a consonant or vowel, and the only sound which emanates from the larynx is a grunt. This complete aphonia, according to Dumenil, depends on two causes—paralysis of the muscles of the larynx, and paralysis of the thoracic muscles. Indeed, physiological experiments prove that, when the spinal accessory is torn off at its root, complete aphonia ensues from relaxation of the vocal cords.

In this case we have a complete delineation of bulbar paralysis, in its latest stage. It is not progressive, but *stationary*. The man is now in good health, but he has complete paralysis of the bulbar nerves. From the sudden nature of the attack, one is led to suppose that its causation was due to hæmorrhage into the medulla and superficial fibres of the pons Varolii—bulbar paralysis.

We have to consider, in reference to this man's present condition, one or two points of interest which have not yet been alluded to, namely, the increased salivary secretion, the aphonia, dysphagia, and dyspnoea. The overflow of saliva commences at the same time that the first stage of deglutition becomes involved; and is due most probably to this fact, that the patient has little power to swallow it. There can be no doubt that its secretion is far beyond the normal quantity, and resembles a condition of ptyalism. The cause of this must be referred to paralysis of the chorda tympani nerve. The difficulty of swallowing can be clearly traced through each of its stages. The first stage is simultaneous with palsy of the ninth nerve; the second, with paralysis of the motor branches of the glosso-pharyngeal; and the third, with paralysis of the pneumogastric, through its motor influence derived from the spinal accessory. When the nuclei of the pneumogastric and

spinal accessory are invaded, we find almost total inability to pass solid food into the œsophagus. Fortunately, however, for the patient, although the palato-glossi and palato-pharyngei, with the intrinsic muscles of the larynx, are almost devoid of mobility, their sensibility is to a much less degree implicated; and so by reflex movements, however inco-ordinate the act of deglutition may be performed, although in the effort patients are often barely saved from suffocation.

In one of my cases, paralysis of the vagus was most marked, and caused very distressing symptoms. The inspirations were deep and prolonged, and gave to one the idea that the chest alone, and not the lungs, was expanded. At times, during these attacks, temporary breathing was prolonged almost to complete asphyxia, and artificial respiration had to be resorted to. The pulse would be scarcely appreciable at the wrist, and the sphincters were invariably relaxed. It must be remembered, though, that these paralytics, as a rule, retain voluntary power over the sphincters up to the time of death.

Thus far we have presented to us all the progressive and characteristic signs of bulbar paralysis. As I have shown in Case II, it does not kill for some time, if the patient be carefully and regularly fed. This is a point of the highest importance in treatment; and will more than anything else retard the fatal issue, which, however, under any circumstances, is merely a question of time; for as enervation increases, there is marked failing of power all over the body—the upper extremities are feebly raised to the mouth to wipe away the increased flow of saliva, and the lower limbs are dragged along until strength is lost—for this is the last display of voluntary power. The reclining posture is impossible, on account of the paroxysms of suffocation; and death often arises during sleep, from the flow of saliva into the larynx, or from plugging of the bronchial tubes with viscid mucous, which the patient is unable to expel.

[To be continued.]

ILLUSTRATIONS OF PRACTICE IN COUNTRY CORONERS' COURTS.*

By JOSHUA PARSONS, M.R.C.S. Eng., Frome.

THE personal anecdotes of which this paper in great measure consists were read by me (with one or two exceptions) to the Bath and Bristol Branch of our Association some years ago, and would not have been reproduced here had it not become evident, from speeches in Parliament and articles in professional as well as general periodicals, that public attention has now, however tardily, been directed to this matter, and that the juncture is, therefore, one in which every man who believes he can say anything to show the faultiness of the existing system, and help towards its improvement, is bound to speak. And I do not think the audience before whom I have the honour to stand is inappropriately appealed to on this subject; for not only is our profession fitted, by its position and intelligence, to take its place amongst the foremost in all matters of social well-being, but we have a special interest in this matter. The position of a medical witness in a coroner's court is one not only of heavy responsibility as regards others, but of the utmost importance to his own professional reputation; and, as it is a position which either of us may at any moment be called upon to take, we may well concern ourselves to know something of the tribunal whose deliberations we have to assist, and to use our influence in adding to its efficiency and impartiality. In our days, science is too often hired to be the handmaid of crime, and the pair together sometimes weave a veil through which the best directed inquiries fail to penetrate. There is also reason to fear that some crimes, such as infanticide, are increasing in frequency as well as in subtlety amongst us. It, therefore, behoves us to see that our sentries are wide awake with arms and accoutrements all in good order. That such is not the case, that the safeguard against crimewich society is supposed to derive from coroners' inquiries exists more in theory than in practice, has long been well known to medical men, especially those practising in country districts; and several cases of more or less notoriety have occurred in the last two or three years, which have at last awakened the interest of statesmen and the public. In order, as far as in me lies, to keep this interest awake in your minds, I bring the following personal experiences before you, and feel sure that you will admit that such a list, drawn from the knowledge of one man moving in no very extended sphere, reveals an amount of indecorum in the coroner's court and incompetency in its chief officer, which shows the urgent need of alteration and improvement. My first instance is as follows.

* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

Many years ago, an infirm old man and his younger son were sitting by the fire, when an elder son, coming in drunk and furious, began to ill-treat the father. The younger thereupon challenged the elder to fight with him, and they went out into the garden for the purpose. While in fighting attitude, the elder son, having struck one furious blow, fell down dead, though he had received none in return. A *post mortem* examination was ordered, and I was able to give positive evidence that the man died of apoplexy, without a sign of personal injury. In spite of this evidence, the coroner directed the jury to find a verdict of "Manslaughter", and then delivered himself of the following speech, which made such an impression upon my mind, that I am able to report it nearly, if not quite, *verbatim*.

"E. R. These twelve gentlemen have made a very careful inquiry into the death of your brother, and, considering the provocation you received, have thought it their duty to bring in a verdict of 'manslaughter' instead of murder, and it is, therefore, my duty to commit you to prison on that charge; but I wish you to remember that, although you may escape the punishment of death, yet I have no doubt that, in the sight of God, a man who kills his brother is more guilty than one who does not."

I need hardly say that, at the ensuing assizes, the grand jury threw out the bill after a very short consideration.

About the same time, an old man, an itinerant clock-mender, had been to a village distant from his home, and received a sum of money for his year's services in regulating the church clock. He started for his home, but never reached it, his dead body having been found by the roadside and all his money gone. I saw the body after the inquest had been held, and found that, although there was abundant evidence that he had been drinking with men of bad character, and had left his last halting-place in apparent good health, not only had no medical evidence been called or necropsy ordered, but that the corpse had never even been stripped for external examination. A verdict of "Died by the visitation of God" had been returned. A few years later, an aged man at Philip's Norton had an apoplectic seizure and died in a few hours. An inquest was held, and a verdict of "Died by the visitation of God" was returned, coupled with an expression of the jury's opinion that the parish medical officer (Mr. Parsons) had been neglectful in not seeing the man. A report of this verdict in the local newspaper was the only intimation I ever received of the illness or death of the man.

The hideous details of the crime so well known as the "Road Murder" have been long before the world, and I shall not, I hope, be overstepping the bounds of propriety or charity in blaming the coroner for an omission which, I am sure, arose from the purest motives of humanity; but it is beyond a doubt that, had all the members of that unhappy family been isolated and separately examined on the first day, a clue would have been found to the mystery, and the history of English jurisprudence would have been saved a page of the most grotesque and signal failure. That this opinion is not unfounded will be evident when I mention that, after her confession and condemnation, the murderess told her legal adviser where to find the weapon with which the crime had been committed. It was one of an old unused pair of razors which had been ground to a point and made into a dagger by hammering the rivet, and, after serving its purpose, had been again shut up and returned to a box in the father's dressing-case, where it was found lying unsuspected six years afterwards. This second operation of concealment could not, I think, have been accomplished on the day of the murder, and, therefore, a search on that day would probably have brought it to light.

Since that time, my neighbourhood has been disgraced by another fearful crime called "The Woolverton Murder". I assisted the gentleman who made a *post mortem* examination of the murdered woman, and, as usual in such cases, we took careful notes of all signs of injury that presented themselves to our notice. Those notes were necessarily of considerable length, and, when the medical witness was called upon to detail their contents before the coroner, he was so frequently interrupted by questions of—Is that important? Need I put that down? etc., that one of the injuries mentioned in our notes did not appear in the evidence as taken down by the coroner, although it did in the depositions made before the magistrates. Mark the consequence. When the case was tried, the counsel for the defence took advantage of this discrepancy to attempt to throw discredit and ridicule on the whole medical evidence, and, in a case less clear, a fatal miscarriage of justice might have resulted. I have myself resolved that, should I ever again be placed in the purgatory of the witness-box, I will, without regard to time-tables, insist that every word I think essential shall appear in the depositions.

I have alluded to the alleged increase in the crime of infanticide; let me give an instance to show how that crime may too often escape

undetected. A friend, then my partner, was some years ago called upon to give evidence respecting the death of an illegitimate child who had been found in a privy. He was asked by the coroner, "Do you think this child was born alive?" He answered: "I am unable to give an opinion." The coroner said: "The child is in the next room; go and look at it." He answered: "I decline to do so, as it is impossible to give an opinion which I can substantiate before a court of justice without a *post mortem* examination." No such examination was, however, ordered, and a verdict of "Found dead" was recorded. Had a less wary or experienced witness ventured on an opinion which led to the committal of the mother, you can imagine the figure he would have cut under cross-examination by the counsel for the defence.

There is one form of child-murder too rife amongst us, quite as certain, though more subtle than the knife or the pond, which consists in depriving the poor child of sufficient air, food, cleanliness, and warmth. The gentleman just alluded to has on two or more occasions, after repeatedly warning the mothers or nurses of the effect of their neglect, refused, on the death of the child, to certify the cause of death, and inquests have been held on them in consequence. In neither case has the medical attendant or any other professional witness been called, and verdicts of "Death from natural causes" have been returned.

Let me give another instance to show how the peremptory demands of railway locomotion interfere with that deliberate and orderly procedure usually supposed to characterise our judicial investigations. I was not long ago witness at an inquest holden, as usual, in a public-house at some distance from the house where the corpse lay. The jury, having been duly sworn, were sent by the coroner to view the body, and, on their return, were informed by him that, in order to save time, he had examined the witnesses and taken down their evidence, which he would now read to the jury, and leave them to ask any questions they might think desirable. Need I say that such a summary proceeding would not have been tolerated by a jury selected on any other principle than that common in country places; viz., to collect twelve men who will be sure to spend the shilling which each one receives in drink for the good of the public-house in which the inquest is held?

The next anecdote with which I shall occupy your time is so grotesque, that you might fancy I had cut a page out of the history of some Eastern cadi; but the circumstances are of recent occurrence, and were related to me by a medical friend who was present at the inquest. A poor man had been injured by a colliery accident, and was suffering so much that his medical attendant thought it advisable to administer opium, and accordingly sent a bottle of medicine, of which one dose was given at bedtime. Early in the morning, the man was found dead. It so happened that the medical man was a new comer to the district, and rumours were circulated that he had poisoned the patient. These rumours had reached the coroner's ears, and inspired him with a generous desire to defend a young beginner of his own profession. Accordingly, after the necessary inquiries into the circumstances of the accident, he turned to the jury and spoke nearly as follows:—"Now, gentlemen, I hear that some of you think the doctor poisoned this man; I will soon show you that he did not. You see this bottle contained several doses of the medicine. The man took one and there is a good deal left. Well, to show you it is not poison, I will drink a good dose of it myself, and it will warm my stomach." This he accordingly did, and the proof was triumphant, for he is alive and, I hope, well to this day.

I could lengthen my page with many more instances; but have I not brought forward enough to show that the country coroner is not what he should be? The much more important question remains, What should he be? I answer, A judge, with the legal knowledge, the habit of sifting and dealing with evidence, which are admitted to be indispensable in all other judges, and a scale of remuneration which shall insure his being in a high social and professional position. It was, I have always held, a great misfortune for our profession when, about forty years ago, an agitation was got up with the intention of securing the office of coroner to one of its members. I freely admit that medical coroners have been often valuable public servants, and have upheld the dignity of their office as well as the country attorneys, retired tradesmen, and others to whose lot it has fallen; but I hold that, in many other cases, the medical coroner has, by insufficient knowledge or unseemly conduct, lowered his profession as well as himself; and that, in a material point of view, his appointment is a dead loss to his medical brethren. In the districts in which I have resided, I have had several opportunities of comparison, and I have invariably found that the appointment of a medical coroner was followed by a great diminution in the amount of fees received for professional evi-

dence and *post mortem* examination. Let it not be said that this capacity in the judge for taking the place of his own witness was a gain to the public. I hold it to be entirely the contrary. He acquired the capacity by a special education, which of itself guarantees that he shall not possess the knowledge of law required for the due discharge of his function, and this ignorance of law he has no power of supplementing by calling, in ordinary cases at least, a legal adviser, and hence gross and irremediable mistakes and omissions frequently occur. The position of a medical coroner must often, I should suppose, be as uncomfortable as it is undignified. Having obtained it by an expensive election and, perhaps, a servile canvass, he finds the remuneration too small for a sole source of income, and has, therefore, to make its duties fit in with the toils and anxieties of private practice; and he is also restrained in the inquiries he may think it necessary to make by objections, on the score of expense, made by an irresponsible authority to whom the circumstances are unknown. The position of these gentlemen as well as the interests of society have been, I should suppose, damaged by the change made, in late years, in their mode of remuneration. It was surely better for society that the coroner should be tempted by the fees and mileage to hold or adjourn an inquest unnecessarily than that he should, by the exigencies of his private practice and his fixed salary, be led to suppress or hurry over an important inquiry.

While writing this paper, I have seen the letter of Mr. Serjeant Cox, quoted in our JOURNAL of the 22nd ult., and its seems to me full of important suggestions. The difficulty as to the appointment of coroners which perplexes the learned serjeant would perhaps be lessened if the local government of the country were vested in such county boards as were suggested in the able paper read by Mr. Michael before the united conference of our own Association and the Social Science Congress in May last.

MAY STRICTURE OF THE URETHRA BE HEREDITARY?

By MARCUS ALLEN, L.R.C.P.ED., Surgeon R.N.

THE pathology and treatment of stricture of the urethra, even in the dawn of his art and science, greatly exercised the mind of the surgeon; and, in our own day, the writings of Thompson, the researches of Otis, and the labours of Hill prove that the interest of the profession in the question is neither dead nor sleeping. Less frequently in the etiology of surgical, perhaps, than of medical maladies, has the hereditary influence been sought for or recognised in investigating the causation of disease, and in neither of these great branches of the profession does our knowledge approach to completion of the various disorders that may be transmitted by descent. To enumerate here the several causes of stricture of the urethra, generally admitted by those who have made its phenomena a special study, would be foreign to the scope and object of the present paper. Suffice it, then, to say that congenital predisposition approaches most closely to the point for which I am contending.

Several years ago, I occasionally met, in the ordinary relations of social life, an elderly gentleman, who was then under treatment for irritability of the bladder, and who was also afflicted with stricture of the urethra and enlargement of the prostate gland. In addition to possessing a highly educated mind, he had acquired no inconsiderable knowledge of medicine as an amateur student when an undergraduate at the University, and the vesical affection was attributed by him to the effects on his nervous system of a severe crushing sustained many years before in the gallery of the House of Commons, and aggravated at a later period by an unexpected domestic bereavement; but the stricture of the urethra he considered to be hereditary. On inquiring his grounds for this opinion, he informed me that his father had succumbed to an operation for retention of urine necessitated by an organic stricture, and that he believed his grandfather had also been the subject of some affection of the urinary system—most probably a stricture. The father of my friend had in early life been engaged in practice as a doctor of medicine; subsequently, he succeeded to the family property, after which he followed the usual avocations of a country gentleman. At an exceptionally early age, he had contracted marriage, and there was not (so far as I could learn) the slightest suspicion that he had been in any degree accessory before the fact. The argument appeared to me to be the reverse of untenable, more especially as I knew the son of my friend to be the subject of a similar affection, for which he was unable to assign a cause, except that the disease was hereditary. The medical history of the representative of the fourth generation is briefly as follows. In childhood, he had suffered from nocturnal incontinence;

in boyhood, the incontinence of urine ceased, and he formed the habit of urinating twice in the course of the night; and, at the age of 14, he was for the first time discovered to be the subject of stricture of the urethra. Frequent call to micturate was the symptom which led to this discovery; riding had not been his favourite exercise, and no exciting cause could be named for developing the congenital predisposition, if merely a predisposition had existed from his birth.

My elderly friend has since died. The surgeon who signed the certificate of death stated that it resulted from stricture of the urethra; and, as his son was unable to give me any fuller information respecting his great-grandfather's health than that he believed him to have been subject to "some affection of the urinary system, most probably a stricture", I recently applied to a gentleman (still living at an advanced age, with all his faculties unimpaired), who can remember the family for four generations, but, unhappily, he is unable to elucidate the point.

REMARKS.—The statement "probably a stricture", referring to the representative of the first generation and coming from a grandson, must necessarily be received with a large amount of reservation, and I lay no further stress upon it than merely as affording presumptive evidence of disease of the urinary system. We have, however, a clear history of the malady in three successive generations. The nature of the disease in the second and third cases of the series was certified to respectively by surgeons of acknowledged ability; and, in addition to neither patient being particularly attached to equestrian exercise, it is worthy of note that neither of them was an officer in the army or navy; in the former service the "military seat" in cavalry regiments being a fertile source of originating as well as aggravating the disorder; and, in the latter service, duty aloft frequently leading to organic disease of the urethral canal (and in the gun-boats of which the practice of instrumentation as a remedial measure is virtually impossible), but were persons moving in the higher circles of home society, with every opportunity of following the instructions of the first surgical opinion of the day. The representative of the fourth generation is now alive, and has trained himself to catheterism at regular intervals, and the question suggests itself how far the incontinence of urine in childhood was a posterior effect, the result of a congenital hereditary stricture of the urethra. "Some sins of parents are visited as diseases upon the children until the third and fourth generation", writes the gifted author of *Diseases of Modern Life*; "but there are other visitations, also descending through many generations, which are due, not to the sins, but to the misfortunes or accidents of those in whom they originated and from whom they have descended." It may be that the remarkable series of cases which forms the basis of these remarks constitutes the proverbial exception essential to establishing the rule that stricture of the urethra is *not* transmissible by descent, or it may be that hereditary proclivities have become more intimately interwoven with the complex fabric of our modern civilisation. Strongly opposed, however, to dogmatism, the writer will have attained his object if he shall succeed in directing the attention of the profession to a possible obscure factor of this disorder as yet unrecognised by the schools.

CASE OF ANEURISM OF THE ABDOMINAL AORTA.

By JOHN C. LUCAS, L.R.C.S.ED.,

Surgeon in Her Majesty's Indian Army, in Medical Charge 24th Regiment Native Infantry; in Medical Charge Luck Hospital; Officiating Staff Surgeon, etc., Camp Neemuch, India.

PRIVATE Manoo Pavab, aged 39, having twenty years' service, gives the following account of his case. He enjoyed excellent health until about eight years ago. When serving with the regiment, then stationed at Dharwar, in the Deccan, he first began to feel the sensation not unlike that from the pricking of pins and needles in his stomach (pointing to the epigastric region); this was attended at the time with vomiting directly after meals. He has frequently been admitted and readmitted under the care of the various medical officers who have since been in charge of the regiment.

In July last, he was admitted under my care, and, after a stay of twenty days, was discharged, with the recommendation for light duty and to be exempted from parade and musketry. He again presented himself for admission on August 8th, complaining of pain in the belly and vomiting, etc. On inquiry and cross-questioning, no sort of traumatic history could be elicited. The man, however, stated that his father died rather suddenly, after ailing for some time from similar symptoms.

The patient is an intelligent sepoy, about five feet seven and a

half inches in height, but of somewhat spare muscular development. On inspection, the patient lying on the back, there is no visible pulsation; but palpation reveals a pulsating tumour about the size of a hen's egg, situated about an inch to the left of the umbilicus; but, on account of the immobility and resistance of the abdominal muscles, much information as regards the characteristics of the tumour cannot be derived from palpation alone, beyond its expansile pulsation synchronous with the radial pulse. Percussion (after an aperient) over the pulsating area is dull. On auscultation, no murmur is audible in the horizontal posture; but on making him stand up erect, with the arms hanging to the sides just as in the attitude of "standing to attention", a harsh but not loud systolic *bruit* is heard over the dull and pulsating spot, and seems to be to a certain extent prolonged, but less distinctly audible, along the course of the aorta superiorly.

In addition to the above, he has intermittently neuralgic pains, shooting in different directions downwards towards the thighs, the left more especially, and upwards towards the stomach and thorax; beyond these signs of nerve-pressure, there appears to be no pressure exerted on the veins, as shown by the absence of anasarca. No atheroma is detected in the superficial vessels. I may state that, in this case, the subjective feeling of uncomfortable pulsation is well marked. The man is likewise conscious of a cold sensation in the hands and feet.* Physical examination of the heart points to dilatation of its right cavities. The radial pulse is small, feeble, but not intermittent. The kidneys seem healthy, from the examination of the urine and absence of renal symptoms.†

The patient is cautioned against any undue exertion. The digestive organs have been attended to by occasional aperients, and dry and regulated diet.‡ The pain is relieved by belladonna plaisters. A mixture of iodide of potassium and iron is ordered. On account of the dangers which may result from resorting to mechanical interference, and because the patient will shortly be invalided, I have not ventured to attempt any of the modes recommended.

REMARKS.—This case presents several points of singular interest; and I am not ashamed to state that, when it came under my observation for the first time, though the idea of aneurism first passed through my mind, I was more inclined to consider the case as one of a tumour situated over the aorta, the pulsation being communicated from the former to the latter. This simulation, and consequent difficulty in differential diagnosis, are by no means unfrequent. It was only when the patient was the second time admitted under my care, and by examining in different positions, that I was able to arrive at this diagnosis.

A CASE OF PARALYSIS OCCURRING ON THE SAME SIDE AS A LESION OF THE BRAIN, AND ACCOMPANIED BY EPILEPSY.

By W. WILLIAMS, M.D., M.R.C.P., Liverpool.

THIS history is that of a case of partial left hemiplegia, with epilepsy, following a depressed fracture on the corresponding side of the skull; and in connection with this class of cases, towards which so much interest has lately been drawn by the publications of Dr. Brown-Séquard, the present is peculiarly interesting, from the fact that the paralysis can be justly attributed to the effects of the above lesion causing pressure on the contents of the cranium; for the complete recovery, which subsequently took place, followed immediately the relief of this pressure.

On September 25th, 1873, T. D., a boiler-maker, aged 18 years, was admitted into the Royal Southern Hospital, Liverpool, for a recent compound and depressed fracture on the left side of his skull, about half an inch in extent, and situated on the temporal ridge near the point of its division by the coronal suture, caused through a fall against the sharp corner of some iron-plating. At his admission, there was found to be present considerable concussion, but no well-defined symptom of compression of the brain; so, operative interference not being judged imperative, he was placed in bed, with the adoption of the usual course prescribed for the former state. The partially unconscious state in which he was when first seen lasted till the fourth day, when complete consciousness returned; but it was now noticed that the left upper eyelid drooped considerably, and that there was inability to elevate it completely, with defective sight of the same eye. With these exceptions, however, at this time there was no paralysis or weakness of any member of the body; the patient complaining only of a slight but constant and dull pain at the seat of injury continuing unrelieved, even

after the healing of the wound. Up to January 10th, 1874, nothing of importance occurred; progress towards recovery, it is true, had at that time only advanced to a certain stage; for, although he could go about freely and do any ordinary light work, he was still unable to bear much noise or exposure of the eyes to bright light, and anything approaching violent exercise, or even drinking cold water, gave rise to vertigo. At this date, however, nearly four months after the receipt of the injury, there appeared, and gradually increased, loss of power on the left side; and he became subject to fits of epilepsy, recurring weekly, and characterised by the ordinary signs of a somewhat severe type of the disease—such as foaming at the mouth, biting of the tongue, rigidity of the countenance, short spasmodic expiratory efforts, and violent convulsive movements of the muscles of the face and extremities. During the performance of these latter, the participation of the two sides in the movements was found to be unequal, and much in favour of the left arm and leg; so that, in spite of the fact that epileptic convulsions mostly, if not always, and generally so without apparent cause, are more or less unilateral, in the present instance more than ordinary notice seems drawn to the circumstance, from the association with the paralysis and aura epileptica, that will presently be spoken of, occurring on the same side as the lesion of the skull.

Becoming a confirmed epileptic from January 10th till May 6th, he suffered weekly from persistently recurring paroxysms, each being always preceded by a distinct aura in the form of numbness, commencing in the middle finger of the left hand, but soon extending to the others; and then, on its travelling up the forearm as far as the elbow, a sudden metastasis to the left side of the face would usher in the impending attack. This having lasted a few minutes, would be invariably followed by some somnolency and considerable aggravation of the—since the accident—constant pain at the seat of the injury.

The paralysis, amounting in the case of the leg to the production of but considerable lameness, had, by the date of the operation (May 6th), affected the arm to such a degree that a broad sling had for some time been in use, to afford the necessary support for the all but useless and wasted limb (two inches in circumference above the elbow smaller than the right, which is the smaller of the two at the present time).

In May, it was determined to apply the trephine, with the object of removing the fractured part of the probable evil; and, from its limited extent, this was known to be practicable with a medium-sized instrument. Except some convulsive movements while he was partially under the influence, chloroform was well borne. The piece of skull removed, on examination at the conclusion of the operation, which was performed by Dr. Nottingham, was seen to be traversed by a fissure involving both the outer and inner tables, and which had permitted an attachment through the medium of a tough membranous slip between the pericranium and dura mater; but the most essential peculiarity was to be found in the presence of a sharp-edged spiculum or disc of bone, projecting obliquely inwards for about the one-eighth of an inch from the inner table, and which must, while the piece remained *in situ*, have impinged upon the dura mater sufficiently to give rise to such irritation of the subjacent cerebral surface as would account for the symptoms detailed, though not sufficient, as a subsequent examination proved, to produce any apparent change in the membrane itself.

In a few weeks after the operation, complete control over the affected limbs was regained; indeed, at the end of a fortnight, the patient expressed his feelings by saying that everything now felt all right. But, although he made a rapid and satisfactory recovery, and although the cause might then be said to have been removed, still the predisposition to epilepsy acquired after the accident did not appear to as quickly vanish; for, besides four attacks, similar to previous ones, occurring soon after the operation, and while the wound was in an irritable state from inflammation, a distinct epileptic fit was experienced six weeks later during a residence in the convalescent hospital, brought on, he fancied, through his having taken a glass of beer. Even now, while feeling perfectly well in every respect, and having had no return of his old complaint since June 18th, 1874—the attack already spoken of as having occurred during his convalescence—and able to follow as well as ever his former employment of boiler-maker, there remains the impression that similar indulgence would yet be capable of developing a paroxysm.

As he was not otherwise predisposed in any way to epilepsy, in the absence of all other known causes, it has to be allowed that the spiculum of bone before referred to indicates strongly the starting point; and if it were the cause of the epilepsy, which disappeared soon after its removal, then also, most probably, it not only was the cause of the aura epileptica and predominance of action during the paroxysms occurring on the left side, but, in addition, gave rise to the partial paralysis which became located on the same side as the lesion in the brain.

* These two symptoms are of considerable diagnostic importance, and are worthy of being sought after by young practitioners and students.

† Probably because there is no pressure exerted on these organs; but, should the man survive long enough, and the tumour enlarge and press on the ureters, etc., renal mischief would be set up.

CLINICAL MEMORANDA.

POISONING BY WALL-PAPER.

THE following somewhat remarkable case of arsenic-poisoning came under my notice a few weeks ago. A young married woman applied as an out-patient at the Westminster Hospital, complaining of "queerness and strange feelings in the head". These symptoms, she said, had come on quite suddenly, and had lasted now for about ten days. By further questioning, I learnt that loss of memory of the performance of very recent acts, frequent giddiness, and some drowsiness, were the chief expressions of the "queerness" she alluded to. She felt as if she were "losing her mind". Before this time, she had been in thoroughly good health, with no history of individual or family tendency to any nervous disease. There was no evidence whatever of any antecedent mental wrong or fright. All her systems were apparently in good working order. Beyond a slight degree of constipation, I could find no abnormal condition. These facts were established by a careful process of exclusive questioning. I made no diagnosis; but, giving the patient some slight purge, chiefly as a *placebo*, told her to come again in four days. As she was leaving the room, she told me that her husband was suffering in like manner, but that all his symptoms, especially the giddiness, were rather more marked. Some obvious external cause common to both these cases immediately struck me; and by chance I thought of arsenical wall-paper. The woman then told me that she and her husband had been sleeping for the last fortnight in a room hung with a light-green paper. My prescription being altered to an order to sleep there no longer, she returned in a few days almost well, bringing me a sample of the paper, which Dr. Dupré kindly examined for me, and found to be arsenicated in a high degree.

The complete absence of the more common indications of arsenical poisoning, such as the eye-symptoms and disturbance of the alimentary canal, renders this case clinically interesting; but a more important fact, which it brings once more clearly to light, is, that the manufacture and sale of poisoned furniture proceed with impunity, our unwritten laws on this subject being framed on the principle of *caveat emptor*. Some safeguard is surely needed here against ignorance, if not crime.

HORATIO B. DONKIN, M.B., Hatley Street, London.

CASE OF POISONING BY PARAFFIN.

REPORTS of cases of poisoning by paraffin appeared in the JOURNAL of September 16th, and also in that of October 14th. The following case, which has since occurred, may possibly be not altogether devoid of interest, especially as in it the narcotic symptoms described by Dr. Playfair were particularly well marked.

On the morning of October 16th, a boy aged 14 inadvertently swallowed a quantity of paraffin, which he stated to be three mouthfuls. He is reported to have almost immediately become insensible. A bystander promptly administered some salt and water, and vomiting was excited within a quarter of an hour of the occurrence of the accident. I saw the boy an hour after the injection of the oil, and found him in a semicomatose condition; from which, however, he could be roused without much difficulty, only to relapse into stupor if left to himself. There were extreme pallor of the face and lips; moderately contracted pupils; cold extremities; and a pulse of 60, so weak as to be felt with difficulty at the wrist. He made no complaint of any pain or tenderness, and only demanded to be allowed to sleep. An emetic of ipecacuanha and warm water was administered, a sinapism applied to the præcordial region, and strong coffee given at frequent intervals; while he was walked about and shaken occasionally to prevent his sleeping. A dose of castor-oil was subsequently given; and, although he continued to be drowsy and half-asleep all day, recovery was complete by the following morning.

WILLIAM A. FITZGERALD, M.B. Dubl., Snodland, near Rochester.

COFFEE-POISONING.

DURING the past two years, I have been in the habit of seeing a patient whose case seems sufficiently typical of a class to be more than individually interesting. It may be stated as follows. My patient, a male, was thirty-one years of age, married; lived an outdoor life; was temperate, drinking hock or claret at midday luncheon, and the same, *plus* sherry or Marsala, with late dinner; sleeping soundly, eating well, and free from excretory troubles. He had suffered from rheu-

matic fever five and also twelve years before; and both attacks passed over without heart-affection, though for years there had been occasionally a sort of halt in the movements of the heart—so transient, however, and at such long intervals, that he had taken little or no notice of it. Of late he had grown anxious about himself, owing to new troubles, which he described as attacks of irregularity of the heart. He said these attacks would come on, as it seemed, at any time, and last perhaps a day, and perhaps a week, and then go away, without his knowing why or wherefore. In the intervals of the attacks—rarely, if ever, lasting a month—he enjoyed good health and good spirits, and I gathered from him that work and difficulties were courted; while during the attacks, though there was no pain, the whole outlook of life changed, and he was rendered reserved, retiring, and wretched.

My examination of the heart failed to satisfy me of any probable structural change in it, but left me with a residuum of suspicion, which I am ill able to equate for my own, and still less for another's understanding. Nor did subsequent examinations teach me any more; but, as I watched the case, there grew up a stronger and stronger opinion that the chief, if not the only, fault lay in the instability or irritability of some nerve-centres, or of some conductors whereby impressions received from the stomach, or from the liver perhaps, were reflected along motor channels, to the disturbance of the rhythm of the heart. Sometimes, too, the disturbance was associated in sequence either with general nervous depression or with general nervous excitement, though by what means it was actually brought about I will not hazard an explanation. In this way, we came to look upon a slight flatulence as the occasion of one attack, a little hepatic congestion of another; and I convinced myself that the attack was shortened by directing remedies accordingly, and thus bitters and purges, bromide of potassium and quinine, successively and successfully, were administered. In this way matters ran on for more than a year, often casting about me for some key to the peculiar condition of the cardiac nerve-apparatus, which I could not but think was consequent upon perhaps one particular irritant, when my attention was directed to the possible influence of coffee, and I found that my patient took quite the position of a connoisseur, making it himself, etc., and drinking it twice a day. Coffee was forbidden, as smoking had been long before, not to mention other things which at different times had been wrongly guessed at. From this time, there was no attack for four months, and then only a very slight one. I thought it well to advise a further following of this lead in treatment, by giving up the daily use of wines. He gave up wine as well as coffee, and has remained free from any attack, excepting the slight one above mentioned, up to this time, now over six months, since he ceased coffee-drinking.

S. WILSON HOPE, L.R.C.P., Petworth, Sussex.

THERAPEUTIC MEMORANDA.

A READY SOLVENT FOR SALICYLIC ACID.

SEVERAL alkaline salts—*e.g.*, sodium phosphate and bicarbonate, borax, and more recently ammonium citrate—have been used for promoting the aqueous solution of salicylic acid; and formulæ for the administration of the drug in solution with rectified spirit and glycerine have also been published. I have recently ascertained that a permanently clear solution of the acid can be conveniently obtained by dissolving it in liquor ammoniæ acetatis (*B. P.*) This solution will, I think, be found more palatable than any of those hitherto employed, and less likely to cause the burning sensation in the throat and gastric irritation which often attend the administration of salicylic acid in large doses. The formula I am now using in a case of acute rheumatism is: R Acidi salicylici gr. 120; liq. ammon. acetatis 3ij; aquæ 3vj. *M.* Fiat mistura, and give one eighth part (= gr. xv of salicylic acid) every hour. The addition of some flavouring agent, and compounding the mixture with some aromatic water, would doubtless render it more pleasing to the taste.

GEORGE F. DUFFEY, M.D., Physician to Mercer's Hospital.

ARTIFICIAL DRUM-HEADS.

I AM well aware that Mr. Yearsley's artificial tympanum was a pellet or plug of cotton-wool, but Dr. Cassells may like to know that, in the present day, many English aurists who prescribe cotton-wool in cases of perforated membrane, direct the patient to form it into a disc. Of my own knowledge Mr. Yearsley so directed his patients. Dr. Allen, who was Yearsley's successor, did the same. The difference between

various artificial drum-heads is not one of "disc" or "pellet", but of material. It is certain that the firmer the wool is applied the better the support.

LENNOX BROWNE, F.R.C.S.Ed.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

UNIVERSITY COLLEGE HOSPITAL: MR. CHRISTOPHER HEATH'S
CLINIQUE.

It is commonly noted that professional work and professional examinations are more practical now than formerly, and this is very evident in the special classes formed at most of the metropolitan schools "for men just going up"; special sets of cases being set before them for a public pronouncement. We had an opportunity of attending two of these demonstrations by Mr. Christopher Heath: in one of them was presented a set of breast-cases; in another, of scrotal enlargements. Of the latter, it was observed that the first point to ascertain was whether the tumour was reducible or not, and the next, whether it was translucent. Two of the cases were readily judged to be hydrocele and were punctured. Iodine, etc., should never be injected at the first operation. The third, said to be elastic and non-translucent, with healthy cord, was judged to be syphilitic enlargement of testis; but, more careful examination finding partial translucency, it was punctured and proved a "hydro-sarcocele". It is impossible to overestimate the value of such clinical examinations.

Spinal Injuries.—At a clinical lecture, Mr. HEATH showed the injured vertebrae from a recent suicide. The point was the paralysis of the right half of the body without actual injury of the cord. A pistol-bullet had passed through the tongue, by the side of the uvula, and through the axis, breaking its right transverse process and driving this in to press upon the dura mater. Life lasted about three days. In another case, a heavy man fell downstairs, doubling his head under his chest. He was brought in sensible, but became delirious at night; then gradually cyanotic, oppressed in breathing, and died in two days. The odontoid process and part of the body of the axis had been broken off; the head had gradually fallen back, and, by gradual pressure on the medulla, the man had been "pithed". Some fulness at the back of the neck had been noticed, and it was thought possible that, could a diagnosis be rightly made, something might be done for such cases by absolute rest and supporting the head forward by pillows. In disease of the upper vertebrae, as the ligaments give way, if such support be not attended to, patients have died suddenly in the same manner when attempting to sit up.

Sarcoma of Face-Bones: Epistaxis: Excision.—A woman, aged 53, presented herself, complaining principally of epistaxis. It began four years ago and recurred at intervals. The right nostril was blocked, and she "thought it was a cold". The right side of the face, near the nose, was somewhat enlarged, and the septum nasi pushed to the left. An operation for removal of a growth had been performed a year ago, and hæmorrhage had been almost constant since. Mr. Heath opened up the nostril by incision through the old cicatrix, and clipped away the growth and upper maxilla and ethmoid bone, which, with its peculiar cells, was invaded by deposit. Mr. Heath remarked that he had of necessity to go very near the base of the brain, and that was the risk of these operations. He had once removed a growth which had invaded even the frontal sinuses. The man recovered; but, on his first going out, got erysipelas, and died; and the only plate of bone between the brain-cavity and the seat of operation was as thin as paper. There was not much risk of hæmorrhage if the tumour were completely removed, because the flow came from the tumour itself, and ceased on its removal.—The woman is going on favourably.

Calculi.—A man, aged 61, died on the fifth day after removal of a large calculus by lateral operation. At the *post mortem* examination there was no evident explanation of the death: the wound, the bladder, and kidneys, were fairly healthy; there was some congestion of lungs, and some fatty degeneration of the heart. Mr. Heath remarked on the extra risk incurred by stout people; the danger had been said to be almost in proportion to the weight of the patient. After showing the various kinds of calculi, he said: "It has been a question whether uric acid is secreted by the kidney or merely excreted, but the great preponderance

of opinion now is towards the latter opinion. When the stone is very small, just forming in the kidney, there may be no symptoms other than some aching of the loins; later, pyelitis may come on, and blood and pus may be passed. Then the stone may descend and block up the ureter; and if one kidney only be affected, the patient's urine will for a time be clear: the pus will be retained with serious consequences to the kidney-structures, or the obstruction pass on, with an attack of 'renal colic', and reach the bladder. Now, if the stone be small, it may be at once passed out, and the best plan to help this is that described by Sir T. Watson. Have the patient's bladder full, place him on hands and knees so as to keep the neck of the bladder low, let him for a time prevent the passage of urine by grasping the penis, and then suddenly take off the pressure, and strain forcibly to empty the bladder. If, on the other hand, the stone do not leave the kidney, that organ may either become hollowed into a great cyst, or atrophied round the obstruction, and the patient will live with one kidney. Again, the stone may stop in the urethra; the symptoms of pain and obstruction may be very severe, but easily explained by the passage of a probe. This urethral obstruction is, perhaps, most common in children; and, if overlooked, as it not very infrequently is for a time, may lead to extravasation of urine; in fact, Mr. Cooper Fors- ter says he has never seen extravasation in children independently of calculus—not that it need wholly obstruct, but gradually ulcerate through.

Now a nucleus, being in the bladder, always grows. In the case before us, symptoms had existed for three years, but the stone had only been detected one week. It ought to have been (and now-a-days generally is) found earlier, and the issue would very likely have been different. You may have a stone with an uric acid nucleus, and a ring of phosphate succeeded by another ring of acid, and so on; the explanation being that the original irritation causes alkaline urine and phosphatic deposit; then a period of rest and treatment restores the normal reaction for a time. The prominent symptoms of vesical stone will be (1) *frequent micturition*. Very few people notice how often they pass urine; it is usually about six times in twenty-four hours; but, if they have to rise in the night, they notice it, for it breaks their rest. (2) *Pain*, often referred to the penis, and mostly after the bladder is emptied; (3) but the only real proof is to *feel the stone*. The sound used may be solid, or hollow, but now we always use one with this small curve: be quite sure you get into the bladder; it is possible to stick in the prostate. You will make sure by injecting water, and never forget to feel *behind* the prostate. It was a saying of Coulson's, 'In every case of enlarged prostate, suspect a stone.' Several stones may be pouched. I remember being disappointed after crushing a stone, to learn that my patient had been cut by another surgeon a few months afterwards and had five stones removed; but three months afterwards he was cut again, and two more removed, and the same thing happened even a third time. He is now well, and I conclude these stones were at the time retained in a vesical pouch." Mr. Heath then described lithotripsy with Sir H. Thompson's lithotrite (and the use of Clover's bottle for washing out the bladder), and afterwards lithotomy, with a grooved curved staff. He sometimes performed the median operation, but generally the lateral; it gave more room, though it more injured the soft parts, and had more risk of bleeding. The rectum should be avoided, though it was sometimes injured without any bad results, and Mr. Lloyd of St. Bartholomew's Hospital formerly practised a recto-vesical operation; its results were not very good. "It is well to cut low to avoid the bulbar artery, though some able surgeons cut rather high. It is all but impossible to cut the pudic artery, and the risk of hæmorrhage is not great. If there be fear of it, you can put in a catheter surrounded by a linen plug—a 'tube en chemise'. Having introduced the staff, the assistant holds it with his right hand, and draws up the penis with his left—a most important matter—and then what you have to do is to reach the groove; having done so, you might still miss the bladder, but follow this rule of Ferguson's, *raise your hand and the scalpel-handle*, and you will get all the advantages of a straight staff, and will readily pass along the urethral canal. How Liston held his knife in the deep cut has been debated. I think he had two methods; in the later part of his career he certainly held it in the ordinary way, with the finger on the back, but earlier, I believe, he placed the finger below the edge of the knife; and this is really rather a good plan for a beginner to follow. Sometimes, as in the case before us, you cannot really reach the bladder with your finger; then put in a director, withdraw the staff, and dilate the parts. Having touched the stone, and taken up your forceps, be careful not to take the hooked end in your thumb, for it will probably slip, and you will be tempted to begin to work the forceps with two hands—a plan very much to be avoided—but place your thumb in the ring, the fingers in the hook. Of other plans of performing the operation, we may men-

tion Dolbeau's, of crushing the stone from the perineal opening—but it is not satisfactory, and has not made way in this country."

Epithelioma of Tongue: New Cauteries.—Mr. Heath removed with the scissors a small growth near the frænum linguæ, and required a cautery for the seat of operation. Mayer and Meltzer sent the very ingenious "thermo-cautère" of Dr. Paquielier, in which the vapour of petroleum is driven by hand-ball bellows through a hollowed stem over fine gauze into a long platinum cell with cutting edges. The top of this cell is heated in a spirit-lamp; the petroleum-vapour is thus inflamed, and keeps the metal continuously hot. There is no other apparatus than the small hand-bellows, the bottle, and the cautery-stem; so that the case may be carried in the pocket, and the cost is only a few guineas. Mr. Coxeter sent a larger instrument, admirable when compared with the older fashions. There are forty elements of zinc and carbon, in sets of ten, arranged in four vulcanite chambers. The zinc plates may be raised when not in action. The battery is charged with sulphuric acid and bichromate (no nitric acid), and seemed to act admirably. It is fairly portable, readily cleaned, and easily set to work.

Ununited Fracture of Humerus: Treatment.—As there were shortening and overlapping of bone in this case, the arm was forcibly extended by aid of the pulleys under chloroform, the ends of the broken bone forcibly rubbed against each other, and a plaster of Paris bandage applied.

BRISTOL ROYAL INFIRMARY.

CASE OF BULBAR PARALYSIS.

(Under the care of E. L. Fox, M.D.)

W. M., AGED 54, a labourer, was admitted into the Bristol Royal Infirmary. It was difficult to obtain any history from him, as he was unable to utter a single word. He could, however, write a little on a slate. He gave us to understand that he had been gradually losing ground in the manner about to be mentioned for two months; but there is some reason for believing that his illness had been of six months' duration. His condition was as follows. 1. There was considerable paralysis of the orbicularis oris and the buccinators. This was not complete, as with a great effort he was able to close his mouth; but he habitually had it open. The food collected between the gums and cheeks on each side. 2. There was deficient lateral action of the jaws, from partial loss of power in the pterygoids. 3. There was almost complete paralysis of the tongue. He was unable to protrude it, or to raise it to the roof of the mouth. A very slight lateral movement of the tongue was alone possible. 4. He had great difficulty in eating, partly from the loss of power in the orbicularis, but mainly from the paralysis of the tongue. The patient was compelled to push his food with his hands far back into his mouth, and even then half of every mouthful fell out again. He drank, as birds do, by tilting his head backwards, and letting the fluid fall down his throat. 5. There was an extreme flow of saliva. He had been salivated with mercury shortly before his admission. Still, the flow of saliva persisted until his death, six months afterwards, and was too intense to be accounted for by any difficulty in swallowing. He could not pronounce one word, except the interjection Ah, which sounded more like a grunt than a word. There was, however, no aphonia. The larynx was unaffected, although a small white spot was seen on the epiglottis. The vocal cords acted fairly, so far as it was possible to test them with the laryngoscope under the difficulties as to articulation. The spinal accessory nerves, therefore, had not lost their power. 7. There was some want of power in deglutition, but, until just before death, this was never serious. Some of the difficulty depended on the paralysis of the muscles of the palate, in consequence of which the food passed into the posterior nares. Even had the spinal accessory nerves been more affected, deglutition would probably have been carried on tolerably well, as the pharynx is also supplied by motor branches from the pharyngeal plexus. 8. There was considerable interference with general nutrition. In particular, there was great atrophy of the muscles of both upper extremities. The interossei and lumbricales were specially affected, and the hands resembled a bird's claw. 9. During the last month of his life, he had twitchings of the flexor muscles of the arms, and convulsive movements of the legs. At this period, too, he had partial loss of power in the orbicularis palpebrarum and the corrugator supercilii of each side.

He died with pneumonia of the right lung, after having been six months under observation. The special senses were never affected, and the mind was clear. During his illness, he had on several occasions suffered severely from bronchitis, but had recovered.

POST MORTEM EXAMINATION.—There was advanced atrophy of the muscles of the hands and arms, especially the interossei. In the brain,

no lesion was apparent to the naked eye. The roots of the hypoglossal nerves were somewhat atrophied, and those of the spinal accessory nerves a little smaller than usual. The dura mater of the spinal cord was very much distended with serous fluid. There was found a small cavity, of the size of half a millet-seed, hollowed out in the middle of the grey matter of the right anterior columns of the cord at the lower part of the cervical region. The cord itself was of normal consistence. There was no marked atrophy of the roots of the spinal nerves. The lower lobe of the right lung was in the grey stage of pneumonia. No other organs were diseased.

Microscopically, the lesions were found to extend over a considerable tract. The corpora quadrigemina were affected. The pons Varolii, the nucleus of the fifth nerve, the junction of the pons with the medulla oblongata, the nuclei of the vagus and hypoglossal nerves, the olivary bodies, the cord at the entrance of the sixth, seventh, and eighth spinal nerves, the cord also at the entrance of all the dorsal nerves, and down to the lower portion of the lumbar region. In the corpora quadrigemina, the main lesion was amyloid substance, but some of the cells were pigmented and some altered in form. In one portion of the pons there were a few spots of milary sclerosis; nearer the nucleus of the fifth nerve, amyloid bodies were seen. At the junction of the pons with the medulla oblongata there was a little milary sclerosis on lower part of the pons, at the right side, and some pigment along the raphe. In the nuclei of the vagus and hypoglossal nerves, the nerve-cells were abnormal in form, and mixed with amyloid exudations; and many of the cells in the nucleus of the vagus were pigmented. Some of the cells of the nucleus of the spinal accessory were pigmented. Some pigmented cells were found in the olivary bodies, and numerous non-nucleated cells. At the sixth spinal nerve, and corresponding to the minute cavity mentioned above, a portion of the right anterior horn was broken down. The blood-vessels were thickened. There were many amyloid bodies of the white substance of the posterior columns, and the central axis of the nerve-tubes was very deficient. There was also slight atrophy of the cells of the left anterior horn, and a small amount of amyloid substance was found here. At the seventh and eighth spinal nerves, amyloid bodies existed all through the cord, but chiefly in the white matter of the posterior columns. At the ninth and tenth spinal nerves, amyloid bodies existed in the white matter of posterior column, but also in the posterior cornua, and the cells of these cornua seemed diminished in number. In the cord, from the fourth to the last dorsal nerve, the white matter of the posterior columns was studded with amyloid bodies, and here and there was some increase of connective tissue growths. A few amyloid bodies existed in the grey matter, and a very few in the anterior columns. The cord at the second lumbar nerve was studded with amyloid bodies at the entrance of the posterior root. The rest of the cord was similarly affected in the posterior column and posterior cornua.

Dr. Fox remarked: Of these affections, Hallopeau makes two divisions: 1. True bulbar paralysis—labio-glosso-laryngeal paralysis: 2. Bulbo-spinal form—labio-glosso-laryngeal paralysis, with progressive muscular atrophy.

Our case was an instance of the latter form. It is the more common of the two, and most of the recorded necropsies have been of this form.

Considering how accessible are the writings on this subject of Charcot, Duchenne de Boulogne, Hallopeau, and Kussmaul, to say nothing of the excellent paper by Mr. Kesteven in the *British and Foreign Medico-Chirurgical Review*, it is useless to review the whole pathology of the subject. Suffice it to say—

That bulbar paralysis is simply a grouping of symptoms that seem to depend on various lesions affecting the great chains of associated nerve nuclei in the medulla oblongata.

That lesions of this region may be accompanied by similar morbid conditions of the cord itself.

That the lesions most frequently met with are: 1. Simple pigment atrophy of the ganglion cells; 2. Various forms of sclerosis, of which it may be allowable to call grey degeneration with amyloid bodies a minor degree; 3. But very rarely, choreic suffering.

That the two former lesions, at least, are due to chronic congestion, if not to one form of inflammation.

The case I have brought forward is interesting, as showing that regions above the medulla oblongata, such as the pons Varolii and the corpora quadrigemina, may manifest similar lesions; that grey degeneration had implicated the posterior columns of the cord throughout its whole length, without any loss of co-ordinating power; and that the portions of the body, the upper extremities, in which alone progressive muscular atrophy was really marked, derive some of their nerve-supply from the only spot in the cord, about the sixth spinal nerve, in which the anterior cornua were much affected.

REVIEWS AND NOTICES.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY.
By W. S. PLAYFAIR, M.D., F.R.C.P. In two volumes. London:
Smith, Elder, and Co. 1876.

THE author, in his preface, tells us that "his object has been to place in the hands of his readers an epitome of the science and practice of midwifery, which embodies all recent advances". This is no mean task to attempt at the present time, when on all hands it is conceded that "there is no department of medicine in which more has been done of late years", or in which greater strides have been made in developing the science and perfecting the art of obstetrics. It is only comparatively during the last few years that scientific minds have thought the subject of obstetrics worthy of consideration, and have devoted much time and attention to the elucidation of some of the more difficult problems connected with its study. Even now we are fettered in our actions by the definitions of our forefathers. Many a valuable life has been sacrificed by delay; from the practitioner imagining that, if the process of delivery be accomplished in twenty-four hours, it is a natural labour, and that "meddlesome midwifery" is bad. It is one thing to assume a masterly inactivity, quite another "to allow patients to drag on in many weary hours of labour, at the expense of great exhaustion to themselves and imminent risk to their offspring", when a little timely interference would complete the delivery.

After the experience of Dr. Hamilton of Falkirk, and the statistics of the Rotunda Hospital at Dublin, we are not surprised to see that Dr. Playfair recommends a more frequent resort to the application of forceps than is generally advised even by modern practitioners. If forceps were regarded "as a pair of artificial hands, by which the foetal head may be grasped and drawn through the maternal passages by a *vis à fronte*, when the *vis à tergo* is deficient", instead of, as is too often the case, "the last dread appeal to instruments", we should hear far less of tedious labours, still-born children, *post partum* hæmorrhage from uterine inertia, pelvic cellulitis from pressure kept up often for days, and other consequences equally serious. It is, unfortunately, nothing unusual for the consulting physician to be called into cases where labour has been allowed to go on for several consecutive days and nights, to the imminent risk of the patient and the frequent extinction of her child's life—where the forceps succeed in effecting delivery within a quarter of an hour.

When our examining bodies become more sensible of the importance of a thorough understanding of the science and art of obstetrics, as the basis of all general practice, we shall possibly have more stringent regulations for the study of the subject. How many practitioners of the present day ever think of attempting to make out the position of the foetus *in utero* by external abdominal examination, including, as it should do, inspection, palpation, percussion, and auscultation; and yet, as Dr. Playfair shows us, and as many can attest from their individual experience, the process is as simple as possible, and should never be neglected in practice. Much important information may frequently be gained, not only as to the position, but also the condition of the foetus, as to its size and viability, enabling us to decide whether it will be necessary to interfere with the process of delivery, or whether we may safely wait; and not only this, but if abdominal palpation became the rule instead of the exception, many a child's life would be saved and much risk to the mother averted by a timely resort to version by external manipulation, which, as Dr. Playfair points out, "in spite of the manifest advantages of the procedure, and the extreme facility with which it can be accomplished", is still little known to the profession at large. It is in such matters as this that the present work is of much value. The more scientific we become the more do we learn to forecast and anticipate difficulties; to obviate in place of allowing dangerous contingencies to occur and then dealing with them.

We quite agree with the author that, in reference to spontaneous version and evolution, "it cannot be too strongly impressed on the mind that neither of these can be relied on in practice".

To give our readers an idea of the eminently practical nature of the work before us, we cannot do better than refer them to the chapter on *post partum* hæmorrhage. Dr. Playfair rightly insists that it is one of the most frequent complications of delivery, but fortunately, to a great extent, is a preventable accident—a fact which cannot be too strongly impressed on the practitioner; and we quite agree with the author that its prevalence, in the practice of some medical men much more than in that of others, is mainly to be attributed to their not knowing or not practising "the proper mode of managing the third stage of labour".

That "prominent bugbear to obstetricians", the so-called *hour glass*

contraction, is frequently caused by pulling on the cord in our over anxiety to remove the placenta; and even, as Braun has shown, abnormal adhesions of the placenta diminish in frequency in direct ratio to increasing years and experience on the part of the practitioner.

Crede's system of expression of the placenta by grasping the fundus uteri, and not, as is still too frequently done, pulling on the cord, is the method that should always be advocated; and we cannot speak too highly of our author's mode of dealing with the whole subject. "The preventive treatment", he says, "should be carefully practised in every case of labour, however normal", by keeping up continuous uterine contraction for at least half an hour after delivery is completed, by simply grasping the contracted womb with the palm of the hand, and preventing its undue relaxation; the binder being subsequently applied with a view to "keeping up, but not of producing, contraction"; "it should never be trusted to for the latter purpose". He points out very clearly that, as there are only two means which nature adopts in the prevention of *post partum* hæmorrhage, so the remedial measures may also be divided into two classes: 1. Those which act by the production of uterine contraction; 2. By producing thrombosis in the vessels.

Whether we turn to the more elementary chapters on the anatomy and physiology of the organs concerned in parturition, or peruse with interest the chapters on pregnancy and the more practical portion of the volumes, we are convinced that the author has spared no pains to make his treatise a thoroughly practical and reliable one, "well posted up to date". It bears internal evidence of much painstaking conscientious work; it is no mere compilation from others, but well digested and well arranged; of course, not descending into elaborate details, but, at the same time, not ignoring the opinions of others. We would strongly recommend every young practitioner, before presuming to undertake the arduous and responsible duties of accoucheur, to study carefully the present volumes.

It is scarcely necessary to state that the volumes do credit to the well-known publishers, the execution being all that could be desired; the type clear; the marginal notes useful for reference; the figures, one hundred and sixty-six in all, for the most part clear and illustrative of the text. In place of one unwieldy volume, the author has wisely divided it into two.

ON PERSONAL CARE OF HEALTH. By E. A. PARKES, M.D., F.R.S., Professor of Military Hygiene in the Army Medical School, Netley. (*Manuals of Health*, published by the Society for Promoting Christian Knowledge.) London: 1876.

THIS little treatise, the last work from the pen of the gifted and lamented author, is so full of useful knowledge and wise counsel, that we must count none of his most valuable labours, giving, as it does, a clear and easily understood summary of the experience and wisdom acquired in one of the most active and beneficent of lives. It deals with every subject affecting personal health in a way that is wonderfully complete for the purpose, treating of air, water, dwellings, food, drinks, exercise, etc. True to his character, the writer is always careful to distinguish between mere conjecture and established fact; whilst he treats his reader (layman though he be) as a reasoning being, and endeavours to make him understand the why and the wherefore of the precepts he lays down so clearly. The style is throughout thoroughly simple, and at the same time scholarly and elegant—such a style, in short, as is both intelligible to the artisan and welcome to the man of refinement and culture. We would cite the Introduction and the chapter on Pestilential Diseases as special examples of literary power; whilst the section on Alcohol is a model of judicial exposition—very different from the foolish declamation and reckless statements too often made by the advocates of total abstinence both in and out of the profession! From it the following passages may be quoted with advantage, by way of comparison with some recent writings on the same subject.

"One of the great questions of the day is, whether alcohol should be taken as an article of usual and daily diet. To this question it is, I believe, impossible to give at present a decided answer.....This uncertainty (*i. e.*, the doubt as to the line of moderation), coupled with the difficulty at present of saying what dietetic advantage is gained by using alcohol, seems to me rather to turn the scale in favour of total abstinence instead of moderate drinking. But if any one honestly tries, and finds he is better in health for a little alcohol, let him take it; but he should keep within the boundary line—*viz.*, that 1½ ounces of pure or absolute alcohol in twenty-four hours form the limit of moderation. I do not think he can do himself much harm."

In speaking of prevention of disease, our author says:

"Small-pox is now so seldom seen, that there must be millions of people who have no true idea of it, and do not know its his-

tory. It is, in my opinion, the most frightful malady which afflicts us. To see a bad case of small-pox.....is a sight never to be forgotten; and, when it is also found that this disease is in the highest degree contagious, and is caught most readily from person to person, nothing is wanting to give it the first rank in the horrible incidents of life. One hundred and fifty years ago, this disease was so common in England, that the fear of it weighed upon the hearts of all: it was a constant dread.....Although now no one in England fears small-pox, it still exists, and, if vaccination were neglected, would soon be as bad as ever. How is this? Apparently, from two causes: first, the incredible carelessness and apathy of men in neglecting to have vaccination performed on their children.....Secondly, there are some persons who, from ignorance or an incredible perversity, refuse for their children the benefits of vaccination on quite foolish grounds—chiefly, that it is wrong to give one disease to prevent another, or because, in some very rare cases, harm may be done. Why, it is the general practice of vaccination which alone gives them the opportunity of being thus headstrong. Were there no such thing, they, like all the rest, would suffer from small-pox, and would cry to heaven and earth for a remedy."

Let the Antivaccination League read this and ponder.

At the end, there is an appendix containing a few sanitary hints for working men which are of the greatest value, and, if followed out, would tend greatly to improve their condition, and remove much of the sickness and mortality which so sorely smite them and their families.

This little volume would form an excellent text-book in schools, and may be placed with advantage in the hands of all, old and young, learned and unlearned.

LECTURES ON STATE MEDICINE, delivered before the Society of Apothecaries at their Hall, Blackfriars, 1875. By F. S. B. FRANÇOIS DE CHAUMONT, M.D., F.R.C.S.E., Surgeon-Major, Army Medical Department, Conjoint Professor of Military Hygiene, Army Medical School. Pp. 196. London: Smith, Elder, and Co. 1875.

THE Society of Apothecaries is to be congratulated on the readiness which it has exhibited in recognising the importance of State medicine as a department of applied medicine, and not less so in the happy choice which it made in selecting Dr. DE CHAUMONT to deliver the first course of lectures which it has instituted on this subject. It is not the first time that the Society has deserved well of the profession for the energy with which it has put itself in the van of medical progress; and we are glad to see that, notwithstanding the force of circumstances has tended, in some respects, to weaken considerably the ties which formerly united so closely the great body of general practitioners with the venerable Corporation in Blackfriars, the upholders of the ancient art and mystery of the apothecary are as anxious as ever to maintain their claim to appropriate every new field of labour which the most recent advances in general intelligence, or in professional knowledge, may have opened up.

The volume before us consists of six lectures, which were delivered before the Society in the spring of last year; and which, we think, Dr. De-Chaumont has been well advised in publishing. It cannot, of course, be expected that so extensive a subject as State Medicine must be admitted to be, even in the most restricted definition, could be treated with any approach to exhaustiveness in six lectures; nor does this short course make any pretensions to such a character. It is, in fact, little more than a general *aperçu*, or bird's-eye view, of the more important questions which present themselves to the consideration of the student of State Medicine, expanded here and there into a critical discussion of those points upon which the lecturer's official position has given him special opportunities for acquiring information. Though, therefore, the lectures as a whole can be scarcely looked on as offering much more than a somewhat enlarged syllabus of the numerous topics which they embrace—and are, therefore, not calculated to serve as a text-book to those who wish to study them comprehensively—they contain a great deal which no one can read without advantage; and we would especially recommend their perusal to those candidates for employment in the public service who contemplate submitting themselves to any one of the several examinations in State medicine which have lately been instituted in this country.

Our limits will only allow of our briefly indicating the scope of each lecture. The first is devoted to a history of sanitation in this country, especially since the date of the publication of the Report of the Health of Towns Commission. In connection with this subject, Professor De Chaumont makes some excellent remarks on the function of State Medicine, which he very happily and tersely defines as "the office of the sanitarian promoted by the State", and on the provisional position

which all legislation in regard to it must necessarily occupy. With a synthetic appreciation, which is worthy of a disciple of Comte, he specifies the periods through which a people passes, in its hygienic history, as the *instinctive*, the *supernatural*, and the *rational*; still further subdividing this latter into the *stage of development* (scarcely an apt designation), in which the principle of rationalism struggles for expression and recognition; the *stage of legislation*, in which the wisdom of the few is applied to frame laws for the benefit of the community; and the *stage of freedom*, when the laws of health and progress shall be as clearly understood as those of arithmetic, and where the practice of them will become so much of a second nature as to render repressive legislation obsolete and useless. It would appear from some of our author's remarks that, although he considers the latter of these three stages as at present very remote, he does not despair of our reaching it eventually. We must confess that we can scarcely share his sanguine expectations. That the knowledge of the laws of health will, in common with knowledge of all other kinds, in time cover the earth as the waters cover the sea, may be admitted as a possibility by even the most extreme of pessimists; but it by no means follows that restrictive legislation on sanitary matters will, in such circumstances, be unnecessary. How much of the legislation on all subjects, which every year brings forth, is directed, not against want of knowledge, but against want of will to do what is right! So long as human nature remains what it is, and selfishness, however enlightened, exercises so large a share in the determination of its activity, so long the repressive powers of the law will be required to compel men, if not to do right to themselves, at least not to do wrong to their neighbours.

The second lecture deals chiefly with air in its hygienic relations. In connection with this subject, which no one in this country is more competent to treat than Dr. De Chaumont, some very valuable facts are stated, which are drawn from his own personal investigations.

In the third lecture, we are introduced to the consideration of water. In discussing briefly the characteristics of water which is unsafe for drinking purposes, the lecturer gives two interesting tables, comparing the composition of a series of samples of water from various localities, in regard to the amount of albumenoid ammonia present in them, and of the amount of oxygen required for the oxydisable matter which they contained, with the view of showing that neither of these tests can be relied on alone as a ground for condemning water; and that, of the two, the latter is probably the more trustworthy. The evidence on which our belief in the spread of cholera and some other diseases through contaminated water rests, is then alluded to; and the quantity of water required for general use, the means of purifying it, and the legal enactments existing in regard to its provision, are succinctly dealt with.

In the fourth lecture, Dr. De Chaumont discusses the subject of the soil in its relations to health. In connection with this subject, Pettenkofer's views on the effect of carbonic acid and of ground-water are alluded to. Dr. De Chaumont joins with all other sanitary authorities in deprecating the habit which is becoming increasingly common, especially in large and rapidly-growing towns, of building houses upon made soils, the greater part of which too often consists of the most deleterious rubbish. It is an instructive commentary upon the slowness with which sanitary legislation progresses that, though this pestilent practice has been reprobated by medical officers of health for years past, the general statute law gives no satisfactory powers for preventing it. By a somewhat forced collocation, this lecture is made to embrace the disposal of excrementitious projects and sewage generally, and the virtues of cremation, in favour of which latter institution our author expresses the opinion that it will be the form of "happy dispatch" of the future.

The portion of these lectures which seems to have least relation to the office of the State in medicine is the fifth, which is largely devoted to the functions of food, especially to its productive value as the determining factor of bodily energy. We are rather surprised that, in connection with this branch of his subject, Dr. De Chaumont has made no reference to prison dietaries, a question which has attracted a good deal of attention of late years. In this lecture the subject of adulteration is very well dealt with, and the common forms of falsification referred to. In connection with the adulteration of beer, attention is called to the inferential use of *coccus indicus* as an adulterant, in consequence of the large quantity of it which is imported into this country, and the absence of any other application for it being suggested. It has, however, been lately stated, on the authority of the Inland Revenue Office, that the greater part of what is thus imported is again exported to Germany, where, we may presume, it is employed in manufacturing the beverage with which our heavy-headed Teutonic cousins befuddle themselves.

The last lecture is a very important one, being devoted to the consideration of the propagation and control of infectious and contagious diseases, and to medical statistics generally. In connection with the

former of these subjects, Dr. De Chaumont gives two very instructive tables, showing, in a diagrammatic form, the operation of the Contagious Diseases Acts, which we commend to the notice of the opponents of these measures, if they can bring themselves down to the consideration of such vulgar things as facts. Dr. De Chaumont's remarks on the value of statistics, though very general, are instructive. He deplores the fact that mathematical science is so much neglected by the medical profession. This, though true enough so far as it goes, is not, we think, the real cause of the egregious misuse of statistics of which we have such frequent illustrations in medical literature, so much as a want of acquaintance with the fallacies which beset the employment of numbers as an instrument of research—fallacies the explanation of which does not, for the most part, involve anything more than very elementary mathematical processes, and which might be readily explained to any one of the most ordinary mathematical powers.

We have thus endeavoured to give our readers some idea of the general scope of these lectures; but it must not be supposed that we have indicated a tithe of the subjects to which they refer. Their only defect is the necessarily incomplete way in which their author was compelled, by the limited time at his disposal, to deal with the numerous topics which offer themselves for consideration in connection with so wide a subject as State medicine. We trust, however, that he will be induced to amplify them into a comprehensive volume, which may serve as a manual for this increasingly important subject. We know of no one who could do such a work more effectually; and we are sure that, if he would undertake it, he would meet with an abundant recognition of his labours.

WATER ANALYSIS: A PRACTICAL TREATISE ON THE EXAMINATION OF POTABLE WATER. By J. A. WANKLYN and ERNEST THEOPHON CHAPMAN. Fourth edition. Rewritten by J. ALFRED WANKLYN, M.R.C.S. London: Trübner and Co. 1876.

THAT a book of this description should reach a fourth edition is, in itself, a proof of recognition; and it is hardly necessary to inform our readers that this book has been placed on the list of books to be read for the degree in Public Medicine, and is accepted as the textbook on the subject of which it treats.

The present edition is considerably larger than its predecessors, and contains very detailed instructions for the execution of a complete mineral analysis of the saline constituents of drinking waters. Like the other books by the same author, it abounds in rapid, and, at the same time, accurate methods of analysis, and the chemical reader may gather from its pages how in a few hours to make, not indeed an absolutely complete, but a very serviceable, analysis of the minerals in drinking water.

The book is divided into three distinct parts. In part I, the analysis for general sanitary purposes is dealt with. Part II is devoted to mineral analysis and specialities of various kinds. Part III contains examples, and, among the rest, a very exhaustive account of the water-supply to London. There is an appendix, as there was in the other editions; but the novelty which will arrest attention is the "History of the Ammonia Process of Water Analysis, and Controversies on Water Analysis", with which the appendix is brought to a conclusion.

How it came to pass that the English Government made extensive use of the ammonia process when it first came out, and how the inventors of that process were carefully excluded from all benefit arising from the employment of the process: all this is set forth.

Those of our readers whose memories carry them back to the pages of the BRITISH MEDICAL JOURNAL for the year 1868, may possibly recollect the correspondence between Dr. Odling and the JOURNAL on the subject of the Government water-analysis; and certainly the line of argument followed by this JOURNAL appears now to have been fully warranted.

SANITARY WORK IN THE SMALLER TOWNS AND VILLAGES. By CHARLES SLAGG, A.I.C.E. London: Crosby, Lockwood, and Co. 1876.

MR. SLAGG has compiled a very handy volume on sanitary work in small towns and villages. It is divided into three parts, one of which is devoted to the More Common Forms of Nuisance and their Remedies; another to Drainage; and the last to Water-Supply. It is a work useful alike to medical officers of health, sanitary inspectors, surveyors, and members of sanitary authorities. Mr. Slagg very wisely avoids all debatable ground, and deals with his subjects as an engineer and as a man of common sense. Other authorities are freely quoted, and the source of all information not original is candidly acknowledged.

It is impossible to enter into details in reviewing a work so full of details as this, especially as there is hardly any portion over which we can take up the cudgels against Mr. Slagg. On pigstyes, on slaughter-houses, bad air, damp or dirty houses, drainage, etc., we are entirely at one with the author. The chapter on Privies and Cesspools is, we think, hardly decided enough; and a sort of compromise is recommended with the abominable cesspool-privy, which we cannot but condemn. On Trapping and Ventilation, Mr. Slagg must rewrite the section. But, taking the handbook for all in all, it is certainly very readable, and replete with information and details of great practical value to sanitary authorities in general, and to rural officials in particular.

SELECTIONS FROM JOURNALS.

SURGERY.

EXCISION OF THE LARYNX.—Dr. Heine relates in the *Archiv für Klinische Chirurgie*, vol. xix, a case in which he operated for syphilitic perichondritis, by which the opening into the larynx was reduced to the size of a pin's head. The cricoid and thyroid cartilages were removed, the epiglottis and arytenoid cartilages being left. The patient, who was twenty years of age, died eleven months after the operation from syphilis and phthisis. On the fifth day after the operation, an artificial larynx was applied; and from the twelfth day he was able to take solid food. Even without the apparatus, he spoke distinctly, but with a somewhat rough and toneless voice.—*Centralblatt für die Medicin. Wissenschaften*, September 9th.

MEDICINE.

SIGNS OF PNEUMONIA OF THE APEX IN CHILDREN.—According to L. Fleischmann (*Wiener Med. Presse*, No. 20, 1876), the following symptoms are connected with commencing or already existing pneumonia of the apex in young children, in whom it is often difficult of detection by physical signs. The symptoms are always unilateral, on the same side as the affected lung. 1. Swelling of the lymphatic glands of the neck, nape, and submaxillary region, without apparent local cause. These swellings are in direct proportion to the extent of the pulmonary affection. Infiltration of the glands before and behind the ears has no connection with the lung-disease. 2. Obstinate often recurring scrofulous conjunctivitis; some forms of unilateral scrofulous keratitis. 3. Recurrent eczema of the half of the face or head. 4. Certain forms of disorder of the sympathetic system; pallor, redness, erythema of the cheeks and temples, pressure-erythema. Similar conditions are also met with in cerebral diseases, the absence of which must be ascertained. In several cases, also, of cerebral tubercle, Fleischmann has found infiltration of the apex of the lung on the same side. 5. Intermittent neuroses of the sympathetic; redness and increased temperature of the skin on the affected side. 6. Neuralgia of the fifth nerve; neuroses of the oculo-motor and vagus nerves.—*Centralblatt für die Medicin. Wissenschaften*, September 23rd.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SALICYLIC SOAP.

We have had this soap submitted to skilled examination as to its merits, with very satisfactory results. Theoretical and practical science have equally demonstrated, that Messrs. Tidman, after many trials, have succeeded in manufacturing a soap in which the antiseptic power of salicylic acid is so combined with other agents, that its intrinsic properties, so far from being diminished in the process of manufacture, are largely increased. The special uses of salicylic soap will be found in cases where skilled medical advice is not urgently called for, such as slight skin-diseases, and general tenderness and irritability of the skin. In the troublesome cases of excessive secretion of perspiration with disagreeable odour, often met with in general practice, the antiseptic properties of salicylic soap are of great value, masking and obviating the disagreeable effects of this morbid tendency of the sweat-glands. It needs scarcely to be added, that Messrs. Tidman sufficiently understand the requirements of their business to ensure that salicylic soap should have an agreeable perfume, and what is technically known as "lather" well.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 4TH, 1876.

CORONERS AND THEIR INQUESTS: PROPOSED REFORM.

It is with great satisfaction we perceive that the subject of coroners and their inquests has been brought prominently before the public at the Congress of Social Science recently held at Liverpool.

The President of the Section on Jurisprudence, Mr. Herschell, Q.C., referred to this matter in his address on legal reform. He justly observed that the first step towards any true progress is to obtain a definite outline of our deficiencies. We appear to have attained this point in reference to coroners' inquests, and the time for action on the part of the legislature has now arrived.

The indictment which Mr. Herschell prefers against coroners' inquests, as they are at present conducted, involves many counts. The defects and deficiencies of the present system are so well known and have been lately so well ventilated, as scarcely to need recapitulation. Mr. Herschell has, however, the merit of placing them before the public in a concise and intelligible form; and, from his position as President of the Jurisprudence Section of the Congress and a member of the legislature, they are likely to meet with more attention than they have hitherto received.

Thus, in reference to the election of coroners, he truly says that the evils have not been unnoticed or unfelt, but in this country there is a constitutional apathy to change, and it is this which renders reform almost an impossibility. Some glaring cases come before the public, showing the ignorance and incompetency of men holding these appointments; the subject is, perhaps, noticed in Parliament, and for a time discussed in the daily channels of information. The Home Secretary promises that it shall be "taken into consideration", and there the matter ends. We trust that there is now likely to be an end of this chronic state of neglect on the part of our ministers, and that at the next meeting of Parliament some practical measure will really be brought forward in order to remove the evils which surround the present system. We quite agree with Mr. Herschell that they have reached a degree which may be regarded as absolutely intolerable, and that legislation on the subject can no longer be delayed.

Referring to the Bravo inquiry, he considers that the proceedings will prove a disgrace to the annals of our jurisprudence. They have undoubtedly forced upon the public mind the conviction that the mode of electing coroners, the constitution of their court, and the mode of conducting proceedings before them urgently require revision and reform.

In previous numbers of this JOURNAL, we have exposed the antiquated and vicious method of electing those officers. The office of coroner is undoubtedly of a judicial nature, like that of a judge of a county court. In creating the latter office, the legislature did not place the nomination and election in the hands of freeholders, but very properly entrusted the selection to a responsible law-officer of the Crown. Something of the same kind must be adopted in the future appointment of coroners. The old system of popular election, as it was established several centuries ago, must be at once abolished.

Instead of proceeding by election, Mr. Herschell advises that the coroner should be chosen for his office by the Home Secretary. This is a plan

which we have recommended in a previous article in this JOURNAL, the choice of the Secretary being limited to gentlemen who have undergone some test by examination as to their competency to perform the duties of the office.

On the vexed question, whether a medical man or a lawyer is better fitted for the appointment, Mr. Herschell declines to give a positive opinion. He places the selection on an entirely different ground than that of mere professional status. In his view, certain legal and judicial qualities are essential to the efficient discharge of a coroner's duties. These are only likely to be found in one who has had a regular legal education. He would no more expect to find them in medical men, than he would expect to find among members of his own profession one skilled in the diagnosis of disease.

The question here naturally presents itself—Does the coroner's office really require such a knowledge of the law as is here indicated? We think not. A man must be a highly accomplished physician to be skilled in the diagnosis of disease, but it does not require a very profound knowledge of law to enable a man to conduct properly such an inquiry as a coroner's inquest demands. At any rate, we do not hear of Q.C.s aspiring to the office. Experience also shows that errors of omission and commission in the performance of a coroner's duties are more strictly connected with medical science than with law. We may, however, exclude from consideration the selection of a man merely from his professional status, and place it on the broader grounds of qualification. If a man show an ignorance of the law of evidence and of the rules by which testimony is taken, or if he be not acquainted with the ordinary causes of death and the mode of investigating them, he is not qualified for the office, whether he be a medical or a legal practitioner. The point which, it appears to us, Mr. Herschell here overlooks, is that a man may be nominally of the legal profession, but he may not possess the legal and judicial qualities required for the office. The gentleman who conducted the Bravo inquiry was a member of Mr. Herschell's profession, and had been for many years in the habit of conducting these inquiries. It would be wrong to assume that, because a man is a solicitor or barrister, he is, therefore, better qualified for the office than a medical man.

It is right to state, however, that Mr. Herschell is able to find occupation for the members of the two professions. He would confer the office on a lawyer; but would require him to be, in some measure, under the control or guidance of a medical man, acting as assessor.

Another advantage which the public would derive from the appointment of a medical man as assessor, would consist in a more careful sifting of cases in which inquests should be held. The large number of thirty-five thousand inquests are held yearly in England and Wales; and in a considerable proportion of these, an inquiry, on a proper examination of the medical facts, would probably be found unnecessary, if these were in the first instance submitted to examination by a competent medical officer. These inquiries are frequently most painful to the feelings of surviving relatives. In instances of sudden death, plainly arising from natural causes, coroners have insisted upon holding inquests which were certainly not required. They were unable to perceive, or unwilling to admit, that a sudden death may, and frequently does, depend on natural causes; and, acting upon the letter rather than the spirit of the ancient law, they have created scandal by thrusting themselves into private houses and going through all the formalities of an official investigation, as if a murder had been perpetrated. Medical as well as legal coroners have sinned in this respect. In reference to the former, such acts are certainly inexcusable. Among the latter, they may arise from ignorance. Not having received a medical education, they would, in common with many ignorant persons, ascribe every sudden death to poison or other secret means of destruction. In such cases, coroners may be sometimes desirous of exercising their authority, and of showing to the public that they are determined to hold inquests on the rich as well as on the poor! A properly appointed medical officer would interpose to prevent such an indecent interference with the privacy of the relatives of the deceased. At present it commonly rests with a paro-

chial beadle, and any interference with his authority is resisted by the coroner as an attack on the duties of his officer.

Mr. Herschell proposes to abolish the coroner's jury, and we must admit that he assigns good reasons for this change. At present, any number of men above twelve may be sworn, but twelve must agree in a verdict. They must all see the body of the deceased, and they can only act each *super visum corporis*. At present, juries serve to keep bad coroners in check; but, under the proposed system of nominating competent men by the Secretary of State, juries would not be necessary. The verdict might be safely left to the coroner and his assessor, as it is now to the Procurator-Fiscal in Scotland. We have elsewhere suggested that, if a jury be retained, the number constituting it might, as in the County Court, be reduced to *five*. We believe, however, that, with the appointment of proper persons to the office of coroner, it might be safely abolished, and with advantage to the course of justice.

Mr. Herschell further condemns the coroner's inquest, as at present conducted, as a medium for the initiation of proceedings in criminal cases. Recent cases of importance have plainly shown us its utter inefficiency to trace crime to its source, or to point out the criminal. Even when a verdict has been returned by which a man is committed for trial on a charge of murder, so imperfect and so informal are the proceedings of the coroner's court that, before the prisoner is put on his trial, the whole investigation is again carried out before a magistrate, and the case reheard *ab initio*. It is upon evidence thus subsequently received by a competent man that a prisoner is tried; and, if he be acquitted, no evidence is offered against him on the verdict of a coroner's jury. This is treated as a nullity. We may well ask why, under these circumstances, is such an institution allowed to continue? We hope that this question will be answered in the next session of Parliament by its entire abolition, and the substitution of a new set of officers, medical and legal, with a code of reasonable rules for conducting inquests.

It will be seen from this analysis of Mr. Herschell's address: 1. That he would alter the mode of electing coroners; 2. That he would hold the appointment to members of his own profession, associating with them competent medical men as assessors; and 3. That he would abolish the coroner's jury altogether.

Other matters, subordinate to these, are the propriety of holding the inquiries in private houses, and the appointment of places, at least in towns and cities, where inquests may be held in public.

We believe that the elements of good are to be found in the suggestions made by the members of the Social Science Congress; and we trust that, in the next session of Parliament, some practical effect may be given to them by a new Act of the Legislature.

ANOTHER LOCAL GOVERNMENT BOARD MUDDLE.

THE Local Government Board has at different times recently afforded some very satisfactory evidence of its capacity for mismanaging matters, especially through the agency of its inspectors; but it has quite outdone itself in a little episode which occurred the other day at Taunton. From a very clear and suggestive summary of the proceedings connected with this occurrence, which has been drawn up by Dr. Alford, the medical officer of health for the combined urban and rural districts of Taunton, it appears that, so far back as 1871, the attention of the two authorities was directed to the desirability of providing a hospital for the reception of infectious diseases, in consequence of an outbreak of small-pox which occurred in the district, and they then combined to rent a house temporarily for the purpose. This arrangement was probably promoted by the fact that the Local Government Board formally intimated to them at the time the desirability of their making such provision; but nothing further was then done, the emergency having passed away, there having been no one in the shape of a medical officer of health to clinch, by his own advice, the nail thus driven in, and the authorities having been, no doubt, instigated by the misdirected idea of economy which always prevails on such occasions, and leads such

bodies to postpone as long as they possibly can any expenditure in this direction.

Matters then slumbered until 1874, when another outbreak of infectious disease again brought the subject of hospital accommodation up. And now occurred an order of events which must be very familiar in their character to many medical officers of health, especially in rural districts. It was proposed to use again the building which had been temporarily employed on the previous occasion. This, as a ready expedient, would, no doubt, have been done, had there not been an intelligent medical officer of health at hand, in the person of Dr. Alford, who reported that the premises were very unsatisfactory. Then it was proposed to establish a certain number of village hospitals in the rural district; but Mr. Wodehouse, the Local Government inspector, pointed out that, even if this course were adopted, it would still be necessary to provide a hospital in the neighbourhood of Taunton. However, Dr. Alford was commissioned to explore the locality, to see if he could obtain any premises in the neighbouring villages suitable for the purpose; this he did, and reported that he had been unsuccessful. The authorities were now in a corner from which there was no escape, except by the determination to erect a proper hospital for the combined urban and rural districts, and this, much to their credit, they resolved to do, though not without some opposition. No unreasonable time appears to have been lost; it was agreed that the expenses involved should be shared equally by the two authorities; a piece of land was selected and purchased at once, notwithstanding the usual opposition from residents in the neighbourhood; the steps that had been taken were communicated to the Local Government Board, which, we are told, "expressed satisfaction" at the information. That the board should have done this need not be, perhaps, a subject for much surprise; but it is needful to bear the fact in mind, in view of its subsequent official action in the matter. Plans for the hospital were then drawn out and forwarded for the approval of the Local Government Board, who disapproved of them and required them to be largely altered. This was done, and they then finally received the approval of the board.

Meanwhile, it is probable that the opposition to the course thus adopted, which had originally existed, especially in the rural district, as might have been expected, was considerably strengthened by these events. We make no doubt that the increased expenditure which was involved by the requirement of the Local Government Board that the pavilion principle should be adopted in the construction of the hospital, must have been very unpalatable to the rural members of the authority, who had probably contemplated spending considerably less than £1,000, instead of about £3,500, which the altered plans, with the purchase of the site, would require. No doubt, too, the indignant residents near the site again came to the fore and exercised their influence in arresting the further action of the authorities. Thus from one source or another, the rural authority evidently was frightened at its own work, and one of its members gave formal notice of his intention to move "that all orders and resolutions whereby the rural sanitary authority have agreed with the urban sanitary authority to jointly purchase land and erect a fever hospital or hospital for infectious diseases be rescinded".

Here, if ever, was an opportunity for the Local Government Board to exercise its paternal influence, in the shape of conjoined permission and pressure to keep the authority up to its original intentions, and to support those members of it who were desirous of pursuing a consistent policy. Will it be believed that the board, as represented by their district inspector, Mr. Courtenay (who attended on the occasion), did the very reverse? Instead of supporting the scheme, which, it will be remembered, had already received the express approval of the board, Mr. Courtenay brought forward one of his own, to the following effect: "That, instead of building a large hospital which will require a person always resident in it to keep it in order, as well as other expenses for painting, repairs, etc., it would be better to erect a small iron or other building which would serve for the first cases, and then, in case of an epidemic, the authorities would be able to erect huts or

tents on the ground." Now, we say nothing here as to the special merits of Mr. Courtenay's proposition, which might have been worthy of discussion, if it had been originally put forward by the Local Government Board; there might be, perhaps, something to be said in its favour, though the idea of a building which is to need neither painting, repairs, nor anyone to permanently reside in it for the purpose of looking after it, does not certainly impress us with a high opinion of Mr. Courtenay's power of grasping the objects for which an infectious hospital is required. Possibly Mr. Courtenay might, if he had been allowed to further elaborate his idea, have completed it by suggesting that the hospital should be so constructed that it could be taken to pieces and stored in some convenient depository, at the workhouse or elsewhere, until it was wanted, when it might be got out, dusted, and put together. However, such was Mr. Courtenay's recommendation, which was evidently well calculated to play into the hands of the obstructives, whose representative (Mr. Bruton) thereupon moved "that, having considered the report and recommendation of Her Majesty's inspector, the board declines for the present to proceed in erecting a hospital in conjunction with the Board of Health". This resolution the chairman very discreetly refused to put, on the ground that it was virtually a rescinding of former resolutions, and eventually a motion was carried, by eleven to ten, to postpone further action in the matter until the whole matter had been laid before the Local Government Board for their opinion. Here it rests at present, and we shall be curious to see how the Board get out of the quandary into which their representative has led them. Certainly, Mr. Courtenay has managed very effectively, in Eastern language, to blacken the faces of his masters in the Taunton district, and it will be some time before the Board will recover there any reputation which it may have previously enjoyed for intelligent and consistent action.

We have detailed the proceedings connected with this transaction at some length, because they not only illustrate, in a very instructive manner, the want of any adequate organisation or policy which prevails at the Local Government Board in regard to sanitary matters, but also because they show the mischief which may be perpetrated by employing the Poor-law inspectors to do what is strictly medical work. Here is a gentleman who, we have no doubt, is very well versed in the niceties of pauper relief, the relative duties of a workhouse master and a workhouse porter, and similar questions of an equally abstruse and important character, who appears at a meeting to represent the Local Government Board on an occasion when a question is to be discussed which, more perhaps than any other, involves difficulties of all kinds, and difficulties especially of a peculiarly local nature. One would have expected that he would at least have taken the trouble to make himself acquainted with what had been done before in the matter; for it is inconceivable that he did do this, or that he could have been guilty of the mischievous folly of attempting to upset what his own official superiors had expressly sanctioned. But, instead of doing this and intervening only when a few words from him, pointing out the necessity of the authority doing its duty and adhering to its original intentions, would have had considerable weight, he rushes in with an alacrity which is tersely described in a well known line, to ventilate a brand new scheme of his own, which had, no doubt, been fully considered and abandoned at a much earlier stage of the proceedings. Really, if the Poor-law inspectors are to be allowed to disport themselves in this way, and to paralyse the efforts of medical officers of health by their amateur advice on sanitary matters, it seems absurd to pay competent men to undertake local sanitary duties; and we can see no reason why the inspectors should not be invested with a Canterbury or American medical degree, and, thus qualified, undertake their double functions with some pretence at least of competency.

THIRTY-TWO students of the Medical Faculty at St. Petersburg were arrested a fortnight ago, for agitating against the Government and in favour of the deposition of the Emperor.

A BUST of Desault was publicly unveiled on October 15th at Lure (Haute Saône), his native city.

SIR WILLIAM FERGUSSON returned from Scotland on Saturday in a much improved condition. During this week, he has not only been engaged in seeing his private patients, but he has visited the wards of King's College Hospital.

OWING to the reappearance of cholera in Srinuggur, Major Henderson, the Political Officer on duty in Cashmere, has been obliged to issue a notice to European visitors, in which he strongly advised them to disperse again for a time.

THE opening meeting of the session of the Epidemiological Society will take place on Wednesday next, November 8th, when the President, Mr. J. Netten Radcliffe, will deliver an address on the Present Position of Epidemiological Science.

THE death of Dr. J. C. Hall of Sheffield took place last week. Dr. Hall was suffering greatly in health during the recent meeting of the British Medical Association in that town; but, with characteristic pluck, he took an active part in the proceedings. We publish elsewhere a brief memoir.

AT the first meeting of the Society of Medical Officers of Health for the session on Friday last, Dr. Buchanan, the President, gave an able address on Citizenship in Sanitary Work, in which he advocated the formation of local sanitary associations, as at Salford, and the furtherance of local initiation by the diffusion of sanitary knowledge.

A VERY complete mortuary-house, with examination-room annexed, has been provided for St. James's Westminster; and a circular has been drafted by the medical officer of health for transmission to all the hotel-keepers, club-house secretaries, lodging-house-keepers, and others in the parish, calling their attention to it.

MR. NEWBY, Surgical Registrar of St. Thomas's Hospital, left England on the 27th ult. to join Dr. Leslie at the English ambulance at Nisch, accompanied by two students from the same hospital as dressers, and taking with him surgical instruments for distribution and stores.

THE Russian Medical Gazette states that on the 1st of last January the Russian army possessed 2,102 surgeons, 250 apothecaries, 6,887 assistant-surgeons, and 173 veterinary surgeons. This gives one surgeon for every 407 men, one apothecary for every 3,454 men, and one assistant-surgeon for every 161 men.

THE *Berliner Klinische Wochenschrift* of the present week contains the first of a series of contributions from the Academical Hospital in Yedo. The article is on the treatment of various forms of dilatation of the stomach by the induction-current, and is written by Assistant-Physicians G. Oka and J. Harada, whose names indicate them to be Japanese.

A CASE of "stigmatism" is, according to the *Gazeta Medica da Bahia* for September, exciting much curiosity among the public of that city. The external phenomena are similar to those described in the case of Louise Lateau, but there is an absence of the mental manifestations. The subject is a female, of the poor class, of imperfect intellect, and uneducated.

FOR the new appointment of Medical Superintendent at Banstead, we hear that Dr. Claye Shaw, Lecturer on Psychology at St. Bartholomew's Hospital, and Medical Superintendent of Leavesden Asylum, is a candidate. Dr. Claye Shaw is most favourably known in his profession as a psychologist of unusually high attainments, and to the magistrates as a superintendent of great administrative capacity and reliable character.

DR. BYGRAVE has been named Commander of the Order of Isabella.

A MEETING of militia surgeons will be held at the Charing Cross Hotel, London, on Tuesday, November 14th, at 3 P.M., "to take into consideration the terms of the recent Royal Medical Warrant, and the proper mode of representing the grievances and urging the claims of militia surgeons upon the Government". The personal attendance of militia surgeons is earnestly requested. Dr. F. Goodchild of Warwick is Honorary Secretary of the Militia Surgeons' Society.

M. VERNEUIL communicated to the Académie de Médecine, at its sitting of October 24th, the report of a case in which he has successfully performed gastrotomy on a young man aged 17 for cicatricial stricture of the œsophagus, the result of swallowing solution of caustic potash. On July 16th, before the operation, he weighed only sixty-six pounds; he weighs now eighty-four. The stricture was just above the cardiac opening of the stomach. For the operation, a small incision was made four fingers' breadth to the left of the median line, at the border of the false ribs. The stomach was easily found, and fixed to the external wall by the proceeding of Nélaton.

THE site lately occupied by the Metropolitan Free Hospital having been taken for the extension of the Metropolitan Railway through Devonshire Square, Bishopsgate, and the Committee having been unable to obtain any house or building in the neighbourhood, a plot of land has been purchased in Bishopsgate Without, on which it is proposed to rebuild the hospital, with accommodation for a larger number of daily out-patients and wards for about one hundred and thirty beds. The Lord Mayor has called a public meeting at the Mansion House for Friday, the 3rd instant, to aid in the formation of a building fund.

A MEDICAL Conference in connection with the Church of England Temperance Society was held on the 30th ult. in the Sheldonian Theatre, Oxford; Dr. Acland, President of the Medical Council, in the chair. Addresses were delivered by Dr. Richardson, F.R.S., Professor Rolleston, and others. Dr. Richardson stated, as the conclusion he had come to after lengthened experiments, that alcohol was entirely useless from a medical point of view; and, with regard to the national aspect of the temperance movement, he pronounced strongly for the Permissive Bill—a measure which was not regarded with unqualified approval by the majority of the speakers.

H.R.H. THE DUCHESS OF EDINBURGH.

WE understand that Dr. William Playfair, Obstetric Physician of King's College Hospital, has received a summons to repair to Malta in order to be in attendance on H.R.H. the Duchess of Edinburgh during her approaching accouchement.

CHARING CROSS HOSPITAL MEDICAL SOCIETY.

THE annual *conversazione* of this Society was held on Friday evening, October 27th, when there was a large attendance of the members of the hospital staff and of students. The proceedings began with an address from Dr. J. Pearson Irvine, in which he urged upon students the benefits which the Society could not fail to confer on those supporting it. There they learned to express their ideas clearly, to face the criticism of their fellows, and thus were prepared for the future, when called upon to speak among their professional brethren or elsewhere. As an instance of the influence which such associations may have outside hospital circles, Dr. Irvine mentioned that some years ago, when the Navy and Army Medical Services were in a more unsatisfactory condition than they are now, they were frequent subjects of discussion at metropolitan hospital societies. "The true status of medical men in these services was so well made known, that candidates from London medical schools became very few, and thus necessary reforms were hastened. After some suitable and kindly remarks from Mr. Hird, Honorary President of the Society, and from Mr. Canton, the remainder of the evening was spent in examining the valuable instruments and specimens exhibited by Messrs.

Horne and Thornthwaite, Mayer and Meltzer, Baker, Pillischer, Weiss, and the London Stereoscopic Company. A pleasant evening was spent, and the Medical Society began its new session in the most hopeful manner.

THE LATE DR. RUMSEY.

WE deeply regret to have to record this week the termination in death of the long suffering from cerebral paralysis of Dr. Rumsey, F.R.S. Of the character, life, and labours of this most able servant of the public and most disinterested and accomplished member of our profession, we do not purpose to-day to speak. The correspondence which we publish in another column relates the successful result of the liberal efforts of his friends in the profession to spare his last days from the added suffering threatened by financial misfortune.

DEATH OF DR. ISAMBERT.

OUR Paris correspondent writes, under date October 29th:—I regret to announce the death of Dr. Isambert, which took place suddenly, after a vapour-bath, on Thursday, the 26th instant, in the fiftieth year of his age. Dr. Isambert was an *Agrégé* of the Faculty of Paris, Physician to the Lariboisière Hospital, and Principal Laryngoscopist to the Board of Public Assistance, in which branch he eminently excelled. He was also one of the editors of the *Annales des Maladies de l'Oreille et du Larynx*, to which and to other medical journals he contributed many important and original articles on diseases of the throat. His remains were interred yesterday in the cemetery of Montmartre, in the presence of a large concourse of professional and other friends.

ANDREA CESALPINO.

A BUST of Andrea Cesalpino, as the discoverer of the circulation of the blood, was unveiled on October 30th at Rome. His claim to that distinction was maintained by Professor Scalzi, who also dwelt upon his merits as a botanist, mineralogist, and master of inductive research.

AN UNFORTUNATE SCHOOL.

It is only a few months ago that, at great expense, the boys from Uppingham School were moved to North Wales, owing to an outbreak of typhoid fever. Every care has been taken of the boys since their removal to Bootle; but, as fate will have it, scarlet fever has now broken out at the school in its new quarters. Several of the boys have been attacked, and twenty others have been taken home by over-anxious parents. We say over-anxious, because the present buildings afford ample scope to enable the authorities to completely isolate the fever cases; and, knowing how careful and excellent are the arrangements made by Dr. Thring, the head master, we counsel parents not to take unnecessary alarm. We sincerely sympathise with the authorities of this excellent school in its difficulties; and we hope that, when Dr. Thring takes his school back to Uppingham in December next, he will have nothing but fair weather and an abundance of it.

ALCOHOL AS FOOD.

SOME recent experiments by Mr. Wanklyn, made conjointly with Mr. W. J. Cooper, promise to throw some light on the much vexed question of the transformations of alcohol when taken into the stomach. A weak solution of alcohol—one part to a thousand of water—was passed many times through a silicated carbon filter, and was then examined. Four-fifths of the alcohol had disappeared, no acetic acid was present; but the solution contained twenty grains per gallon of organic matter which was not volatile at the boiling point of water. It was suggested, that the alcohol may have been oxidised into glycol; and if this be so, the transformation of alcohol by oxidation into a substance of nutritive value has been here accomplished; and this will have to be taken into account by physiologists in subsequent investigations of its value as food. If a quarter of a pint of brandy be taken in the ordinary way, this, when distributed through the fluids of the body, would give an alcoholic solution of about one part in a thousand, such as was used in this experiment.

A VIVISECTION OF THE HUMAN SUBJECT.

A LITTLE too much has, we think, been made of the heroism of the gentleman who last week appeared as the subject of demonstration of M. Roussel's apparatus for transfusion of blood at the Royal Medical and Chirurgical Society. Venesection is not a very painful proceeding, and it was one to which some years ago thousands periodically submitted themselves for the purpose of maintaining health, especially in the spring season. It may be remembered, however, that this operation of opening a vein was the most painful cutting operation of Dr. Klein as a vivisectioner, according to his evidence before the Royal Commission; and this was, in substance, the operation performed on the "Norwich dogs", of which the hysterical party made so much capital, aided and abetted—to their shame be it said—by two well-known members of our own profession.

UNREGISTERED DOCTORS.

A PERSON named John Hamilton, who stated that he was an American doctor, and produced a document to that effect, was summoned on Wednesday to Marlborough Street Police Court, by the East London Medical Defence Association, for unlawfully pretending to be and using the title of Doctor of Medicine. The defendant's counsel alleged that his client displayed from the window of his house the diploma which he had received in New York, and contended that this was sufficient for the purposes of the Act. Mr. Knox, the magistrate, said that all turned upon the genuineness of this testimonial, and adjourned the case for further evidence.

MEDICAL STAFF OF THE GENERAL POST OFFICE.

THE following gentlemen have been appointed by the Postmaster-General district medical officers to the General Post Office:—*Hammer-smith*—E. C. Barnes, M.R.C.S.; *Wandsworth*—Alfred Brown, M.R.C.S.; *Woolwich*—Alfred Sharp, M.D.; *Forest Hill*—G. Grayling, M.D.; *Norwood*—Messrs. Duke, Brockwell, and Gandy; *Brompton*—J. A. Gaven, L.R.C.P.Ed.; *Westminster*—F. M. Evans, L.R.C.P.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE usual half-yearly general meeting of this Society was held on Wednesday, October 25th, in the Library of the Royal Medical and Chirurgical Society. The chair was taken by the President, Sir George Burrows, Bart. From the Treasurer's statement, it appeared that a sum of £1,245:10 had been distributed during the past half-year among fifty-eight widows and thirteen orphans. The expenses had been £135:15. A legacy from the Rev. H. C. Morgan of £1,000 had been paid and invested, and notice of another legacy of £500 from Mrs. Mary Davis Parker had been received. Eight new members had been elected. Four fresh applications from widows for assistance had been admitted. The funded property of the Society had been increased by the purchase of £792:13 Metropolitan Consolidated Stock. A vote of £20 to Miss Armstrong, daughter of the late Dr. John Armstrong (a member of the Society from 1818 to 1829), was carried unanimously. The President announced to the meeting that the Directors had determined, owing to the amount of surplus income in the hands of the Treasurer, to make a present, at Christmas next, of £5 to each widow in receipt of grants, £2 to each orphan, and £4 to each recipient of relief from the Copeland Fund. The President expressed his thanks to the members present for their attendance, and was pleased to see so many present, and hoped all future general meetings might be as well attended. A vote of thanks to the Chairman was proposed and carried unanimously. We have already on several occasions directed the attention of the members of the profession resident in London to this excellent Society. Membership enables a man to know that, in the event of his death before he has been able to put aside funds for his family, those who are dependent upon him will not be left without the means of support. His widow will almost certainly receive sufficient to raise her income to £50 per annum, with an extra

allowance for each child, all of which is insured simply by the yearly payment of two guineas. *Sapienti verbum sat.* The Secretary may be communicated with at the offices of the Society, 53, Berners Street, W.

OUTBREAK OF FEVER IN THE WEST AFRICAN SQUADRON.

WE are enabled to state that, according to the latest accounts received, the fatal cases of fever have been confined to the *Active*, flying the broad pendant of Commodore Sir William Hewett, V.C., K.C.B. There is reason to believe that the outbreak is not caused by the unhealthiness of the ship itself, but that the fever was contracted up the Niger. Those first affected had been engaged in the expedition up that river, and had been employed on board a steamer engaged in the oil-trade. It is probable that the disease was contracted on board that vessel, owing possibly to foul bilges and a want of ventilation. The *Active* has proceeded to St. Helena to give leave to her crew.

RECENT URBAN MORTALITY.

DURING last week, 5,911 births and 3,104 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living. The annual death-rate was 12 per 1,000 in Edinburgh, 21 in Glasgow, and 19 in Dublin. The rates in the twenty English towns were as follow: Wolverhampton, 16; Portsmouth, Leicester, and Bristol, 17; Brighton, 18; London, 19; Leeds, Sunderland, Newcastle-upon-Tyne, and Hull, 20; Norwich, Liverpool, and Birmingham, 21; Nottingham 22; Plymouth and Manchester, 23; Bradford, 25; Sheffield, 27; Oldham, 30; and Salford, 31. The annual zymotic death-rate averaged 3.0 per 1,000 in the twenty towns, and ranged from 0.5 and 1.1 in Brighton and Bristol, to 7.1 and 9.8 in Portsmouth and Salford. Scarlet fever continues fatally prevalent in Portsmouth, and an excessive number of deaths were referred to small-pox, measles, and diarrhoea in Salford. The deaths from small-pox registered in the twenty towns were 32, of which 15 occurred in London, 10 in Liverpool, and 7 in Manchester and Salford. In London, 2,431 births and 1,277 deaths were registered. The births exceeded by 45, whereas the deaths were 205 below, the average of the week. The annual death-rate from all causes, which in the two previous weeks had been equal to 18.8 and 18.3 per 1,000, rose last week to 19.1. The 1,277 deaths included 15 from small-pox, 8 from measles, 60 from scarlet fever, 8 from diphtheria, 18 from whooping-cough, 30 from different forms of fever, and 18 from diarrhoea; in all, 157 deaths against 174 and 163 in the two preceding weeks. These 157 deaths were 101 below the corrected average, and were equal to an annual rate of 2.3 per 1,000. The deaths referred to each of these seven diseases, except small-pox and diphtheria, were considerably below the corrected average. The 60 fatal cases of scarlet fever corresponded with the number in the previous week. The fatality both of measles and whooping-cough was unusually low. The 30 deaths referred to fever were 15 below the corrected average for the corresponding week in the last ten years. The deaths referred to diseases of the respiratory organs, which in the four previous weeks had steadily increased from 191 to 241, further rose last week to 267, but were somewhat below the corrected weekly average number. In greater London, 2,974 births and 1,475 deaths were registered, equal to annual rates of 36.2 and 18.0 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 13.0 and 1.1 per 1,000 respectively, against 19.1 and 2.3 in inner London. At Greenwich, the mean reading of the barometer last week was 30.03 inches. The mean temperature of the air was 45.9 degs., or 1.7 degs. below the average. Rain fell on Sunday and Monday to the aggregate amount of .0.16 of an inch.

SMALL-POX IN LONDON.

THE deaths from small-pox in London, which had been 11, 16, and 22 in the three preceding weeks, declined to 15 last week, of which 9 were registered in the north, and 6 in the south groups of districts.

These 15 fatal cases included 5 which were recorded in the Metropolitan Asylum District Small-Pox Hospital at Homerton, 2 in the Small-Pox Hospital at Highgate, and 8 in private dwellings. Seven of the fatal cases originated in Islington, 2 in Southwark, 2 in Brixton, and one each in Clapton, Bermondsey, and Battersea; one of the fatal cases in the Small-Pox Hospital at Homerton had been admitted from the Middlesex Hospital. Twelve were certified as unvaccinated, and in 3 cases the medical certificates did not furnish any information relative to vaccination. The two Metropolitan Asylum Small-Pox Hospitals at Homerton and Stockwell contained 185 patients on Saturday last, against 182 and 177 at the end of the two preceding weeks; the admissions during the week were 43, whereas, in the four previous weeks, they had ranged between 62 and 39. Judged by the evidence furnished in these hospital returns, the prevalence of small-pox showed but slight increase in London during October.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THE annual meeting of this Society was held in the library of the Newcastle-on-Tyne Infirmary on September 28th. The report of the Committee states, that the affairs of the Society are in a highly satisfactory condition. "The work done during 1875-76 quite equalled in interest and importance, and far exceeded in amount, that of any previous session. Sixteen papers were read, sixty-one pathological specimens were exhibited, and sixteen patients were introduced at the meetings." The total number of members now is one hundred and fifty-four. The following were elected office-bearers for the year 1876-77. *President*: Mr. G. B. Morgan (Sunderland). *Vice-Presidents*: Mr. S. W. Broadbent (South Hetton), Dr. L. Armstrong (Newcastle), Dr. Burnup (Newcastle), Mr. J. Hawthorn (Newcastle). *Secretary*: Dr. Byrom Bramwell (Newcastle). *Committee*: Mr. H. E. Armstrong (Newcastle), Dr. Arnison (Newcastle), Mr. C. Carr (Newcastle), Dr. Denham (South Shields), Dr. Eastwood (Darlington), Dr. Frair (South Shields), Dr. Hume (Newcastle), Dr. Page (Newcastle), Dr. Philipson (Newcastle).

"WHO'S TO BLAME?"

"WHO'S to Blame?" is a very powerfully written dramatic story, rounded on facts, which gives a picture from the life of a dipsomaniac, with intervals of temperance, who passes rapidly from the public-house to the prison, the prison to the "home" (where he cannot be detained till cured), and thence to the gallows as a murderer under the influence of the drink-madness, from which he could not wean himself, and on which the law would impose no restraint. Such a story is far more likely to impress the million than much reasoning thrown into a drier form. It is published by H. K. Lewis of Gower Street, at threepence; and, if we could see it reach its thirtieth or fortieth thousand, as it surely might if brought under the notice of wealthy propagandists, it would do much to prepare the way for wholesome legislation.

QUACKS IN MANCHESTER.

TWELVE persons have been summoned before the Manchester police magistrate on three charges: first, of wilfully and falsely pretending to be a physician, doctor of medicine, or general practitioner; secondly, of falsely using a name implying that he was recognised by law as a physician, surgeon, or practitioner in medicine; and, thirdly, to show cause why books or pamphlets found upon their premises should not be destroyed. On October 20th, a detective went to one of the defendants, who styled himself "Dr. Lewis, M.D.," and who also carried on business in Leeds and Liverpool, and paid him 10s. 6d., consulted him about his health, and subsequently he paid him another 10s. He was shown a bottle of water, which was, in fact, a chemical mixture, and was told that he was suffering from extreme nervousness; and the defendant said that he would put him right in three weeks for forty guineas. This defendant was fined £20 on the charge of falsely pretending to be a physician or doctor of medicine, and another charge against him in reference to the books found in his possession was

adjourned. Another defendant, named Whitchurch, was fined £5; and, in other cases, fines of £10 and £15 were inflicted. Some of the cases were adjourned for a week. The public analyst for the city had analysed the "medicines" given to the detective, who had consulted all the defendants in turn, and in nearly every case found them harmless and useless.

SCOTLAND.

ON Monday, Dr. Grainger Stewart was elected to the Chair of Medicine in the University of Edinburgh.

IT has been resolved, owing to the opposition the scheme has received, not to proceed further in the meantime with the proposed Improvement Bill for Aberdeen.

DR. WALLACE, the medical officer for Greenock, states in his monthly report, that, as far as he knew, neither measles, typhus, nor whooping-cough existed in the town, a circumstance very unusual for Greenock.

THE winter session of the University of Edinburgh was opened on Tuesday last, with an address by the Principal, Sir Alexander Grant, delivered in the Free Church Assembly Hall. On the same day, Professor McCall Anderson delivered the opening address in the University of Glasgow.

DR. D. J. CUNNINGHAM, Demonstrator of Anatomy in the University of Edinburgh, has been appointed to succeed Dr. McKendrick as Professor of Physiology in the Dick Veterinary College. Dr. Andrew Smart has undertaken the Lectureship on Physiology in the extra-mural Medical School of Edinburgh.

A POLICE-SERGEANT died in Glasgow on the 1st instant from hydrophobia. A month ago he was bit on the hand by a dog; the wound was cauterised, but never healed. This is the third case of death from hydrophobia that has occurred in Glasgow in almost as many weeks.

A LABOURER, residing in Glasgow, died in the Infirmary of that city last week from hydrophobia. In July last, he was bitten between the thumb and forefinger of the right hand by a strange dog, which he had patted in the street. The wound was a slight one, and healed rapidly. A fortnight ago, he began to feel pain in the arm, and this pain subsequently increased until it became agonising. The usual symptoms of the disease followed, and he died in a few days. He was a man in the fiftieth year of his age. This is the third case only treated in the Infirmary since its institution.

GLASGOW SOUTHERN MEDICAL SOCIETY.

AT the annual meeting of the Glasgow Southern Medical Society, the following gentlemen were elected office-bearers for the session 1876-7. *President*: John Dougall, M.D. *Vice-President*: Eben. Duncan, M.D. *Treasurer*: Edward M'Millan, L.R.C.S.Ed. *Secretary*: Thos. F. Gilmour, L.R.C.P.Ed. *Editorial Secretary*: Joseph H. Menzies, M.D. *Seal-Keeper*: Archd. Pearson, M.D. *Court Medical*—Andrew Macfarlane, L.F.P.S.G., *Convener*: John White, M.D.; Neil Carmichael, M.D.; A. L. Kelly, M.D.; Robert W. Ronald, M.D.

SCIENCE LECTURES IN GLASGOW.

THE first of a series of science lectures to be given in Glasgow during the winter months was delivered in the City Hall on the 19th ult. by Professor Tyndall, the subject being fermentation. Professor Allen Thomson was in the Chair, and there was a very large audience. The lecturer supported the view that reproductive parasitic life was at the root of epidemic disease. The living parents, finding lodgment in the body, increase there and multiply, ruining the tissues on which they

subsist, or destroying life indirectly by the generation of poisonous compounds within the body. The very first step towards the extirpation of these contagia was the knowledge of their nature. In relation to this part of the subject, Dr. Tyndall vigorously supported the employment of physiological investigation by means of experiment on animals, and denounced the imposition of short-sighted restrictions on such investigations, as a modern instance of zeal for God, but not according to knowledge.

SANITARY CONDITION OF SELKIRK.

A SPECIAL meeting of the Local Authority of Selkirk was held last week, for the purpose of considering a report prepared by Dr. Littlejohn of Edinburgh, at the instance of the Board of Supervision, as to the sanitary condition of the burgh. In this report, which was a very full one, Dr. Littlejohn stated that he had visited Selkirk for the purpose of inquiring into the outbreak of typhoid fever which had occurred. The epidemic had, it seemed, been singularly mild, only one death having taken place out of one hundred and forty cases; and it was evident that the epidemic was connected with the disposal of the sewage. He had been struck by the similarity of the case of Selkirk to what he had seen in Edinburgh. In the latter place, in the Cowgate and Grassmarket, where house-drainage was unknown, and where refuse of all kinds found its way to the surface, typhoid or gastric disorders were practically unknown, whereas, in the New Town, they were rarely absent, occasionally assuming an epidemic form. So, in the poorer districts of Selkirk, he found that cases of the present illness were almost entirely unknown, while in the most recently erected houses, which are all connected with the main sewerage, it was universally prevalent. In a great many of the houses visited, where cases of fever had occurred, there had been complaints of smells from the sinks and conveniences, not constant but intermittent, and often specially concentrated after rain. The report went on to deal with the causes of the outbreak. In some instances, the rain delivery pipes were not trapped at their connection with the drain, thus acting as ventilating shafts to the neighbouring sewers. The main drains, again, were found to be of imperfect construction, being of old standing, loosely put together, and formed at a time when there was nothing but the rainfall and the street-washings to be carried off. The sides of the pipes were defective, and allowed the percolation of the fluid contents into the neighbouring soil. As regards the water-supply, the reporter was convinced that water containing so much organic matter as it was found to contain was sufficient to explain the presence of typhoid fever. Some of the water was, however, perfectly pure. There were complaints of deficiency of supply, and this, when connected with the existence in houses of sanitary appliances which could thus only work very imperfectly, was a fruitful source of the spread of the disease. There was only one reservoir, and the pipes were daily emptied. The suggestions made with a view to remedy these various serious defects in sanitary arrangements were: first, the alteration of the water-supply pipes, so as to admit thorough flushing of the present drains at least once a day; secondly, an additional reversion and steam-pumping power; thirdly, that a systematic examination should be made of all the house-fittings and cisterns in the burgh. The matter was left to be taken up by the new board to be elected shortly.

IRELAND.

Six ladies recently applied for permission to be admitted as students to the Queen's College, Galway, but were refused by the Council.

THE collections for the Dublin Hospital Sunday Fund will be on November 12th, and will take place in about two hundred churches.

THE Committee appointed to take action in the Conjoint Scheme for Ireland, being delegates from the University of Dublin, College of Surgeons, and College of Physicians, had their first meeting last month, the proceedings being only of a preliminary nature.

BABY-FARMING.

At the Police Court, Dublin, last week, a woman named Dunne, of Moss Street, was indicted for having neglected to supply proper food and care to an infant placed in her charge, and sentenced to twelve months' imprisonment with hard labour. The case was a very aggravated one. It seems that the mother of the child, a servant, paid half a crown a week to Dunne for taking charge of it; but the latter, being of drunken habits, neglected it sadly, so that in last August, when brought to the police station, it appeared to be starved, the body being covered with vermin, and rolled up in an old woollen rug. The child was sent to the workhouse, but died about a month afterwards. It was born in February; but in August, when six months old, from the way it was neglected, it appeared not larger than a child of two months. Mr. Justice Keogh, in sentencing the prisoner, very justly remarked that, if this case was treated in a lenient manner, it would be an encouragement to carry on the nefarious trade, as it was neither more nor less than putting children out of the way under the name of putting them out to nurse.

DUBLIN STREETS.

LAST week, a communication was received by the Corporation of Dublin from Major-General Herbert, commanding the Dublin District, with a view of ascertaining whether the sanitary state of the Royal Barracks (where Prince Arthur is at present located) was not, to a certain extent, influenced by the condition of the streets in the immediate neighbourhood. It appears that these places are in an extremely filthy state; and Major-General Herbert was surprised that, considering the quantity of organic matter which putrefies in the streets and corrupts the air, an outbreak of fever was not a necessary consequence. The reply of No. 1 Committee was to the effect, that the condition of the streets in question was in no way attributable to want of sanitary accommodation, but solely to the indolence and filthy habits of the majority of the residents, who cast refuse, etc., from the windows and doors on the streets, as being less troublesome than going with it to the yards. The returns show that, in the streets adjacent to the barracks, of 207 dwellings, 200 were supplied with privies and 201 with ashpits. It appears, however, that, although blame is attachable to the residents for their filthy habits, yet the scavenging done is altogether inadequate, the carts for that purpose, on an average, only visiting these places once a week. Indeed, the condition generally of the streets in Dublin, where refuse is not thrown by the inhabitants, is most deplorable; and on last Monday the Corporation appointed a general surveyor, with a view to have them cleaned and better kept for the future.

INTRODUCTORIES AT THE DUBLIN MEDICAL SCHOOLS.

Two of these addresses were delivered last Monday, one at the opening of the session in St. Vincent's Hospital by Dr. Quinlan, and the other at the Royal College of Surgeons Medical School by Mr. Stokes. On Wednesday, Mr. Ormsby gave the opening address at the Meath Hospital. Introductory addresses are fast falling into disrepute in Dublin, and but few of the hospitals or medical schools will have them this year.

MEDICAL SOCIETY OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

A MEETING was held on Wednesday, the 25th ultimo, for the purpose of electing the office-bearers of this Society for the ensuing year. The twelve outgoing members of Council offered themselves for re-election, and were opposed by six other candidates. The voting, which was by ballot, created little or no interest, there being only eleven members present, including the chairman. All the outgoing members of Council were re-elected, the names being as follows:—*President*: S. Gordon, M.B.; *Vice-Presidents*: Thomas Hayden, F.K.Q.C.P.; Sir Dominic J. Corrigan, Bart., M.D.; Wm. Stokes, M.D., D.C.L., F.R.S.; A. Hudson, M.D. *Council*: J. Hawtrey Benson, M.D.; J. Magee Finny, M.D.; Thomas Fitzpatrick, M.D.; A. W. Foot, M.D.; T. W. Grim-

shaw, M.D.; Henry Kennedy, M.B.; James Little, M.B.; Stephen M. MacSwiney, M.D.; John W. Moore, M.D.; Christopher J. Nixon, F.K.Q.C.P.; John M. Purser, M.D.; Walter George Smith, M.D.
Honorary Secretary: George F. Duffey, M.D.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION: 1877.

At the last annual meeting of the Association in Sheffield, it was referred to the Committee of Council to make the customary arrangements for the next annual meeting of the Association.

We learn with pleasure, which we feel sure will be shared by the members of the Association at large, that the members of the profession in Manchester met on Friday last, and, at an influential meeting, resolved unanimously to invite the British Medical Association to hold its next meeting in that city, and, at the same time, resolved to recommend Dr. Eason Wilkinson as President-elect.

The importance of this great centre of professional activity; the high character of its medical college and hospitals; and the well-known public spirit of its inhabitants, ensure the success of a meeting held there. The high esteem and general affection in which Dr. Wilkinson is held in his own city and throughout the Association, will make his nomination most popular. The invitation will be presented at a special meeting of the Committee of Council, to be held for the purpose on Wednesday, November 8th.

THE CHAIR OF MEDICINE IN THE UNIVERSITY OF EDINBURGH.

THE announcement on Monday last that Dr. Grainger Stewart had been elected to the Chair of Medicine—Alison's Chair, as Edinburgh men still fondly call it—excited much surprise in professional circles. Dr. Grainger Stewart is well known and appreciated as an able physician and highly popular and successful teacher. The professional opinion, however, both here and in Scotland, was very far from assigning to him the first claims among the candidates. When Dr. Sanders made known that he was not desirous of undertaking the duties, and Professor Gairdner of Glasgow then declared himself a candidate, an unmistakable expression of opinion throughout the whole profession declared him to be the person in whom the general voice of the profession acknowledged pre-eminent claims to the chair. The expressions of opinion from the recognised leaders of the profession in various parts of Great Britain showed how highly the claims of Dr. Gairdner were estimated by those best able to judge and far removed from any personal influences. His appointment as Physician to the Queen was a just index of professional opinion of his true worth as a physician. The Curators have, however, chosen to be guided by other considerations. Glasgow may be congratulated at retaining the services of Dr. Gairdner; and, personally, he has probably no reason to regret the decision of the Curators. But that decision gives once more a convincing proof that no reliance can be placed on them for selecting the fittest candidate for a professional post, and that they do not always guide themselves by that sole consideration which ought to guide men to whom is entrusted so responsible and important a duty.

THE GENERAL MEDICAL COUNCIL: ELECTION OF REGISTRAR.

THE choice by the Executive Committee of a registrar has fallen upon a non-medical man—Mr. Miller, B.A., the vice-president of Huddersfield College. Mr. Miller was personally unknown to any of the committee, and his appointment was due to the overwhelming superiority of his testimonials over those of any other candidate and his obvious personal fitness for the office. A graduate of the University of London, highly accomplished in mathematical science, and well skilled in the natural sciences, an authority on the theory of education (as one of the editors of the *Educational Journal*), and distinguished in his practical application, vouched as an excellent man of business and fluent correspondent and speaker—Mr. Miller possessed all the qualifications required in a higher degree than any other candidate. Under these circumstances, we are disposed to believe that the committee have

made a wise, as they certainly have made an impartial, choice. Disappointment may be felt in some quarters that a medical man was not selected; but, for official business of a secretarial character, it is well to select an expert, as there are many examples to show in the professional institutions of this country. Mr. Miller will not enter on office until the end of this year.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

WE hear, with that regret which will be shared by all metropolitan and provincial medical students, that Mr. Luther Holden will take his share of the primary examinations in anatomy and physiology at this institution for the last time this day (Friday), retaining, however, we are glad to say, his chair as an examiner in pathology and surgery. Few examiners have retired so deservedly regretted as Mr. Holden; for his intimate acquaintance with the needs, difficulties, and studies of the medical student made him at once searching and appreciative in his examinations; while his kindness of heart dictated a demeanour which reassured the timid and smoothed the path of the well-instructed through an ordeal which is always a trying one.

PROVINCIAL MEDICAL SCHOOLS.

THE official return of the number of gentlemen pursuing their professional studies at the eight recognised provincial hospitals has just been made to Mr. John Birkett, Vice-President of the Royal College of Surgeons, the Government Inspector of the Anatomical Schools in connection with these hospitals. The numbers, compared with those of 1875, are as follows:

	1876.	1875.
1. Owens College, Manchester ...	110	119
2. Leeds School of Medicine ...	54	45
3. Liverpool Infirmary School of Medicine ...	53	63
4. Cambridge University School ...	42	36
7. Durham University College of Medicine ...	31	28
5. Bristol Medical School ...	40	31
6. Birmingham, Queen's College ...	34	59
8. Sheffield Medical School ...	17	17

The following comparative table shows the number of medical students in town and country respectively during the past decade.

	Metropolitan.	Provincial.	Total.
1867 ...	1125	257	1382
1868 ...	1194	284	1478
1869 ...	1241	330	1571
1870 ...	1298	357	1655
1871 ...	1475	368	1843
1872 ...	1496	402	1898
1873 ...	1650	455	2105
1874 ...	1745	453	2198
1875 ...	1769	398	2167
1876 ...	1744	381	2125

It will be seen that there is an increase of nine students at Leeds, of six at Cambridge, of three at Durham, of nine at Bristol; and a decrease of nine at Manchester, of ten at Liverpool, of twenty-five at Birmingham; and the Sheffield school remains *in statu quo*.

THE LAST ARMY MEDICAL WARRANT.

A CORRESPONDENT writes to us: You will scarcely believe it possible, but even at this early stage, some war office clerk has begun to tamper with the recent army medical warrant, inasmuch as an attempt is being made to place all medical officers doing duty with troops on the footing of regimental officers (as if army medical officers had any other duty to do). The effect of this proposal, if carried out, will be not only to make these officers share in the expenses of regimental messes to which they do not really belong, but will also seriously affect them in the matter of allowances for lodging, fuel, and light, the rates for which are about half or a third less than for staff or departmental officers. This is the way the discontent and worry are caused. District controllers, who are careful that they or any of their department should not be deprived of their privileges, interpret these matters as they please. Nothing definite is settled.

I am quite sure the Director-General and the principal medical

officers do all they can for us ; but when economy can be obtained by clipping our wings, and the known dislike of the Duke of Cambridge to sever us completely from regiments is called into effect, the object which a cheese-paring official has decided upon, it can be readily understood how unavailing the efforts of our own heads may be for our benefit.

THE ARCTIC EXPEDITION.

THIS expedition, so well appointed in every respect, has now returned, having solved negatively the impossibility of ever finding a North-West Passage; but, although the voyagers have failed in the main object of the expedition, they have brought back discoveries of marked geological interest, natural objects, and scientific observations of great value. The sleighing party from the *Alert* reached 83 degrees 20 minutes, the farthest point ever arrived at by any exploring party. They were obliged to return, first by the impossibility of advancing further north, and also by the absence of fresh food, the continual low temperature, and the presence of scurvy, frost-bites, diarrhoea, and rheumatism. The health of the crews continued good, but four deaths having taken place, one from frost-bite and three from scurvy. Hans Petersen, the Danish interpreter, who died from frost-bites, had both feet amputated, but succumbed about a month afterwards. The weather was extremely cold, the temperature for thirteen consecutive days being 59 degrees below zero, the lowest temperature being 104 degrees below freezing-point—the most intense cold ever recorded by any previous Arctic expedition. During the autumn sledging of last year, a few frost-bites made their appearance among the men, but not very severe until the winter approached. The changes in the temperature were very sudden, sometimes as much as 60 degrees in a few hours. The discovery of coal and fossil corals at the extreme North opens up many interesting speculations, and would seem to show that, at some remote period, the Arctic region was comparatively temperate.

The occurrence of fatal cases of scurvy in this expedition within twelve months after the commencement of its arctic voyage has naturally attracted the attention of the public and the profession, and is a subject which will call for investigation. It will be found, if we turn to the records of the McClure expedition, that among the crew of the *Enterprise* no death occurred during the first three years; and that the first case did not show itself until upwards of two years had elapsed. In fact, during the whole five years that this expedition was out, scurvy was kept at bay with extraordinary success, although the ships were very far from being so elaborately planned and provided with medical comforts. Various surmises are current; but nothing instructive can be said on the subject until the full details are published, especially details of the precautions taken in the regular use of rations of lime-juice. It was by the steady and enforced use of this invaluable antiseptic that the men were kept free from scurvy during the McClure expedition; and it is this agent (together with general attention to hygiene and diet) which has protected our Royal Navy generally from the ravages of what was once a most fatal and much dreaded disease. The medical directions issued from headquarters directed regular rations of lime-juice for the crews; and it will be noted that the men left the ships on their expeditions over the ice in good health. Were the same precautions observed by those in charge of the land parties, and who had to look after the men when they were away from the ships? If the provisions were adequate and the lime-juice regularly served out, we shall have to look for some other cause; but these are the main items of prophylaxis according to all precedents of naval hygiene. The use of spirits by sledging parties in the extreme cold has been on many occasions found to be prejudicial to the working power of men and officers; tea being adopted by general consent in McClure's expedition as the most refreshing and invigorating beverage. As to the use of fresh provisions, the *Alert* was beyond the line of animal life; and so far was game from being abundant, that the crew seem only to have been able to secure a rare supply at far distant intervals, only shooting a few head of game in all. When debility occurs in the Arctic regions from overwork, defective nutrition, or other causes, it takes always the scorbutic form.

SOCIAL SCIENCE ASSOCIATION.

ON Friday, October 13th, the Health Department of the Social Science Association met in the Sheriff's Court, Liverpool—President, Mr. Hawksley, C.E. Among those present were Dr. Andrews, President of the British Association; Sir Lushington Tilson, Dr. Fergus, Mr. Latham,

Mr. W. J. Cooper, Dr. Shrimpton, Dr. Nicol, Alderman Bennett, Dr. Latham, etc.

Dr. ANGUS SMITH read a paper on the Special Questions relative to Noxious Vapours. He said: The progress of chemical manufactures and the alkali manufacture was intimately connected with the progress of the country. It was enough to say that soap, glass, clean white linen and cotton, and writing paper, demanded the existence of these works. But it was said that they destroyed crops, trees, and vegetation, and this charge was not without foundation. Trees had been destroyed to a pitiable extent in many places, and their decay was always going on. In 1863, in a statement given to the Royal Commission, it was shown that the capital invested in the alkali trade was equal to about ten millions sterling; 254,000 tons of salt were then used annually, but now nearly that amount was used in Widnes alone, and that was only 39 per cent. of the whole trade. New inventions were required for condensation and increased pressure. One hundred millions of tons of coal were annually consumed, and, if they contained one per cent. of volatilised sulphur, three million tons of the strongest vitriol were poured into the air and on land. Near great centres of coal-burning, vegetables must suffer until the time came when even coal-smoke would be washed. Sewer-gases were known to be hurtful, but people did not avoid them because they did not affect the senses so readily. It was better to prevent the formation of sewer-gases in the sewers than attempt to remove them when formed, as prevention was better than cure. No further time should be lost in making legislative changes in relation to chemical works. Works giving off offensive gases ought to be put under inspection, for a time at least, and when complained of; and those giving out mineral acids should be placed under constant inspection. Of course, certified manure works, copper-works, bone-works, and arsenic-works would be included.—Dr. ANDREWS, President of the British Association, said that the presence of the foreign bodies in the atmosphere, to which Dr. Smith referred, was undoubtedly injurious to the public health, and that the prevalence of smoke in the air of large towns was especially hurtful from intercepting the solar rays and thus preventing their vivifying influence upon the human frame, as might be seen from the pallor of the habitual denizens of our great centres of population. As an example of the influence of hurtful emanations, he referred to the effects of mercurial vapours at the mines of India, where the young workmen died prematurely, and those who survived were affected with mercurial palsy.—A discussion ensued, in which Drs. Macadam and Fergus, Colonel Jones, Mr. Spence, Mr. Latham, and Mr. Collins took part.

Dr. NORMAN KERR read a paper on the Use of Alcohol in Work-houses. He said that not one atom of the much needed nourishing matter did alcohol contribute to the body. He referred at length to the experience of medical officers, who, like himself, had found the most beneficial results from the non-employment of alcohol in the ordinary treatment of disease.—Mr. W. J. COOPER took exception to the statement that alcohol was in no sense food. From experiments which he and Mr. Wanklyn had recently been making upon alcoholic solutions, there were good grounds for believing that alcohol was as much a food as sugar, starch, or other life-sustaining substances.

On October 13th, Mr. F. W. LOWNDES read a paper on Infanticide in Large Towns; the Difficulties of Detection and Conviction, and the Means to be Adopted for its Prevention. He commenced by remarking that the subject of infant mortality in large towns, on which he had been invited to read a paper, was so very wide that it became desirable to divide it into certain portions; and he should, therefore, strictly confine himself to the case of children destroyed shortly after birth, whose bodies were found exposed in the streets and other public places. His reason for this was that, having been requested by the borough coroner to make the necessary examinations and give medical evidence at inquests held in such cases for seven or eight years past, his attention had been strongly drawn to this part of the subject and to its alarming increase of late years. He then alluded to the laws relating to the crime of infanticide or child-murder from the time of James the First to the present, showing that the severity of the former alike defeated its purpose, and led, on the other hand, to the conviction of many an unhappy mother of a crime of which she had not been guilty. He quoted an extract from the celebrated essay of the late Dr. William Hunter, *On the Uncertainty of the Signs of Murder in the Case of Bastard Children*, and showed how the efforts of that gentleman to promote a more exact, and therefore more merciful, aspect of the crime had led to the alteration of the law in 1803, when it was decreed that women accused of this crime should be tried as in other cases of murder, but that, if acquitted, they should be tried for concealment of birth, and punished by imprisonment, with or without hard labour, for a term not exceeding two years. It was shown that the full penalty was seldom inflicted, there being always the greatest sympathy felt for women accused of

this crime. This had, as the author contended, led to an indifference regarding infant life which was as contrary to humanity as were severe laws against the mothers of these children. He quoted from the *Manual of Forensic Medicine*, by Dr. Guy of King's College, London, who showed that medical men had been too apt to become advocates instead of witnesses, while lawyers had departed from their province to discuss matters of which they could only have very limited knowledge. The immunity which the perpetrators of this crime had enjoyed for some time had been noticed at the meeting of the Association at Bristol in 1869, and an extract was read from the remarks made by a lady as to the shocking disregard of infant life shown by the prisoners convicted of concealment of birth in Brixton prison. The author next alluded to the present phase of this crime, and urged that concealment of birth was becoming more and more difficult to prove. The bodies of infants were no longer found concealed in boxes in the mothers' rooms nor on the premises, but were cast out in the streets, and the marvellous ingenuity displayed was pointed out, the author detailing cases where the bodies had been found in the most populous and frequented thoroughfares, generally covered with an old rag or paper, sometimes naked, but always without any clue to the offenders. In considering how the crime might be prevented, the resolutions passed at the Bristol meeting were read, and the greater security against fraudulent burial obtained by the recently amended Registration Act was noticed. In conclusion, the author strongly urged that the same humanity and mercy shown by judges, jurors, and others, to women after the crime has been committed should be shown by the managers of lying-in hospitals and charities before the crime had been meditated, and that single women should, in their first labour, receive the benefits of the charity under proper regulations. Anticipating the objection that it might appear to sanction loose behaviour and immoral conduct, he showed that single women were preferred to married for the office of wet nurse, in which capacity they received liberal wages, a good diet, and considerate treatment, and this, he urged, was more likely to produce the evil complained of than the mere prospect of assistance during labour.—Dr. WHITTLE thought one great preventive would be to return to the old law, under which a child could be affiliated before its birth and the father be compelled to support it after birth.—Dr. HARDWICKE observed that he had held two hundred inquests in the course of one year on bodies of illegitimate children, and he thought the mother should be enabled to claim from the father of her illegitimate offspring at least twelve weeks' support for herself, so that the child should not suffer from the mother's wants.—Dr. HARDWICKE agreed in this suggestion.—Dr. SHRIMPTON moved, "That Dr. Lowndes' paper be transferred to the committee of the Health Section of the Association and presented to Parliament".—Mr. HAVILAND seconded the resolution, which was agreed to.

In this Section, on October 16th, Mr. BALDWIN LATHAM read a paper on the Pollution of Rivers. The best way to decide the purity or impurity of water was by observing over a number of years its effect upon the health of the persons using it. There were conditions which affected the quality of the water which had been overlooked. It had been generally considered that water which has received the sewage of large populations must be unfit for domestic use; but careful investigation would show that, when polluting matter has passed into a river, and exposed to the influence of light, vegetation, etc., it became innocuous, as was shown by the good health enjoyed by the inhabitants of London, which place receives water-supply chiefly from the Thames and Lea, both of which rivers receive a considerable amount of sewage-pollution. The author instanced Wakefield, Doncaster, and Ely as towns which draw their supplies of water from sources into which sewage-matter enters, and yet whose inhabitants are healthy. The cholera epidemic at Newcastle-on-Tyne in 1853 was supposed to be caused by the use of polluted Tyne water, and yet it was clearly ascertained that the disease was much more rife amongst those persons who used local well-water. He advocated the constant system of supply, which, he said, obviated the many dangers and contaminations which beset water stored in cisterns and water-butts in agricultural districts.

Mr. VACHER, medical officer of health for Birkenhead, read a paper on the Dead Body as a probable Source of Infection, and the Want of further Legislative Control over It. He remarked that the intelligence of deaths from infectious diseases now furnished by local registrars would be much more useful than it is as a means for limiting the spread of disease, if the medical officer were vested with further powers in respect of the infected dead body. At present, neither the medical officer nor anybody else had any power to order the immediate removal of an infected body, and those in charge of it might do what they liked with it. Mr. Vacher advocated the necessity of power being given to medical officers to order the immediate removal of in-

fectured bodies to public mortuaries and their speedy burial. He gave reasons for the conclusion that infectious corpses have the property of infecting the living.

Mr. HAWKSLEY, C.E., President of the Health Section, passing to sanitary sociology, quoted elaborate statistics with a view to show that its efforts had been unavailing for the absolute prolongation of life, but not for the general improvement of the people. With regard to sanitary legislation, nearly all the recent Acts of Parliament had been impaired and disfigured by the spirit of centralisation. He deprecated the function of Government as a money-lender, as it thus undersold the private capitalist and did a wrong to the country which no pretence of a virtuous intention could ever justify. No government should ever undertake any duties or works on its own private account which private persons would be willing to perform. Referring to the pollution of rivers, he thought his audience would agree with him that reckless pollution ought to be stopped; but he objected to the new Act, on the ground that it was tainted with the vice of centralised action by the Government. Apart from this, there was a difficulty to combat in the declining state of trade, owing to the severity of foreign competition. This consideration precluded English managers from meeting the large expenses of making and keeping clean the rivers.

MR. HERSCHELL, Q.C., ON THE ELECTION OF CORONER.

THE following are extracts from the address delivered by Mr. Herschell, as President of the Section of Jurisprudence at the recent meeting of the Social Science Association in Liverpool, which we elsewhere discuss.

"The coroner has often to lay down the law on questions of considerable delicacy and difficulty—he has to determine what evidence shall be admitted, what rejected—and he has to, or at least ought to, keep within its due bounds the inquiry before him. Of all modes of obtaining the best man for such an office, election by the freeholders of the county is surely about the worst. No one would dream of extending it to other judicial offices, and its retention in this case can only be explained by that conservative clinging to old institutions even when the reasons which justified them have ceased to exist, which has distinguished this country, and which I am far from denying has its good side as well as its bad. Nor do I think that in the case of boroughs things are much better, for the election by the town council can hardly be considered a guarantee of a satisfactory appointment. Let me not be misunderstood. I am far from denying that able and competent men have at times obtained the office under the present system, but there have been many appointed who were very much the reverse, and what we have to deal with is the question what the system is likely to lead to."

* * * * *

"Suppose, then, that you have secured the appointment of such a judicial officer as I have indicated, you ought, of course, to afford him the best possible means of arriving accurately at the cause of death. This leads me to the next reform which I have to propose. What happens now in the case of a sudden or violent death? Almost invariably the medical practitioner who happens to be nearest is sent for. He examines the body, gives evidence of its condition, the position and character of the wounds, if there be any, and to him is very frequently entrusted the duty of making the *post mortem* examination. How long it is since death took place: whether the wounds could or not be self-inflicted: what was the probable weapon or other cause of death: for all these and many other most material facts you have to place reliance almost exclusively upon the evidence of this expert. What guarantee have you that he will be the person best fitted to lead you to a right conclusion in these matters? It is as likely as not that such investigations have never occupied his attention since he was a student, and that even then he was but ill-qualified to conduct them. Even supposing there was a time when he was capable of forming an opinion on such matters, it is only too likely that, during years exclusively occupied with the treatment of ordinary human diseases, his knowledge and skill in this special department have become rusty and unavailable. I believe I shall have the concurrence of the highest medical authorities when I say, that the investigations to which I have referred require special training, skill, and experience; and that it would be quite false to suppose that you are likely to find them in every practitioner to whom chance may direct your steps. And yet how much may depend on your finding them! The guilty may go unpunished, the innocent be in peril, and clouds of suspicion may embitter a whole lifetime—all for want of the requisite skill and experience. Be it observed, too, that blunders thus made are for the most part irreparable. As a rule, no

subsequent examination can afford the information which at first was patent to skilful eyes and a trained intellect. Even if the Coroner possessed the highest medical skill and scientific attainments, he could not supplement the lack of observation, or check the blunders arising from an inaccurate or ignorant exposition of the supposed facts. The magnitude of the evil to which I have been calling attention was deeply impressed on my own mind some years ago by an incident which came under my notice. A highly respectable medical man was called as a witness to prove that he had examined some stains found on the clothes of a prisoner, and on a weapon in his possession. After describing the mode in which he conducted his investigation, he declared without hesitation that the marks were produced by human blood. Being somewhat startled at so positive a statement on a point which, I had understood, could not be ascertained with such absolute certainty, I narrated the circumstances, shortly afterwards, to a medical man of the highest scientific attainments. He could hardly believe that such evidence had been given, and assured me that even if the investigation had been properly conducted so positive an opinion could not have been justified, but that, carried out in the way described, no opinion worthy of the name could be formed, inasmuch as the process adopted was so blundering and vicious as to render any real result impossible. 'We often,' he said, 'as a test-question in examinations, require a description of the mode of examining supposed blood-stains, and if an answer were to describe such a process as was detailed in the witness-box, the candidate would most probably have failed to obtain his diploma.' The evidence to which I have alluded was given on a trial for murder. A man and woman stood in the dock in peril of their lives. Fortunately, there was ample evidence apart from the doctor's to bring guilt home to them. But the incident is surely one which may well make us tremble. The remedy is happily not far to seek. It would be arrived at, I think, by appointing in every county and borough one or more persons selected on account of their special fitness to discharge such duties—and every year would add to their capacity and experience. Whenever a death occurred from manifest or supposed violence, or an investigation into the cause of death was necessary, one of the persons so appointed should be summoned without delay, and all the information which an examination made at the earliest opportunity by a person of the requisite capacity could afford, should thus always be in possession of the Coroner."

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A SPECIAL MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 8th day of November next, at half-past Two o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, W.C., October 31st, 1876.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting of the above Branch will be held in the Examination Hall of the Queen's College, on Thursday, November 9th, 1876. The Chair will be taken at 3 P.M.

The following papers are promised:—1. Dr. Harrison: Three Cases of Embolism; two of them Puerperal. 2. Mr. Wilders: On the Comparative Value of the Therapeutic Agents employed in the Treatment of Constitutional Syphilis.

BALTHAZAR FOSTER, M.D. } *Honorary Secretaries.*
JAMES SAWYER, M.D. }

Birmingham, November 1st, 1876.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the office of the Association, 36, Great Queen Street, London, on Wednesday, October 18th, 1876; Present: Mr. W. D. HUSBAND, Treasurer, in the Chair; afterwards Dr. FALCONER, President of the Council; Dr. De Bartolomé (President), Dr. Clifford Allbutt, Mr. Alfred Baker, Mr. J. Wright Baker, Dr. Chadwick, Mr. Callender, F.R.S., Dr. Alfred Carpenter, Dr. Ward Cousins, Dr. Eastwood, Dr. E. L. Fox, Dr. Balthazar Foster, Mr. Fowler, Mr. E. P. Hardy, Mr. G. F. Hodgson, Dr. C. Holman (Reigate), Mr. Arthur Jackson, Dr. C. Parsons, Dr. Sieveking, Dr. Waters (Chester), Mr. C. G. Wheelhouse, and Dr. Wilkinson:—

Resolved unanimously: That the Committee of Council hereby records its deep sense of the distinguished services rendered to the British Medical Association by the late Dr. Sibson, and of the irreparable loss it has sustained by his sudden death. Whilst his well earned professional eminence reflected much credit on the Association, the zeal, energy, and practical sagacity he unceasingly applied to the administration of its affairs, and the genial urbanity of his deportment, secured for him not only the admiration and confidence, but also the affectionate regard of his fellow-members.

The Committee of Council, though well aware how inefficient is any expression of human sympathy for the mitigation of a sorrow so overwhelming as that of his bereaved widow, nevertheless trusts that, in conveying to her these sentiments, on behalf of the Association, some soothing reflections may be suggested; and likewise ventures to hope that, in her growing conviction of the wisdom of Him who doth not willingly afflict, true consolation may be found.

Read letter of apology for non-attendance from Dr. Morris, Spalding.

The minutes of the meetings of the 1st and 3rd of August last were read, and found correct.

Resolved: That the forty-six gentlemen whose names appear on the circular convening this meeting be elected members of the Association.

Resolved: That the minutes of the Journal and Finance Committee of this day's date be approved, and the recommendations carried into effect.

Resolved: That the solicitor, Mr. J. R. Upton, be instructed to register the number of members to 6,000.

Read resolution of Birmingham and Midland Counties Branch, of which the following is a copy, viz.:

"That in the opinion of the Branch, the occupier of a house in which infectious disease occurs should be the person to give information to the medical officer of health of the existence of such disease."

Resolved: That it be referred to the Parliamentary Bills Committee, with a request to report to a future meeting of the Committee of Council.

Mr. Nicholson presented a requisition from the members of the profession at Hull, requesting the consideration of the prosecution of unqualified persons practising medicine.

Resolved: That a Subcommittee, comprising the President of Council, Dr. Chadwick, Dr. Waters, Mr. Nicholson, Dr. Bartolomé, Dr. Carpenter, Dr. Parsons, Mr. Manby, and Dr. Foster, with power to add to their number, be appointed to consider the question referred to the Committee of Council, by the practitioners of Hull, as to the prosecution of unqualified persons, and to report thereon to this committee.

Read resolution of annual meeting, of which the following is a copy: "That this meeting directs and hereby empowers the Committee of Council to arrange for the place of the annual meeting for 1877, and, further, to appoint a President-elect."

The President of the Council reported that he had received a communication relative to an invitation for the Association for 1877.

Resolved: That it be left to the President of the Council to call a special meeting of the Committee of Council to receive the invitation.

Read letters from Dr. Grainger Stewart and Dr. Frank Payne, accepting the office of joint adjudicators, together with Dr. Clifford Allbutt, of the Hastings Prize for an Essay on "Diphtheria, its Pathology, Treatment, and Diagnosis".

Resolved: That Messrs. Price, Waterhouse, and Co., be appointed Public Auditors of the accounts for the current year, in accordance with By-law 33.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE first ordinary meeting of the session was held at the Royal Hotel, College Green, Bristol, on Thursday, October 26th, at 7.30 P.M.; H. F. A. GOODRIDGE, M.D., President, in the Chair.

Papers.—The following papers were read.

1. Dr. J. G. SWAYNE read a paper on the Use of Forceps in the First Stage of Labour. This caused considerable discussion, in which Drs. Spender and Lawrence, and Messrs. Crossman and Stockwell, took part.

2. Mr. MASON read a case of Recovery after taking eighty grains of Tartar Emetic, in which the patient was quite well and able to go to work after five days. Drs. Davey and Lawrence, and Messrs. Dew and C. H. Collins, made some remarks bearing on the case.

3. Mr. STEELE read a paper on Cancer viewed in the Light of Physiology, arguing that the commencement of cancer was the deposit of albumen or albuminoid in the tissues. A considerable discussion followed, in which Messrs. W. M. Clarke, Bartrum, and Tibbits, and Drs. E. L. Fox, Beddoe, and Brittan, took part. Mr. Steele replied to the various questions advanced, and the meeting terminated.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 27th, 1876.

Sir WILLIAM JENNER, Bart., M.D., D.C.L., F.R.S., President, in the Chair.

Fatal Case of Gall-Stones.—Dr. DALY read a paper on this case, in which the question of a surgical operation for the removal of the stones had been raised during the life of the patient. Mr. Maunder had, however, declined to operate when called to the case for this purpose, as he was unable himself to feel a stone in the gall-bladder, which others had done previously. The patient, a lady, thirty-eight years of age, had been for nearly two years under Dr. Daly's care, suffering most dreadful pain from biliary colic, and having a most severe attack of pain about every fortnight. At one hour she would be perfectly well, then violent pain would come on suddenly, followed in some hours by jaundice, chalk-like motions, and urine full of bile. The patient would not at first have morphia hypodermically; and in some attacks required as much as fifteen grains of opium; sometimes she had chloroform, taking more than an ounce of it, as well as large doses of chlorhydrate. Diarrhoea was an almost constant symptom between the attacks of hepatic colic, and was little, if at all, relieved by treatment; bismuth, creasote, compound kino powder, and fluid extract of bael, all failed. The patient's sufferings increased; her aspect became very suspicious of malignant disease; and there was much exhaustion after the attacks, requiring plenty of champagne and brandy. Dr. Herbert Davies saw her in consultation; and, later on, Dr. Murchison and Dr. Hilton Fagge. Dr. Murchison suggested that the motions should be passed through a muslin sieve, as no gall-stone had ever been discovered, although every motion was most carefully examined after each attack. Dr. Murchison had no doubt as to the diagnosis; but thought that probably there was only one stone, too large to pass, which, of course, would explain why no gall-stone could be discovered in the evacuations. He also thought he could feel the stone in the distended gall-bladder; and this was done again frequently afterwards, the patient occasionally being able to feel it distinctly herself; and others did so also. Dr. Murchison advised her to have the morphia hypodermically instead of the opium, and she consented; and afterwards could not bear the least delay in having the injection when the pain came on. At first, half a grain of morphia immediately subdued the pain; but this had soon to be increased to a grain, and finally to a grain and a half, repeated three or four times during twenty-four hours. Between the attacks, she had occasionally an ephemeral febricula, the temperature rising to 104 deg., and the next day being normal; but she had no rigor at any time. The patient was a lady of great intelligence, and was well acquainted with the nature of her disease, having herself read up the subject; and she expressed a strong wish to see a hospital surgeon, that he might determine whether there was any possibility of removing the stone by operation. Mr. Maunder was consulted; and he said he saw no reason, having regard to the sufferings of the lady, if she fully understood the great risk and her husband and family were willing, why it might not be justifiable, after the manner of gastro-enterotomy, to cut down on the gall-bladder, secure it to the side, and, after adhesion had taken place, open the bladder and remove the gall-stone. Mr. Maunder, however, being unable to satisfy himself that he could feel a stone in the gall-bladder, declined to operate; but he was prepared to do so if he himself could feel the stone. It was never felt afterwards. The progress of the case now became rapid; the exhaustion increased; and the mouth became aphthous. A fluctuating swelling was noticed below the margin of the ribs on the right side. Although the patient was fast sinking, she wished the swelling to be opened; so the aspirator was used, and fourteen ounces of pus were removed. Next day, it had filled again; and two days afterwards the patient died. The *post mortem* examination was made forty-eight hours after death. Dr. Hilton Fagge was present. The abdomen and thorax only were examined. The body was extremely emaciated, and intensely jaundiced. The liver and adjacent structures were removed *en masse*. The gall-bladder was closely adherent to the under surface of the liver; at first sight, it was very like a nodule of cancer; on cutting into it, it was found tightly contracted round, and closely united to, a globular stone, three-quarters of an inch in diameter; so firm indeed were the adhesions, that the shrivelled remains of the gall-bladder could only with difficulty be picked off with the knife. The cystic duct was of the natural size; the hepatic duct was dilated to the size of the thumb. The common duct was enormously dilated, and contained a stone rather larger than that in the gall-bladder, and having a certain range of

movement. On cutting into the substance of the liver, the mouths of several large bile-ducts were seen; besides these, and especially towards the inferior portion of the right lobe, there were numerous small abscesses, evidently of not very recent origin, and having tolerably thick and well defined cyst-walls. No communication could be traced between these and the bile-ducts. Dr. Hilton Fagge estimated that there must have been more than thirty of these small abscesses. Occupying the inferior margin of the liver, and covered externally by only a thin layer of hepatic substance, was a large abscess (that which had been aspirated during life) containing several ounces of foetid pus. The kidneys were healthy. There was no trace of malignant disease, but a few nodules of obsolescent tubercle were found at the apex of the left lung. Dr. Daly exhibited the gall-stones; and, in answer to Sir William Jenner, stated that the abscess was not connected with the gall-bladder, and was probably of recent origin, because the temperature had been taken up to within three weeks of death, and whilst it was so taken had not been found to be elevated. There were no rigors at any time.

Dr. CAYLEY had examined a case in which enlarged gall-ducts were thought to be abscesses. One had ruptured into the peritoneal cavity and thus caused death.—The PRESIDENT inquired how long it had been before Mr. Maunder saw the case that the gall-stone was felt.—Dr. DALY said nearly nine months had elapsed. He himself had felt it very often, and most distinctly when the patient was leaning forwards on her knees and elbows. Then the stone disappeared.—Mr. MAUNDER would state how he came to entertain the question of operative interference. He proposed to himself the theory that a gall-stone was pushed out of the gall-bladder into the common bile-duct, and gave rise to jaundice and hepatic colic; and that presently this stone regurgitated into the gall-bladder, and the previous symptoms disappeared. Having had great success in the performance of gastro-enterotomy, the result, as he believed, of attention to special details in operating, such as the stitching of a knuckle of bowel by its peritoneal coat closely to the wound in the abdominal wall before opening the intestine, and allowing nothing, not even the point of a director, to enter the peritoneal cavity; he proposed to make a similar attempt on the gall-bladder. On the dead subject, he found, having exposed the gall-bladder by an incision in the abdominal wall over it, that he could pick up with his finger and thumb the peritoneal coat alone of this receptacle (just in the same way as one can pick up a hernial sac and let the contents slip away) and stitch it to the wound. Providing, then, that, on seeing the patient, he could feel the gall-bladder, he was prepared to repeat the operation on the living subject. He proposed, having fastened the gall-bladder to the wound, so to leave it for three days, that adhesion might take place before opening it, in order to prevent the passage of bile into the peritoneal cavity.—Dr. BROADBENT remarked that this patient would have been no better for the operation unless the surgeon had gone on to the second stone, which was probably the cause of the pain from the obstruction it offered to the flow of bile to the intestine. He had recently received a larger gall-stone than those exhibited, composed of cholesterine, and covered with bile-pigment, which had, judged from its appearance, been broken in two and passed *per rectum*. The patient's jaundice had then diminished, and the patient been relieved.—Sir WILLIAM JENNER remarked that one of the gall-stones exhibited by Dr. Daly had two facets; there had, therefore, been three stones, although only two were found after death. Larger gall-stones than those had been passed. It was possible the pain had been produced by spasm of the muscles of the gall-bladder, whilst in the intervals the bile could pass whilst the stone was not pushed on.—Dr. BROADBENT inquired if there was evidence that gall-stones ever regurgitated into the gall-bladder.—Sir WILLIAM JENNER was afraid that must still remain in doubt.

Empyema, in which the washing out of the Pleural Cavity was followed by Fatal Convulsions.—Dr. CAYLEY detailed this case. The patient was a man, aged 36, who was admitted into the Middlesex Hospital five weeks after being attacked by right pleurisy. On admission, there were extensive effusion and great dyspnoea. Three days after his admission, his chest was punctured below the angle of the scapula, and twenty-three ounces of serum were drawn off by the aspirator. This gave great relief, but did not diminish the dullness in front and in the axilla, thus proving that the fluid was contained in different loculi shut off by adhesions. Four days afterwards, the chest was punctured again near the former puncture, and also in the fifth interspace, a little outside the vertical mammary line, and six ounces of bloody serum were obtained by each puncture. There still continued to be dullness and absence of expansion in front of the axilla below the level of the nipple, showing that a third cavity filled with fluid was present. The patient's dyspnoea was much relieved, but he became hectic, and lost flesh and strength. Eight days afterwards, the physical signs remaining unaltered, the

chest was punctured in the sixth interspace at the anterior border of the axilla, and twelve ounces of fetid pus were withdrawn. The cavity was now washed out daily with a weak solution of iodine, and half an ounce of equal parts of tincture of iodine and water, for which the undiluted tincture was afterwards substituted, was injected and left. Under this treatment, which had to be interrupted for a few days on account of the formation of a superficial abscess on the chest-wall, great improvement took place; the patient lost his hectic, gained flesh and strength; the discharge diminished and became quite free from fœtor. On the tenth repetition of the operation, however, while rather a larger quantity than usual of the dilute solution of iodine (half an ounce of the tincture to a pint of warm water) was being injected, the patient suddenly became deadly pale, his pulse slow, breathing gasping, and pupils dilated. Those symptoms were immediately succeeded by rigidity of the muscles and general convulsions. The pulse and breathing now became extremely rapid; the temperature ran up to 107 deg. in the axilla; he remained profoundly comatose, and died in sixteen hours. Nothing was found, on *post mortem* examination, to account for the symptoms; there was neither thrombosis of the pulmonary veins nor embolism of the brain. Dr. Cayley then referred to three similar cases which had occurred in France; one proved fatal in six hours; in another, the convulsions soon passed off, but, on again washing out the pleura, they recurred and ended fatally; in the third case, they passed off, the treatment of the empyema was resumed, and a cure effected. In neither of the two fatal cases was any embolism or thrombosis discovered. Whether these convulsions were reflex or due to an embolism which had escaped detection, could not yet be decided. That embolism was liable to occur during pleurisy, both after paracentesis and where no operation had been performed, was proved by many cases on record, to some of which he referred. The practical lessons were, to perform paracentesis early where there is much effusion, and not allow the lung to be compressed so long as to undergo the formation of thrombi in the pulmonary veins; and, where it becomes necessary to wash out the pleural cavity, to use great caution in injecting. These convulsions having in every case come on while the fluid was being injected, and not while it was being withdrawn; and, in two cases at least, rather a larger quantity than usual was being used. The nature of the fluid used seemed to be without influence; in one case, it was a weak solution of iodine; in a second, warm water, to which a little alcohol had been added; in a third, a solution of carbolic acid; in a fourth, warm water only. In all the cases, the operation had previously been performed many times with impunity; in one, daily for three months.

Effusion into Left Pleural Cavity: Paracentesis and Aspiration of eighty ounces of Serum: Sudden Death, apparently by Syncope, three hours and a half afterwards.—Dr. W. H. BROADBENT read notes of this case. The patient, a shoemaker, aged 62, was admitted January 21st, 1876, into St. Mary's Hospital, complaining of cough with free expectoration, shortness of breath, and paroxysmal attacks of dyspnoea. The usual physical signs of considerable effusion into the pleural cavity on the left side were present; and aspiration was practised by Mr. Sworder, the resident medical officer, in Dr. Broadbent's presence, on the 26th, about 2 P.M. Eighty ounces of fluid were removed, without pain or any tendency to faint. No powerful suction was employed; and it was considered more prudent, on account of the patient's age and the attacks of dyspnoea to which he had been subject, not to attempt to empty the chest completely. The heart returned very nearly to its normal situation. The patient felt relieved, and was in excellent spirits up to 5 P.M., about which time he had tea. Half an hour later, he was found to be dead. The cause of death was apparently syncope from failure of the heart's action. The heart was large and flaccid, but not in any respect seriously diseased. There was no thrombosis of the vessels of the lung which had been compressed, nor embolism of the heart or cerebral arteries.

Dr. THEODORE WILLIAMS thought both these cases interesting; he had not had any similar case. He related particulars of a little patient who had had empyema, with rigors and a daily temperature varying from 100 deg. to 103 deg. The chest bulged, and the pus was then drawn off, a drainage-tube introduced, and the cavity washed out. The patient died after wearing the tube for some months, and when the lung had nearly expanded to its full size. She had been seized with insensibility and spasm of the right side and had rallied. Albumen and bile then appeared in the urine, and the albumen again disappeared after two days. Coma, however, came on, and death ensued after thirty hours. Unfortunately, there was no necropsy. It was difficult to explain such a death on the ground of embolism, nor did there seem to be any good explanation of the event.—Sir WILLIAM JENNER asked if, in Dr. Cayley's case, the pulmonary artery were full of clot. He did not think the convulsions were produced by the injection.—Dr. CAYLEY said the artery was not quite full of clot. Death had now

occurred in many cases during the injection itself.—Dr. H. WEBER remarked that, long before paracentesis of the chest was frequently performed, these deaths often happened even when the patient was doing well. He himself had had four cases, two of adults, two of children. In two cases, the *post mortem* examination showed embolism of the pulmonary and cerebral arteries. In the first case, the right heart was full of clot; in the second case, there were vegetations on the aortic valves. In his cases, the heart was weakened; and he did not think the blame in these two reported cases should be thrown on the paracentesis.—Mr. MYERS related the case of a man who had tried to commit suicide by firing his rifle against his chest. The ball had entered near the left nipple and thence travelled round to the shoulder. The lung had been wounded and the left chest was full of blood, which became putrid. This being withdrawn and the cavity injected, the hæmorrhage recurred, again became putrid, and was withdrawn. This round of occurrences happened five times, and the patient at length died from the quantity of blood lost.—Mr. B. CARTER had had charge, some years since, of a young lady who had had three bullets shot into the back of the right chest. The right pleural cavity was filled with blood, which was withdrawn after a few days and a drainage-tube introduced. After a few more days, she had a succession of epileptic convulsions; she then passed into a state of acute mania. She then went to an asylum with the drainage-tube in, and came home well with the tube removed; but the bad pus was driven from the opening at every cough. The tube was re-introduced at the London Hospital, and the patient recovered.—Dr. GOODHART gave the case of a young man, the left side of whose chest was filled with fluid of recent date. An incision was made and the fluid withdrawn. Six weeks afterwards, he died with cerebral symptoms, when all the empyema was healed.—Mr. MORRIS mentioned a case of empyema about to be operated on, when death suddenly occurred before the operation. He mentioned also a case of Addison's and two cases of a French physician, in which death was due to hæmorrhage from an ulcer of the stomach. Edema of the lung and fatty degeneration of the heart had also been found in cases of sudden death accompanying paracentesis for pleurisy. Therefore, one might suppose death was due in the cases narrated that evening to one of those causes, and not to the operation. Of the two causes, embolism and syncope, the latter seemed the more probable. In one case, the paralysis had ensued gradually after the washing out of the pleural cavity. If the convulsions were due to reflex action, they were either started from the part punctured or were due to the fluid used. An empyemic abscess should be regarded as a psoas abscess, and only opened when the fluid had collected to so large an extent that it produced trouble by its presence.—Dr. MAHOMED inquired whether, when paracentesis was done with one opening, towards the end of the syringing, there was not an increase of pressure on the lung. No air escaped by the side of the tube, cough came on, and would not that displace a thrombus?—Dr. CAYLEY said that, in his case, the cavity did not contain air.—Dr. POWELL thought it was exceedingly important to know the amount of the pressure with which the fluid was sent into the chest. Instead of a syringe, he used a kind of syphon arrangement; the pressure was then only that of the column of water, which could be made much or little, as might be desirable.—Dr. COUPLAND said that the cases similar to Dr. Cayley's yet recorded were not enough to guide one. The patient in that case was highly nervous, and was, therefore, possibly more likely than most men to suffer from epileptic attacks of peripheral origin. Not the least evidence of embolism was found in the body.

MEDICAL SOCIETY OF LONDON.

MONDAY, OCTOBER 23RD, 1876.

WILLIAM ADAMS, F.R.C.S., President, in the Chair.

Subcutaneous Osteotomy.—Mr. MAUNDER showed three patients on whom he had performed subcutaneous osteotomy, with chisel and mallet, for deformity. Last session, at the Clinical Society, he had read a paper on subcutaneous osteotomy of the femur, performed with chisel and mallet; and illustrated the subject by the report of four cases and the exhibition of patients. He proposed now to show three other patients. In this way, all that he had done (seven cases) would be known to the profession. He pointed out that he had been gradually led up to osteotomy by failures to correct deformity—the result of strumous hip-joint disease—by more simple methods, such as tenotomy, forcible attempts at extension under chloroform, prolonged extension by weights, and Thomas's splint. He then, in one instance, in addition, divided the neck of the femur with a saw subcutaneously, and still the patient was not benefited; and thus he came to the conclusion that, in this variety of disease, some other means must often be resorted to. At

length, the idea of dividing the bone below the lesser trochanter occurred to him; and the chisels, as used by Professor Volkmann of Halle, to correct deformities about the knee, commended themselves to his judgment. Instead of using three chisels, as recommended by Volkmann, he had in his later cases used one only (a carver's "cold" chisel, three-eighths of an inch wide). The patients shown were sixteen, twenty-one, and twenty-four years of age respectively. In all, great lordosis had existed, but was no longer present. In one, the thigh had been fixed at an angle of 118 deg., and the extremities were now parallel, and the patient could walk so well that she declined a high-heeled boot; in the other two, the thigh had been fixed at a right angle to the line of the body. Now, lordosis no longer existed, and one of the young men could walk so nimbly that he also declined the high-heel boot. Of these cases, six had been operated upon to correct deformity after hip-joint disease; and one, where the shaft of the femur had been divided about its middle, to correct deformity following mal-united fracture, in a man of thirty. Mr. Maunder thought that this great success attending the use of the chisel could not fail to recommend it to the profession. Of his seven cases, two of the earlier ones had suppurated slightly, for reasons preventable in the future, and detailed in the *Transactions of the Clinical Society*, 1876; while in five, absolutely not one drop of pus had been secreted, the wound healing primarily as after tenotomy, and the patients getting about from six to eight weeks subsequent to the operation. Photographs of the patients, taken before and after the operation, were exhibited.—Mr. GOLDING BIRD said he had performed osteotomy twice at the neck of the bone—once with the saw, once with the chisel; and preferred the latter instrument.—Mr. ANNANDALE (of Edinburgh) had performed osteotomy several times, but through an open wound and with antiseptic precautions. He had used both saw and chisel, and had a decided preference for the chisel, because he found that he could use it through a smaller wound, and with more precision than the saw; that it cut cleanly, and did not splinter over the hard compact structure of the shaft of the femur.—Mr. NAPIER, Mr. DAVY, an American surgeon, and Mr. WILLIAM ADAMS also spoke.—Mr. MAUNDER said the information that had been afforded by Mr. Annandale, concerning the action of the chisel on hard bone, was most valuable; and was an all-sufficient answer to those who thought the chisel would injuriously splinter the shaft of the femur, for example. He deprecated the use of the drill, which, like the saw, must cause *débris*, which would often promote suppuration. He pointed out that Mr. W. Adams's proposition, that lordosis, associated with deformity consequent on hip-joint disease begun in early life, was incurable, was not quite consistent with fact. In two of his (Mr. Maunder's) patients, twenty-one and twenty-four years of age respectively, the disease had originated seventeen years ago; lordosis had been extreme, but, in consequence of the operation, now existed no longer.

CORRESPONDENCE.

RUMSEY TESTIMONIAL FUND.

SIR,—Will you kindly allow me to give the following *résumé* of the work of the committee of the above fund?

The subscriptions received have amounted to £1,326 17s, the expenses to £104 19s. 6d. Of the balance, £1,125 9s. was presented to Dr. Rumsey in cash, and the remainder in the form of a silver salver with tea and coffee-service, the following inscription being engraved on the salver:—"This service of plate, together with one thousand guineas, is presented to Henry Wyldbore Rumsey, M.D., F.R.S., by his friends and admirers, in token of their appreciation of his life-long and successful labours for the advancement of State Medicine. July 1876." The presentation could not take place publicly, as poor Dr. Rumsey's state of health was much worse.

It will be remembered that the committee prepared and forwarded a petition to the Prime Minister, which resulted in a pension of £100 a year being granted to Dr. Rumsey out of the civil list.

I enclose a copy of a letter sent by Dr. Farr, as chairman, to Dr. Rumsey, with Mrs. Rumsey's reply, and remain, dear sir, your obedient servant,

W. H. CORFIELD, Honorary Secretary.

10, Bolton Row, May Fair, Sept. 19th, 1876.

P.S.—I postponed sending this letter on account of Dr. Farr's absence from England, and it is now my painful duty to add that Dr. Rumsey died at Prestbury, near Cheltenham, on October 23rd.

Rumsey Testimonial Fund.

My dear Dr. Rumsey,—On the part of the subscribers to the Testimonial Fund, I have to ask you to accept, as a tribute of their esteem

for you, and of their appreciation of your labours in State Medicine, a silver tray with a service of plate and fifty sovereigns, in addition to the thousand guineas already forwarded. The inscription and the family crest identify the plate with your name.

Our earnest prayer is that it may please God to restore you to that measure of health which you once enjoyed, and of which you made such excellent use.

The committee drew up a memorial to Mr. Disraeli, setting forth your life-long labours for the advancement of State Medicine, and requesting him to submit, on the grounds therein specified, your name to the Queen. That memorial, of which a copy is here appended, was most extensively signed. It rested your case entirely on public grounds, and, in conformity with its prayer, a pension of £100 a year was granted to you on the recommendation of the Prime Minister.

The committee have thought that your family might like to preserve the names of those of your numerous friends who contributed to this testimonial. And they have, therefore, directed them to be written out for presentation on vellum, to accompany the service of plate.

It will be gratifying to you to see that the list contains the names of the principal promoters of public health in and out of Parliament, living in the chief cities of England and Ireland; and it is doubly gratifying to find that the list is so strong in names from Cheltenham and Gloucestershire, where you are personally known, and from the metropolis, where your works have been studied.

The committee would gladly have seen you amongst them, and have presented the plate with its inscription to you personally. But that gratification is denied them. Still, they trust that the light will shine on you yet, and gild your days with the tranquil pleasure of remembered good and faithful service.—I am, my dear Dr. Rumsey, your very faithful friend,

(Signed) WILLIAM FARR,

Chairman of the Rumsey Testimonial Committee.

To Henry Wyldbore Rumsey, M.D., F.R.S., etc.

Mrs. Rumsey's Reply.

Prestbury, Cheltenham, August 11th, 1876.

Dear Dr. Farr,—I am desirous of expressing to you, as Chairman, the warmest thanks of myself and my family for the kind and generous exertions of the Testimonial Committee on Dr. Rumsey's behalf. He is now, alas! incapable of acknowledging them himself. It gives me, however, the greatest happiness to assure you that the very large sum of money presented to my husband was in time to relieve, in great measure, his anxiety for himself and his family occasioned by his heavy loss in the "European".

To the committee we are mainly indebted for the recognition of Dr. Rumsey's services by Government; whilst the very handsome testimonial in plate, from his own profession and his friends, will be a perpetual and gratifying memorial of their appreciation of the labours to which he so zealously devoted himself.—Believe me, dear Dr. Farr, most sincerely yours,

F. S. RUMSEY.

UNIVERSITY COLLEGE HOSPITAL.

SIR,—I feel much surprised that your able article of October 7th on University College Hospital, disclosing what to many can only be considered as an astounding state of affairs, has not elicited a reply from the committee or medical staff. I can only suppose that the committee feel loth, except under pressure, to move in the matter; and that with the medical staff it is the old question of "Who shall bell the cat". Speaking briefly, the staff in 1875 gave their services to the patients of the hospital, whether the deserving poor or the designing well-to-do, gratuitously, and, in addition, surrendered their laboriously earned fees for teaching in the medical school to the amount of £2,344.

Because this suicidally foolish and manifestly unfair custom has been pursued by the medical staff for some years past—having been probably commenced at a time of financial depression, when it was to the interest of all connected with the hospital to render it pecuniary support—the committee actually omit to record a bare acknowledgment of this generosity in their annual report. Who are the sufferers by this misplaced liberality on the part of the staff? The juniors, who dare not raise their voices against this spoliation, because they dare not openly state that £100 or £120 *per annum* is a matter of vital import to them, and that they have not sufficient practice or private income to support them without drawing their hardly earned tutorial fees.

Hence many of the cleverest and ablest students, whose compeers predict a brilliant future for them, sink into the ambitionless ranks of country practice, because they cannot afford to "hang on" as one is advised to do at one's alma mater; whilst the second-class man, with a few hundreds a year, "stays on" at the hospital, and, after many years,

peradventure picks up a consulting practice. If, instead of its present calm apathy, the committee of University College Hospital were to bestir itself and increase the annual subscriptions, and investigate the social condition of its patients, insisting on small payments from those not actually out of work or impoverished by large families—a system which is working admirably at several of the smaller hospitals—the institution might speedily be in a position to pay its medical staff for all services rendered, and to advance the interests of its cleverest pupils, who are at present in many instances debarred from accepting its heavily handicapped rewards.—I am, etc.,

LEWELYN THOMAS, M.D.

OAKUM-PESSARY.

SIR,—Dr. Tilt is right. I *was* coy in giving information to one who is himself so used to teach others.

My plan is as follows. Place the patient in the usual obstetric position. Replace the uterus. Keep the vulva open by two fingers of one hand, whilst the other hand is engaged in stuffing the vagina with oakum previously teased out. Fill the vagina in all directions, using as much material as you can without causing pain. The patient may then go on with her usual occupation, and she can pass her urine and faeces without inconvenience. Remove the oakum (or let her do so) about once a week. Sometimes violent coughing or straining will expel the plug; and this is more likely to happen if a greased rag be first introduced as an envelope. I rarely use the latter, as the oakum sticks better when in contact with the mucous membrane, though the greased envelope facilitates withdrawal. Occasionally the speculum or forceps may be required to remove all the bits, but rarely; and a vaginal douche may be used each time, if desired. As a rule, less oakum is required each time, as the vagina contracts upon the plug. The treatment may be carried on for any necessary length of time. No pain whatever is felt if the packing be done properly. It is impossible for the oakum to cause any internal injury in consequence of a fall, or of suddenly sitting down, or of any violent exertion or twist, as other more rigid pessaries may do. In my experience, the oakum is more curative than other pessaries in cases of prolapsus, these being the cases of which I wrote as "requiring support". I do not urge its use in flexions or versions.

Hoping that this explanation will be satisfactory to Dr. Tilt and useful to some of your readers, I am yours, etc.,

Lichfield, October 10th, 1876.

HERBERT M. MORGAN.

INFECTIOUS DISEASES AND THEIR PROPAGATION.

SIR,—There are three common ways by means of which infectious diseases may be very widely spread, and, in the interests of sanitation, I desire to expose them. It is a very usual practice for parents to take children suffering from scarlet fever, measles, etc., to a public dispensary, in order to obtain advice and medicines. I need hardly enlarge upon the dangers which arise from such a proceeding, both to the children themselves and also to the public. It is little less than crime to expose in the streets of a town and in the crowded waiting-room of a dispensary children afflicted with such complaints.

Again, persons who are recovering from infectious disorders borrow books out of the lending departments of public libraries; these books, on their re-issue to fresh borrowers, are sources of very great danger. In all libraries, notices should be posted up, informing borrowers that no books will be lent out to persons who are suffering from diseases of an infectious character; and that any person so suffering will be prosecuted if he borrow during the time of his illness.

Lastly, disease is spread by tract-distributors. It is the habit for such well-meaning people to call at a house where a person is ill, and to leave him a tract. In a week or so, the tract is called for again, another left in its place, and the old one is left with another person. It needs not much imagination to know with what result to health such a practice will lead if the first person be in scarlet fever, small-pox, etc. The remedy for this is very simple: if tracts are necessary for sick people, let the distributors give (not lend) to the people in their districts.

I have written thus briefly in order to expose three very fertile sources of infectious disease. I recommend all sanitary officials to use greater endeavours in order to detect and punish such evident violations of the law.—I am, sir, yours, etc.,

H. ARTHUR ALLBUTT,
L.R.C.P. Edin., L.S.A. Lond.

Sheepscar Street, Leeds, Sept. 30th, 1876.

DR. LANG of Southport has retired from the Town Council of that town. Much regret is expressed at his retirement, as during his tenure of office he has done much to promote the interests of Southport.

OBITUARY.

JOHN CHARLES HALL, M.D.,

SENIOR PHYSICIAN TO THE PUBLIC HOSPITAL, SHEFFIELD.

WE regret to announce the death of one of our old Associates, Dr. John Charles Hall, Physician to the Sheffield Public Hospital and Dispensary, and Lecturer on Medicine at the Sheffield School of Medicine. He was born in Nottingham in December 1816, was educated at Doncaster, and then entered the medical profession as apprentice to Mr. Carrick of Kensington. Thence he went to St. George's Hospital; and was appointed assistant and afterwards house-surgeon to that hospital, under Keate, Brodie, and others. After leaving St. George's, he went to Paris; and, on his return, settled as a general practitioner in Retford. About 1848, he became a Fellow of the Royal College of Physicians of Edinburgh, and settled in Sheffield as a physician. Soon afterwards, he became attached to the School of Medicine there; and, in 1854, he was elected Physician to the Dispensary, with Dr. Law and Dr. Elam. From the time of his commencing practice in Sheffield till a few years ago, he was largely engaged in writing articles for newspapers and reviewing books. Among other works, he wrote a treatise on *Facts connected with the Animal Kingdom and the Unity of our Species*; *Clinical Remarks on the Eye*; *The Nature and Treatment of Some of the More Important Diseases*; *The Pathology and Treatment of the Sheffield Grinders' Disease*; *The Trades of Sheffield as Influencing Life and Health*; *Medical Evidence in Railway Accidents*. He was a frequent contributor to the *BRITISH MEDICAL JOURNAL* (then the *Provincial Medical and Surgical Journal*), and other medical journals, and wrote for other newspapers on religious matters, public health, poor-laws, municipal matters, and many other subjects.

From his appointment to the Dispensary in 1854 till 1858, he spent a great deal of time, energy, and ability in endeavouring to attach a hospital to it; and, in spite of great opposition, with the help of Mr. S. Parker and others, he succeeded. In 1858, twenty-five beds were opened, and he lived to see the numbers increased to over one hundred, which occurred in 1872. On the opening of the hospital in 1853, a handsome piece of plate was presented to him, in recognition of his unwearied exertions and their successful result.

To the hospital, he was honorary secretary as well as physician; and no one connected with that institution can fail to have been impressed with the energy, ability, and success with which he managed its affairs.

Another of his successes was his study of the diseases belonging to Sheffield trades; his earnest protest against them; and his untiring endeavours to get them remedied. He wrote in the *Times*, contributed letter-press descriptions which accompanied the sketches of the Sheffield "hulls" in the *Illustrated London News*, and gave evidence before a Royal Commission on the special diseases of grinders and other workmen. The *Times* at last acknowledged his efforts in the following words: "Dr. J. C. Hall, by his persistent efforts for years on behalf of these poor men, has at last forced the public to listen to him." And, during the last meeting of the Association at Sheffield, he, being Vice-President of the Section of Medicine, read a paper on the same subject.

He introduced into Sheffield, and largely helped to establish on a firm basis, "Hospital Sunday"; and, at the time of his death, he was one of a Committee appointed to make arrangements for the promotion of "Hospital Saturday". He did great service to friendly societies, especially the Odd Fellows. He was fond of birds, and had a very excellent collection.

In 1866-7, he was President of the Yorkshire Branch of the British Medical Association. He was a member of the General Council of the Association; and in 1872-3, he held the office of President of the Sheffield Medico-Chirurgical Society.

His last public speech was when he presented, in July last, a piece of plate to Dr. Chadwick for his distinguished services to the West Riding Medical Charity. As a speaker, he was eloquent and to the point, illustrating his subject by quoting some of the finest pieces of poetry. He was well-read in his profession, kept himself up with the progress of the day, and was a skilful physician. His power of work, as well as the rapidity with which he did it, were only equalled by his love of it. Like others, he had many failings, which he never endeavoured to conceal. Those only who knew him intimately were aware of his conversational powers, his hospitality, and his willingness to help anyone who asked for it.

He married Miss Oridge, and leaves two sons and two daughters. He lost his wife two years ago. He was buried in the General Ceme-

tery in Sheffield last Thursday; and was followed to the grave by the Weekly Board of the Public Hospital and Dispensary, his colleagues, the President of the School of Medicine (Dr. Bartolomé), a large number of Odd Fellows, and his medical brethren.

MILITARY AND NAVAL MEDICAL SERVICES.

THE Secretary of State for War has approved the appointment of Surgeon-Major F. S. B. De Chaumont, M.D., as Professor of Military Hygiene at the Army Medical School, Netley.

WE learn that the Government of India has resolved to grant the full pay of their rank to those surgeons-major of the British service who have recently been promoted under the new regulation of twelve years' service.

VANITY FAIR AND "THE REGIMENTAL DOCTOR".

SIR,—The vulgar and flippant article forming No. 14 of "Regimental Types", in which, in his issue of October 21st, the editor of *Vanity Fair* has sought to cast odium on the medical officers of the army, would possibly have received but little attention from the readers of that journal, and might well have been treated with contempt and left unnoticed, but that the remarks upon it in a professional paper of October 28th have given it an increased prominence, and certainly must lead to its being more generally known than it otherwise would have been.

It is not my intention to endeavour to refute the statements made in the article alluded to, nor to show that the sketches of the several types of regimental doctors are inaccurately drawn or too highly coloured. No doubt, in the large number of medical officers, there are to be found specimens of each subdivision. There are in all professions men both "actively mischievous" and "positively objectionable". There are such among journalists: men who do not scruple to violate the sanctity of private hospitality, and hold up to ridicule their friends and their friends' guests in racy contributions to their "show of literary and social wares". But, if such amenities of journalism were usual, society would be more on its guard.

The writer or responsible editor of the "weekly show" has had special opportunities of forming opinions of army medical officers, and those of his readers who are aware of it will, perhaps, in consequence be the more likely to accept his description. But possibly they do not know that, circumstances leading to his presence in the neighbourhood of the head-quarters of the Army Medical Department, he availed himself freely of the attentions of the officers whom he now holds up to ridicule. Not only that, but, while apparently considering them as "at the tail of their profession", he did not hesitate to solicit their aid to supplement the advice of the "civilian physician" when dangerous illness appeared in his family. That aid, unhesitatingly asked for on the ground of friendship, was as freely and willingly given, and would, no doubt, have been given as often as required. How far their services were appreciated, may now be seen.

In future, medical officers of the army, whether consulted as "doctors but no gentlemen" or associated with as "gentlemen but no doctors", will know what consideration and justice they may expect from such social authorities as the editor of *Vanity Fair*.

I am, etc., PODALIRIUS.

THE ARMY MEDICAL WARRANT.

SIR,—When I delivered my address at the annual meeting of our Branch, I was under the impression that Mr. Hardy had restored the "Sydney Warrant" in all its integrity. I am sorry to find by the letter of your correspondent "S.M., A.M.D." in last week's JOURNAL, that I was mistaken. It is evident that the Medical Department of the Army is not in a satisfactory state, and anything but popular. The sooner the authorities at the War Office rectify these defects, the better it will be for their reputation and the good of the service.—I am yours, etc., J. RICHARDS.

President of the North Wales Branch of the British Medical Association.
Bangor, North Wales, November 1st, 1876.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION FOR DEGREES IN MEDICINE.—The first examination for the degree of M.B. will begin on Thursday, December 7th; the second, on Tuesday, December 12th; the third for M.B. and that for M.C., on Monday, December 18th. The following Examiners have recently been appointed for the ensuing year. First M.B.—J. W. Hicks, B.A., and R. Apjohn, M.A.; Second M.B.—Dr. Humphry and H. Power, F.R.C.S.; Third M.B.—Dr. A. W. Barclay and Dr.

Bradbury; Master in Surgery—C. Heath, F.R.C.S., and T. Holmes, M.A., F.R.C.S. Dr. Herbert Davies has been appointed Assessor to the Regius Professor of Physic.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on October 26th, 1876.

Carter, Alfred Henry, M.D. London, Birmingham
Collic, Alexander, M.D. Aberdeen, Homerton
Cory, Robert, M.B. Camb., 14, Palace Road, Lambeth
Ewart, Joseph, M.D. St. Andrew's, Newcastle
Ross, James, M.D. and C.M. Aberdeen, Manchester
Semon, Felix, M.D. Berlin, 6, Chandos Street
Watney, Herbert, 1, Wilton Crescent

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 26th, 1876.

Bigg, George Kilworth Sherman, 56, Wimpole Street
Burton, Samuel Herbert, Great Yarmouth
Lightfoot, William Spencer, Harwell, Berkshire
Rean, William Henry, Poplar
Richards, Thomas, Salisbury
Symons, John, Penzance

The following gentlemen also on the same day passed their primary professional examination.

Nickoll, John Sayer, London Hospital
Richardson, Thomas Arthur, Guy's Hospital

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, Oct. 10th, 11th, and 12th, 1876, the following candidates obtained the Licence to Practise Medicine.

Barber, Walter
Clibborn, James Barclay
Fuller, Joseph
Harrisson, Damer
Hodgson, William
Kidd, Henry
Thomson, Henry Albert Richardson

The License to practise Midwifery was obtained by—

Clibborn, James Barclay
Fuller, Joseph
Goode, William Henry
Harrisson, Damer
Hodgson, William
Kidd, Henry
Molony, Henry
Thomson, Henry Albert Richardson

MEDICAL VACANCIES.

THE following vacancies are announced:—

CERES, Fifehire—Parochial Medical Officer. Salary, £23 per annum. Applications on or before November 6th.
CROYDON GENERAL HOSPITAL—House-Surgeon. Salary, £80 per annum, with board and furnished apartments. Applications on or before November 8th.
GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with furnished apartments, board, and attendance. Applications on or before November 8th.
LOUTH UNION—Medical Officer for the Welton-le-Wold District.
MIDDLESEX THIRD COUNTY LUNATIC ASYLUM—Medical Superintendent. Salary, £700 per annum, with house, gas, and coals. Applications on or before November 8th.
NEWHILL and DYCE—Medical Officer. Salary, £100 per annum. Applications on or before November 13th.
PUBLIC DISPENSARY, Stanhope Street, Clare Market—Resident Medical Officer. Applications on or before November 6th.
ST. NEOTS UNION—Medical Officer for the Third District.
SALOP MEDICAL AID ASSOCIATION—Medical Officer. Salary, £150 per annum, with house, coal, and gas. Applications on or before November 4th.
TRINITY COLLEGE, Glensalmond—Resident Medical Officer. Applications on or before November 10th.
WESTERN DISPENSARY, Westminster—Medical Officer. Salary, £205 per annum, with furnished apartments, etc. Applications on or before Nov. 6th.
WORCESTER GENERAL INFIRMARY—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before November 6th.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

CLOVER.—On October 14th, at 3, Cavendish Place, Cavendish Square, the wife of *J. T. Clover, F.R.S.S., of a daughter.

MARRIAGES.

CROMBIE—WHITCOMB.—On October 24th, at the Presbyterian Church, Brighton, by the Rev. Dr. Hamilton, *John M. Crombie, M.A., M.D., of South Kensington, to Sophie, only daughter of the late Henry Whitcomb, Esq. of Hawley Lodge, Brighton.

PROUT—WILLING.—On October 26th, 1876, at the Parish Church, Great Wakering, by the Rev. John Thomas, Vicar of Wood Green, assisted by the Rev. John Fulford, uncle of the bride, and the Rev. Henry Malim, Vicar of the Parish, William A. Prout, Esq., B.A. Camb., only son of John Prout, Esq., of Sawbridgeworth, Herts, and Clapham Common, to Jessie Sophia, second daughter of G. F. B. Willing, L.R.C.P. Ed., Great Wakering, Essex.

DEATH.

*HALL, John Charles, M.D., at Surrey House, Sheffield, aged 59, on Oct. 26th.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
- TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopedic, 2 P.M.
- WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
- THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
- FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
- SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

- MONDAY.—Medical Society of London, 8.30 P.M. Mr. R. Davy, "Degenerative Cysts in Muscles"; Dr. Brunton, "On Pelvic Hæmatoma"; Dr. Crisp, "An example of Croupal Membrane in an Infant (with Microscopical Specimen)".
- TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Hilton Fagge: General Ankylosis of Ribs. Dr. Hilton Fagge: Aneurysm of Pulmonary Artery in Vomic of Young Child. Dr. Hilton Fagge: Epithelioma of Bladder secondary to long-standing Stricture. Mr. Carr Jackson: Injury to Spine. Dr. Cayley: Lymphadenoma of Stomach. Mr. Gould: Sarcoma of Thigh. Mr. Gould: Valvular Disease of the Heart. Mr. Gould: Recovery after Pyo-Pericardium. Dr. Pye-Smith: Suppuration of Brain and Cord after Cure of an Empyema. Dr. Julius Pollock: Perforating Ulcer of Endocardium. Dr. Frederick Taylor: Fatty Tumour behind Pharynx. Dr. Goodhart: Diffuse Suppurative Inflammation of Mediastinum. Dr. Walters: Scirrhus of Diaphragm. Mr. Sydney Jones: Multiple Melanotic Tumours (living specimen). Mr. Sydney Jones: Symmetrical Shortening of Foot from Bone-Disease (living specimen). Dr. Thorowgood: Concretion from Vermiform Appendix removed through Incision in Back.
- WEDNESDAY.—Hunterian Society, 7.30 P.M.: Council Meeting, 8 P.M.: Dr. Herbert Tibbits, "On Electro-Therapeutics".—Epidemiological Society, 8.30 P.M. The President will deliver an address on the "Present Position of Epidemiological Science".
- FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. C. T. Williams, "Sequel of a Case of Contracted Cavity in the Lung, communicated in 1871"; Dr. Gowers, "A Case of Lymphatic Leucocythæmia treated by Phosphorus"; Dr. Greenfield, "A Case of Hodgkin's Disease, with increase of White Blood-cells"; Dr. Broadbent, "Patients under treatment by Phosphorus for Leucocythæmia"; Mr. Walsham, "A Case of Localised Hypertrophy of the Scalp".

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

A GENERAL PRACTITIONER'S CHARGES.

A MEMBER asks whether the fees of 7s. a visit, 10s. 6d. for evening visit, £1 1s. for consultation, and 5s. for syringing the ears, are or are not fair charges for a general practitioner in the country to make for his attendance on a gentleman of good means.

. We shall be glad to have the opinions of some of our readers in reply.

W. B. H. writes:—As a continuation of the question asked by A. B. in your paper of yesterday, respecting the conduct of Y. Z. in "professional consultations", would Y. Z. be justified in afterwards attending the patient if urgently requested to do so, putting out of the case A. B., who has refused to meet him in consultation?

.{ Not, we think, without first communicating with A. B., in courtesy.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, twelve o'clock.

ARNOLD'S FLEXIBLE STETHOSCOPE.

It will be remembered that when we first noticed the "flexible stethoscope", introduced early this year by Messrs. Arnold and Sons, suggested by Drs. Reed and Morison, several English physicians laid claim to it as of old invention. Professor Voltolini (*Berliner Klin. Wochenschrift*) warmly claims for himself the merit of the invention, especially of the flexible tube and ear-peg fitting into the flexible meatus. The latter he demonstrated publicly in 1874. Dr. J. Gunter attaches great importance—as we do, from experience—to this ear-peg, believing that by it sounds are conducted with much greater completeness than by the ordinary ear-piece, and that it is especially useful to medical men whose hearing is not very acute.

B. S. A.—Formulae for the use of storax, which is said to be effectual in one application, are to be found in Sydney Ringer's *Handbook of Therapeutics*, p. 327 of last edition. Very good manuals of domestic medicine for the use of a traveller have been written by Dr. Headland (Seeley and Co.), Dr. Gardner (Smith, Elder, and Co.), Dr. Warburton Begbie (Nelson and Sons), and Dr. Spencer (Nelson and Sons).

A SYPHILITIC PROBLEM.

SIR,—A young man marries, and has, in due time, born to him three healthy children in succession. His wife then has in succession three dead ones, a month, a fortnight, and a week before the time. The first has arrested brain development, loose cranial bones, and water certainly in the head and abdomen. The second has water, certainly in the head and abdomen, and general anasarca. The third, examined, has water in the abdomen, pleuræ, and pericardium, also enlarged liver and spleen. In the first two, putrefaction had commenced; the last, which gasped, had no syphilitic marks on the skin. Do not these facts prove the existence of some parental constitutional taint from conception of the first dead child to the present time? And is there any taint, except the syphilitic, capable of producing the phenomena? The father asserts—and I believe him—that he has never gone astray since his marriage, and the lady is above suspicion. About ten years ago, a year or two before marriage, he made three attempts at coition—two unsuccessful, one successful—but he is not conscious of having experienced any after-inconvenience. Is it possible or probable that he may have contracted hard urethral chancre without knowing it? The inconvenience might certainly have been very slight, the discharge almost nothing and watery, and might not have come on till long months afterwards.

Assuming that he contracted syphilis, then is it possible that the influence may have passed harmlessly over the first three (healthy) children, and descended with fatal effect on the last three (dead) ones?

The lady has since been confined again, a fortnight before time. The child had been dead a week; it was livid; the cuticle was everywhere separated or separable. There were general anasarca, ascites, hydrops pericardii, and hydrothorax on one side.—I am, etc.,

M.R.C.S.

H. F. S.—Mr. B. Lowne of the Middlesex Hospital has succeeded Professor Turner. There is a very good portrait of the late Dr. Sibson in Messrs. Barraud's large picture of the Leaders in Medicine and Surgery.

PARALYSIS.

SIR,—L.R.C.S.I. must first find out the cause of the paralysis. If there be any structural disorganisation, electricity will do harm; if, however, it be a case of apoplexy, and the clot have been absorbed, and there be no muscular rigidity, electricity or galvanism will be of great use.—I am, etc.,

Eastbourne, October 30th, 1876.

ALFRED CHARLTON.

QUALIFICATION TO PRACTISE IN CANADA.

SIR,—Would any of your readers kindly inform me as to the necessary steps to be taken in order to qualify for practice in Canada? I understand there is some colonial examination necessary. I am qualified as an M.D. Glasgow, F.R.C.S.E., etc.—I am, etc.,

F.

MR. THOMPSON.—The primary examination for the diploma of membership of the College of Surgeons commenced this day (Friday): the pass-examination will take place next week. All this will be found in our advertising columns; but we really cannot undertake to make the other inquiries, which would necessitate a correspondence for which we have no time. You should write to the secretary of the institution, from whom you will receive the desired information.

LOSS OF TASTE AND SMELL FOLLOWING AN ACCIDENT.

SIR,—In reference to a letter contained in your last issue on the above subject, a similar case has occurred in my practice. While a gentleman was mounting his horse, the animal being startled, suddenly ran off before the rider could gain the saddle. With one foot in the stirrup, he fell backwards on his head, and was dragged for some distance along the road before his foot slipped from the stirrup. He lay insensible and stunned for a few minutes; but, gradually recovering consciousness, he got up and staggered from one side of the road to the other. He walked afterwards fully a quarter of a mile to where his horse had been caught, and rode home more than two miles. He sat down and wrote a note requesting me to come to him, and sent his coachman with the note. I found, upon arrival, that he was very much in the state described in the letter of Chirurgus. He had an incised wound over the left upper eyelid, several severe grazes on the side of the nose and upper lip, and other superficial injuries. The concussion to the brain was the most serious lesion, and resulted from a blow over the occiput. With rest and quietness, the grave symptoms passed away; the sense of taste and smell still, however, remain wanting, although the accident happened upon August 7th. Upon one occasion only has he been able to smell, when he pressed a leaf of the sweet-scented verbenæ between his fingers; he has failed to smell repeatedly upon making the same experiment, but can detect the difference between a sour and sweet taste on the tongue. His health is good, he has an excellent appetite, and can walk several miles without fatigue. Over-exertion produces vertigo and confusion in the head. It is an interesting question from what lesion does the loss of taste and smell proceed: from the concussion to the brain, or direct injury to the olfactory nerves? The nose was much bruised, and there was great pain over the upper lip and also of the nostrils. I am afraid nothing but time and patience will restore these lost senses. Mr. Annandale of Edinburgh, who saw the patient, recommended a trial of phosphoric acid, which I hope may act as a nerve-tonic, and is worthy of trial by Chirurgus.—I am, etc.,

C. STUART, M.D., L.R.C.S. Edin.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

THE APPLIANCES OF RESEARCH.

THE story of Mr. Graham's work has been told by Odling, Williamson, Hofmann, and Angus Smith, but what does it teach us from a point of view of a collection of scientific apparatus? Surely that, although in certain researches or for accurate observation and measurement, delicate and complicated instruments may be necessary, the simplest appliances in the hands of a man of genius may give the most important results. Thus we have seen that with a glass tube and plug of plaster of Paris, Mr. Graham discovered and verified the law of diffusion of gases. With a tobacco-pipe he proved indisputably that air is a mechanical mixture of its constituent gases. With a tambourine and a basin of water he divided bodies into crystalloids and colloids; and obtained rock-crystal and red oxide of iron soluble in water. With a child's India-rubber balloon filled with carbonic acid he separated oxygen from atmospheric air, and established points, the importance of which, from a physiological point of view, it is impossible to overrate. And finally, by the expansion of a palladium wire, he did much to prove that hydrogen is a white metal.—*Nature*.

M.D. (Ashburton).—Our correspondent had better, we think, write to the Home-Secretary, and we shall be glad to hear the answer.

T. W.—Dr. Vanderbyl and Mr. Mitchell Henry were both on the staff of the Mid-dlesex Hospital, and have both been members of Parliament.

CANDIDATES FOR DISSECTION.

SIR,—The fact of a lady making her will to the effect that her body after death should be dissected, under the supervision of the Council of the Royal College of Surgeons of England, as reported in the JOURNAL of October 21st, is no doubt received by members of our profession with no little surprise. This is a circumstance we seldom hear of, and a will of the kind is very seldom seen. I have in my possession a similar will (the original), dated June 12th, 1828. The circumstances connected with it I will briefly relate. The testator was an assistant to the late G. E. Carruthers, surgeon, of Redman's Row, Mile End, my own grandfather, who, it will be seen, was the witness thereto; and the Henry Coles, whose name is mentioned, was at that time an apprentice of Mr. Carruthers, and later on was lecturer on comparative anatomy at the London Hospital. The following is a correct copy. "Redman's Row, Mile End, June 12th, 1828.—Know all men by these presents, that I, Zachariah Wood, being at this time in good health and of sound mind, do hereby give and bequeath my body to the surgeons of the London Hospital for the purpose of dissection, and my head to Henry Coles, of the parish of Bourton-on-the-Water, Gloucestershire.—Zachariah Wood; witness, G. Carruthers."—It is but necessary for me to add, that the testator, who had been a faithful servant, was buried at the expense of his master.—I am, faithfully yours, E. G. CARRUTHERS SNELL, L.S.A. Lond.

Mile End Road, October 23rd, 1876.

J. C. A.—We cannot call to mind all the "summaries of information concerning vaccination as a prophylactic," but we may mention a pamphlet, *Concerning Vaccination: a Critical Exposition, etc.*, by Mr. G. Eastes, M.B. Lond., M.R.C.S. Eng., published by Hardwicke, London, as a very good summary, capable of affording an excellent view of the facts either to professional or non-professional readers.

LIFE INSURANCE.—We have communicated H. T.'s letter to an experienced authority, and will advise him in these columns of the result.

DR. FIRCH (Kidderminster).—The names of the successful candidates in the preliminary examination of the College of Surgeons are not published in the JOURNAL.

OBSCENE DOCUMENTS.

FROM communications sent to us by Mr. Bartlett of Ladbroke Gardens and others, we learn that a "Mr. D. Boileau," dating from 14, Great Castle Street, Regent Street, is in the habit of forwarding to ladies whose accouchement is announced in the daily papers, a document of an obscene character. We recommend the proceedings of this person to the notice of the police.

A CHIRURGEON.—Sir William Lawrence was not elected a member of the Council of the College of Surgeons until the year 1828. His "introduitory," in the theatre of the Aldersgate Street School of Medicine, on the "Absurdity and Barbarity of the Distinction between Medicine and Surgery," was delivered on October 7th, 1826, just half a century ago, when he said that: "Fortunately for us, the London College of Surgeons is entirely destitute of power, the legislature having rejected, with deserved contempt, its various applications for enlarged authority and penal restrictions; the College had, in fact, completely lost the respect and confidence of the body over which they preside, and of the public," etc.

DR. THOMPSON.—Not so precocious as you think; for, in his interesting *Memorials of Twickenham*, the Rev. C. R. S. Cobbett says that "William Whitmore, Esq., of Hackney, when only fourteen years of age, married his cousin, who was one year his junior. The union only lasted five years, when, on the death of her youthful husband, she married Sir Richard Middleton, Bart."

OBSTINATE VOMITING IN PREGNANCY.

SIR,—In answer to QUERENS as to the treatment of the above complaint, I had, some months ago, a case of more than ordinary severity, accompanied by slight hæmatemesis. All the usual remedies, including oxalate of cerium, were tried in vain; not even milk and lime-water could be retained by the stomach. As an attack of fainting occurred, I was summoned to the lady one evening, and immediately administered an ounce of brandy in half a bottle of soda-water. From this time, the vomiting entirely ceased for two months. The soda-water and brandy were continued once a day for about a week, no other medicine being given. Two months later, the vomiting reappeared, but was quickly stopped by the same means. On both occasions, simple brandy and water not only failed to check, but induced sickness.

As any hint with regard to the treatment of such a distressing complaint may be acceptable, will you oblige by inserting my communication in the JOURNAL?—I am, sir, yours truly, CLEMENT POLLARD, L.R.C.P. Ed.

F. M.—James Beaulieu was a celebrated lithotomist, but sadly neglected his patients after the operation, saying "I have extracted the stone, God will cure the wound." Beaulieu's method was adopted by Cheselden, with such unusual success that it was called the English operation.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

UMBILICAL HÆMORRHAGE IN INFANTS.

SIR.—Mr. Lawson Tait of Birmingham having favoured me with a copy of a pamphlet on the anatomy of the umbilical cord, in which he describes a sinus, whence he is of opinion that the hæmorrhage occurs in the cases such as I have recorded, I venture again to address you on the subject. Mr. Tait states his discovery thus: "On making a section of the cord immediately below the ligature which retained the injecting nozzle, a small spot of injection was seen in the substance of the cord lying close outside the wall of the vein. This was found to be the central sinus of the cord; and, on being carefully traced towards the fetus, it was found to curve spirally close alongside the vein, and to enter and pass through the omphalic canal in the midst of the three vessels. Throughout its course, examination by a power of thirty diameters showed that it gave off branches which rapidly broke up and were lost in the tissue of the cord. Finally, it was found to arise from several small branches. They arose from the lower intercostal arteries, and, gathering together on the lower surface of the omphalic vein, combined in the omphalic canal to form the sinus. From this case it is evident that this sinus, at least occasionally, passes very far into the cord, as the point where it was discovered was at least forty-five millimetres from the dermal ring." Mr. Tait further states, that "the absence of muscular walls from this sinus seems to explain some of the facts of this hæmorrhage" (from the stump). Mention is also made of the umbilical arteries contracting upon respiration being established, and of their again dilating upon the respiration becoming interrupted. I therefore think, in endeavouring to guard against loss of blood from the stump of the funis, besides tying the placental ligature first, that sufficient length should be allowed for the stump (not less than three or four inches), and that nurses should always be warned against covering up the face.—I am, yours truly, Southam, Oct. 23rd, 1876. WALTER LATTEY, L.R.C.P. Lond., etc.

R. N.—Mr. Frank Buckland is a member of the College. He was formerly a surgeon in the Horse Guards, Blue.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, &c., have been received from:—

Mr. G. Callender, London; Dr. De Chaumont, Netley; Dr. W. H. Broadbent, London; Dr. Daly, London; Dr. Cayley, London; Mr. Herbert Stowers, Shrewsbury; Dr. Cornelius B. Fox, Chelmsford; The Registrar of the Royal College of Physicians; Dr. Goodchild, Leamington; Dr. Dreschfeld, Manchester; Mr. Wilson Hope, Petworth; Mr. Souttar, London; Mr. J. Beal, London; Mr. F. Gordon Brown, London; Dr. Bradbury, Cambridge; Mr. J. H. Houghton, Dudley; Dr. H. Carroll, New York; Mr. Hugh Robinson, Preston; M.D.; Mr. T. P. Lucas, Lambeth; Dr. Ferrier, London; Dr. Marcus Allen, Portsmouth; Mr. Clover, London; Mr. Cubitt, Stroud; Dr. J. Coats, Glasgow; Mr. G. T. B. Walters, Stroud; Dr. Shingleton Smith, Clifton; The Secretary of Apothecaries' Hall; Dr. Dowse, Highgate; Dr. Mackey, London; Dr. Barclay, Leicester; Mr. D. Colquhoun, London; Dr. W. Squire, London; Dr. G. H. Evans, London; Mr. T. F. Raven, Broadstairs; Mr. Porter, Woolston; Dr. Madge, London; H. J.; W. B. H.; Inquires; Mr. Alfred Charlton, Eastbourne; Mr. W. R. Smith, Plumstead; Mr. Lennox Browne, London; An Associate: Our Manchester Correspondent; Dr. Farr, London; Our Paris Correspondent; Dr. Bartlett, London; Mr. J. H. Harley, Sheffield; Dr. Gairdner, Glasgow; Mr. Chauncy Puzey, Liverpool; Dr. Macleod, Glasgow; The Registrar-General of England; Mr. Etheridge, Teignmouth; Dr. Farquharson, Finszean; Mr. W. Square, Plymouth; Mr. Hamilton Cartwright, London; The Registrar-General of Ireland; Dr. Edmunds, London; The Secretary of the Hunterian Society; Dr. Edis, London; The Secretary of the Epidemiological Society; Dr. J. Milner Fothergill, London; Mr. Evans, Waterford; Dr. Coats, Glasgow; Mr. Husband, York; Dr. Morell Mackenzie, London; Dr. Herbert Snow, Lichfield; Mrs. Rumsey, Torquay; Mr. Power, Dartmoor; Dr. Grainger Stewart, Edinburgh; Dr. Gairdner, Glasgow; Dr. Waller Lewis, London; Dr. Burdon Sanderson, London; Dr. Balthazar Foster, Birmingham; Dr. James Sawyer, Birmingham; Dr. Erskine Stewart, Chirmside, N. B.; A.M.D.; Dr. J. Richards, Bangor; Dr. Alexander, Bradford; etc.

BOOKS, ETC., RECEIVED.

The Theory and Practice of Medicine. By John Syer Bristowe, M.D. Lond., F.R.C.P. London: Smith, Elder, and Co. 1876.
The Climate of Jamaica. By J. C. Philippo, M.D., L.R.C.S. London: J. and A. Churchill. 1876.
Medicinal Plants. By Robert Bentley, F.L.S., and Henry Trimen, M.B., F.L.S. London: J. and A. Churchill. 1876. Part 13.
Autumnal Catarrh. By Morrill Wyman, M.D. London: Sampson Low, Marston, and Co. 1876.
Lectures on Rest and Pain. By John Hilton, F.R.S., F.R.C.S. Edited by W. H. A. Jacobson, F.R.C.S. London: George Bell and Son, York Street, Covent Garden. Second Edition. 1877.

AN ADDRESS ON THROMBOSIS AND EMBOLISM.

Delivered at the opening of the Liverpool Medical Society.

By JAMES TURNBULL, M.D., F.R.C.P.,

Physician to the Liverpool Royal Infirmary; President of the Medical Institution; etc.

I HAVE selected as the subject of this address the coagulation of the blood in the heart and blood-vessels during life; and I have chosen it partly because I have met with several cases during a comparatively recent period, and also because the effects of coagulation are so widely spread in their influence on the various organs of the body, that it must interest those who are engaged in every branch of practice or medical inquiry.

From an early period, clots and concretions were from time to time observed in the vascular system, which led to speculations similar to those which have occurred in more recent times as to whether they had formed during life or after death. The great German pathologist Virchow was, however, the first to examine the whole subject in a complete and systematic manner, and to put together and explain the isolated facts seen by previous observers without being fully understood in their relation to each other. He placed the whole subject on a firm foundation, and applied the term "thrombosis" to coagulation of blood in the heart or vascular system, and "embolism" to the plugging of vessels which results from the transportation of such clots or thrombi by the current of the blood.

The light thrown on pathology by these investigations was regarded by the late Dr. Parkes as one of the great recent advances in medical science; and, to prove that such is the case, let me point to the embolic pneumonias which arise from plugging of branches of the pulmonary artery, to the sudden deaths which occur in puerperal and other conditions from more complete obstruction of the artery, to the paralytic seizures from plugging of the cerebral arteries, and to the gangrenous attacks in the extremities consequent on heart-affections: all of which were at one time involved in much obscurity.

Systematic treatises on this subject have been published in the German language by Conheim and Cohn, but the researches of British medical men are chiefly to be found in the medical periodicals and in papers in the *Transactions* of the societies, which abound in cases illustrating the subject, and showing that the profession in this country is fully alive to its importance. In referring to thrombosis of the veins, Mr. Prescott Hewett, in his address to the Clinical Society in 1873, stated that it is of greatly increasing frequency, but this probably arises from the fact that the true nature of this condition is now more generally recognised.

Before directing your attention to the clots and concretions which form in the vascular system, I would remind you that the coagulation of the blood is produced by the passage of the fibrine from the soluble to the insoluble fibrinated condition. This seems to be dependent on some change in the vital condition of the blood which is not fully understood. Dr. Richardson's theory of its dependence on the escape of ammonia has not been sustained; but the fact remains that the volatile alkali as well as the fixed alkalis have the power of retarding or even preventing coagulation.

In the normal condition, the blood contains from 2 to $3\frac{1}{2}$ parts of fibrin in 1,000, but the proportion is altered in many diseases, and is increased greatly in all the acute inflammatory diseases, especially in pneumonia and acute rheumatism. This increase is the cause of the buffy coat formerly so carefully looked for in reference both to diagnosis and treatment. In the puerperal condition, the blood contains an increased quantity of fibrin, which contracts slowly and presents generally the buffy coat. In chlorosis, it occurs also from there being some absolute increase of the fibrine, together with a large relative increase, owing to the great diminution of red corpuscles. In many cachectic diseases, such as cancer, there is a condition of the blood similar to that of chlorosis, and in all the diseases now referred to the condition of the blood itself predisposes to the formation of clots in the vascular system. In persons of gouty constitution, there is a remarkable tendency to thrombosis in the veins. This may be due to the presence of an acid or other morbid matter in the blood; but Sir James Paget, who has drawn attention to this form of thrombosis, seems to think

that there is a local phlebitis. It is, however, worthy of observation that, in the allied disease acute rheumatism, supposed also to be connected with an acid diathesis, there is likewise a tendency to the deposit of fibrin, especially on the valves of the left side of the heart.

With regard to thrombi, they may form in any part of the vascular system. In the heart, we meet with three kinds of clots or thrombi:—1. The loose, soft, dark-coloured clots, which form ordinarily after death; 2. The firmer yellowish-white thrombi, often adherent to the walls and entangling the valves, which form while death is taking place, or shortly before; 3. The firm laminated concretions, made up of layers of fibrin with colourless corpuscles, which have existed so long, that they have often undergone partial softening, especially towards the centre of the concretion.

The second variety of concretions, with which most of us are familiar, form at a variable but short period before death, and they occur chiefly in cases where there has been a severe and protracted struggle, more especially in pulmonary and cardiac diseases. But little attention has been paid to these concretions, and they have scarcely been looked upon as a cause of death, and have been regarded as merely an evidence of how life has terminated. I am, however, disposed to look upon them as in some cases a cause of death which might possibly be warded off if we could prevent their formation, and so gain time for resolution of pneumonia or other diseases with which they are associated. I had lately an opportunity of seeing a *post mortem* examination in a case of acute pneumonia, where the right cavities of the heart were filled with firm whitish concretions enveloping the valves and cordæ tendineæ, which must have formed a considerable time before death, and where the left ventricle contained also a firm white flattened concretion of still older date. In this case, I think that the immediate cause of death was as much in the blood itself as in the condition of the lung, and that it must have begun with the coagulation of the blood in the cavities of the heart.

In the treatment of this disease, I think we should not overlook the use of any means that can be used to prevent the formation of such fibrinous concretions in the heart. The use of stimulants, which urge on the languid circulation, is clearly indicated; but the alkalis, and more particularly the volatile alkali ammonia, are the only agents we are acquainted with which have a direct power in diminishing the tendency to coagulation, and they should, therefore, be freely administered when we have reason to dread the formation of concretions in the heart. The value of ammonia for this purpose, I may add, was long ago pointed out by Dr. Richardson.

With regard to the class of diseases in which this kind of concretions occur, Dr. Bristowe found that, in a series of forty-one cases, in all but one, which was a case of sloughing sore-throat after scarlet fever, they were cases of either heart-disease, arterial disease, chronic bronchitis, renal disease, tuberculosis, or such a complex of two or more of these affections as we are constantly meeting with in hospital practice.

The third kind of concretions are not always separated by a distinct line of demarcation from the previous one. The concretions, whether in the heart or blood-vessels, which have begun to soften and break down in the centre are often of long standing. I had clear evidence in one case of a concretion in the right ventricle, which was partially softened, of its existence for more than one month; and, in a case recorded by Lancereaux (*Observation cxxii*), where several concretions had so softened as to assume the form of fibrinous cysts, the duration was probably much longer. The softening of these concretions produces the puriform appearance often seen in the centre, and the washing away of the detritus is a cause of capillary embolism in various organs: in the lungs, when the thrombus or concretion is in the venous system or right side of the heart; in the liver, when the concretion is in the portal system; and in the brain, spleen, and other organs of the body, when the concretion is in the left side of the heart or larger arteries.

Dr. Ogle reports eight cases of concretions in the cavities of the heart of old standing, some partially converted into a puriform fluid. Of these, five were in the right auricle, one in the right ventricle, and two in the left ventricle.

The thrombi which form in the veins may undergo the same kind of softening, but they also undergo other changes, and may be partially or completely absorbed.

With respect to the causes of thrombi, we have seen that the clotting of blood by which thrombi are formed is caused by an alteration in the state of the fibrin, and the conditions which determine this in the heart or vessels have been fully studied by pathologists, and they may be arranged in two principal groups:—1. Those which produce interruption, stagnation, or slowing of the blood-current; 2. Those which produce changes in the vessels or their walls. In many cases, however, these conditions are combined and act together.

To the first group belong the thrombi from ligature of vessels, from the pressure of tumours or abscesses, tubercular or carcinomatous disease, and from surgical injuries. The pressure or stagnation from consolidation of an organ, as in pneumonia or nephritis, may first cause coagulation in the capillary veins, from which it may extend by continued deposition till it reaches the larger vessels. Dilatation, by producing stagnation of blood in the part, causes fibrinous deposits: in the veins, when these are in a varicose condition; in the arteries, where there is aneurism; and in the heart, where the cavities are dilated.

The long continuance of any chronic disease may, by weakening the power of the heart and the vessels and by lessening the respiratory force which aids the circulation, produce what has been called marasmus or debility thrombosis. In this way, clots form in the sinuses of the brain in chlorosis, and also in other cachectic diseases where the blood is detained by wasting of the cerebral substance. Thus, too, thrombi form in the veins as a consequence of febrile diseases, such as typhus and typhoid, and in tubercular and carcinomatous affections.

The second group of conditions which produce clotting—those, viz., within the vessels, and where the blood comes in contact with an abnormal surface deficient in vitality—comprise phlebitis, endocarditis, endarteritis, and also the roughness of the vascular coats from degenerative changes of fatty or calcareous nature. Also the projection of any foreign body into the vessels or the blood, such as needles, bone, shot, or blood-clots themselves. The passage of pus into the vascular system acts in the same way; and, after fractures, there is sometimes absorption of marrow or fat by the veins, which becomes a source of thrombosis and pulmonary embolism. (On Fat Embolism, see *Medical Times and Gazette*, January 8th, 1876.) Purulent matter may find its way into the veins, not only by the opening of an abscess into them, but also from suppurative phlebitis; the occurrence of which, though rare, cannot be questioned. There are thus two kinds of thrombi—those which are caused by mere mechanical stasis, and those which are produced by suppurative gangrenous or other inflammation in or around the walls of the veins. Thrombi of the latter kind, transported by the blood current, carry with them the embolic seeds of disease to the distant part in which they are arrested; and thus we have pyæmic thrombosis and embolism. It is not improbable that pyæmia may sometimes result from the puriform softening of fibrinous concretions formed in the heart or veins; but no doubt it far more frequently arises from those thrombi having access to the external air, and connected with wounds or with the uterus.

When we see the great variety of conditions which may thus lead to clotting of the blood, we are enabled to appreciate the importance of thrombosis in a practical sense, and in its relations to other diseases. Time presses, however, and we pass on to view the subject in some of its clinical aspects.

In doing this, I shall first direct your attention to thrombosis of the venous system, and of the right side of the heart, in causing embolism of the pulmonary artery, embolic pneumonia, etc.; 2nd, to thrombosis and embolism of the portal system and the liver; 3rd, to thrombosis of the left side of the heart and embolism of the arterial system.

1. The following case is one where a fibrinous concretion formed in the right ventricle of the heart; and the course of the symptoms showed that another coagulation subsequently took place in the left subclavian vein at its junction with the internal jugular vein. A robust young man, twenty years of age, steward of a ship, was admitted into the infirmary on November 16th ill five weeks, and off work nine days. His legs and abdomen were dropsical, but there was no albumen in the urine. The pulse was feeble, and the heart acted with great irregularity. There were extreme cardiac distress and difficulty of breathing, which symptoms were aggravated by being raised, so that he lay with his head as low as possible. An indistinct systolic murmur was heard at the apex, which afterwards became inaudible. The dropsy disappeared from the abdomen and legs; but he had frequent vomiting, and the cardiac distress and weakness were most severe for three weeks. The pulse then became more regular and stronger, the distress at the heart abated, no murmurs could be heard, but new symptoms appeared. The left arm began to swell; he complained of pain in the left shoulder; there was tenderness on pressure above the left clavicle, oedema of the surrounding parts, and signs of effusion in the same side of the chest. From the 10th to the 18th of December, these new symptoms continued, whilst the heart symptoms abated; and on the 18th, while sitting up in bed and eating a biscuit, he suddenly expired.

On examination, an old fibrinous concretion, partially softened and broken down, was found in the apex of the right ventricle; and this must have been the cause of the unusually distressing cardiac symptoms, as the heart did not appear to be diseased. A firm fibrinous thrombus was found in the left subclavian vein, at its junction with the

jugular, which completely obstructed the former, and was the cause of the oedema of the arm. It must have formed long after the cardiac concretion; and as we can scarcely suppose that the softened particles from this could pass through the pulmonary capillaries, and then through the systemic capillaries, to form the nucleus of the concretion in the vein, it appears more probable that there may have been a morbid tendency in the blood to coagulation, the persistence of which caused the formation of the second as well as the first thrombus.

I was called to see in consultation a gentleman, about fifty-six years of age, a large robust man, whose illness began with a pain and slight swelling in the calf of the right leg, which he could attribute to nothing except a slight jerk in getting into an omnibus. This was followed by severe pain in the abdomen, then pain in the chest, and pneumonic signs in the right lung, and expectoration of blood and sputa mixed with blood. The left leg next began to swell, and both continued painful, oedematous, and the superficial veins were hard and painful to the touch. He sank in about three weeks with increasing pulmonary obstruction, pleuritic effusion, and oedema of the legs. No examination could be obtained.

The next case was so similar to the preceding in the succession of symptoms, as well as in the slowness of the injury from which it was supposed to arise, that I ventured, from the description given by the medical attendant, to suggest before seeing the patient the probability of its being a case of venous thrombosis and embolic pneumonia.

An active, healthy-looking gentleman, forty-five years of age, rode out ten miles on horseback. The horse, being spirited, gave him trouble; and he felt stiff in his legs after the exertion. Next day, there were slight redness and pain on the inside of the right leg, with oedematous swelling. This was followed by rigor and pain in the right side of the chest, cough, and expectoration of bloody mucus more fluid than the rusty expectoration of ordinary pneumonia. When I saw him on the third day, there were some dulness on percussion, and rather coarse crepitation over the lateral and central portion of the right lung, with moderate febrile disturbance; but the right leg had also begun to be swollen, with painful streaks of redness in the course of the internal saphena vein, and pain also on pressure in the groin. The embolic pneumonia quickly subsided, but the venous obstruction increased, and required surgical treatment. The case passed, therefore, from my care and observation; and, after having made partial recovery, the gentleman died about four months after his first attack, ulceration of the cartilages of the right ankle having supervened after erysipelas, on account of which he underwent amputation.

In the first of these cases, the thrombosis could not be traced to its cause; and the injury or cause to which it was attributed in the two other cases was of so trifling a nature that we can scarcely doubt that there must have been some predisposing condition in the constitution or the blood itself.

Sir James Paget has shown that similar cases occur in persons of gouty constitution, and he inclines to the view that the coagulation is caused by gouty phlebitis. He tells us it affects chiefly the superficial veins of the lower limbs, and shows a disposition towards being metastatic and symmetrical, characters which, in his opinion, are strongly in favour of the belief that the essential and primary disease is not a coagulation of the blood, but an inflammation of portions of the venous walls. On the other hand, however, we must not forget that, whilst phlebitis is a cause of coagulation, thrombi likewise produce adhesive phlebitis.

Mr. Prescott Hewett, Dr. Tuckwell, and Dr. George Johnson have likewise observed the occurrence of thrombosis in the gouty condition. Mr. Hewett observes: "In a very few cases only did the clotting of the blood appear to be connected with an injury—a slight contusion, a sudden strain of the limb. In some cases, it followed fever, especially typhoid fever; and in one remarkable case, in which both external iliac veins and both axillary in the course of months became permanently blocked, it followed small-pox. In most cases, the patients were over forty. In three of his cases, there was embolism, with pleuropneumonia. The limb usually remained more or less swelled, but one gentleman recovered so as to return to deer-stalking."

Dr. George Johnson (*BRITISH MEDICAL JOURNAL*, November 30th, 1872) found in two of his cases that the symptoms of cardiac thrombosis preceded those of venous obstruction, resembling in this respect the first case I have detailed; and from this he infers that fibrinous debris from clot in the pulmonary artery may pass through the capillaries of the lungs and thence into the arterial capillaries, and so reach the veins of the limbs. I have, however, already observed that we can more readily conceive the occurrence of secondary venous clotting from continuance of the original cause than from the passage of the solid particles from the debris of fibrine through two sets of capillaries.

It has been observed that in chlorosis the state of the blood predisposes to thrombosis; and a case came under my observation at the Infirmary this summer, where there was a great amount of clotting in many of the veins, and apparently confined entirely to the venous system. There was also clear evidence from the symptoms of two distinct attacks of clotting in different parts of the venous system. A pale, delicate girl, aged 21, was admitted on June 28th. She had not menstruated for two months; and, after bathing in the sea, was seized with pains in the lower part of the abdomen and the sacrum. The left leg, and then the right, became painful, hard, and swollen. She had afterwards an attack of dyspnoea. On July 14th, head symptoms suddenly showed themselves; she became unconscious; hemiplegia on the right side followed; and she died on the 17th. A great amount of blood-clotting of dark colour was found in both femoral veins, in those behind the uterus and bladder; and where the iliacs terminated in the inferior vena cava there was a firm whitish old thrombus adherent to the venous walls; higher up, the thrombus was softer and of a dark colour; but, still nearer the heart, it became again white and firm, with a conical termination. There were thrombi in some of the branches of the pulmonary artery, and a small portion of lobular pneumonic consolidation in the left lung. A branch of the pulmonary vein from the left lung was obstructed by a firm thrombus, and soft recent concretions were found in the left auricle and ventricle. No infarction of the viscera or appearance of arterial embolism was discovered. There was a firm white thrombus obstructing the straight sinus of the brain; and the veins on the surface of both hemispheres were filled with dark clots. There was an extensive softening and diffusion of dark clots of blood in the left hemisphere, and similar less advanced appearances on the right side.

What was the cause of the venous clotting in this remarkable case? Did it arise from phlebitis, seeing there was some pelvic irritation, or from some condition of the blood itself? I take the latter view, and partly for this reason, that there was a second clotting in the cerebral veins, the symptoms of which were separated by about fifteen days from those marking the first attack in the pelvic and femoral veins.

In the medical journals, and more particularly in the *Transactions of the Pathological Society*, there have been published numerous cases illustrating thrombosis and embolism; and Lancereaux gives, in his work, *Atlas d'Anatomie Pathologique*, many cases which throw light on the subject. In two cases, he shows the danger from sudden movement or excitement in displacing venous thrombi, and thus causing them to be carried into the pulmonary artery.

A woman sixty-six years of age, who had thrombosis of the femoral vein and pneumonia, from which she was recovering, got out of bed in a passion, and died suddenly from embolism of the pulmonary artery. Another woman, twenty-three years of age, was suffering from venous thrombosis and cedematous thickening of the left leg, but was better and about to be discharged. After a fit of laughing ("à la suite d'un accès de rire"), she died quite suddenly. The popliteal and tibial veins were found obliterated with clots; and embolic concretions from the femoral vein were found in the right ventricle, and also obstructing the branches of the pulmonary artery. Dr. Browne has reported (*Lancet*, June 27th, 1874) the case of a man suffering from an injury to a varicose vein, for which an elastic stocking was applied. In running a short distance to avoid a shower, he was seized with faintness and dyspnoea, and died within three-quarters of an hour, from complete obstruction of the inferior vena cava. These cases show the importance of complete rest in the treatment of thrombi, and the danger of displacing them from the situation in which they have formed. Lancereaux has given a series of seventy cases showing with what diseases thrombosis and embolism of the venous system and right side of the heart are most frequently associated, from which it would appear that they are most frequently met with in connection with carcinomatous, tubercular, and scrofulous diseases, the puerperal condition, varicose veins, and syphilis. In six of these seventy cases, death occurred suddenly.

Disease of the heart is a frequent source of concretions in the right cavities, especially in the auricle, leading to pulmonary embolism; and this is one of the ways in which cardiac disease may prove suddenly fatal. Lancereaux tabulates eighteen cases to show the cardiac affections most prone to produce these concretions. In seven, there was contracted mitral orifice; in two, insufficiency of the mitral valve; and in nine, dilatation of the right side of the heart from pulmonary lesion.

In the puerperal condition, there is not only an increased quantity of fibrin in the blood, but with this there is also venous stagnation from pressure and dilatation—a combination of causes prone to induce thrombosis; and it is well known to obstetric practitioners that some of the most formidable accidents consequent on delivery are due to

thrombosis and embolism. Dr. Barnes and Dr. W. S. Playfair have both described, in papers in the *Transactions of the Obstetrical Society*, the appalling symptoms of dyspnoea, etc.; which from this cause suddenly attack patients after confinement. They do not, however, differ materially from the symptoms which mark the occurrence of complete or partial pulmonary embolism from other causes. Dr. Barnes has shown that the puerperal condition disposes to clotting of blood in the arterial as well as the venous circulation, and in two of his cases the veins and arteries were both obstructed.

When a fibrinous clot from the peripheral veins or from the right side of the heart completely obstructs the pulmonary artery, death must of course follow rapidly; and the same result must ensue where the larger branches are completely obstructed by smaller clots. But, when some of the smaller branches only are plugged, the parts supplied by the vessels become the seat of embolic pneumonia or infarction, formerly known as pulmonary apoplexy. Recovery not unfrequently takes place from this condition, the dark wedge-shaped portions of consolidated lung undergoing fatty transformation and absorption; but, on the other hand, the pneumonic abscesses which result from septic emboli are probably always fatal.

I must necessarily be brief with the two remaining divisions of my subject, each of which would suffice for a single paper or address.

2. Thrombosis and embolism of the portal system and liver have been very fully investigated by Frerichs, who has shown that the same causes which operate in the venous system act here too. Thrombosis and embolism of the vena porta are, perhaps, not unfrequently overlooked for the same reason that they are not observed in other organs; viz., because the organs are more carefully examined than the vessels. But the study of pathology has become a laborious work, and microscopic examination is also necessary to discover the smaller capillary embolisms. If we are, therefore, to advance pathological knowledge, we must continue to uphold our Microscopical Section, and to encourage those who devote their energies to this laborious work.

3. The third and last branch of our subject comprises thrombosis of the cavities of the left side of the heart, thrombosis of the arteries, and embolism of the branches of the arteries; also the effects of embolism on the viscera and limbs in producing infarction, softening, gangrene, and loss of function.

Concretions form in the cavities of the left side of the heart from conditions similar to those which produce them in the right side, especially in the left auricle from contraction of the mitral orifice; and Lancereaux describes two cases of concretions in the auricle from mitral contraction consequent on acute rheumatism. He has also reported two cases of fibrinous concretions in the left ventricle. In one, where this cavity was much hypertrophied, there were five concretions, varying from the size of a nut to a pigeon's egg. The larger, adherent to the internal surface, were softened at the centre, and contained a milky-looking fluid. In the other, a case of weak, fatty, dilated heart in an imtemperate man, there were also several concretions embedded in the fleshy columns, which were softened in the centre.

We know that the left side of the heart is liable to endocardial inflammation, and to valvular affections, which rarely affect the right side; and these conditions cause the formation of smaller fibrinous concretions, which are deposited like granulations on the edges of the valves; and they, as well as the larger concretions resulting from stasis, are a frequent cause of embolic obstructions in the arteries. Rheumatic fever is known to be one of the great causes of endocarditis, and it may produce either valvular contraction or these warty concretions on the edges of the valves. There is, however, another form of endocarditis—the ulcerative—from which embolic matter may be carried away; and this is much more injurious in its effects, being of septic or pyæmic nature; and Lancereaux, who has collected eleven cases, tells us it always proves fatal.

With regard to arterial thrombosis, concretions form less commonly in the arteries than in the veins; but they are produced, as in aneurisms, by dilatation and contraction of the vessels, and also by degeneration of the coats. Last session, Dr. Davidson brought before this Society a case of fibrinous obstruction of the arteries of the brain, which were thickened by syphilitic disease, and this he regarded as thrombosis. Dr. Bristowe (*Transactions of the Pathological Society*) reports a similar case, where the right hemisphere was softened from obstruction of the middle cerebral artery. He has also reported seven cases of fibrinous deposits in the arteries of the brain, which, he thinks, were not of embolic nature, and must have been due to spontaneous coagulation of blood or local arteritis. In the arteries as well as in the veins, there must often be this difficulty in deciding whether a fibrinous clot has formed in the situation where it is found, or has been transported from a distant part. In

either case, however, the effects on the obstructed organ or part will not be materially different.

With respect to arterial embolism, not only the large concretions which form in the left auricle and ventricle, but also the smaller ones which are deposited on the valves, as well as the degenerating matters which escape from both forms of concretions, are liable to be swept away by the blood-current to form embolic plugs in the arterial branches. The clots also which form on the coats of diseased arteries, and likewise the fatty or calcareous matters which form there or on the valves, are carried away and block up the arteries of the spleen, the kidneys, the brain, or the limbs; the relative degree of liability to be affected being in this order, and being due to the particular conditions of the circulating system of these organs.

I need not describe the appearances of infarction and softening presented by each of those organs in consequence of embolic obstruction. We are all, however, I believe, in the present day aware of the fact that embolic obstruction of the arteries of the brain is a frequent cause of softening and paralysis, which cannot be removed by any active depleting and counter-irritant treatment, but is more likely to be benefited by rest and gentle stimulation. And I would remark that, just as Paget, so far back as 1844, drew attention to coagulation of the blood in the pulmonary artery, ably illustrating the subject by a series of carefully observed cases, so also Dr. Kirkes was, in 1852, the first to demonstrate clearly by another series of cases that fibrinous deposits in the interior of the left side of the heart are a frequent cause of softening of the brain, which always results when the obstruction is beyond the circle of Willis, owing to the absence of anastomosing branches. In his very original paper, he also illustrated the effects of embolic obstruction in producing infarctions of the spleen and kidneys, and also the violet-coloured petechial spots on the mucous membrane of the stomach and bowels, which are produced by the same cause.

I have condensed from the Infirmary Clinical Medical Prize Reports of this year a case which occurred lately in the Infirmary, which shows well the close connection between valvular disease of the left side of the heart and cerebral softening.

A woman, twenty-one years of age, admitted with disease of the heart consequent on rheumatic fever, became suddenly unconscious, with right hemiplegia, the day before her death. The middle cerebral artery was found plugged by white fibrine; and on the mitral and aortic valves were found numerous fibrinous and calcareous vegetations, which showed the source from which the embolic matter was derived. The cause of the obstruction in this case is sufficiently clear; but in another case, taken from the same reports, and which occurred in the hospital practice of my colleague Dr. Glynn, the cause of the arterial obstruction was more obscure, and was probably from thrombosis, seeing that there was also venous thrombosis.

A girl, nineteen years of age, was carried helpless into the Infirmary on January 4th, having had a sudden seizure, followed by left hemiplegia and anæsthesia, which had been preceded by pain in the right side of the head. She died on March 13th. There was extensive softening of the right middle cerebral lobe. The right internal carotid artery was plugged by what appeared to be an embolus at the bifurcation of the anterior and middle cerebral arteries; the higher part being firm and of yellowish colour; but lower down, of dark brown colour, and having a conical termination in the external carotid. The thyroid body was enlarged; the heart sound. There was also a thrombus in the lower end of the vena cava, and in the left common and external iliac veins adherent to the walls.

Here, again, we have coagulation of blood in both the arterial and the venous system which has been observed in so many other recorded cases.

I might have alluded to some other forms of embolism, to the effect of embolism of the coronary artery in arresting the heart's action, to the effect of plugging of the central artery of the retina in destroying vision, and to the connection between embolism and paraplegia, chorea, and some other nervous affections. I might also have alluded to the view taken by Dr. George Johnson, that the lobular pneumonia which often follows extensive burns arises from the passage of coagulated blood from the injured parts to the pulmonary vessels and the duodenal ulcers from a similar cause. We can readily understand the wide range of effects produced by the blood distributed throughout the whole system; but yet we must be careful in not ascribing to the effect of embolism anything that is not proved by rigid observation. Sufficient has, however, now been adduced to show how great are the consequences that may result from the coagulation, the lessened vitality, or it may be the death of a minute portion of the blood passing through the heart or circulating in a vein or an artery, and to prove the importance of a knowledge of this subject to all who are engaged in the practice of medicine or surgery.

BULBAR PARALYSIS.

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[Concluded from p. 583 of last number.]

BEFORE entering upon the pathology of this disease, I wish to draw attention to two typical cases, which are at the present time under my care—one of complete cure, and the other a retrogressive case of reflex bulbar paralysis.

CASE III. *Bulbar Paralysis of five years' duration: Cure.**—Daniel Megan, aged 22, of neurotic tendency, and with a history of convulsive seizures in infancy, had fairly good health in childhood, but became subject to a series of epileptic fits when sixteen years of age. These were succeeded by paralysis of the seventh, eighth, and ninth nerves, and by increasing failure of motor power all over the body. He came under my care three years afterwards. When first seen by me, the countenance was calm and intelligent; he was unable to bring the lips together, to spit, or blow out a candle. The lower jaw could not be fully depressed, neither could the lateral movement of mastication be effected. Saliva was constantly dribbling from the mouth, and the tongue lay flaccid, furrowed, and helpless behind the lower row of



Fig. 4.

teeth. He was able only, in a very limited degree, to retract it or to move it in a lateral direction. The want of power in deglutition showed itself chiefly, though not entirely, in the first act, which was performed apparently with great difficulty. The palate muscles were more or less involved, and he would occasionally suffer from partial asphyxia, from particles of fluid entering the larynx. There was some inhibition of the vagus, evidenced by respiratory and cardiac irregularities; and, like many other cases, his head seemed fixed so that he moved it with difficulty. This, doubtless, arose from palsy of the spinal accessory nerve, whose origin, according to Dr. Lockhart Clarke, is intimately associated with that of the vagus and hypoglossal. The vocal chords were found to act feebly. He was quite dumb, and unable to make a sound. There was complete motor paralysis with impaired sensation of the upper limbs, and entire paralysis of the lower to motion, and partially to sensation. The muscles of the latter were greatly atrophied, especially the extensors, so that the heel was drawn up, as in talipes equino-valgus. There were no tremors or muscular fibrillations. There was dulness at the apex of the right lung, with crepitation. Altogether, I thought the case most unfavourable, so I merely fed him well, and gave him steel, with cod-liver oil. He gained flesh, and his general health improved; saliva ceased to flow from the mouth; the act of deglutition was performed fairly well; the palate and vocal muscles also gained power; yet the tongue remained as motionless as ever.

In December of last year, I determined to galvanise the tongue regularly; and, to show how much its sensibility was impaired, I could get no response to an induced current of Stohrer's two-celled battery. I persevered daily for three weeks, and at the end of this time electric sensibility was aroused; and, to his own surprise as well as mine, he protruded the tongue, and went through the alphabet, with the exception of R, O, F, P, W, and S. The following day, he was unable to protrude the tongue until it was galvanised; but from this time he exercised voluntary control over it, and he now has perfect use of lips and tongue, can swallow, and speak with almost perfect accuracy. The tendo Achillis has been divided, and by the daily use of the constant current, and injection of a quarter of a grain of strychnine, he is fast regaining the use of his lower limbs. In this case, which is of unusual interest (and in English medical literature I do not find another recorded), we have good evidence of lesion of the medulla, and possibly

* Patient shown at Clinical Society last session.

of the anterior grey matter of the spinal cord, in association with general muscular atrophy. Professor Hausmann of Friburg connects the two conditions in the following words. "If we compare bulbar paralysis with progressive muscular atrophy, we find that they are both dependent on manifold degenerative processes of the same anatomical character in each; and which agree with one another in their tendency, on the one hand, to spread gradually over the anterior grey columns of the spinal cord, and the nuclei of the medulla oblongata which correspond to them; and, on the other hand, to destroy the ganglion-cells embedded in these parts, either singly or in groups, and in an irregular manner. According as such a process at first attacks a higher or a lower region, the medulla oblongata or the cervical or lumbar enlargements of the cord, the results are different, yet without losing their typical character. The greater danger of bulbar paralysis, and its short duration, are easily explained by the close proximity of the diseased parts to the *centrum vitæ*." I believe that this is now the accepted doctrine, and in the main is true enough; yet, in my experience of bulbar paralysis and associated muscular atrophy, one finds a want of muscular-cutaneous sense and sensibility, which one fails to observe in ordinary spinal muscular atrophy. However much progressive spinal muscular atrophy resembles, or is associated with, paralysis of the nerves originating in the motor nuclei of the medulla, we do not find progressive muscular atrophy accompanying the latter form of disease in the same ratio. Dumenil thought that this arose from a lesion of the sympathetic; but of late a theory has been advanced by Duchenne and others, who consider that the ganglion cells of the anterior horns of the spinal cord and motor nuclei of the medulla are of two kinds, motor and trophic. So, where the progressive muscular atrophy appears with its typical characters, they believe the lesion to be limited to the trophic cells. On the other hand, where, as in cases of progressive paralysis of the tongue, the paralysis runs its course without atrophy of muscle, the lesion is one of motor cells alone.

The following is a brief record of a case of bulbar paralysis, retrogressive in its character, which I consider to be of reflex origin.

CASE IV. *Reflex Bulbar Paralysis*.—E. B., aged 59, a pale unhealthy-looking woman, was attacked with inflammation of the submaxillary and parotid glands. She was also suffering from Bright's disease. The attack of inflammation was severe and prolonged, and, upon recovery, there was a decided paralysis of the facial, hypoglossal, and spinal portion of the spinal accessory nerves, as well as the third division of the fifth. The vocal cords acted feebly, and she could



Fig. 6.

only speak in a whisper. My attention was first directed to her condition because she was unable to pronounce the linguals R and S, and she could not protrude the tongue over the lower row of teeth. Food lodged in the cheeks, which the tongue was unable to dislodge; saliva was constantly dribbling from the mouth; and enough air could not be sent through the lips to extinguish a candle. The first stage of the act of deglutition was alone affected, owing to the palate muscles acting fairly well. She has improved very considerably of late, and I think the improvement is due to the use of the constant electric current.

Concerning the microscopic pathology of this disease of the medulla, we have now ample evidence, through the researches of Lockhart Clarke, Kesteven, Duchenne, Charcot, and others. We find Dr. Clarke's researches on this subject in the *Medico-Chirurgical Transactions*, vol. iv, 1873, where the grey matter of the medulla and cord presented a variety of lesions. Hypertrophy of the connective tissue, with proliferation of its corpuscle, and aggregation of these in masses at the angles of junction in the network, are described by the author. Several patches of disintegration were observed—one of large size consisted of remnants of partly disintegrated grey substance, irregularly connected with each other, and forming together a kind of honey-comb

structure. Several large areas of disintegration and hæmorrhage clots existed, involving considerable destruction. In all regions of the cord the nerve-cells had undergone degeneration and disintegration. Some were completely, others only partially, filled with dark-brown pigment-cells, which in many instances enveloped and concealed their nuclei. All the remaining cells were reduced in size. Many seemed to have been lost by gradual atrophy, and numbers had wholly disappeared by complete disintegration, or fallen into granules. These lesions were traced in the nuclei of the facial, hypoglossal, vagus, and spinal accessory nerves, and explained the symptoms of glosso-pharyngeal paralysis. The extensive loss of substance in the anterior and lateral grey substance of the cervical and dorsal regions, more especially of the tractus intermedio-lateralis, explained, in the latter stages of the disease, the feebleness of the respiratory movements.

The question which I am desirous to raise is this. There are certain pathologists who seem anxious to maintain that clinical observers are in error when they apply the term bulbar or glosso-pharyngeal paralysis to lesions, which, although existing in the medulla, extend to and involve other motor nerves, and even the lufcephalic motor tract. No one is more anxious than myself to preserve exactitude in diagnosis; but my practice in the study of nervous disorders, aided by the careful microscopic researches of my friend Dr. Kesteven, to whom I am most deeply indebted, has convinced me that intrinsic nerve-change of an interstitial and subacute inflammatory type, such as we know to give rise to the morbid lesion of the medulla, evidenced by bulbar paralysis, may be associated from the onset with a similar change in the pons Varolii, as well as the cervical spinal cord. It is undoubtedly necessary that care should be taken in making a diagnosis in respect to this disease, otherwise we should soon fall into error. I have several cases at present under my care, where there is apparently a pseudo-bulbar lesion existing, with more or less paralysis of the limbs. Yet, it must be noted that the bulbar nerves are not affected bilaterally, and there is a marked hemiplegia of one side over the other.

I know of nothing in the whole range of nerve literature to compare with the original and exact observations of M. Auguste Voisin, in the *BRITISH MEDICAL JOURNAL* of June 19th, 1875, and can practically verify every statement which he has made. The troubles of language, he says, are of various orders, and may be termed—

1. Stuttering, drawing, hesitation;
2. Jabbering, stammering, and quavering.

The first three are caused by lesions found in the course of the nerve-fibres, passing from the cortex of the anterior convolutions to the medulla, through the corpora striata crura and pons Varolii, and involves disturbances of the intellect and will. The second three do not result from any troubles of intelligence or will; but are consequent upon an absence of harmony in the coordinate acts performed by the muscles animated by the nerves proceeding from the medulla oblongata. I mean the hypoglossal, facial, spinal, and glosso-pharyngeal nerves. He goes on to say that the first order of troubles of speaking is determined by the infiltration of the cortical substance of the frontal convolutions, and of the island of Reil with blastema, and by the softening of it by the production of embryo-plastic nuclei, first in the vessels, next in nervous substance among fibres conducting the will, and by the ulterior organisation of these embryo-plastic nuclei into fibrillary tissue. The second order of symptoms is occasioned by the infiltration of blastema, and by the multiplication of embryo-plastic nuclei in the vascular sheath of the perivascular spaces; next, amidst the nerve fibres of the bulb, and by necrobiotic alteration of the cells of the original nuclei of the nerves of the medulla, and especially of the facial. The third group of the troubles of speech is produced by atrophic lesions at the apparent origin of the bulbous nerves, and by fatty degeneration of the muscles of the tongue.

In concluding the paper, what we have lastly to consider is this. Have we at our command any means, in the whole range of therapeutics, which will obviate the tendency to the progressive course of the disease? I believe we know of few medicines which would directly check and control it. I certainly have seen good done by a seton in the back of the neck, and also by the local application of the continuous galvanic current; but the chief and vitally essential point in practice is nutrition and rest. Directly deglutition becomes at all difficult, it is necessary to feed the patient freely and regularly. This is best done by a piece of India-rubbertubing passed through the nostril. Patients of mine have soon acquired the habit of feeding themselves in this way; and it is a curious fact, that nothing seems to satisfy their craving for food. A man under my care passed into his stomach an enormous quantity of fluid nourishment, and, not satisfied with that, would steal food from other patients, and upon more than one occasion nearly choked himself through his voracity, but he gained flesh and held the disease in check. There are other points, too, which ought to be considered.

The urine should be carefully tested for sugar and albumen—the specific gravity is usually much below normal. I have found injections of one-fortieth grain of atropine to moderate the excessive salivary secretion; and, as the digestive powers are usually good, cod-liver oil, with phosphorus and steel, are undoubtedly useful.

ON THE STRUCTURE OF THE MATRIX OF HUMAN ARTICULAR CARTILAGE.

By H. A. REEVES, F.R.C.S.,

Assistant-Surgeon to the London Hospital, etc.

HAVING for some months past been engaged in the study of joints, I have had occasion to apply various methods, too numerous to mention here; but I wish to bring under the notice of histologists some means by which the demonstration of the structure of so-called hyaline cartilage may readily be accomplished.

The perusal of Dr. Thin's paper on the Structure of Hyaline Cartilage (*Quarterly Microscopical Journal*, January 1876) stimulated the conviction which I have long held and taught as to the uniformity of structure; and I have endeavoured to convince myself of the existence of normal fibrillation in human cartilage, if it were possible.

Some weeks ago, I placed the fresh articular elbow-ends of the humerus, ulna, and radius of a woman aged 65, whose arm had been amputated for the results of senile gangrene, in a 0.5 per cent. silver solution for ten minutes. They were then removed and exposed to the light in the dry state (*i.e.*, without being placed in any liquid) for nearly three days. I had intended to examine them at once, but other work prevented it. On making horizontal thin sections, and examining them first as they were and without a cover-glass, and subsequently other similar sections in glycerine, I was struck with the appearance of straight bands running in various directions and planes, separated by bright but somewhat interrupted lines, which in some parts appeared to be made up of minute, round elements, reminding one of the "elastic grains" described and figured by Ranvier. I must mention that the cartilages were washed in ordinary water before immersion in the silver, and that the capitellum was rubbed with a clean towel, in order to get rid of adhering synovia. My object in doing this was to avoid any false appearances caused by the deposition of silver in the synovia and the subsequent shrinking of the latter.

Thinking that this appearance might perhaps be due either to the age of the woman or to the fact of the limb having been so long inflamed, or to the change effected during the three days the cartilages were exposed, I examined the cartilages of younger people very shortly after removal, fresh and without any reagent, and also after staining in gold, silver, and aniline dyes; also in salt solution. I almost invariably recognised the same appearances; but they are not so distinct in fresh as in stained preparations. The fibres are perfectly straight, in this respect and in others differing from those figured by Dr. Thin of the kitten and sheep. In some of the sections, rounded, oval, and irregular figures—probably the transverse sections of similar fibres—were visible; but on this and other interesting appearances I intend to dilate more fully ere long. It is important to note that these appearances are not in any way artificial or due to the methods used, as perhaps may be said of the methods Dr. Thin employed, and of those of Tillmanns and Baber. The fibrillation is a continuous right-lined one, differing much from that figured by Tillmanns and Baber. Once recognised on stained sections, they are readily made out in fresh ones.

The gold method I employed was the following. Fresh articular ends of bones were placed for twenty minutes in a 0.5 per cent. auric chloride solution. They were then allowed to remain all night in a 0.02 per cent. solution, and in the morning were removed and exposed to the light in the dry way all day. In the evening, horizontal sections were made and examined.

I may add that, after taking every possible precaution to avoid fallacy in silver preparations, I observed figures very similar to those represented by Tillmanns, which he deems artificial, of which more anon.

Conjunctival End-Bulbs of the Gold-Fish.—In osmic acid preparations of the conjunctiva of the gold-fish I have observed end-bulbs, similar to those first discovered by Krause, which are of a somewhat complicated structure. They will be figured and described shortly. So far as I have been able to seek, I have not come across the mention of their existence in fishes.

Parasites in the Cray-Fish, Newt, and Earth-Worm.—Some years ago, when working, through Professor Huxley's courtesy, in his labora-

tory, I noticed under the microscope peculiar oval bodies in the muscles of *Astacus fluviatilis*. They only occurred in one specimen. I showed them to two or three gentlemen, and at the time referred to the works of Cobbold, Kirchenmeister, Von Siebold, and other helminthologists, but could not find any description to correspond to the bodies observed. I cannot be more precise in the description, as the preparations are now spoiled; but I direct attention to the fact, as the cray-fish is largely eaten, in order that some one interested in the subject may investigate the matter.

On laying open the abdomen of a young newt, I observed what appeared like a hair in lively motion. Under a low power, it looked like a small thread-worm; but its motions were too lively to permit of study. My instruments were quite clean, and I am sure that the creature did not get into the abdomen after the latter was opened. It was found near the posterior part of the abdominal cavity; and, as I was dissecting under the microscope, I should have noticed it at once had it been introduced *ab extra*. Had it been swallowed, and then perforated the intestine?

On placing a portion of the segmented organs of an earth-worm under a quarter inch, I noticed, coiled up, what looked like trichina spiralis; but it was not encysted.

I regret very much that I cannot be more accurate in my statements, not being well versed in helminthology; but, crude as these observations are, they may induce some one with more knowledge to inquire into and discover more of a subject which may turn out to be of importance.

HYDATID OF BRAIN: CHRONIC MENINGITIS: SEROUS EFFUSION: APOPLECTIC SEIZURE: DEATH.

By W. H. MACNAMARA, M.D.,

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PRIVATE J. F., 106th Regiment, aged 37, in service seventeen years principally Indian, had head-symptoms, attributed to the effects of sun in 1864. He was frequently in hospital with remittent fever, and several times with chronic rheumatism. He had had no trouble with his head since 1864. At 5.30 P.M. on September 19th, he was seen by a comrade; he seemed all right, but had been drinking. About half an hour afterwards (6 o'clock), he was found naked in a bath room, with his head in water, to all appearances dead. Artificial respiration brought on hissing breathing. Dr. McEwen saw him about 6.30, and found him insensible; pupils dilated; breathing laborious and hissing; pulse quick, but firm. His bowels were moved. His feet and hands were quite cold. Warm bottles were applied to the hands and feet, and cold to the head. When I saw him a quarter of an hour afterwards, he was in the same condition, but with twitching of the muscles of the arms and stiffness of both legs. Epileptiform seizures came on every ten minutes or quarter of an hour. No smell of liquor, enlargement of the heart, or sign of atheroma of the arteries, was detected. About 8.20, the temperature began to rise rapidly; at 8.45, the thermometer registered 106.6. Respiration became quicker and more laborious; the epileptiform seizures more frequent and violent. The pulse remained firm. Urine was passed freely. The patient was packed in wet sheets; ice applied to the head. The temperature was gradually reduced. The spasms became less frequent, but the pulse became weaker towards morning. The wet sheets were discontinued. Brandy and beef-tea were administered by the rectum. The patient gradually sank, and died comatose at 7.25 A.M. on September 21st, about thirty-six hours after attack.

POST MORTEM EXAMINATION; twenty-eight hours after death. The membranes and sinuses of the brain were congested. The dura mater was thickened, and the visceral and parietal layers of the arachnoid adherent in the vicinity of the superior longitudinal sinus. A good deal of serum escaped when the medulla oblongata was cut across. There was considerable serous effusion on the surface of the brain under the arachnoid. The brain-substance was soft; its surface was glistening, a large quantity of serous fluid oozing from it. There were no blood-clots. The ventricles contained but a little fluid. A cyst, about the size and shape of a pigeon's egg, was found in the substance of the left hemisphere, on the outer side of the corpus striatum; it was attached to the brain-substance by areolar tissue and blood-vessels. The capsule was thick, opaque, and calcareous; contents were fluid. I have not had them examined microscopically. There were no parasites in the intestines.

CLINICAL NOTES ON IRITIS,

ESPECIALLY AS TO THE RELATIVE FREQUENCY OF SYPHILIS AND RHEUMATISM, ETC., AS CAUSES OF THE DISEASE: FROM AN ANALYSIS OF SEVENTY CASES.

By EDWARD NETTLESHIP, F.R.C.S.,

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THE question, what proportion of the iritis cases met with in ordinary ophthalmic practice are syphilitic, and what proportion rheumatic or due to other causes? is often asked in one form or another by those attending at our ophthalmic hospitals. It was partly in order to get some clear idea on the subject myself that I looked over the cases of which I had notes and classified them according to the cause of the iritis. The following statements and remarks, although based on only a small number of cases (rather more than seventy, exclusive of a dozen others, of which the notes are too short to be useful), are the result generally of careful and detailed inquiries of each patient; and, although they supply nothing new, may have enough of contemporary interest to allow of their publication.

It is particularly as to the frequency with which syphilis causes iritis, and as to the share taken by gout and the various manifestations of the rheumatic diathesis, that much difference of opinion is found. That iritis is often caused by syphilis, and that it is then often symmetrical, and sometimes accompanied by the formation of nodules of lymph (gummata) on the iris, needs no comment; unless it be added that too much importance should not be placed on these symptoms in making a diagnosis, since in many cases of syphilitic iritis only one eye is attacked, and in a large proportion no nodules ever form on the iris. Leaving the well-proved cases, however, we find that observers differ much in the share which they assign to syphilis in the production of iritis when it occurs without any symptoms or history, either recent or remote, of that disease. If we adopt Mr. Hutchinson's theory of syphilis, the group of cases first mentioned falls naturally into the exanthem stage, the iritis forming part of the general eruption. In the cases, however, and they are many, where there are no symptoms of secondary syphilis, we are hardly justified in even suspecting the iritis to be syphilitic, unless we find good evidence that the patient has had syphilis at some former time. Now, it is clear that, by a moderately careful examination, we are able to separate a large body of cases in which there is no reason for thinking that the patients ever had syphilis; and this being so, we have not only to look for other causes, but to suspect that, even in such as own a remotely syphilitic history, other influences are not improbably at work. As, for instance, in regard to skin-diseases, we do not assume that a local or a darts eruption on a person who has had syphilis will necessarily present any peculiarities due to that disease, nor that every eruption bearing a more or less close likeness to certain syphilitic lesions is, therefore, syphilitic.

It may, perhaps, seem needless, or even capricious, to make these remarks when "rheumatic iritis" and "gouty iritis" are terms in everyday use by those who have the best opportunities for investigation; and the publication of further details as to rheumatic iritis may seem superfluous after Mr. Hutchinson's elaborate report on Rheumatic and Gouty Diseases of the Eye, in the seventh and eighth volumes of the *Ophthalmic Hospital Reports*. Mites of evidence from many observers, however, are sometimes useful, even on so trite a subject as iritis, a disease which is sometimes not so fully treated in our systematic books as its importance demands.

Of seventy-one cases of iritis, I find that thirty (about 42 per cent.) occurred during secondary syphilis; while twenty-three (about 33 per cent.) were in persons who were either rheumatic or gouty themselves, and gave a well-marked history of some arthritic maladies in their relatives. There was no proof of syphilis in any of these twenty-three, although in a few its previous occurrence was probable.

Of the thirty syphilitic cases, six were cases in which the syphilis and the iritis had occurred several years before, the patients coming to me for other ailments. It is interesting to observe that no second attack of iritis had taken place in any of these, although in most of them periods varying from three to twenty years had elapsed since the attack. Twenty-three cases were seen in an active state, and in four only of these were there any nodules of lymph; none of these four were of Scotch or north-country descent so far as they knew, but one of them of a name (Clively) suggestive of Scotch parentage (this is in reference to Mr. Hutchinson's observation that nodules on the iris are commoner in the Scotch than in the English).

The iritis was symmetrical in ten; in ten others, where the history tended over a period of not less than about three months, only one

eye was affected; while the remaining ten were under notice too short a time to make it even probable that the second eye would escape. Thus, of twenty, in which the history is fairly complete, both eyes were affected in just one half, a proportion which, of course, somewhat understates the tendency to symmetry, since a few may have become symmetrical at a still later period. The interval between the onset of the disease in the two eyes seldom exceeded three or four weeks, and in several it was only a few days. In one case, however (Wm. P., aged 46), three or four months elapsed before the second eye was attacked; the patient was a man living by the sea-side, and who was also treated with the iodide of potassium, but with little or no mercury; he had a severe eruption and rheumatoid symptoms, and his illness dragged on for more than a year, when he quickly improved under a mercurial course.

The interval between the detection of the chancre and the onset of iritis was noted in sixteen cases. It was never less than two months, and seldom exceeded six months; in two or three, the interval was said to be a year or even more, but the patient's accuracy was doubtful in all of these.

A relapse, more or less marked, occurred in three cases while still under care. In one of these, a man, aged 54 (Samuel M.), the iritis, which had occurred only in one eye, relapsed while the patient was still taking mercury and slightly salivated. It was accompanied by general rheumatism, with some swelling of joints and great pain, and the rheumatism persisted after the eye had again become quiet. Let it be noted that he had been liable to chronic rheumatism for many years, the first attack at the age of twenty-five, laying him up for a whole winter. The second case was in a woman (Mary C.), aged 56, in whom a slight recurrence of ciliary congestion took place after three months' attendance, and while still taking mercury; she was not rheumatic. The third patient was a man (Arthur C.), aged 32, who had symmetrical iritis, with nodules on one iris, but only very slight adhesions; he returned, shortly after being discharged, with severe inflammation of one eye; the congestion was intense, but there was very little plastic iritis, and no fresh synechiæ formed; I have no note that he was rheumatic, and I believe he attributed the relapse to having overused his eyes at fine work. The cases were equally divided between the two sexes, fifteen being men and fifteen women.

In twenty-three cases which are tabulated as uncomplicated arthritic iritis, there was a definite history of some form of rheumatism or of gout in twenty. In the remaining three, although no such complaints had occurred in the patients, there was a history of arthritis in their relatives. Thus, Eliza C., aged 68, had iritis of her left eye; she had never had any rheumatism, but her sisters were very rheumatic, and one of them had been laid up by it all the winter. Emma S., aged 38, with iritis of the left, stated that her father, a traveller, had had several attacks of gout; and Thomas B., aged 36, a florid, red-haired man, himself, as yet, free from any affection of joints, told me that his father used to suffer severely and frequently from gout in the feet.

Chronic articular rheumatism was the form of disease to which most of the patients averred themselves liable. In about half a dozen, characteristic gout was the malady. In one, lumbago, and in another "scatica" had occurred, the joints having escaped. In only one was the rheumatism gonorrhœal. Rheumatic fever seems to have occurred in only one or two, but very probably the early history is in many cases deficient. One very well marked case is that of Mary B., who had a six weeks' attack of rheumatic fever when she was nine, a second at the age of twenty-one, and a third, lasting three weeks, when she was thirty-five. She remained liable to rheumatic pains in the thighs, and once had "scatica"; and, in old age, shortly before I saw her, she became liable to attacks suspiciously like true gout in her left great toe; at the age of sixty-seven, she had iritis for the first time, the left eye being affected. The attack was long, or rather she had several exacerbations during a period of five months. She was a well-to-do housekeeper likely to have earned gout.

It is but seldom that iritis is the first manifestation of the patient's liability to arthritic complaints, and I was able to prove this in only a single instance; it is probable, however, that some of the cases in which we cannot, after the most careful inquiry, assign any cause, are really of this kind. The common story is that the patient has been liable for several, or many, years to his rheumatism or gout before he has iritis. The liability on the part of the joints does not appear often to diminish when the iris becomes affected, the articular rheumatism or gout generally recurring as before. It is rather common to find the iritis setting in either during or directly after an attack in one or more joints, and this is noted in about a dozen (one half) of my cases. Now and then, we find the first attack of iritis coinciding with the first joint mischief. Thus, James E. appears to have had his first iritis with

slight rheumatism at the age of twenty-four; he had never had rheumatism until then, but it has since relapsed several times, getting worse at each attack, and has already caused partial ankylosis of one wrist; he has also had several relapses of iritis. Henry H. had gout in his right great toe for the first time at the age of fifty, an acute and severe attack, and almost at the same time his left eye inflamed; three years later, he was under care for his second iritis in the same eye; his father was also subject to gout in the great toes.

It is interesting to note in this connection that in none of the cases of relapsing iritis was there any reason to think that the first attack had been syphilitic. This fact, together with the one already mentioned, that cases of syphilitic iritis show no tendency to relapse, supports the view that the recurrences are not due solely, nor even in any considerable degree, to the presence of old adhesions. Whether iridectomy does, or does not, really lessen the risk of relapses, as is so often asserted, it is, of course, next to impossible to show directly by statistics; I have had only one patient on whom the operation had previously been performed, and in him a relapse occurred three years later. The fact of most weight in favour of the view that adhesions cause the relapses, is seen in the frequency with which the disease recurs in one eye, its fellow often escaping altogether. This, however, is only what we are accustomed to witness in the joints of the same patients, without invoking the aid of adhesions; and it would be easy to cite other instances of recurring local affection, especially of the skin, in which exactly the same part repeatedly suffers.

The rarity with which both eyes suffer at the same time is matter for remark; it is, however, not more striking than the frequency with which the articular symptoms in this class of patients are also confined to a single joint, or to two or more, but often without accurate symmetry. In only two of my cases was rheumatic iritis synchronously symmetrical; and it curiously happened that in both of these the articular rheumatism was symmetrical too. In two cases, the anterior chamber contained a large quantity of the nearly transparent jelly-like exudation which has been described in rare instances by several observers. One of the patients had had gonorrhoea two years before, but had had no rheumatism with it; the other denied ever having had a gonorrhoea.

In regard to sex and age, about two-thirds (fourteen) of my cases were males, and rather more than one-third (nine) females; in one of the latter, however, the history is imperfect, and the disease may have been syphilitic; she was a married woman, aged 23. The age at which the first attack took place was, on the average, much higher in the women than in the men. Thus, none of the men were more than fifty-six at the first attack, and more than half were below forty. One patient was only nineteen years old, and had had three attacks by the time he was twenty-three; it is of interest to note that all his five brothers and his father were subject to gout, and that this disease had also occurred on the father's side two generations earlier. Of the eight women (excluding the one above noted as doubtful), only two were below forty, the remaining six varying in age from fifty-four to sixty-eight when the iritis first occurred. The youngest of the women (Emma R.) was twenty-six when her left eye first inflamed; she had an attack in the right some time afterwards; and at thirty-three a second in the left. Her father died of "rheumatic gout", and his father also had it; she herself was liable to stiffness in her elbows and knees, and to severe neuralgia in the head. The second of the youngest women was thirty-six, and her father had also had gout; she had a relapse at the age of thirty-eight.

A certain number of cases (fifteen) remain which have not been classed with either the syphilitic or the arthritic series. Several were cases of iritis from slight injuries; and in some others, although the history of injury was wanting, there were circumstances which made its occurrence very probable. Two were cases of uncomplicated iritis in children, aged 14 and 15, and for these I quite failed to find any explanation (published in the *Lancet*, Jan. 15th, 1876). I have at present under care a third case in a girl of fifteen, without apparent cause. In two or three others the history was uncertain, but syphilis likely.

A few remain in which there was good evidence that syphilis had occurred some considerable time before the iritis; and, as in cases such as these it may be of importance to establish, as far as possible, the share taken by the syphilis in the production of the iritis, I will mention very shortly the particulars of each.

CASE I. Samuel O. had syphilis severely at the age of twenty-eight; three years and a half later, he had a prolonged attack of subacute iritis in his left eye; the right escaped. He had never had rheumatic symptoms, but his father had been laid up with lumbago.

CASE II. Margaret J. had an illness, accompanied by falling of hair and some rash on the skin, when she was forty; it was probably syphilis; her eyes were "weak" for a short time, but it is very doubt-

ful whether she then had iritis. Two years afterwards, I treated her for a tolerably severe iritis in the right eye only. She has had no rheumatism, but her father is crippled by it in his hips.

CASE III. Richard W. is an excellent instance of syphilis occurring in a rheumatic man subject to recurrent iritis; there is no reason for regarding his last attack of iritis as syphilitic. At the age of nineteen, he had gonorrhoea, followed by articular rheumatism. At twenty-nine, his left eye inflamed. At thirty-three, he was laid up for three or four months with "sciatica" in his hips; very severe pain. The left eye again inflamed when he was thirty-four, the attack lasting nearly three months, and being very painful. At thirty-nine he had syphilis, and the rash was still hanging about him when he came to the hospital, a year and three quarters later (aged forty-one), for his third attack of iritis in the left eye. It was very acute, and came on after he had been for three days feeling shivery and ill from a "bad cold". The eye was soon well; the right never suffered.

CASE IV. Mrs. B. had iritis of the left only, at the age of forty; many synechiae formed. She was at the same time suffering from serpiginous ulceration of the skin over the left knee; and a few weeks later had paralysis of the right third nerve, which was cured by large doses of iodide of potassium, with bichloride of mercury. There could be no question that she was remotely syphilitic, but the history was negative. I did not inquire about rheumatism.

CASE V. Mrs. S. had syphilis soon after her only pregnancy at about the age of twenty-four; iritis occurred in the left eye only, and the right did not inflame at all. Twenty years afterwards (aged forty-four), she was admitted with mild but acute iritis of the right eye, complicated with some punctate deposits behind the cornea. She denied all rheumatic history. There were no other signs of syphilis at any time, although she continued to attend for some weeks. A year or more previously, she had had a sore place near the angle of the mouth, and a conspicuous scar had followed; it seemed not unlikely that this might have been a chancre, and that she had had a second attack of syphilis; she was untruthful, and I did not place much reliance on her denial of other recent syphilitic symptoms. It may be interesting to mention that she was weak, anemic, and excessively nervous when first seen, and that her health improved very much under the iodide, although she showed no external signs of syphilis.

In the first three of these instances, the rheumatic history given by the patients furnished an adequate cause for the iritis, and there was no reason for supposing that the syphilis had any influence in determining either the occurrence or character of the iritis. Case IV is certainly peculiar, being an instance of iritis without evident cause in a patient presenting symptoms of late tertiary syphilis; very possibly, however, there was no causal relation between the two affections.

THE TREATMENT OF PHIMOSIS BY DILATATION.

By R. CLEMENT LUCAS, B.S.,

Assistant-Surgeon to Guy's Hospital.

IN the BRITISH MEDICAL JOURNAL of October 7th there appears, under the title of "A New Method of Curing Phimosis", a short account by Dr. Griffith of three cases of phimosis treated by dilatation of the foreskin. One can but wonder that Dr. Griffith should have written of this as a new method. It would, indeed, be strange if so simple a means of treating phimosis had not occurred to surgeons generations ago. It has been practised by Mr. Edward Cock in suitable cases probably for half a century, and has been advocated by others. Thus Dr. Cruise, in the *Dublin Quarterly Journal* for 1869 recommends "sudden dilatation", and illustrates a very short paper with drawings of no fewer than four kinds of forceps by which this may be effected. He says: "In conclusion, I beg to say the idea of sudden dilatation as a cure for phimosis is not original with me. I saw the late Dr. Hutton use a dressing-forceps for this purpose fifteen years ago." Mr. Cock used to teach that gradual dilatation was generally to be preferred to immediate distension, and that it was applicable to cases of simple phimosis, when the prepuce was not of immoderate length, and its orifice was not thickened. In slight cases, the patient may be taught to dilate it. For the more severe, Mr. Cock some years ago invented a prepuce-dilator, which is of small size, and may be worn by the patient. It consists of four bars, which are separate by a screw, after the manner of Weiss's urethra-dilator.

That the treatment of phimosis by dilatation is anything but novel is proved by reference to the text-books in every-day use. Erichsen, in his *Science and Art of Surgery*, vol. ii, p. 755, devotes a paragraph or ten lines to a description of this method of treatment. Bryant, in his *Practice of Surgery*, vol. ii, p. 156, mentions without approval the

dilating plan; and Holmes's *Surgery, its Principles and Practice*, contains the following note, p. 806: "Sir J. Paget has, however, pointed out that in many cases the orifice of the prepuce may be so stretched by constant gentle traction, that the glans can ultimately be exposed and the operation avoided."

CLINICAL MEMORANDA.

ALPHOS UNIVERSALIS.

G. B., A MAN sixty-two years of age, suffered with alphas universalis. He had scaly eruption from head to foot, with much thickening of the true skin and fissures running in different directions. He had weak pulse, small and quick; but did not complain of anything but *malaise* and the irritation of the skin from dryness and itching, together with thirst. The tongue was coated. I first gave him liquor potassæ in mixture, and commenced the use of the hot-air bath every night; the skin to be rubbed well afterwards with an ointment composed of equal parts of creasote and tar ointments. In a few days, I commenced the use of liquor carbonis detergens, five minims in an ounce of quassia to be taken three times a day. These means were continued to the end of November, when his skin was quite clear of any disease. As he complained of some remaining debility, I put him on carbonate of ammonia with tincture of cinchona three times a day.

The reason I have made this case public is, that I wished to give the tar-treatment a full trial without having recourse to arsenic or other medicines, as it is well to have other remedies when the system will not bear that drug. His diet, I should have said, was light, with two glasses of sherry daily. He continues quite well.

F. FARMER, L.K.Q.C.P.

CASE OF IDIOPATHIC TETANUS.

MRS. S. B., aged 52, married, had had five robust male children, all living and adult. She was of spare leucophlegmatic habit; but, with the exception of an attack of enteric fever contracted about six years since, and from which she entirely recovered, her health had always been fair. She was seized on the morning of August 21st last with violent convulsions of the trunk and extremities, with trismus and complete aphasia. The eyes, which had the expression they generally assumed in health, moved in their regular axes of vision, though the pupils, which were, perhaps, slightly more than normally dilated, were not actively sensible to light. When she was first seen, the hands were clenched upon the abdomen, which led to the inference that pain existed in that region. There were, at the onset, a few efforts at vomiting; but nothing was ejected beyond a little slimy mucus. Nothing more could be elicited by any sign or expression; and her condition might have resembled eclampsia, but for the absence of the other ordinary signs of this form of epilepsy. At the beginning, the pulse was small and quick, but improved somewhat in volume afterwards. A little spirit of chloroform with an alkali were given through the teeth, but little of it swallowed; afterwards a turpentine and castor-oil enema, also beef-tea; but both were soon returned.

No food had been taken in the morning preceding the attack; but the patient had retired to bed after partaking of a moderate supper of bread, cheese, and ale; had slept well during the night, and rose earlier in the morning than usual to call up the other inmates. The convulsions continued with little abatement and short periods of intermission until death took place in about nine hours from the commencement of the attack, a short time preceding which the breathing was somewhat stertorous. As no *post mortem* examination was made, it was difficult to assign any cause for the attack, cases of which, I believe, are less rare in tropical climates.

J. H. CRISP, M.R.C.S. Eng., Lacock, Wilts.

A CASE OF INTUSSUSCEPTION IN AN INFANT.

THE rare occurrence of intussusception in an infant four months old, verified by *post mortem* examination, induces me to bring it before the readers of the BRITISH MEDICAL JOURNAL.

On the evening of March 12th, I was called to see a child of a railway porter, in consequence of continued fits of screaming and the confined state of the bowels, no motion having passed during the previous five days. The mother stated that the child had suffered from sickness and constipation since his birth, the bowels having been relieved once a day, seemingly with much straining. She had been in the habit of giving him "biscuits and gruel" in addition to the breast-milk. During the five days previous to my visit, the child had thrown up all his food, and had sudden fits of screaming, lasting a very short time, but occur-

ring every ten or fifteen minutes; and, as the bowels had not acted during this time, she had given him some grey powder, but without any effect. On examination, the child seemed to be a well nourished infant, rather feverish, with quick pulse, slightly furred tongue, extremely restless, suddenly screaming, then lying quiet, and, shortly afterwards, again screaming violently and ejecting the contents of the stomach in a stream by a single effort of vomiting. The abdomen was distended and tympanitic. I ordered hot baths, hot fomentations to the abdomen, and a powder containing two grains of calomel and four grains of powdered jalap, followed by sulphate of magnesia.

On the following morning, as no relief had been obtained, I injected a pint and a half of water and olive-oil, manipulating the abdomen at the same time; and ordered the baths to be continued and castor-oil substituted for the sulphate of magnesia. In the evening, the vomited fluid tinged the linen green; the abdomen had become more distended and tympanitic, but no substance could be detected through the abdominal walls. I ordered the purgative to be discontinued, and gave liquor opii sedativus with sulphuric ether every two hours.

On the 15th, the pain was greatly relieved, only coming on at intervals of two hours. The other symptoms were about the same as on the previous day. The injections were continued, and, in the evening, a teaspoonful of castor-oil was given. During the night, seven very liquid and offensive motions were passed.

From this time to the 22nd, when he died, no more fæces were passed; but, at every effort of straining, a little mucus passed, and occasionally a little tinged with blood; the abdomen became immensely distended, the child refusing the breast, and, on the 22nd, his pulse gradually failed. During this time, he had chlorodyne, calomel, etc., and injections of assafoetida, which seemed to give much relief from the wind.

On *post mortem* examination, deep down in the left side of the hypogastric region was found a portion of the ileum invaginated, about four inches long in a curve (to the concavity of which the mesentery was attached) and about an inch and a half in circumference; extremely hard, of a deep bluish-black colour. By traction, using considerable force, I was enabled to withdraw the upper part of the invaginated gut (a few small patches which were most congested giving way), when it assumed its ordinary position, measuring about fifteen inches. The invaginated portion was intensely congested, and small masses of coagulated blood were seen on the mesentery. The other parts of the intestines seemed healthy and devoid of feculent matter, but very much distended with wind.

G. F. DE LA COUR, M.D.,

Late Resident-Physician, Birmingham General Dispensary.

THERAPEUTIC MEMORANDA.

ARTIFICIAL DRUM-HEADS.

I AM quite satisfied with the substantial admission made by Mr. Lennox Browne, in his communication in last week's JOURNAL, as to his error regarding the form of Yearsley's "artificial tympanum". I could have wished, however, that he had made that admission without enveloping it in a cloud of irrelevant matter calculated to draw off attention from the real point at issue, into which cloud I certainly do not choose to follow.

JAMES PATTERSON CASSELLS, Glasgow.

TREATMENT OF ACUTE PNEUMONIA BY TURPENTINE.

THE oil of turpentine has long been an acknowledged agent of great therapeutic value in acute diseases of the chest. In acute pneumonia, I have used it almost to the exclusion of other remedies. For many years, I have adopted the following treatment with great success.

First, a hot terebinthinate stupe is applied until the skin is well red-dened; then a little plain oil of turpentine sprinkled over the affected part; finally, a blanket wrung out of boiling water covered with a dry blanket. I have had patients delirious and gasping for breath, with sordes on the lips (patients who should have seen the doctor twelve hours previously), fall asleep as the last blanket was applied and awake out of danger. The internal remedies subsequently used were quinine and tincture of perchloride of iron. Diet: milk and water, beef-tea, lemonade *ad libitum*, occasionally wine. The application of the turpentine to little children must, of course, be modified to suit the age. In all cases, I keep on the swathe three or four days or more uninterruptedly. I have found that, as a rule, the active treatment need not be pursued very long, the patient being generally out of danger in twenty-four or forty-eight hours. The sequelæ of pneumonia are much modified; frequently altogether escaped.

R. E. POWER, Dartmoor.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.

VICTORIA PARK HOSPITAL.

CASE OF EMPYEMA, PROBABLY FOLLOWING SCARLET FEVER,
OPENING THROUGH THE LUNGS AND EXTERNALLY:
RECOVERY; REMARKS.

(Under the care of Dr. PEACOCK.)

A. J., AGED 8, was admitted into the hospital on June 21st, 1875. She had then been ill for three months, having first suffered from severe feverish symptoms, after which the skin peeled. Five other children were ill in the house at the same time, but they were stated not to have had any redness or spots upon the skin. Her father and mother and all the rest of the family were living and healthy, and she was stated to have been previously in good health. Soon after the attack of fever, she began to complain of pain in the left side, and had a cough, and became languid and fretful, and lost flesh.

When admitted, the whole of the left side of the chest was contracted, and there was an obscure tympanic resonance under the left clavicle, and entire dullness on percussion elsewhere, and the movement of the chest was abolished. In the tympanic portion, the respiration had a dry cavernous character; and in other parts of the side no breathing was to be heard. The right side was full and expanded, and the respiratory sounds were loud and compensatory.

She was directed to take the syrup of iodide of iron, and to have a nutritious diet, under which treatment she improved; and was discharged much relieved on August 19th.

On September 29th, she was again brought to the hospital, labouring under feverish symptoms, and a red, soft, painful swelling was found in the left mammary region. This was at once laid open, but only a few drops of creamy pus escaped, and the cellular tissue was found to be in a sloughy state. The child was much relieved by the operation; the wound soon became clean, and discharged a little healthy pus. The feverish symptoms subsided, the temperature becoming normal, 98.6°, and she took her food well. She was directed to have steel-wine and cod-liver oil.

On September 30th, the left side of the chest was everywhere motionless and dull on percussion, except under the clavicle, where there was obscure tympanic resonance with a cracked-pot sound. The respiration was there of a dry bronchial or amphoric character, and elsewhere there was absence of breathing, with a little crepitation, probably pleural. She took her food well, and the bowels acted regularly. The tongue was clean, but somewhat morbidly red. The aperture in the side discharged about a tablespoonful of healthy pus in the twenty-four hours. It was situated between the fourth and fifth ribs, about an inch and a half from the left nipple, and in an oblique line from that body outwards.

November 14th. She was much improved in appearance. The opening had very nearly healed, and the discharge was very small in quantity and quite healthy. The left side of the chest was contracted, and there was obscure tympanic resonance under the left clavicle, with loud amphoric breathing, and dullness on percussion lower down and in the whole of the posterior and lateral regions. Very little respiration was heard at the upper part of the chest behind, and only some slight crepitation to the left of the spine; the respiratory sounds were inaudible in the lower dorsal and lateral regions. She took her food well: the tongue was clean, and the bowels acted regularly. The pulse was feeble but quiet; the respirations were natural; the temperature was 98.4 deg.

November 24th. She was very much improved in appearance; she had scarcely any cough; and the opening in the side had entirely ceased to discharge. There was still obscure tympanic resonance, with amphoric breathing at the left apex. The respiratory sounds were inaudible at the lower parts of the left side.

On February 21st, the right side of the chest measured twelve inches and three quarters; the left, ten inches and three quarters.

March 8th. She had continued steadily to improve, and had gained flesh. There was still want of expansion and of movement on the left side of the chest, with impairment of the resonance on percussion and of the respiratory sounds, but the difference between the two sides was much less marked than it had been, and the decided dullness and defi-

ciency of breathing now only existed in the left lateral regions. There was, however, still a somewhat obscure tympanic resonance immediately under the left clavicle, and slight bronchial respiration was there heard, with a little irregular crepitation at the end of a forced inspiration. The aperture in the side had completely healed, and the integuments were retracted in the situation.

April 15th. There was but little difference between the two sides of the chest, the right being rather less expanded in front, and the left behind. There was still a somewhat tympanic sound under the left clavicle, but the bronchial respiration was no longer to be heard. There was also some slight impairment of the resonance on percussion over other parts of the left side, but the respiratory sounds were everywhere audible, and there was no decided dullness or deficiency of breathing anywhere except in the lower lateral region.

She was presented cured on April 16th, 1876.

REMARKS.—The case related is in various respects a very interesting one. It illustrates what is very often seen—the liability to the occurrence of pleurisy after scarlet fever, and the tendency which the affection has, under such circumstances, to run into empyema. The great interest lies, however, in the case itself. When first admitted into the hospital, it was evident that the child had both air and liquid in the left pleural cavity; but it was thought from the contraction of the side and the long duration of the illness, that the effused fluid had, to a considerable extent, been absorbed. It was, therefore, decided not in any way to interfere, and the child improved, and left the hospital in about two months, greatly benefited. She was, however, brought back in little more than another month, with the abscess in the side. This doubtless communicated with the pleura, though it is probable that the accumulation of pus in that cavity was not large, as the amount of matter evacuated at the time of the operation was very small, and subsequently was never considerable. At this time, the signs of air at the upper part of the pleural cavity still continued, and were apparently unaffected by the opening which had formed externally. The opening in the side healed in about two months, and the child's health improved, the evidence of effusion subsided, and the signs of air gradually disappeared, till, at the end of a further period of five months, she was discharged quite well, and with scarcely any evidences of disease in the chest. What, then, was the nature of the disease? It might have originated in the formation of a vomica in the lung, which, opening into the pleural cavity, gave rise to the empyema. This view, however, is not in accordance with the history of the case, as far as it was ascertained, and is scarcely compatible with the comparatively slight constitutional disturbance which the child displayed. It is more probable that, after the attack of illness, which may fairly be concluded to have been scarlet fever, the child had pleurisy; and this being, as is too often the case among the children of the poor, neglected, ran on to empyema. The empyema may be supposed, before the child's first admission into the hospital, to have opened through the lungs into the bronchi, and air so gained access to the pleural cavity. Subsequently, the matter in the pleura perforated the chest-wall and caused the formation of the abscess which was opened, and the pleural accumulation was so evacuated. The lung, not having been permanently disorganised by compression, gradually expanded, the pleural cavity was obliterated, and the evidences of the presence both of liquid effusion and of air disappeared. Such a result—a very favourable one under any circumstances—is quite compatible with the supposition that the disease was originally situated in the pleura, but could scarcely have occurred in any case in which the primary disease was in the lung itself. Under the latter circumstances, also, the almost entire disappearance of the evidences of disease in the chest which occurred in this instance would scarcely have been possible.

COVENTRY AND WARWICKSHIRE HOSPITAL.

A CASE OF INTESTINAL OBSTRUCTION FOLLOWED BY PERFORATIVE
PERITONITIS.

(Under the care of Mr. MILNER MOORE.)

FOR the following report, we are indebted to G. HERBERT TILLEY, L.R.C.P.; Resident Medical Officer.

The patient, a youth aged 19, was admitted for the first time on September 21st, 1875, under the care of Dr. Lynes, suffering from colicky pains in the abdomen, more severe on the left side than elsewhere; occasional attacks of vomiting, of short duration, the matter vomited being nothing more than partially digested food; and constipation. He was treated with opiates, mild enemata, and warm baths, and was discharged on October 22nd, 1875, apparently cured.

On June 4th, 1876, the patient was again brought to the hospital, with a return of the old symptoms, though somewhat intensified. On this occasion, there was marked dullness in the left hypochondriac

region, and a hard mass could be felt externally, occupying a considerable part of this region. A warm bath was ordered, and an enema of an ounce and a half of castor-oil with two pints of warm soap and water was administered while he was in the bath. This brought away a great quantity of scybala, and produced almost instant relief. He was put to bed; hot linseed poultices were applied to the abdomen, and half a grain of opium in a pill was given every six hours. In less than a week, the patient could walk about, his bowels acted regularly, and he expressed himself "as well as ever". He was discharged on June 13th.

On June 19th, he was again admitted, with obstinate constipation and vomiting of stercoraceous matter. He complained of intense pain extending from the umbilicus towards the left side of the abdomen. Tympanites was marked everywhere below the upper division of the abdominal cavity, while prominent dullness extended from the right hypochondrium through the epigastric and upper portion of the umbilical regions to the left hypochondrium. The previous remedies were again resorted to, with the exception that half a grain of opium was given every four hours. The enema again succeeded in bringing away a quantity of hard feculent matter, and caused great relief. He remained in bed for some days, enveloped in hot fomentations, when he was again allowed to sit up a few hours daily; and a mixture was prescribed of liq. morphiae acet. m. v; tinct. lupuli m. xxx; infusi cinchonae pallidae ad ʒj; to be taken three times a day. In about a fortnight, arrowroot and light meats were substituted for milk and beef-tea, health and strength continued to improve until he was again discharged as cured on July 21st, 1876. At the time of his leaving the hospital, his appetite was good, his bowels regular, and there was a total absence of pain and tenderness over the abdomen.

On August 15th, the patient returned, with all the symptoms present on the previous admittances much intensified in character. The abdomen was tense and much distended; there was dullness in the flanks and at the upper half of the anterior surface; there were tympanitic resonance at the lower half, great tenderness on pressure, constipation, vomiting of stercoraceous matter at first, but of dark fluid resembling altered blood before death; the pulse was 130, and very feeble; his features baggy and pinched. The urine was scanty, high coloured, and voided with some difficulty. A decided loss of flesh had taken place since his last discharge from the hospital. All the remedies hitherto adopted were again tried, but without any appreciable result. In spite of effluents, ice, etc., almost incessant vomiting set in, and continued until midday of August 16th, when the patient succumbed.

POST MORTEM EXAMINATION, forty-eight hours after death.—On opening the abdominal wall, a quantity of very fetid gas escaped; the peritoneum was everywhere adherent to the abdominal parietes, and extremely vascular. In the pelvis, some considerable effusion of dirty semi-purulent serous fluid was found. The small intestines were swollen and much congested; and the transverse colon was hard and enormously distended. There was increased vascularity over the whole of the exposed intestinal surface, and more especially where the coils met; irregularly dispersed flakes of lymph were dotted over the various abdominal organs. On removing the large intestine from the cavity of the abdomen, the length from the caecum to the lower end of the rectum was a little more than four feet. The diameter of the colon at the caecal end measured eleven inches and a half, at the middle of the transverse portion twelve inches, and at the splenic flexure eleven inches and a half. The thickness of the wall of this portion of the colon amounted to about one-third of an inch. The mucous membrane of the colon throughout its entire length was found to be studded with numerous black impressions, each corresponding in size with fruit-seeds, which abounded in the faecal matter contained in this part of the intestine. On measuring the quantity of the retained excreta, there was almost sufficient to fill two ordinary sized washing-basins; and it was principally composed of nodular masses, each having as a nucleus a cherry- or damson-stone. A great number of these stones were found in the interior of this portion of the colon. At the caecal end, there was perforation at the base of the vermiform appendix, a small ulcer being present about the size of a large pea. The greater part of the appendage itself had sloughed away. At this point, some faecal matter had escaped into the peritoneum. At the opposite end of the colon, immediately beyond the splenic flexure, the intestine had become so contracted as to admit with difficulty the end of my little finger; while, at the angle of flexure itself, there was a mass of infiltrated and disorganised bowel-tissue, dense and fibrous on its outer aspect, but soft and friable on the inner. Here, perforation had taken place to some considerable extent. There was a hole, about the size of a half-crown, situated in this mass, and communicating directly with the peritoneal cavity; and a quantity of faecal matter had crept itself through the opening. Near to this spot, the wall of the intestine was extremely thin in places from an extension of the ulceration

along the mucous membrane. Beyond the constriction in the gut, the descending colon and rectum were found empty, and appeared atrophied to some extent.

REMARKS.—From the history of the case, it would appear that the constriction of the intestine was the result of repeated attacks of enteritis, thus producing cicatrization; and that, for at least a year, some obstruction in the bowel had been present. Although no foreign substances had been observed in the excreta liberated by the enemata on the three previous administrations, yet it seems probable that each attack of obstruction was the result of some foreign body interfering with the onward flow of faecal matter at a point where the vermicular action was already weakened by cicatricial tissue. I know that the patient had ever been in the habit of eating the most indigestible of food to ward off hunger. From the amount of collapse present before death, and from the extensive perforation of bowel and consequent amount of faecal extravasation evident *post mortem*, it is manifest that the fatal result was due to the overdistension and rupture of the bowel at its weakest point. The smaller perforation at the caecal end must have been secondarily induced.

REVIEWS AND NOTICES.

ARCHIVES OF DERMATOLOGY: a Quarterly Journal of Skin and Venereal Diseases. Edited by L. D. BULKLEY, M.D. Vol. I. New York: Putnam's Sons. 1875.

THIS volume is extremely creditable to its originators. Journals of cutaneous medicine, as a rule, have not prospered, and the American *Journal of Dermatology and Syphilography*, which began well, has proved no exception; but the *Archives* before us give promise of a much more vigorous growth. In a short preface, the editor remarks upon the comparative ignorance, often acknowledged, of the subjects under discussion—an ignorance due, not so much to any inherent difficulty, as to confusing nomenclatures and theories, and the small amount of special instruction given at the majority of schools—"the aim of his journal will be to simplify the subject, and its general bearing will be practical". These proposals are very well carried out. Many articles are original and suggestive; the "Transactions of the New York Dermatological Society" (we have no similar one), include cases of interest, and papers; the reviews are independent, deservedly severe on certain recent publications; but quite the best part of the work, to our thinking, is the "Digest of Literature", it is so well classified. Instead of a bare list of papers on Dermatology, we have those on Anatomy and Physiology, summarised by one contributor; Exanthemata, by another; Inflammation, acute and chronic; Haemorrhages, Gland-diseases, Electro-Therapeutics, etc.; and similarly under Syphilis, we have the separate headings of Treatment, Congenital Syphilis, Syphilis of Eye and Ear, etc., Gonorrhoea.

Amongst the original papers, Dr. J. L. Smith describes an epidemic of "Rötheln" in New York in 1874, including fifty-four cases, the great majority being children. It resembled measles chiefly, but differed in shortness and mildness of premonitory stage, absence of bronchitis, and of fatality; moreover, the one malady sometimes preceded or followed the other. From scarlatina it was distinguished by the form of rash, it being in circular points and patches, rather than in efflorescence; the symptoms were milder, and, as in the case of measles, both maladies occurred independently in the same patient. It was more commonly called roseola, but differed in its larger size (*sic*), its successive occurrence over the upper, and then the lower part of the body (but covering the whole surface), and its definite duration of three to five days; the writer concludes therefore, from his own observation, that rötheln is a disease *per se*.

Dr. Taylor reports four cases of lichen planus, "a malady not hitherto described in America". The cases did well under alkalies and iron with alkaline baths, and the alkaline tar tincture of Hebra. One case, however, did not improve, and Professor Boeck, happening to see the patient, suggested the administration of a scruple of chlorate of potash, one quarter of an hour after meals, followed, at the end of another quarter of an hour, by twenty drops of dilute nitric acid. This was given on the principle (not now generally acknowledged) of "supplying more oxygen to the blood", and its therapeutical success was very marked.

With reference to these cases, Dr. Kaposi writes from Vienna to

point out their identity with the lichen ruber of Hebra (Ed. 1874), and the editor suggests the name "lichen ruber planus".

A series of twelve cases of contagious vesicular eruption on the face, or face and arms, seems at first to have given rise to diagnostic doubts; they were called "Impetigo contagiosa", but are now published by Dr. Frank Foster, under the name of "Herpes contagiosus varioliformis".* We have certainly seen some cases to which the term would very well apply, except that the "contagious" element has not been so marked as in Dr. Foster's. The early ones that he records do not differ from ordinary herpes, and no reference is made to any umbilication; others, however, presented successive eruptions of papules and vesicles, many of which had a central depression. They are not described as becoming pustules, but as resembling a vaccine pock of the seventh or eighth day, and being surrounded by a "bourrelet". Several of the cases had had the ordinary eruptive fevers once, except that only two cases (adults) had had "chicken-pock" before. He decides against "chicken-pock" from the absence of pyrexia. Inoculation, though practised several times, produced a similar vesicle only once.

Drs. Van Buren and Keyes, writing upon "Syphilidology", conclude two interesting cases with a few axioms. "1. The evolution of syphilis may be mild and irregular, even when no mercury is used early. 2. With the mildest beginnings (untreated) the most terrible consequences may occur, after years of quiescence. 3. A father with syphilis may have a perfectly healthy child."

The "Classification of Skin-Diseases" is treated by Dr. Piffard, who propounds a scheme somewhat of the French character. It has a clinical basis, and includes five classes: 1. General diathetic affections; 2. General non-diathetic affections; 3. Reflex affections; 4. Local affections; 5. Affections of uncertain nature. This scheme is well criticised later on in the volume, in a report of a committee of the Dermatological Society, who are of opinion that "the time has not arrived when skin diseases can be grouped on a clinical or purely etiological basis; but strongly recommend the publication of a nomenclature".

Of scleroderma, there are well recorded, by Dr. White, four cases: three in women, one in a man. The first, aged 22 (a photographer), had her face, neck, bust, arms, and knees, "hide-bound", and melasmic, with parallel lines of leucoderma. In twelve months but little change occurred. The second case was similar in many respects. In the third, the left hand only was affected. The man, aged 42, had the whole skin of the face, ears, and neck hard, stiff and thick with extraordinary projections and depressions, and had a hard white band down to the nose. "The trunk was covered with thickly clustered papular elevations from the size of a pin's head to a pea, white and intensely hard." On the upper chest these were arranged in parallel rows. "The hands were as hard as if encased in sole leather." In microscopic sections, there was found much fibrous tissue; but few cell or glandular structures, and "no evidence of enlarged lymphatics". Dr. White considers the malady to be *primarily an affection of the lymph-system*, and thinks, moreover, that the new formation of fibrous tissue is analogous to the process in elephantiasis Arabum.

Mr. Hutchinson, in his recent lectures at Blackfriars, argued for the nerve-origin of the allied malady, morphea, and quoted cases of this affection of the nose, of one mamma, one side of neck, etc., relying much on its generally unilateral character. The single case of morphea and scleroderma seen by the writer was affected on both sides. Dr. Fox's recent case (*Lancet*, June 10th) is symmetrical; and it will be noted that three of Dr. White's cases are so, whilst one was markedly unilateral, the only affected part being the ulnar border of left hand.

Dr. Kinnicutt's paper on "Peliosis Rheumatica" is principally a discussion of the views of others as to the identity of this disease with erythema, on the one hand, or purpura on the other. He concludes that it is a separable malady, on account of the cutaneous hæmorrhages, and the rheumatic pains. He gives only one case of his own: a child, aged 13, with mitral disease apparently, and malarial poisoning. His case is deficient in several points; for instance, no temperature record is given. In our opinion, the recognition of peliosis, or purpura rheumatica, is especially important from a diagnostic point of view, for the preliminary pyrexial stage, with some blush possibly over arm or chest, requires distinguishing from eruptive fevers: the temperature in our cases has never been more than 101.

A good deal of attention is devoted to cutaneous applications of electricity. Dr. Bulkley relieved, with the continuous current, a case of herpes frontalis; and Dr. Beard reports another case of chronic eczema cured by "central galvanisation". The references on this subject are very full.

Space only permits one more quotation, which we must appropriate to the case of a negro woman with molluscum simplex, of which an illustration is given. We are accustomed to say that everything is on a large scale in the States, and certainly this patient, with 2,333 counted tumours—these not being all—surpasses any case of molluscum we have heard of in this country.

THE PRINCIPAL HEALTH-RESORTS OF EUROPE AND AFRICA FOR THE TREATMENT OF CHRONIC DISEASES. By THOMAS MORE MADDEN, M.D., M.R.I.A. 8vo., Pp. 269. London: J. and A. Churchill. 1876.

WE were quite inclined to welcome this revised edition in one volume of Dr. MADDEN's two pleasant books on health-resorts and foreign spas, or, as he prefers it, "those volumes so rewritten as to be practically a new work". The work conveys much information in a readable shape, and we agree very generally with the opinions which the author expresses. We should not have thought it necessary to say more of a work of this class, and of one not appearing for the first time, had not Dr. Madden desired to court further criticism by complaining of the inaccuracy of others who have written on the same subjects, and of their having borrowed his labours without acknowledgment; and had he not put forth his book not merely as one that may be found useful for the travelling invalid (for whom the chapter on uterine complaints is surely not wanted) and his medical adviser, but as a comprehensive and trustworthy handbook of the foreign health-resorts and spas. The promise of the title-page is still wider, and, as it includes the principal health-resorts of Europe, some description of a few of those in the British islands surely ought to have found a place.

The author evidently is most at home on the subject of climate, and is more familiar with it than with that of mineral waters; but even here we have no more than an allusion to Davos and other mountain stations, which have been so much before the public of late years. Ajaccio, Catania, and Meran have been overlooked, and nothing is said of the climates of summer health-resorts.

Many of the German baths, some of them old ones, are not described at all, as Pyrmont, and the delightful resorts of the Black Forest—Rehme, Reichenhall, and many others. The account of most of the French spas, except those of the Pyrenees, is meagre; and the new station of Bourboule, with the arseniated waters of which the French are at present so interested, is not mentioned at all. Then the different spas are not treated of at a length corresponding to their value. The important baths of Ems and Kreuznach are, like the comparatively insignificant ones of Chaudfontaine, Weilbach, and Cannstadt, each disposed of in the space of a page, more or less. In matters of local information Dr. Madden cannot be very well up, when he is not aware of the existence of the new establishment at Dax, which has been advertised with wonderful pertinacity. Apparently he has not heard of the great Quellen Hof establishment at Ragatz, nor does he mention anything newer than the Rosenbad at Aix-la-Chapelle; nor is the lithia or murquelle at Baden Baden mentioned, even as a curiosity. While there is no notice of the pine-extract baths now popular in Germany, the gas-baths are spoken of as being still in vogue. The extensive employment of inhalations and the local treatment of the throat at most sulphur-baths are passed over; nor is the use of Carlsbad or Neuenahr waters in diabetes alluded to.

Dr. Madden has evidently written in a hurry, when he speaks of cold sulphurous waters at Lidoonvarna, Harrogate, Schinznach, and Plombières; when Bex and Teplitz appear as sulphur-waters; when the saline chalybeates of Ems, Spa, and Schwalbach are classed together; and when Auteuil and Passy appear among carbonated iron springs.

We are sorry also to observe an unusual number of misprints especially in the quotations from Latin, some of them occurring in the preface; while we have the word *mutter-lange* for *lauge* repeated five times. Many other oversights have struck us; and we think that we are warranted in saying, that Dr. Madden would have done better if he had not trusted so much to "his own notes and recollections" but enlarged his knowledge by a reference to the later sources of information on the subjects of which he treats.

CROTON-OIL PAINT IN PELVIC CELLULITIS.—Dr. Charles C. Budd (*American Journal of Obstetrics*, April 1876) says that he has found the treatment of pelvic cellulitis by blisters, iodine, and olea of mercury very unsatisfactory. Lately he has used, with happy results, Corson's croton-oil paint. It is made of croton-oil, 2 drachms; strong sulphuric ether, 4 drachms; tincture of iodine, 2 drachms; iodide of potassium, 20 grains; iodine, 10 grains. In four cases when a pelvic abscess seemed unavoidable, under the use of this paint the exudation fairly melted away.

* It is worth while just to note that the name "one varioliformis" was applied by Bazin to "molluscum contagiosum".

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 11TH, 1876.

THE SUMMER OF 1876.

THE Registrar-General has issued his Quarterly Return relating to the three months ending September last, which not only shows the effect of the hot weather during the greater part of July and August upon the public health, but also the extent of the fatality due to small-pox throughout England and Wales during the first nine months of this year. Before summarising the conclusions which may be drawn from the elaborate mortality-statistics furnished in this return, a passing reference to some of its other statistics will not be out of place.

At the present time, when so much is heard of commercial depression and stagnation, it is satisfactory to know that the proportions both of pauperism and of emigration continue unusually low. The marriage-rate shows a tendency to rally from the depression of the last few quarters, and the birth-rate was higher during the three months ending September than in any corresponding period since civil registration was established. In consequence of the high birth-rate and the low death-rate—of which more presently—the natural increase of the population of England and Wales, by excess of births over deaths, was unprecedentedly high; and, as emigration continues to decline, the actual increase of the population must have been very considerably above the average. These facts afford evidence that, whatever may be the condition of trade and finance in the country, its material prosperity cannot yet be seriously affected.

The deaths registered in England and Wales during the three months ending September last were equal to an annual rate of 19.6 per 1,000 of the estimated population, which was 1.4 below the average rate in the corresponding period of the past ten years, and 1 per 1,000 lower than the average rate in the summer quarters of the thirty-eight years 1838-75. The death-rate in these thirty-eight summers ranged from 30.6 in 1849 to 17.2 in 1860. The high death-rate in 1849 was due to the cholera epidemic, and the low rate in 1860 to the fact that the summer of that year was unusually cold and wet. The death-rate during last quarter in the principal urban population of England and Wales was equal to 21.7 per 1,000, whereas in the rural districts it did not exceed 16.7. Compared with the average rates in the ten preceding corresponding quarters, the urban rate showed by far the largest reduction; and the Registrar-General remarks that "the health of town-populations continues to show, relatively, more improvement than the health of rural populations". The Public Health Act of 1872 has undoubtedly done much to stimulate sanitary progress, in spite of its many defects; but it created much unreal sanitation, especially in rural sanitary districts, which accounts for the slower rate of improvement of the public health in country than in town. In twenty of the largest English towns, the average death-rate was 23.1; while in the several towns the rate ranged from 18.4 and 19.1 in Plymouth and Brighton to 29.3 and 30.0 in Leicester and Salford. Among fifty other town-districts, the range of death-rates was even larger, as in Hastings, Middlesbrough, and Reading the rate was only equal to 14 per 1,000, whereas it was 24.6 in Lincoln, 24.9 in Preston, 25.6 in Bury, and 29.2 in Stockport. A large proportion of the excessive rates in these towns was due to the fatality of zymotic diseases, including infantile diarrhoea. This fact affords addi-

tional evidence that these high urban rates are due in great measure to unsatisfactory sanitary condition. The country death-rates differed almost as widely as the rates in the large towns. In Dorset and Westmorland, the rate was so low as 14.7; whereas it was 23.5 in Lancashire and 23.9 in Leicester. The difference between these rates, moreover, only partially shows the excess of mortality due to the evil effects of aggregation in town-districts the sanitary condition of which is unsatisfactory. Lancashire affords one of the strongest examples of the result of our present chaotic system of sanitary organisation, which constitutes every petty little local board district a separate urban sanitary district, and leaves the rest of the county under the charge of boards of guardians. The permissive power to form combined sanitary districts for administrative purposes has proved a failure, and the central health-authority has not yet enunciated any intelligible policy for utilising the compulsory powers they possess for the formation of such districts. In the meantime, the manufacturing and mining districts of the North of England continue to furnish death- and disease-rates which affect the mortality statistics of the whole country.

Infant mortality during the past summer was somewhat lower than the average rate in recent corresponding quarters; but, whereas it did not exceed 101 per 1,000 births in Wiltshire, and 103 in Dorsetshire and Herefordshire, it was so high as 190 in Lancashire, 194 in Yorkshire, 208 in Nottinghamshire, and 256 in Leicestershire. The fatality of diarrhoea is the main cause of these variations in the summer quarter; but it is pointed out that other causes must also be in operation to account for the wholesale mortality among infants in some portions of the English population.

Diarrhoea was debited with no fewer than 14,755 deaths in England and Wales during the three months ending September last, and caused an annual death-rate of 2.4 per 1,000, which was slightly below the average rate in the six preceding corresponding quarters. In the twenty largest towns, the rate was equal to 3.9 per 1,000; in fifty other towns, to 3.1; and in the rest of England and Wales, exclusive of these seventy towns, it did not exceed 1.6 per 1,000. In our largest towns, the rate during last summer exceeded that which prevailed in the summer of 1875, whereas in other parts of the country the fatality of the disease showed a decline. The Registrar-General calls attention to many features of this diarrhoea-mortality which are opposed to the theory that heat alone is its controlling element. It is beyond question that diarrhoea is generally more fatal in hot than in cool summers; but, whereas the temperature in various parts of England and Wales is not very unequal, the diarrhoea-fatality was equal to but 1.8 and 2.4 in Plymouth and Oldham, while it was 5.9 and 8.4 in Hull and Leicester. It is pointed out, for instance, that no difference in local temperature can account for infantile diarrhoea being nearly four times as fatal in Leicester as in Oldham. Again, whereas the average rate from this disease in the seventy large towns last summer exceeded that in the same period of 1875, the rates in Reading, Colchester, Coventry, Bury, Ashton-under-Lyne, and Carlisle were considerably less than half those which prevailed during the summer of last year. In Ashton-under-Lyne, the diarrhoea-rate in the summer of 1875 was 7.9 per 1,000, while it was but 2.1 in the summer just passed. Other towns might be pointed out, in which the recent diarrhoea-fatality was more than double that in the preceding summer. These facts, while proving the epidemic character of the disease, weaken the claim of mere heat to be accepted as its controlling element.

The present return affords valuable evidence that, if we except Lancashire and one or two parts of London, small-pox showed during last quarter no increased fatality in England and Wales. Of 543 deaths referred to this disease (an increase of but 42 upon the number in the preceding three months), 368 occurred in Lancashire, 110 in London, and only 65 in all other parts of England and Wales. Indeed, twenty-three English counties and thirteen of the twenty largest towns were entirely free from a fatal case of this disease. The return also shows how exaggerated were the accounts which appeared from time to time of local outbreaks in Blackburn, Derby, and some other places. Such exagger-

gerated rumours point to the advisability of publishing these official reports more frequently than once a quarter, or of extending the area covered by the Weekly Returns, so as to include all our principal town-centres.

It is only possible now to touch upon one more feature of this Quarterly Return, and this is the continued marked decline in the fatality of fever, principally enteric. The death-rate from this disease last quarter was no less than 31 per cent. lower than the average rate in the six preceding summer quarters. It was, however, nearly as fatal in the rural as in the urban districts, and was more than twice as fatal in Lancashire as in the eastern counties of Essex, Norfolk, and Suffolk. The death-rate from fever affords, perhaps, one of the most reliable tests of sanitary condition; and there is no reason why the marked general decline in the fatality of fever should not be accepted as evidence of sanitary progress, or why the comparatively high fever-rate in Lancashire should be ignored as a conclusive proof that sanitary progress is sorely needed in that county.

The Registrar-General's last Quarterly Return supplies a satisfactory answer to those desponding sanitarians, who refuse to see in our State mortality statistics any evidence of improvement in the national health. The sanitary progress of the past few years is sufficiently marked to afford the fullest encouragement to those who point to the progress already made, as evidence of that which would result from the adoption of a really national health-policy at head-quarters.

THE ARCTIC EXPEDITION.

SOME further facts are at hand concerning the outbreak of scurvy amongst the crews of both the vessels. From thirty to forty patients were, we learn, treated on board the *Alert*, and some on board the smaller vessel, the *Discovery*. Three men lost their lives, and others had a narrow escape of death; but all the survivors are now happily returned, and there was not one case of illness requiring admission to Haslar Hospital when the vessels reached Portsmouth.

Captain Nares' official account of the proceedings of the expedition shows that scurvy had not made its appearance, with one exception, on board the *Discovery*, before the sledge-parties started last April. He says:

"With regard to the outbreak of scurvy, which attacked the crew of the *Discovery* as well as ourselves, when the sledge-crews started early in April, a finer body of men in apparently perfect health it would have been difficult to pick anywhere; and I trusted that, owing to the excellent condition of our provisions, we were secure from any attack, but I must now conclude that disease was even then lurking among us, and that the heavy labour of sledge-travelling intensified and brought it out, as has been the case in nearly all former journeys where the travellers have been unable to procure large supplies of game and were unprovided with lime-juice. It attacked first the weakly men, afterwards the strong men who were predisposed for it, and most severely of all those who were employed on the longest and most trying journeys. Had there been no sledging work, I believe that the disease would not have betrayed its presence amongst us; and, had the officers been called upon from the first to perform as severe daily duty as their men, I think they would have been equally attacked. On July 9th, fifteen days after the return of the last sledge-party, thirty-six of the crew of the ship had been, and twenty-four were, under treatment for scurvy."

The opinion expressed by Captain Nares, that the disease was lurking amongst the men before the starting of the sledge-crews, can, we think, scarcely be accepted as correct, because every man was carefully examined by both surgeons of his ship before starting for the journey, and was pronounced to be in good health. We have still further reason, from our present knowledge of the facts, for the belief that it was simply the absence of lime-juice which must be accounted the *fons et origo mali*. It is true, some of the facts connected with the treatment of the cases seem to point to the absence of fresh meat as a determining cause of the malady, as was suggested by Dr. Kane from his observations made during the progress of the cases which occurred during the expedition that bears his name; but this is a se-

condary and accessory series of influences. Another set of opinions coincides with that expressed above by Captain Nares; viz., that the extreme labour endured by the men caused the failure of their health; but such labour is incidental to all such expeditions, and if the men had been provided on their sledging expeditions with lime-juice from the ship's stores, and regularly served with rations of it, scurvy might probably have been kept at bay. Of course, each ounce of extra weight to be carried on a sledging expedition has to be carefully considered; but probably one of the very last things to be left behind should be the lime-juice, essential as it is to the health of the men, and consequently to the success of the expedition.

The symptoms of scurvy, when the disease manifested itself, were those ordinarily witnessed amongst Arctic voyagers: great depression and debility, spongy gums, cedema of the legs and ankles, and stiffness of the limbs. The skin was not ulcerated or otherwise affected.

The treatment consisted in giving the men plenty of lime-juice, fresh meat whenever obtainable, and some of the many medical comforts with which the expedition was liberally supplied. Under this improved regimen, the men rapidly recovered; but, whilst they lay ill, the energies of the medical officers were taxed to the utmost, and we are pleased to see that several of them have, since their arrival in England, gained promotion. Captain Nares's journal contains numerous most favourable notices of the services rendered by all these gentlemen; and we cannot forbear quoting the following paragraph respecting Dr. Colan, who, it may be remembered, had, just before this expedition started, been engaged during the Ashantee war in attending Commodore Commerell and the other sick and wounded on the West Coast of Africa. Captain Nares reports: "The large number of patients (on board the *Alert*), most of them requiring constant and special attention, necessarily taxed to the utmost the services of Dr. Thomas Colan, Fleet-Surgeon, and his able second, Dr. Edward Moss, Surgeon. Nothing could exceed their indefatigable patience and care. The deprivation of necessary rest and exercise cheerfully submitted to by Dr. Colan, upon whom the chief responsibility fell, considerably impaired his own health, following as it did so closely on his long anxious watch by the bedside of Niel Petersen." At another part of his report, Captain Nares says: "Much as the attack of scurvy which visited us is to be regretted, it proved how valuable were the services of Fleet-Surgeon Thomas Colan, M.D., and Staff-Surgeon Belgrave Ninnis, M.D., who were so ably assisted by Surgeons Edward Lawton Moss, M.D., and Richard William Coppinger, M.D. These officers are each of great talent and high character, and have fully borne out the confidence imposed in them by the Medical Director-General. Any reward that it is in the power of their lordships to bestow on these gentlemen could not be given to more careful or zealous officers." It is very gratifying to observe that these services have already obtained some rewards.

ANTI-VACCINATORS.

FOR some months past, the Liverpool Police Court has been the occasional scene of anti-vaccination martyrdoms, practised by the reckless magistracy upon a handful of devout sceptics who, it seems, will not submit without a struggle to a method of prophylaxis founded upon a basis of mere facts, supported by the feebleness of reason and the folly of enlightened common sense.

As if to help them, a case occurred at the Coroner's Court on October 20th, 1876, when an inquest was held touching the death of two infants aged three and four months, vaccinated together on September 28th with lymph taken from the same individual, and dying on October 13th and 14th respectively. The verdict of the jury, framed by the coroner and founded upon the medical evidence, is worded thus: "That in each case the child died from the effects of pyæmia, consequent on recent vaccination, skilfully performed from a good source; but what were the precise causes leading to this blood-poisoning, the medical evidence does not enable us to say."

With the exception of the word "pyæmia" (to establish which venous thrombosis and phlebitis are essential, the mention of which does not occur in the newspaper report), intended no doubt as a term convertible with "blood-poisoning", and as such admissible in a popular sense, perhaps, there is nothing in the verdict to which the most captious critic could take exception, viewed in the light of the circumstances, which are as follows.

The streets in which the infants lived, Addison Street and Sawney Pope Street, are perhaps the two which, in the whole of Liverpool, afford examples of moral, social, and hygienic depravity combined, of the worst possible order. The infinite rarity of deaths, indirectly or directly due to vaccination, and the presence in these cases of circumstances (filth, cold, malnutrition, etc.) highly favourable to the artificial production of various forms of cutaneous cellulitis, not only militate against the attempt to surround the general act of vaccination with an element of danger, but in the present instance hardly point to the actual operation in question as having been directly to blame in leading to this unwonted fatality.

However, the report of this inquest, and a sensible allusion to it in a newspaper article, have called forth a somewhat lengthened correspondence which has appeared in the columns of a local journal, between a certain doctor of medicine on the one side and a number of individuals on the other. The doctor of medicine wrote a series of long letters devoted professedly to the abuse of the dreadful practice of vaccination, and of the unscrupulous majority of the despicable medical profession. His letters alone are couched in such self contradictory terms as to constitute in themselves a complete refutation of the charges brought by him, and to render completely unnecessary any recapitulation of the oft-repeated arguments in favour of vaccination; but they have been promptly answered by a number of temperate replies, such as must have effectually calmed the momentary agitation produced in the minds of that section of the public which is afraid to walk under a ladder, to spill salt on the tablecloth, to deny spiritualism, or to accept vaccination.

This doctor of medicine was once content to take his place in the rank and file of local practitioners; but he has lately forsaken this rôle of mediocrity, and has given head to his genius, which now soars high above its place in the unpretentious past. The literary world already rings with the praises of his pamphlet published last year on *Homœopathy in its Relations to the Diseases of Females*.

Among the invaluable contributions to clinical medicine which this tract contains, is the relation of a case which must be almost as interesting to our readers as it was to the author. A favourite cat of his, having been deprived of her kittens, became so objectionably inconsolable as to render imperative the immediate aid of efficient medical attendance. The doctor, with a therapeutic daring which all must admire, administered a single globule of *ignatia amara* to the bereaved cat, after which, like the jackdaw of Rheims, she

"Was changed in a moment; 'twas really absurd.

She grew sleek and fat; in addition to that,

Her tail wagged more even than before."

At the meeting, presided over by the Lord Mayor, in aid of the rebuilding fund of the Metropolitan Free Hospital, it was resolved to erect the new establishment as near the old site as possible, and every effort is to be made to raise £25,000 required for this purpose.

A LITTLE girl, whose parents reside in Birkenhead, has been accidentally poisoned in the Wirral Hospital for Sick Children. One morning, the night nurse administered to the child a quantity of carbolic acid, which she mistook for a dose of medicine. The little sufferer, who had been in the hospital since February for lung-disease, died before the medical man arrived.

DR. CZERNÝ, Professor of Surgery at Freiburg, has received an unanimous invitation to the Chair of Surgery in the University of Heidelberg, vacant by the death of Professor Simon.

THE elaborate series of anatomical and pathological preparations of the ear, sent by Professor Politzer of Vienna to the International Exhibition at Philadelphia, has, it is said, been purchased for the museum of the College of Physicians in that city. A medal was awarded to Dr. Politzer for the collection.

THE Manchester stipendiary magistrate had before him last week a further batch of men charged with falsely pretending to be physicians, doctors of medicine, or general practitioners, and fines varying from £2 to £15 were imposed, with costs. Five persons were convicted in addition to those fined, and in all the cases an order was made for the destruction of the immoral handbills and pamphlets, of which an immense quantity were seized by the police in their raid on the defendants' premises.

NUNNERIES.

THE *Wiener Medizinische Wochenschrift* states that the Sanitary Council in Tyrol has ascertained that deaths from pulmonary consumption occur to a remarkable extent in the nunneries, the inmates of which occupy themselves in teaching and in nursing the sick. The Council has made inquiries in the other crown-lands of Austria, whether the same thing has been observed in them. The replies received are in the affirmative; at Jüdenau (Lower Austria) especially, some remarkable facts of the kind have occurred.

BURGLARY AND CHLOROFORM.

CURRENCY is once more given to a story in which it is alleged that burglary had been perpetrated by the administration of chloroform vapour to the inmates of a room. This is an old story revived. If a person be awake, the attempt to chloroformise him, even with the aid of confederates, would fail. It requires time for the production of insensibility by this anæsthetic, and the struggling or resistance of the person attacked would effectually mar success. If the person be asleep, the sudden introduction of the vapour into the lungs would have the effect of awakening him and leading to resistance. It is not for us to state how a skilful person might so administer this vapour as to prevent a sleeping person from awaking, but this professional skill, fortunately, is not found among burglars. They would more certainly carry out their objects by at once gagging and securing the person. We are informed in the report, that the "inmates of the bedroom" were disabled by chloroform. Hence it follows that a burglar must have gone with his chloroform apparatus properly adjusted from one inmate to another, or that several burglars must have been simultaneously occupied in rendering the inmates insensible. We do not believe in this theory to account for successful burglary. No ordinary thieves are likely to resort to such an elaborate process for robbing a house. Their methods of proceeding are shorter, and of a more certain and summary kind.

HEALTHY HOUSES.

THE recent public discussion of the important question of how to secure a healthy position has evoked so much general interest amongst professional men and others, that there seems fair reason to hope it will result in much good to the public health. An excellent paper in last week's *Sanitary Record* by Mr. Ernest Turner is well worth perusal, and the following suggestion deserves serious consideration and a wide publicity, as it seems practical and might easily be carried out. Mr. Turner says: "With the view of bringing the drainage of all houses within the operation of an Act of Parliament, I suggest that no house should be allowed to change hands, or any fresh agreement or lease be entered into, unless evidence can be given that the drainage has been examined and certified within a given time by the proper authority; this would obviate a house-to-house inspection."

tion, which by many would be thought objectionable, and, taking into account the general tenure of house property, all existing dwellings would in process of time (not extended) have come under inspection. The expense would fall on the right person, the owner, and the public would be protected, as it would become a general practice to ask for the certificate before taking a house." No doubt, objections can be raised against such a scheme as this, but they would simply refer to matters of detail, which could easily be overcome; and, as the idea is both novel and practical, it should receive the attention it undoubtedly deserves.

SPORTING IN SPECTACLES.

FRENCH sportsmen appear to be particularly unfortunate. So liable are they to injure themselves in the eye with stray shot, that one French oculist, M. Galezowski, has met with thirty cases during the first two months of the sporting season, and proposes, as a necessary addition to the outfit of every Frenchman who goes out to 'the sport'—an outfit which is reputed to be already sufficiently elaborate—a pair of spectacles of rock-crystal or toughened glass. He has, he informs the Académie de Médecine, ascertained by the experience of two cases already in unfortunate sportsmen who had adopted this precaution, that the shot will ricochet from the spectacles and inflict only slight wounds.

THE LOCAL GOVERNMENT BOARD AND THE METROPOLITAN DISTRICT ASYLUMS.

At the meeting of the Metropolitan Asylums Board on Saturday, a letter was read from the Local Government Board in reply to the protest of the managers against the interference of the Board in the management of the metropolitan hospitals and asylums. The secretary of the Local Government Board wrote that he was directed by the president to express his regret that any controversy on the subject should have arisen, and to remind the managers that the legislature has imposed upon the Local Government Board the duty and responsibility of issuing such general rules and regulations as they may deem proper for the good government of metropolitan district asylums and hospitals, as well as of other Poor-law establishments. Acting under a sense of this responsibility, the President regretted that he could not sanction the perpetuation by formal orders of a dual system of government, but must maintain the principle of unity of authority and the general supremacy of one superintendent. Sir W. H. Wyatt tendered on behalf of himself and the Hampstead Hospital Committee their resignations. They had, he said, found that the regulations of the Local Government Board prevented them from getting efficient officers; and, as the Board seemed determined to continue to adopt the same principle, he and the committee felt that they could not satisfactorily discharge their duties. After some discussion, the resignation of the chairman and committee was accepted.

MEDICAL DEFENCE ASSOCIATION.

A MEETING of the Council of the Medical Defence Association was held on October 27th, being the first meeting since the summer vacation. Dr. Richardson presided. The secretary reported that, since the last meeting, proceedings had been taken under the Medical Act against Mr. T. C. Balls of Bermondsey and Mr. Swallow of Kensal Green for falsely assuming medical titles, and that in each case a penalty of £5 had been recovered. An advertising doctor named Kahn had also been fined £5 at the Clerkenwell Police Court, having been prosecuted by the East London Branch of the Association. In the case of Mr. Swallow, who has been practising as a medical man at Kensal Green for several years past, the secretary further reported that the consent of the Apothecaries' Society had been obtained to his prosecution under the Society's Act, and that an action had been entered against him in the Court of Exchequer. Copies of letters were submitted to the Council which had been sent to the master and wardens of the Apothecaries' Society by Mr. W. Smith of Star Street, Paddington, Dr. F. G. Graves of Bayswater, and Mr. R. Abud of

Eastbourne Terrace, asking the Society to withdraw from the prosecution, on the ground of Mr. Swallow's extensive practical knowledge, etc.; and it was resolved "that the Council sees no reason to interfere with the legal proceedings now in progress". Resolutions were passed authorising the recognition of new Branches of the Association which have recently been established at Nottingham, Newcastle-on-Tyne, and Sunderland. The secretary stated that he had applied to the registrar of the Medical Council for the penalties recovered in the metropolitan police-courts under the Medical Act, and had been informed that the penalties are retained by the receiver of the metropolitan police districts, on the ground that the Medical Act of 1858 is overridden by the Act 2 and 3 Victoria, cap. 71, which enacts that all penalties recovered in the metropolitan police-courts must be paid to the Exchequer. It was resolved that the secretary be requested to write to the registrar of the Medical Council, asking the Council to receive a deputation from the Association in reference to this question. A case having been reported to the Association where one of the metropolitan coroners had admitted the evidence of an unqualified practitioner, and allowed him the usual fee as a medical witness, the solicitors of the Association were authorised to give notice to all the metropolitan coroners that they are instructed to apply to the magistrates in all such cases as may be brought under their cognisance in future asking them to disallow the fees.

DEATH UNDER CHLOROFORM.

MR. W. WALTER, of Long Eaton, near Nottingham, has furnished us with the following particulars of a case of death under chloroform, which occurred in his practice on October 25th.

The patient was a boy aged 8, suffering from contraction of his left knee, which was bent at almost a right angle, so that he could not touch the ground with his toes, and could only walk with the aid of a crutch. Two years ago, he was in the Nottingham Hospital, where the biceps tendon was divided and forcible extension used under chloroform; a splint was applied to the back of his leg, and, in eight weeks, he left the hospital with his knee greatly improved. Before very long, his knee again became bent to a greater degree than formerly; but, as he did not suffer any pain, he was allowed to remain in the state I have described. As I was interested in the case, the parents as well as the little boy himself expressed a desire that I should operate on the knee. Being satisfied that the case was a fit one for operative interference, I requested Dr. Mackern to administer the chloroform. This he did with the utmost caution, using a square piece of lint as an inhaler. As soon as the boy was under its influence, I tried forcible extension; this not having any effect, I divided the biceps tendon and again resorted to forcible extension, and now with slight success; but, finding that it would be absolutely necessary to divide the inner hamstrings, I requested Dr. Mackern to give some more chloroform, as the boy was then resisting me very much. When the boy was again under the influence of the anæsthetic, I divided the tendons, which were very tense, and, once more using extension, I succeeded in making the knee almost quite straight. A McIntyre's splint being in readiness, I commenced to apply it; and, while in the act of doing so, Dr. Mackern exclaimed that the pulse had suddenly stopped, and, on looking up, I saw him drawing the boy's head over the end of the bed. I immediately stood on the bed and held the boy up by his legs, with his head hanging down over the edge of the bed, and Dr. Mackern at once commenced artificial respiration. At the same time, the window was thrown open and the boy's face, abdomen, and chest, were slapped with a wet towel. As he did not show any signs of improvement, hot sponges were applied to the heart, and a brandy and ammonia enema was administered. Ammonia and also nitrite of amyl were applied to his nostrils, and artificial respiration continued for an hour and a half. Our efforts, I regret to say, proved futile. The total quantity of chloroform used was between a drachm and a half and two drachms.

HEALTH OF FOREIGN CITIES.

THE Registrar-General reports that the average annual death-rate during the third quarter of 1876, in twenty-five Indian and foreign cities, was 29.6 per 1,000, against 23.1 in twenty of the largest English towns. The population of these twenty-five foreign cities is estimated at about eleven millions of persons. The lowest death-rates in these

cities were 19.5 and 21.5 in Christiania and Turin; whereas the rate was equal to 33.8 in New York, 35.6 in Munich, 36.7 in Berlin, 37.7 in Breslau, 42.0 in Buda-Pesth, and 48.3 in Alexandria. In the thirteen weeks taken to represent the quarter, cholera caused 186 deaths in Calcutta, 322 in Bombay, and 605 in Madras. In Paris, 650 deaths were referred to typhoid fever, equal to an annual rate of 1.41 per 1,000 persons living, which was seven times as high as in London, where the rate from the same disease did not exceed 0.2 per 1,000. The fatality of small-pox in Paris exceeded that in London. Small-pox was also somewhat prevalent in Vienna, Rome, Naples, and Brussels. In Berlin, 261 deaths were referred to diphtheria and 209 to typhoid fever. Diphtheria was fatally prevalent in New York and Brooklyn, and typhoid fever caused 263 deaths in Philadelphia.

A DANGEROUS MISTAKE.

At Chesterfield County Police Court, on Saturday, a druggist, named Appleton, was fined £1 and costs for selling a quantity of laudanum in mistake for cough-mixture. The woman who purchased the mixture was administering it to one of her children when the child refused to swallow it on account of its taste; and the mistake being found out, the bottle and its contents were handed over to the police, by whom proceedings were taken.

SANITARY IMPROVEMENTS AT GUY'S HOSPITAL.

DURING the last few months, numerous alterations have been made in the drains and sewers in connection with the old building at Guy's Hospital, with the view of improving the sanitary condition of the wards and officers' residences situated on the east side of the hospital. The new arrangements are now nearly completed, and, as far as present experience shows, they go far to solve the problem which has been exercising the public mind of late concerning the best means of securing "wholesome houses". The system adopted is that which has been patented by Mr. Banner, a West Indian merchant, who, after the failure of numerous attempts to rid himself of the sewage nuisance in his own house, hit upon a plan by which he effectually banished the unwelcome guest from his premises and made himself independent of plumbers and sanitary doctors. The main features of this system, which has already been discussed in the engineering journals, consists in the rendering of the air in drains and soil-pipes perfectly innocuous by constant dilution and oxidation. To attain this, it is essential that currents of air should be established in the separate conduits, whether they are in immediate connection with the floors of the house or with the street-drain, or with the main sewer itself; and that the same current should find an exit afterwards at a high atmospheric level. An approach to the principle is already recognised by the employment of the ventilating tube to ordinary soil-pipes now in universal use for dispersing the pent-up gases, which might otherwise do mischief by clandestinely finding their way through traps and closets into habitable apartments; but, however useful this arrangement may be, notwithstanding its fitful action, no system of drain or sewer-ventilation can be said to be thoroughly effective unless it provide for constant currents in all conditions of winds or weather both above and underground. By Banner's system, carried out under his own supervision at the hospital, the continuous current of air is admitted by an inlet placed near the base of the soil-pipe, immediately over the double-dip trap which separates it from the drain. The soil-pipe itself is carried through the roof of the building without any diminution of its internal area, and is open at the top and surmounted by a cowl so constructed as to utilise to the utmost the aspiratory power of the atmosphere. The current induced by the counter-openings and the suction of the cowl is of such velocity that it passes rapidly by the closet and sink connections, imparting to these offshoots so much of its extracting force as to enable one, in a great measure, to dispense with the numerous syphon-traps, which are a fruitful source of trouble and expense in all households. A similar principle of ventilation has also been applied to the larger conduits. The drain which receives the soil-water from the wards and

contiguous buildings, and which is about two hundred feet in length, has been flanked at each extremity by vertical shafts rising considerably above the roof, one of which is intended as a downward and the other as an upward channel. Each shaft is surmounted by a wind-cowl with apparatus to facilitate their separate objects, and, from experiments that have been made to test their action, there can be no doubt that the air is in constant motion in the drain, and that the entire system works remarkably well. It would be premature, however, to pronounce definitely on the subject until more extended observations have been made.

THE PROSECUTION OF PRESCRIBING DRUGGISTS.

THE Executive Committee of the Chemists and Druggists' Trade Association have passed the following resolutions: "That in any case in which a chemist and druggist is threatened with legal proceedings for recommending simple remedies, when required to do so, in his own shop, if he be a member, and the case is such that the sub-committee (appointed for that purpose) approves, this Association undertakes to defend him, but at the same time disapproves of other indiscriminate prescribing."

LECTURES ON PUBLIC HEALTH.

It is proposed by the Council of the Trades' Guild of Learning, in conjunction with the Committee of the National Health Society, to organise a course of twenty lectures on the Laws of Health, to be delivered by Dr. Corfield, Professor of Hygiene and Public Health in University College, in the large room of the Society of Arts, John Street, Adelphi, by permission of the Council of that Society, on consecutive Saturdays, commencing November 11th, at 8.30 P.M. (excepting the following dates—December 1st, Friday; February 1st, Thursday; March 1st, Thursday). There will be an interval of four weeks at Christmas and three weeks at Easter. The Council of the Birmingham and Midland Institute has been enabled to give to the town of Birmingham the benefit of three such courses, delivered by Dr. Corfield in consecutive years, to be followed by a fourth course during the present year. The lectures have been very highly valued and efficient in their results. The lady-teachers of the National Health Society will assist the lecturer by revising and correcting the written answers, which will be invited to questions on the lectures. These ladies have acquired experience by conducting classes in various parts of London since the Society was founded in 1871. An examination (exclusively on the subject-matter of the lectures) will be held at the end of the course. Certificates will be awarded to those who satisfy the examiner, and who have attended not less than fifteen lectures. The price of a ticket of admission to the complete course is £1 1s. The charge for admission to a single lecture, 1s. 6d. In order to bring the lectures within the reach of the industrial class, the Council of the Trades' Guild of Learning has made arrangements for the admission of working men and women at a charge of one shilling for the course, and one penny for a single lecture. Tickets (one guinea each) for the course of lectures are sold at the office of the Society of Arts, John Street, Adelphi; at the office of the National Health Society, 44, Berners Street, Oxford Street; at Messrs. Mitchell and Son's, 33, Old Bond Street; or (on written application) at the office of the Trades' Guild of Learning, 13, Beaufort Buildings, Strand.

EDUCATION AND THE INCREASE OF INSANITY.

At the Monmouthshire Quarter Sessions, a discussion recently took place upon what was described as "the alarming increase of insanity in the county", which an ex-member for the county attributed to the "excessive education now forced upon the people, which addled their brains". Any new light thrown upon the cause of the rapid increase in the number of inmates of our pauper lunatic asylums would be acceptable; but facts are against the acceptance of any relation between elementary education and lunacy. On 1st January last, the proportion of pauper lunatics in Monmouthshire was slightly below the average proportion in the whole of England and Wales, or 266 per 100,000 of

the population, instead of 268. To the credit of the county, a larger proportion of pauper lunatics in Monmouthshire were under treatment in the county asylum, than the average proportion in England and Wales. In Monmouthshire, of the total pauper lunatics, 68 per cent. were in the lunatic asylum, 13 per cent. in workhouses, and 19 per cent. were residing with relatives; in England and Wales, these proportions were 62, 27, and 11 per cent. respectively. The proportion of lunacy in Monmouth is not only slightly lower than the general English average, but it is very considerably lower than the proportions in the two neighbouring English counties of Gloucester and Hereford. Let us now look at the state of education in the county. According to the last issued annual report of the Registrar-General, it appears that no less than 34 per cent. of the persons married in Monmouthshire during the year 1874 signed the marriage register by mark, and were thus presumably unable to write their names. In the whole of England, the proportion of illiterate persons married during that year did not exceed 21 per cent. It is evident that this excessive education, which, according to the ex-member for Monmouthshire, is adding the brains of the inhabitants of his county, and driving them into the county asylum, has left 34 per cent. of the younger adults unable to write their names. Durham shows the smallest proportion of lunacy in the English counties; and yet, it may be noted that education has there been pressed upon the inhabitants to the extent that only 26 per cent. of those married in 1874 were unable to sign their names. It is unfortunate for this new theory of the cause of increased lunacy that, with the exception of Staffordshire, Monmouthshire is the worst educated of the English counties.

COMMUNICATION OF SYPHILIS BY MILK.

In the *Petersburg. Med. Wochenschrift*, No. 23, 1876, M. R. Voss states that he inoculated three prostitutes with the milk of a woman who had a papular syphilide, with moist mucous papules on the genitalia and anus; the mammary glands were free. The milk was obtained by pressure, and a Pravaz's syringe was injected into each of the three prostitutes. In one, who was already syphilitic, no result was produced. The second had urethritis, and remained unaffected. In the third, a girl aged 16, who had not had syphilis, the injection was made on the eleventh day after her admission into hospital. Inflammatory swelling and suppuration took place, but were healed in a week. Forty days after the inoculation, a papular eruption appeared around the spot where the injection had been made, and five days afterwards a maculo-papular syphilide with adenitis appeared over the body. These symptoms disappeared under the use of mercurial inunction.

HYSTERICAL APHONIA.

In the *Progrès Medical*, 1876, No. 9, MM. Liouville and Deboue describe an interesting case of cure of hysterical aphonia. A girl, eighteen years of age, in consequence of hysterical paralysis of the vocal cords, became at length quite dumb. The authors, by firm and painful pressure in the region of the ovaries, produced a well marked hysterical paroxysm. During the attack, the patient, for the first time after a long period, began to scream and to speak with a low voice. Repetition of the procedure brought back the voice entirely, but the disordered condition of the nervous system remained.

RECENT URBAN MORTALITY.

DURING last week, 5,989 births and 3,374 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 22 deaths annually in every 1,000 persons living. It was 17 per 1,000 in Edinburgh, 21 in Glasgow, and 20 in Dublin. The rates of mortality in the twenty English towns were as follow: Sunderland, 16; Birmingham, Hull, and Portsmouth, 19; Bristol and Brighton, 20; Nottingham, London, and Bradford, 21; Newcastle, 23; Liverpool, Manchester, and Norwich, 24; Leicester and Plymouth, 25; Leeds and Sheffield, 26; Oldham, 28; Wolverhampton, 29; and the highest rate, 40, in Salford. No death was referred to any of the seven prin-

cipal zymotic diseases during the week in Plymouth. The annual death-rate from these diseases averaged 2.8 per 1,000 in the twenty towns, and ranged from 0.8 and 1.2 in Bristol and Oldham, to 7.2 and 11.7 in Wolverhampton and Salford. Scarlet fever caused 10 more deaths in Portsmouth. In the twenty towns, 46 deaths were referred to small-pox, against 32 in each of the three preceding weeks, and included 21 in London, 10 in Liverpool, 14 in Salford, and 1 in Manchester. In London, 2,613 births and 1,403 deaths were registered. The births exceeded by 145, whereas the deaths were 165 below, the average. The annual death-rate from all causes, which in the two previous weeks had been equal to 18.3 and 19.1 per 1,000, further rose last week to 21.0. The 1,403 deaths included 21 from small-pox, 18 from measles, 35 from scarlet fever, 3 from diphtheria, 14 from whooping-cough, 22 from different forms of fever, and 31 from diarrhoea; thus, to the seven principal diseases of the zymotic class, 144 deaths were referred, against 174, 163, and 157 in the three preceding weeks. These 144 deaths were 129 below the corrected average, and were equal to an annual rate of 2.2 per 1,000. The fatal cases of scarlet fever, which in the five previous weeks had ranged between 57 and 60, declined last week to 35. The 22 deaths referred to fever were 21 below the corrected average. No fatal case of typhus was registered. The deaths from small-pox, which had been 16, 22, and 15 in the three preceding weeks, rose again to 21 last week; four adult cases were certified as vaccinated, 11 were certified as unvaccinated, and in the remaining 6 cases the medical certificates did not furnish any information as to vaccination. Of the 22 fatal cases, 8 were recorded in the two Metropolitan Asylum District Small-Pox Hospitals at Homerton and Stockwell, 1 in the Highgate Small-Pox Hospital, and 1 in St. Thomas's Hospital; the remaining 11 deaths from small-pox occurred in private dwellings. The two Metropolitan Asylum District Small-Pox Hospitals at Homerton and Stockwell contained 231 patients on Saturday last, against 177 and 185 at the end of the two preceding weeks. No less than 101 fresh cases were admitted during the week, the highest weekly number of admissions since the present epidemic being 62. The 333 deaths referred to diseases of the respiratory organs showed a further increase of 66 upon the numbers in the five preceding weeks, a result that might have been expected from the recent fogs and low temperature. In the Fulham Workhouse, the death of a woman was registered whose age was stated to be 103 years. In greater London, 3,097 births and 1,622 deaths were registered, equal to annual rates of 37.7 and 19.8 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 14.3 and 1.4 per 1,000 respectively, against 21.0 and 2.2 in inner London. At Greenwich, the mean reading of the barometer last week was 30.08 inches. The mean temperature of the air was 44.1 degs., or 2.1 degs. below the average. Rain fell on Friday and Saturday to the aggregate amount of the fifth of an inch.

DRINKING-WATERS.

DR. FRANKLAND, F.R.S., reports as the result of his analysis of the waters supplied to the metropolis during October, that taking unity to represent the amount of organic impurity (on this occasion) in a given volume of the Kent Company's water, the proportional amount in an equal volume of water supplied by each of the other metropolitan companies was:—New River 0.9, East London 2.1, West Middlesex 2.8, Grand Junction 3.3, Lambeth 4.1, Chelsea 4.2, and Southwark 4.5. The water delivered by the five companies drawing their supply exclusively from the Thames, compared with that delivered in August and September, showed a marked deterioration in quality, the proportion of contamination with organic matter in solution having increased. The West Middlesex Company delivered the best of the Thames waters. The sample of the Southwark Company's water was "slightly turbid from insufficient filtration, and contained moving organisms". The other samples of Thames water were, however, clear and transparent. The water supplied by the New River and East London Companies

was much superior in quality to the Thames water; indeed, the New River water in chemical purity surpassed even the deep well water delivered by the Kent Company, which was of its usual excellent quality. Dr. Hill, the medical officer of health for Birmingham, reports "that the water supplied to that town was clear, and exhibited a marked diminution in the proportion of organic matter". The Loch Katrine water supplied to Glasgow is reported by Dr. Mills, of the Andersonian University, to have shown a brown tint, and to have contained a "decided amount of small suspended fibres".

LIFE IN THE ARCTIC REGIONS.

THE expedition, the fitting out of which was superintended by three Admirals of large experience of life in the Arctic regions, aided by the Director-General of the Medical Department of the Navy, himself having had five years' experience, and others whose knowledge upon the subject was also great, has returned; and, except for the outbreak of scurvy when the sledge-crews were away from their ships last spring, experienced no great mischief from the intense cold which it met. This event completely proves the great care and scientific foresight with which the fitting out of the expedition was conducted. Not half the casualties, in fact, occurred that might have been expected had the vessels been, for the same length of time, on any of our tropical stations. Before the hatches were covered in for the winter, the temperature between decks occasionally fell below freezing-point; but afterwards, during the whole of the long Arctic night, the temperature within the ship could be usually kept up nearly to "temperate". Ventilation was effected by having several outlets for the warm air, which, we understand, thoroughly answered their purpose. It is always found necessary, in Arctic service, to take daily exercise; and this precaution was most rigidly impressed upon the officers and men of the crews of both ships. The air being exceedingly dry, the coldness of it, when there was not a breeze, was not particularly noticeable. The clothing of the men, when they were at their exercise, was of the warmest character; but, through even the thickest clothing, a wind would pierce with nipping severity. The long Arctic night was whiled away by all kinds of cheerful amusements, plays, chess, draughts, cards, etc. As the spring drew nigh, both crews were busily engaged in preparing for the sledging expeditions; and when at last the various sledge-parties had left the ships, only a few men remained on board, whose services were required for the work about the ships. It will be seen, upon reference to the Arctic special number of the *Graphic*, that all the men engaged in the sledging parties during the summer wore spectacles of coloured glass, which effectually protected their eyes from snow-blindness. We think the country may be congratulated on the return of this great expedition, which has come back in the best of health.

SCOTLAND.

THE West Prince's Street Gardens, Edinburgh, were on Saturday last formally declared open as public gardens by the Lord Provost.

IN Glasgow, the winter session was opened at the University by Dr. McCall Anderson; at the Andersonian University, by Dr. A. M. Buchanan; and at the new School of Medicine of the Royal Infirmary, by Dr. J. G. Fleming.

THERE having occurred at Glasgow, within the last few weeks, three cases of hydrophobia, the police authorities gave notice that any dogs found in the streets without muzzles, and without a collar on their necks containing the name of the owner, would be destroyed. Accordingly, on Saturday nearly five hundred dogs were put an end to in the courtyards adjoining the various police-stations.

THE recent cold weather has told on the mortality of Edinburgh. Last week, the rate was at 16 per 1,000, against 11.30, the rate of the preceding week. This latter is the lowest mortality recorded for

many years. The increase last week was due to diseases of the chest, which constituted a third of the total mortality. The aged especially suffered; one-third of those who died were above sixty years of age. Only four deaths were due to zymotic diseases, and of these one was an imported case of typhus.

At a recent meeting of the Edinburgh University Court, Dr. E. Ray Lankester was recognised as a lecturer on Natural History whose lectures should qualify for graduation in Medicine; Dr. Samuel Drew was recognised as a lecturer on Public Health in Sheffield whose lectures should qualify for graduation in Science in that department; Dr. P. R. Aitken and Mr. R. M. Morrison, B.Sc., were appointed Assistants to the Professor of Chemistry; and Dr. J. O. Affleck to the Professor of Medical Jurisprudence.

POISONING OF AN INFANT BY LAUDANUM.

A CASE, which no doubt was intended by the Crown authorities to act as a warning to nurses in the treatment of infants, was tried before the Sheriff at Selkirk on Saturday last. The accused, Mrs. Scott, acted as nurse on the occasion of the confinement of the mother of a fine, strong, and vigorous infant. About twenty-four hours after its birth, as the child cried considerably, the nurse gave it three drops of laudanum, telling the mother what she was about to do, and saying that she had done it before, and it would do the child no harm. In a few hours, the child became very ill, and it died fourteen hours after taking the laudanum. The Sheriff, in passing sentence, remarked that there was no reason whatever for thinking that the accused had acted otherwise than with a desire to benefit the child, which, indeed, was the line of defence; but, having in view that there was a good deal of administering of poison by nurses in ignorance of its effects, he passed a sentence of six weeks' imprisonment.

A CENTENARIAN.

A MAN named Alexander Macpherson died last week at a village near Glenborrodale, who was said to have reached the extraordinary age of 110. One of his sons is within two or three years of 80. The centenarian retained his good health to the last, moving about almost daily, looking after his cattle, and feeding them himself night and morning.

THE SESSION OF THE UNIVERSITY OF EDINBURGH.

THE winter session of the University of Edinburgh was opened by the Principal, Sir A. Grant, Bart. In the course of his address, he paid an eloquent tribute to the ability of the late Professor Laycock. In speaking of the new University buildings which are in contemplation, and for which the plans are already prepared, he mentioned that the cost would reach a quarter of a million sterling. Towards this sum, about one-third has been raised by voluntary subscriptions; a part of the remainder will, it is hoped, be given by the Government; while they looked to further contributions and legacies to make up the full amount.

THE EDINBURGH EXTRAMURAL SCHOOL.

THE inaugural address at the Edinburgh Extramural School was delivered by Dr. Wyllie to a large audience, including, besides the students, most of the lecturers of the school. The lecturer gave a rapid but comprehensive sketch of the history of the healing art from the earliest times, giving prominence to those names and epochs which mark an era in the advance of the science of medicine. Before entering upon the subject, Dr. Wyllie paid a tribute to the memory of Dr. Warburton Begbie, formerly one of the most distinguished lecturers of the school, and whose recent death all much deplore. In closing, allusion was made to the changes which had taken place in the teaching staff since last winter session; namely, the loss of Dr. McKendrick and Dr. Grainger Stewart, owing to their elevation to chairs in the Universities of Glasgow and Edinburgh respectively; and it was announced that Dr. Andrew Smart would be the new lecturer on Physiology.

IRELAND.

Mr. FORSTER GREEN of Belfast has given a donation of £400 to the Belfast Royal Hospital, to liquidate the debt due on that institution.

THE collections for the Dublin hospitals, as we have already stated, will take place next Sunday; and we are happy to state that the Adelaide Hospital, which heretofore has kept aloof from the movement for some unaccountable reason, has this year determined to be benefited by the collections, and will receive a due proportion of the funds obtained.

EPIDEMICS: SMALL-POX FLOATING HOSPITAL.

THE guardians of the South Dublin Union, having lately inquired from the Local Government Board whether they had power to order medical inspection of ships arriving in the port of Dublin from London or elsewhere, have received a reply to the effect that the guardians could not claim the right of inspecting vessels arriving in the port in reference to other diseases than that of cholera. Hospital aid could, however, be afforded to cases of small-pox, etc., occurring in ships, under the twenty-sixth and thirty-second section of the Sanitary Act, 1866. The prevalence of small-pox in various parts of England with which Dublin has communication was the chief reason of this interrogatory. At the next meeting of the guardians, a notice will be brought forward that a Committee will be appointed to consider the necessity for the maintenance of the hospital for the port of Dublin. It seems that, since it was constructed in 1873, it has cost £2,165, and a sum of £250 annually; and yet there has been but one patient admitted, and that was a person suffering from diarrhoea. The general feeling about this floating hospital appears to be, that it could not be utilised should an epidemic break out, the accommodation being only sufficient for twelve persons, and the existing hospitals in Dublin being able to meet all requirements.

ARTISANS' DWELLINGS ACT, BELFAST.

THE Belfast Town Council, who are the local authority, being empowered by this Act to improve any part of a town or city which, after proper inquiry, shall be considered an unhealthy area, have adopted a scheme lately put forward, and the locality chosen by the Council to test the working of the Act in Belfast includes Hudson's Entry, Smithfield Court, Hudson's Court, etc.; and, as the population of this area is extremely dense, other ground will be obtained adjacent to the Falls Road, on which suitable dwellings will be erected. The cost of these changes will be about £10,000; and this expenditure will be the beginning of a series of operations which will gradually get rid of foul nests of immorality and overcrowded and badly ventilated dwellings of the lowest condition.

SURGICAL SOCIETY OF IRELAND.

THE election for the members of Council of this Society for the session 1876-77, took place on last Monday, the 6th inst., at the Royal College of Surgeons. Twenty-five candidates presented themselves for the office of Councillor, the following being elected. *President*: Geo. H. Kidd. *Vice-President*: Robert McDonnell. *Council*: Charles Benson, Philip Bevan, William Colles, Humphrey Minchin, M. Harry Stapleton, Richard G. Butcher, George H. Porter, J. Stannus Hughes, J. H. Wharton, Albert Walsh, Rawdon Macnamara, John Barker, Edward Hamilton, Edward D. Mapother, Henry G. Croly, Henry J. Tyrrell, William Stokes, Anthony Corley, Benjamin F. McDowell. *Honorary Secretaries*: Joliffe Tufnell, B. Wills Richardson.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The second meeting of the Twenty-first Session was held on Friday evening, November 3rd, at the Royal Kent Dispensary, Greenwich Road: Dr. Creed in the Chair. Mr. J. B. Saundry brought forward for discussion an interesting surgical case of obscure diagnosis, entitled "A Case of Gaseous Abscess".

GENERAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, 1877.

DR. EASON WILKINSON, Dr. Roberts, Dr. Leech, Dr. Borchardt, Dr. Hardie, and Mr. Cullingworth, of Manchester, attended as a deputation from that city, at a meeting of the Committee of Council on Wednesday last, called especially for the purpose of receiving the invitation for 1877, and presented the following invitation.

To the President and Members of the Committee of Council of the British Medical Association.

We, the undersigned members of the British Medical Association resident in Manchester and the neighbourhood, have much pleasure in submitting to the Committee of Council our cordial invitation to the Association to hold the next annual meeting in 1877 in the City of Manchester.

We promise the Association a hearty welcome, and will spare no pains to render the meeting interesting and agreeable to the members, and worthy of the resources and reputation of this large and important city.

Eason Wilkinson, J. Dreschfeld, Jas. Hardie, Arthur Gamgee, Louis Borchardt, D. Lloyd Roberts, F. M. Pierce, Thos. Jones, James Ross, C. O. Murphy, G. W. Mould, J. Thorburn, J. D. Bird, David Little, A. W. Stocks, Andrew Bouflower, Chas. J. Cullingworth, Henry Simpson, J. Chadwick Peatson, Arthur Ransome, D. J. Leech, E. Gumpert, J. Whitehead, M.D., Chas. Ed. Glascott, M.D., Th. Mellor, Walter Whitehead, M. Heckscher, Henry Browne, S. M. Bradley, George Bowring, Daniel Noble, Adolphe Waltuch, Robert B. Smart.

Upon the motion of Mr. HUSBAND, which was seconded by Dr. SIEVEKING, the invitation was cordially accepted, and Dr. Eason Wilkinson was appointed President-elect.

The attendance of the members of the Committee of Council was very large.

We believe that the profession in Manchester propose fully to maintain the high reputation of their city for energy and hospitality on this occasion, and the arrangements of the meeting will be such as to render it probable that this will be a very largely attended anniversary, and one which will be in all respects worthy of the great centre in which it will be held. Several eminent members of the profession have been suggested for nomination as readers of addresses and officers of sections, and we shall shortly be able to make a further announcement of the programme of the meeting.

THE REPRESENTATION OF THE UNIVERSITIES OF GLASGOW AND ABERDEEN.

IN all probability, the Lord Advocate will be elected as parliamentary representative of the Universities of Glasgow and Aberdeen by a large majority. At the time of going to press (Thursday) we learn that his majority in Aberdeen to-day was 526, the largest conservative majority for many years. The polling will close to-morrow (Friday) afternoon.

THE CONJOINT SCHEME FOR ENGLAND.

THE College of Physicians, the College of Surgeons, and the Apothecaries' Society—or, as they are technically called, the Medical Corporations—will have no cause to complain, should the conjoint scheme, as at present proposed, come into operation. The Board of Examiners appointed by them will conduct the examinations, which will be the test of everyone who seeks to be registered as a qualified practitioner on an English qualification, for the Universities consent not to confer degrees on anyone who has not passed the examination in medicine, surgery, and midwifery conducted as above. The Universities thus give up their licensing privilege, whilst the Corporations surrender nothing. Candidates who pass the examination under the auspices of the corporations will be entitled to receive, as they do now on separate examinations, the diplomas of the College of Physicians and of the College of Surgeons, and, if they please, of the Apothecaries' Society also. The advantages of this will be that the candidate will be spared a multiplicity of examinations, the Corporations will be enabled to conduct a conjoint examination more economically than several separate ones, whilst the licentiate or member of the different institutions will retain the same position in each as has hitherto been the case. There will

thus virtually be but one entrance to the medical profession. The above plan is that which has been proposed by the University of London, a proceeding consistent with the liberal character on which it has been founded, and with the conduct of its Senate in seeking to advance medical education and the interests of the public. We have reason to believe that the other Universities will not be backward in giving their adhesion to this scheme. It is true that the individual interests of each may not be promoted, but that of the public will be. Moreover, they will have sufficient control over the examinations in having, with the other licensing bodies, a primary voice in the selection of examiners; and it will be their duty to see that the examinations are all fairly and efficiently conducted.

SIR JOSEPH FAYRER ON THE MORTALITY FROM SNAKE-BITES IN INDIA.

SIR JOSEPH FAYRER writes to us concerning a recent announcement in the *Englishman*, that the Bengal Government do not find the results of their rewards for the destruction of cobras sufficiently satisfactory, and the suggestion of the *Englishman* that such a system of rewards might be discontinued. Upon this subject Sir J. Fayrer, whose authority on this subject will be recognised as of the highest, says:

"I think the public generally will hardly feel inclined to agree with either the Lieutenant-Governor of Bengal or the writer of the article in the *Englishman*, a copy of which accompanies this. It appears that, in the past year, 32,391 cobras were destroyed in Bengal alone, at a cost of 7,807 rupees (and very cheap indeed they were), against 1,757 cobras since killed in 1876, at a cost of 200 rupees. The deaths of human beings in 1875 from snake-bite appear to have been 8,807 in Bengal, or an increase of 1,212 on the number in the preceding year; and from this the lieutenant-governor and the *Englishman* argue that it is not worth while to pay so much for so little. I should draw a different conclusion, and hope that the rewards will be continued and increased, and that they will, as I long ago recommended, include all the poisonous snakes. There can be no excuse now for saying that the poisonous snakes cannot be identified, and there need be no difficulty in ensuring the dead snakes to be genuine real wild ones, and not bred, as is suggested, for the sake of the reward. Let each magistrate or subordinate officer employ a properly paid man for the purpose, and deception of this nature would be avoided. It is clearly shown that the snakes *can be destroyed*; it is equally certain that, in the interest of human life, they ought to be so dealt with."

REPORTS OF LUNATIC ASYLUMS.

THE NOTTINGHAM COUNTY ASYLUM.

We learn from the annual report of the Nottingham County Asylum that 116 patients were received into it last year, while 37 were discharged recovered, 26 relieved and not improved, and 43 died. It is not stated in how many of the cases of death *post mortem* examinations were performed; but we trust that, with reference to *post mortem* examinations, Dr. Phillimore has seen reason to modify the views which he expressed in his previous report, and which were certainly in antagonism to those of almost every other asylum superintendent in Great Britain. The announcement made in the report of the Commissioners in Lunacy, that necropsies were never performed in the Nottingham Asylum, created great surprise, which was converted into astonishment when Dr. Phillimore defended the practice, or rather no practice, of the asylum over which he presides in this respect, and characterised *post mortem* examinations as infringements of a public right. His singular position was not strengthened by the course which he adopted of quoting a portion of a letter, addressed by the Secretary of the Local Government Board to the medical officer of Portsea Union, censuring him for performing *post mortem* examinations, obviously without having first obtained proper consent to these examinations. That letter is not a State paper of paramount authority, and several of its assertions and arguments admit of serious question; but, even if it were binding on faith and morals, it has no relevancy to the circumstances in which Dr. Phillimore endeavours to apply it. It is well known that the sanction of the relatives of deceased pauper lunatics for the performance of *post mortem* examinations can be obtained in a large majority of cases, and when that has been done, these examinations are not only unobjectionable, but highly commendable. Public right is more likely to be infringed when no *post mortem* examination is made of the body of a man, who is found dead in his bed one morning, after having been seen apparently well in the course of the night—as was the case at the

Nottingham Asylum—than when a point is stretched to obtain a section cadaveris, which entails considerable trouble upon those who undertake it, and brings them no remuneration. We are glad to notice that the Commissioners speak favourably of the general state of the Nottingham Asylum, and express their conviction that it is under judicious management, and that the patients are kindly treated.

THE DERBY COUNTY ASYLUM.

THE Derby County Asylum, which has been long favourably known as a well constructed and well conducted institution for the insane, will certainly not deteriorate in reputation under the intelligent and judicious management of Dr. Murray Lindsay. The annual report of the asylum, which has just been printed, gives evidence of excellent results attained by combined medical and moral treatment, and of certain defects in the establishment which ought to be remedied without delay. Chief of these is the want of a detached hospital for the reception of cases of contagious or infectious disease. An epidemic of erysipelas visited the asylum during last year, when the necessity for some isolated building applicable to such a purpose was very pressingly felt. Retiring pensions of a liberal amount were last year granted to several meritorious nurses and attendants, who had served the asylum for the time prescribed by law to entitle such a provision. It appears that the authorities of the borough of Derby have applied to the Committee of the County Asylum, to receive permanently at Mickleover those pauper lunatics who are chargeable to the town unions. As the County Asylum contains under four hundred patients, and as the addition of the borough pauper lunatics to that number would still leave the County Asylum, in point of population, well within the mark that has been fixed as compatible with the most perfect and economical asylum administration, it seems desirable that the application of the borough authorities should be assented to. Its rejection would compel these authorities to erect for themselves what would be a small and comparatively costly asylum. When we are abolishing diamond prisons, it would be inconsistent to sanction miniature asylums.

THE CHESHIRE COUNTY ASYLUM AT MACCLESFIELD.

Dr. Maury Deas gives a very explicit and satisfactory account of his stewardship over the Cheshire County Asylum at Macclesfield in his fifth annual report, which is replete with interesting information and sound views not rashly formed nor incautiously expressed. Under unusual difficulties, incidental to the reception into the asylum since its opening of as many as 546 out-county patients, derived from counties in which there has been a deficiency of asylum accommodation, which, while they may have benefited the asylum financially, must have increased the anxieties and responsibilities of its officers in no small degree, Dr. Deas has succeeded in managing the institution with marked success. Perhaps, the secret of his success is that he has kept constantly in view the first and most important function of an asylum, viz., that of a hospital for the treatment and cure of insanity. A distinct note of progress is sounded in Dr. Deas' report on the subject of asylum night-nursing. He has prepared a scheme which has been adopted by the visiting justices, and by which it is provided that every ward in the asylum shall have the undivided services of a night-nurse or night-attendant, while epileptic patients are collected into large dormitories, where they are uninterruptedly watched. Although the scheme may entail considerable cost by necessitating the appointment of a large number of additional officers, it will yield more than counterbalancing advantages in securing increased attention to the sick, and supervision over the wayward, and in affording facilities for giving leave of absence to nurses and attendants, without reducing the staff below a proper standard. Our asylums are not over-officed, and the time has indeed come when old notions as to the proportion which ought to subsist between the number of patients and of attendants on them might well be revised. Dr. Deas has undoubtedly made a move in the right direction in the matter of night-nursing.

IDIOTS, IMBECILES, AND HARMLESS LUNATICS.

THE necessity which exists for amended legislation and adequate provision for the education, care, and treatment of the above classes, must be evident to most of our readers, who cannot fail to take an interest in any attempt to improve the present state of affairs. In April last, a special committee was appointed by the Charity Organisation Society to consider and report upon the following reference: "That the Council, recognising the expediency of placing institutions for idiots and imbeciles on the most comprehensive and satisfactory footing, resolves that a committee be formed to consider and report upon the whole subject."

Fifteen meetings, at weekly intervals, have been attended by the members whose names follow: The Earl of Lichfield, the Earl of Devon, Lord Wrottesley, Sir C. Trevelyan, Bart., Sir A. Acland Hood, Bart., Sir John Ogilvy, Bart., Sir Rutherford Alcock, K.C.B., the Hon. C. H. Strutt, Albert Pell, Esq., M.P., Dr. Cameron, M.P., U. J. Kay-Shuttleworth, Esq., M.P., Lieutenant-General Cavanagh, the Rev. Canon Hopkins, the Rev. R. J. Simpson, the Rev. H. J. Cummins, Drs. W. Brewer, J. L. Down, Bell Fletcher, G. W. Grabham, D. Hack Tuke, W. C. Cortis, Fletcher Beach, R. Boyd, W. Ireland, and J. Lalor, Messrs. H. Dickinson, J. Cropper, W. Millard, F. Purdy, Danby P. Fry, F. D. Mocatta, W. M. Wilkinson, W. Pole Carew, J. Wise, C. A. Miner, Sydney C. Buxton, A. Sperling, and Courtney Boyle.

An immense amount of information has been collected, and the following resolutions have been passed.

"That a small proportion may be made self-supporting; that a further larger proportion may be trained to do some useful work; and that, as a general rule, the habits of the remainder can be improved so as to make their lives happier to themselves and less burdensome to others.

"That idiots and imbeciles should be treated distinctively from other classes.

"That they ought not to be associated with lunatics in asylums.

"That they ought not, unless in exceptional cases, to be associated with paupers in union-houses.

"That the distinctive treatment suited to idiots and imbeciles ought to be applied collectively, especially in the earlier stages of education.

"That idiots and imbeciles cannot with advantage be placed in ordinary schools with other children.

"That the improvement of idiots and imbeciles would not be promoted by boarding them out; but in certain cases boarding out, under proper supervision, is not unsuitable to harmless lunatics.

"That the education of idiots and imbeciles should be based on physical considerations.

"That the education of idiots and imbeciles should commence at the earliest age at which they can dispense with a mother's care, and the subsequent stages should depend upon the capacity developed by them.

"That idiots and imbeciles should have a thorough industrial training, so as to enable them, as far as practicable, to support themselves, or at least to contribute towards their support, when circumstances render it necessary.

"That idiots and imbeciles of all classes should, as far as may be prudently done, be also encouraged to cultivate any literary, scientific, artistic, or mechanical faculty they may happen to possess, or be otherwise furnished with employment, so as to promote their self-respect, and to make them feel that they are of some use in the world, or at any rate to occupy them pleasantly."

At a further meeting it was resolved:

"That the treatment of adult idiots and imbeciles must depend upon the degree in which the character and faculties have been developed by previous education and training.

"That a small proportion may be permanently improved, so as to take care of themselves, either at their own homes or elsewhere, and to earn their own living.

"That a larger proportion may be improved so as to support themselves under proper safeguards.

"But that there is also a large proportion of cases which, having achieved a certain improvement, are unable to get beyond this, and are, indeed, liable to retrograde; and for these cases institutions, or departments of institutions, where suitable classification may be carried out, are indispensable.

"Not only can idiots and imbeciles in asylums be employed with advantage to themselves, and the asylums be managed as industrial establishments for manufacturing or agricultural industry, but it is essential to the moral and mental well-being of the class that such a system should be adopted; and, under good management, it may be made advantageous to the institutions in a financial sense by diminishing the cost of maintenance.

"Voluntary charity has directed attention to the claims of this neglected class, and made great progress towards the establishment of a model for general adoption; but it has not proved equal to providing a remedial machinery coextensive with the evil.

"Assuming that the returns of the census of 1871 are within the mark, only about three per cent. of the idiots and imbeciles in England and Wales have been suitably provided for by voluntary charity.

"Adequate provision for all the idiots and imbeciles in England and Wales of the poorer classes, whether juvenile or adult, cannot be made without the intervention of the State.

"That the arrangement which has been made for idiots, imbeciles,

and harmless lunatics in the metropolitan asylum district is applicable, in its main principles, to the rest of England—viz., that idiots, imbeciles, and harmless lunatics should be removed from workhouses and county lunatic asylums, and that young persons of those classes should be suitably educated and trained.

"That the education and care of idiots, imbeciles, and harmless lunatics should be conducted by governing bodies specially appointed and responsible for that purpose.

"That such governing bodies should also be charged with the education and care of blind and deaf and dumb children of the poorer classes.

"That such governing bodies should be composed of representatives of the local magistrates, of representatives of the local guardians, and of persons appointed by the Crown.

"That the country should be divided into districts, each sufficiently large to fill an asylum containing not more than 2,000 adults, and schools containing, at the utmost, five hundred young people.

"That, besides the supervision of the Commissioners of Lunacy, the schools and asylums should be inspected and reported upon to the Local Government Board.

"That the education and care of idiots, imbeciles, and harmless lunatics must, as at present, be mainly provided for by local administration and local rates; but, as every member of the community is interested in the object, and this national obligation has already been acknowledged in several ways, assistance should be given out of the public revenue.

"That the best mode in which such assistance can be given is by advances for the necessary buildings on easy terms, liberal capitation grants for young people under training, and grants of less amounts for adults.

"That, although many workhouses and gaols are likely soon to be available for other purposes, yet, having regard to adaptability, sanitation, and economy, it is desirable to erect new buildings for the institutions contemplated by the committee.

"That families which, although able to pay their way under ordinary circumstances, would be reduced to destitution if required to defray the entire cost, should be charged at such rates as their means will allow for an idiot, imbecile, or harmless lunatic member admitted into a training school or asylum; and that the privilege accorded by Act of Parliament to the blind and deaf and dumb—viz., that relief given to children should not be deemed to be parochial relief given to their parents—should be extended to idiots, imbeciles, and harmless lunatics.

"That persons belonging to the lower-middle and upper-artisan class, who are so unfortunate as to have an imbecile child, are in a less favourable position than any other for obtaining proper education and care for it; because, while they can rarely afford to pay the full cost of maintenance and education, they cannot well appear before their respective boards of guardians to claim the benefit of the legal provisions for destitute imbecile children.

"That institutions mainly supported on the voluntary principle are best adapted to the needs of the class specified in the foregoing resolution, provided all suitable cases are admitted at the proper age, at rates suited to the circumstances of their respective families.

"That the Government may assist in the formation and maintenance of such institutions by removing unnecessary legal restrictions.

"That the legislative provisions required for idiots, imbeciles, and harmless lunatics should be consolidated in a single act distinct from those applicable to dangerous lunatics; but the details of such legislation must depend upon the measures which may be actually adopted."

A subcommittee has been appointed to prepare a draft of the report consisting of the following members: The Honourable C. H. Strutt, Sir Charles Trevelyan, Bart., K.C.B., Dr. Brewer, Dr. Langdon Down, Dr. Grabham, Mr. W. M. Wilkinson, and Mr. Millard.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Meeting of the British Medical Association in 1877.—Prosecution of Quack Doctors.—Entries at the Medical School.

AT a large representative meeting of the medical profession in Manchester and the neighbourhood held last week at the Royal Institution, Dr. Arthur Ransome in the chair, it was unanimously resolved that the British Medical Association should be invited to hold their next annual meeting in Manchester. On the same occasion, it was proposed by Dr. William Roberts, seconded by Dr. Noble, and carried unanimously,

that Dr. Eason Wilkinson should be elected president in the event of the invitation being accepted. Dr. Borchardt was at the same time appointed treasurer, and Dr. Leech and Messrs. Hardie and Cullingworth general and local secretaries.

We have reason to believe that the prosecution of quack doctors which took place lately in Manchester is but the commencement of a determined effort to compel the whole tribe to vacate the city, the police having instructions to renew the raid, if the present verdicts do not serve to dislodge them.

When I last wrote, the number of entries at Owens College amounted to forty; they have now reached a total of forty-eight.

ASSOCIATION INTELLIGENCE.

GLOUCESTERSHIRE BRANCH.

THE next meeting and supper will be held at Gloucester, under the presidency of Dr. WRIGHT of Cheltenham, on the evening of Tuesday, November 21st.

Business.—The election of officers; to receive a recommendation of Council with regard to the death of Dr. Rumsey, and the question of the Government Pension.

The following papers are promised.

1. Dr. Wright: On the sources of information for the Sanitary Medical Officers.

2. Dr. Wilson: On Diabetes.

3. Mr. Bubb: Surgical Notes.

4. Mr. Holland: The Spectroscope as an aid to Diagnosis.

RAYNER W. BATTEN, M.D., *Honorary Secretary.*

Gloucester, November 7th, 1876.

SOUTH-EASTERN BRANCH: EAST AND WEST KENT DISTRICTS.

A CONJOINT MEETING of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on November 24th, at 2 P.M.: Dr. STEPHEN MONCKTON, the President of the South-Eastern Branch, will preside.

Dinner to take place at the Bull Hotel at 5 o'clock precisely. Charge, 6s. 6d., exclusive of wine.

Notices have been received of the following communications to be read at the meeting.

1. Mr. M. A. Adams: Cases of Intra-Vitreous Hæmorrhage.

2. Mr. Rigden: Case of Hydrophobia.

3. Mr. Nankivell: Case of Penile Fistula.

4. Mr. Teevan: Cases of Retention of Urine.

5. Dr. Eastes: Case of Intussusception successfully treated by Infusion.

6. Dr. C. E. Hoar: Case of Paracentesis Thoracis.

7. Dr. Wordsworth Poole: The expediency of an arrangement by which Surgeons would cease to Dispense, and Druggists to Prescribe.

8. Dr. Monckton: Case of Lymphadenoma.

9. Dr. Monckton: Case of Simultaneous Obstruction of both Ureters by Calculus; Recovery.

10. Dr. John Armstrong: Jottings from my Note-Book.

It is particularly requested that those intending to be present should inform Mr. Edward Thurston, Ashford, the Secretary to the East Kent District, on or before Tuesday, November 21st.

FREDERICK J. BROWN, M.D.

EDWD. WHITFIELD THURSTON. } *Honorary Secretaries.*

November 7th, 1876.

BATH AND BRISTOL BRANCH.

THE next ordinary meeting of the Session will be held at the York House, Bath, on Thursday, December 7th, 1876: H. F. A. GOODRIDGE, M.D., President.

R. S. FOWLER, Bath. }

E. C. BOARD, Clifton. }

Honorary Secretaries.

Bath, November 9th, 1876.

YORKSHIRE BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held on Wednesday, October 25th; at the Royal Hotel, Scarborough; Dr. BARLOMÉ in the chair.

Papers.—The following papers were read and discussed.

1. Mr. J. W. TEALE: On House-Drainage in Towns.

2. Mr. DALE related a Case of Unusual Disease of the Kidney at-

tended at the onset with uræmic symptoms of a serious character, and ending in the destruction of the right kidney, with recovery.

3. Dr. CLIFFORD ALBUTT communicated a paper on Uræmic Dyspnoea.

Dinner.—After the meeting, the members dined together.

SOUTH DEVON AND CORNWALL BRANCH: QUARTERLY MEETING.

THE quarterly meeting of this Branch was held at the Royal Cornwall Infirmary, Truro, on October 31st; Dr. BARHAM occupied the chair.

Papers, etc.—Dr. HUDSON of Redruth read a paper on the Germ-Theory in connection with the Spread of Typhoid Fever; and an animated discussion followed.

Dinner, etc.—Dr. Barham entertained the members at luncheon; and they all dined together at the Royal Hotel in the evening.

MIDLAND BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held on November 3rd, at Nottingham, at the house of the President, JOSEPH WHITE, Esq.

Monthly Meetings.—It was proposed by the PRESIDENT, seconded by Mr. STANGER, and resolved, that a meeting should be held at the same place on the first Friday in every month for the purpose of discussing papers.

Communications.—1. A paper was read by Dr. MARSHALL on Hospital Sanitation; and a discussion ensued, in which Drs. Ransom, Phillimore, Newman, Ogle, and Taylor, and Messrs. Hatherly, Stanger, and Dolman took part.

2. Mr. DOLMAN of Derby made a few remarks on a Case of Opium-Poisoning.

3. Dr. NEWMAN described a Case of Threatened Gangrene of Fingers and Toes in a Strumous Subject.

4. Mr. CHICKEN read a Case of Camphor-Poisoning.

Each case was discussed.

The meeting concluded with a vote of thanks to the President, the reader of the paper, and those gentlemen who had related cases.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 7TH, 1876.

G. D. POLLOCK, F.R.C.S., President, in the Chair.

Multiple Melanotic Tumours.—Mr. SYDNEY JONES exhibited a young man, aged 26, with multiple melanotic tumours. Three years ago, a black mole on his left knee was irritated. It was grazed and then formed an irritated sore, which did not heal; it grew into a black melanotic tumour, and was removed. There was not at that time any enlargement of the glands in the groin. Fifteen months afterwards, six or more melanotic masses, varying in size from a pea to a marble, were removed. The growth returned in the cicatrices, which were again removed. After that, there was no return in the cicatrices, but a shower of shots of this material showed itself in the left thigh. Each grew until now there were a series of prominent patches undergoing ulceration. There were also similar growths in the thorax, abdomen, neck, and head. No changes in the viscera were discoverable. The family history was good. He thought the case one of melanotic sarcoma, and that the transference was accomplished through the lymphatic system.—Dr. HILTON FAGGE inquired if any pigment had been found in the urine.—Mr. JONES said that there was none. The only abnormality was the presence of phosphates in excess.—Dr. FAGGE said that melanotic pigment had been found in the urine in two cases at Guy's Hospital lately, of which he showed specimens. In one case, masses were found in the lungs and mediastinum; in the other, the liver was full of these melanotic sarcomatous tumours. There were black casts of the uriniferous tubules in the second case, where the liver was affected. The relations of urine-pigment to the new growths was not yet quite understood.—The PRESIDENT suggested that an account be kept of the urine in the present case.

Shortening of the Foot.—Mr. SYDNEY JONES showed a living specimen of antero-posterior shortening of the foot, which remained quite symmetrical. It was due to loss of bone. The first mischief occurred sixteen years ago. Repeated attacks had gone on before the present appearance was produced. The shortening amounted to three or four inches, the front part of the foot alone being implicated, the back of

the foot being quite perfect. The metatarsal bones were gone, and the proximal phalanges were injured.—Mr. DORAN spoke of a case of shortening of the fore-arm shown last year to the Society, where the causation was doubtful; here the disease was undoubtedly not congenital.—Mr. JONES said that abscesses first formed, and then pieces of bone came away. In answer to a question from the President, he said the sole was chiefly affected.

Ankylosis of the Ribs.—Dr. HILTON FAGGE brought forward a case of general ankylosis of the ribs. It occurred in a man aged 34, who could not lie down, but was obliged to sit up in bed the last portion of his life. His back formed a rounded curve, without any one point being especially prominent. The ribs did not move, and the sides of the chest were contracted. In front, the skin of the thorax was in contact with the skin of the abdomen. The man first began to stoop and then became unable to walk, and finally was bedridden. He died of bronchitis. At the *post mortem* examination, it was found that the arches of the dorsal vertebræ and the ribs were ankylosed, the bodies remaining unaffected. The articular surfaces were ossified. The hip-joint was also fixed. There was marked bronchial dilatation and the liver was bent on itself at a sharp angle, being folded on the ribs. This was not a case of exostosis glueing the vertebræ together, for the bodies were normal.—Mr. WAGSTAFFE said there were one or two similar cases in the museum of St. Thomas's Hospital. Was there any rheumatic arthritis?—Mr. BUTLIN thought there must be some rheumatic disease from the state of the hip-joint.—The PRESIDENT asked if any other joints were similarly affected.—Dr. GOODHART suggested that it might be a case of rheumatic exostosis of the spine.

Aneurism of the Pulmonary Artery in a Vomica.—Dr. HILTON FAGGE showed a specimen of aneurism of the pulmonary artery in a vomica. It occurred in a child two years and three-quarters old, which was the subject of phthisis and emphysema. The aneurism was of the size of a cherry and filled the vomica. There had been much hæmoptysis, probably from this point.

Repair of a Fractured Spine.—Mr. CARR JACKSON exhibited the spine of a man who was crushed by an accident twenty-six years ago. He was taken into the Royal Free Hospital. Motion was lost, but not sensation. The sphincters worked properly. The man left the hospital in a month, and worked for his living afterwards. It was a well marked case of repair in a fractured spine. Two or three vertebræ were implicated. There were both dislocation and fracture. The rotation in the bodies of the vertebræ was considerable. A mass of new bone was thrown out, and spiculæ of bone grew on neighbouring vertebræ. The spinal canal was not much narrowed. Two cervical vertebræ were also glued together. In answer to a question from the President, it was stated that the man suffered great pain at the time of the injury. There was no contraction of any muscle afterwards, but the gait was unsteady.

Empyema: Suppuration of the Brain and Spinal Cord.—Dr. PYE-SMITH related a case of suppuration of the brain and cord after the cure of an empyema. It occurred in a man aged 18, whose left pleural cavity was full of fluid. It was evidently pus, so it was let out, with great relief to the patient, who was walking about, when he commenced to vomit; had a high temperature; then followed left hemiplegia and squinting; the man finally dying in a comatose condition. On *post mortem* examination, it was found that the empyema was cured and the lung expanded. In the brain were points of suppuration; there was pus in the cerebral ventricles, and purulent cerebro-spinal meningitis. The question arose, how had the infection taken place? On examination, two spots of ulceration were found. For some time, there was no evidence of disease in the nervous system. Of old, it would have been called a case of metastatic abscess. The lungs were quite healthy. Abscesses were found which could not be explained by any mere mechanical action, as the well known abscess of the liver after blows on the head. There must be some local condition in action.—Dr. GOODHART thought the case one of great interest. It was not simply pyæmic. Simple pneumonia, inclining towards breaking down of the lung, was not rare after surgical operations.—Dr. GREENFIELD thought it might be a case of abscess of brain existing primarily and followed by empyema.—Dr. PYE-SMITH replied that suppuration of the brain only occurred after injuries to the head or from pyæmia. Here the cause was clear, as there was no injury of the head.

Scirrhus of the Diaphragm.—Dr. WALTERS of Reigate exhibited a case of scirrhus of the diaphragm. It occurred in a female, aged 41. She suffered from dyspnoea and a feeling of tightness round the chest. There was effusion into the left pleural cavity at last. There was no history of cancer in the family. On *post mortem* examination, the diaphragm was found thickened, with several distinct nodules. The left lung was collapsed. Several small nodules were found on the upper surface of the liver. The nodules were hard and tough, and con-

sisted chiefly of flat epithelium cells. It was a case of primary scirrhus. The symptoms during life were very puzzling.—Referred to Morbid Growths Committee.

Fatty Tumour of the Pharynx.—Dr. FREDERICK TAYLOR brought forward a case of fatty tumour of the pharynx. It was found in a child, aged 4, who was a patient at the Evelina Hospital. It suffered from dysphagia, and its neck was enlarged, while its eyes were prominent. It looked like a case of thyroid enlargement. It was soft and elastic, and formed a swelling at the back of the mouth, which could be felt by the finger. This was supposed to be an abscess, and was punctured accordingly; no pus escaped. The difficulty in breathing increased; and it was determined to perform tracheotomy when necessary. The temperature rose, and the dyspnoea increased, so tracheotomy was performed, but the child died. On *post mortem* examination, the case was cleared up. The thyroid was normal. It was a lymphomatous tumour, globular, and fairly isolated. It had no connection with the neighbouring organs. There was no doubt an error in diagnosis; but the œsophagus showed nothing in swallowing.—Mr. LUCAS said it had quite the appearance and the feeling of an enlarged thyroid. It rose and fell with the larynx. He had no suspicion that it was a lymphoma.—Dr. HARRIS said the error was no disgrace to any hospital; the deception was complete. Even when the pharynx was laid open at the *post mortem* examination, he thought it must be pus after all; none had escaped in the puncturing. Still, it was fat. The tumour was diagnosed in life to be an enlarged thyroid with a post pharyngeal abscess. All the observers bore their testimony to the difficulty in diagnosis.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, OCTOBER 19TH, 1876.

T. MORTON, M.D., in the Chair.

Gastric Hæmorrhage.—Mr. CRIPPS LAWRENCE related a case of gastric hæmorrhage occurring in a spinster, aged 44. She had suffered for some time from pains in the right hypochondrium; and, after an effort, had a severe attack of hæmatemesis, which occurred again and again, the loss each time being great. Rectum-feeding, ice, and astringents of various kinds had been tried, with ice over the stomach, and at last the bleeding had ceased.—Dr. BROADBENT pointed out the two possible sources of the repeated hæmorrhage.—Drs. WYNN WILLIAMS, CLEVELAND, and FITZPATRICK took part in the discussion which ensued.

Anhidrotics.—Dr. MILNER FOTHERGILL read a paper on anhidrotics. He first pointed out the arrangements of the sudoriparous glands, and their function, and showed that cutaneous vascularity and activity of the sweat glands did not necessarily go together. Hidrosis usually went with debility, and was found to aggravate such condition by the loss of the salts of the body so brought about. The phosphates and chlorides chiefly were so drained away. This was especially important in phthisis. The means of checking hidrosis are external application of mineral acids in great dilution, or dry heat as advised by Druitt; and internal remedies, as astringents, tonics, some of the oxides, and members of the solanaceæ. The union of tonics with astringents is very serviceable when given during the day. Sulphate of copper with opium at bedtime was good. Oxide of zinc alone, and still more combined with hyoscyamus, was a potent agent. The most powerful of all, however, was belladonna. We are indebted to Dr. Sidney Ringer for such use of this agent. Its use has completely changed the aspect of many cases of commencing phthisis. It is not so potent in the last stages. Of the tincture, twenty to twenty-five minims may safely be given; of atropine, one-seventy-fifth to one-twenty-fifth of a grain. It takes a day or two for the influence to be pronounced, and the effects last an equal time after the drug is withdrawn. No unpleasant results follow these doses; and the larger doses are required where the system shows a tolerance of the drug. Belladonna is not a treacherous drug; and marked toxic symptoms are produced long before a fatal dose is reached. Where belladonna is ineffective, oxide of zinc may be tried. The proportion of such cases is very small. When opium has to be given to allay cough at night, the addition of belladonna will usually suspend the sweats otherwise induced.—The CHAIRMAN confirmed these results.—Dr. SYMES THOMPSON expressed his satisfaction at the preliminary remarks about sweating. The arrest of the sweats usually led to improvement in phthisis.—Dr. BROADBENT thought phthisis might endow the system with a tolerance of belladonna, so that large doses were required.—Drs. WYNN WILLIAMS, FITZPATRICK, DAY, CLEVELAND, and NORMAN KERR took part in the discussion which followed.—Dr. FOTHERGILL replied; and the meeting adjourned.

CORRESPONDENCE.

THE FEES AT UNIVERSITY COLLEGE HOSPITAL.

SIR,—In your article on University College Hospital of October 7th, you expose a state of affairs which one could hardly imagine to be possible in these days, and which certainly calls for some sort of answer on the part of the authorities.

It must be a humiliating reflection to the Committee of this hospital, that funds are not forthcoming for its support as at other hospitals, but that they are obliged to take money, often much needed and earned only after great trouble, from a profession which gives its gratuitous professional services for the patients themselves. Nor can this self-sacrifice be looked at with much satisfaction by the medical staff. To give their services gratuitously for the relief of the suffering, when necessary, has always been esteemed one of the highest privileges of the medical man; but at the present day it is coming to be considered that so much gratuitous work ought not to be expected from a profession never overpaid, but that it is the duty of the rich also to give from their abundance at any rate something towards the repayment of these duties. When, therefore, we find an extreme isolated example like the present, we are bound, as a profession, to call upon the authorities, and also, perhaps, the staff, either for some speedy justification of their conduct, or demand that they take steps at once to put themselves more in the spirit of the age.

But it seems to me that there is another phase of the question. Have not the students themselves some voice as to the proper disposal of their money? They enter at a certain school and pay their fees, in order, if possible, to make a good class and attract a superior body of men for their tuition. But, by diverting these fees to an entirely different object, this aim is clearly frustrated. It is no answer to say that such mercenary motives have never weighed with the different clinical teachers; but it is simply a question of right and wrong. Again, at the London University there is a most undue preponderance always of University College professors as examiners in the different medical subjects. Since the appearance of the above named article, graduates from other hospitals are beginning to ask whether these professors are taught to look elsewhere for their fees. I need not point out the terrible results that would follow from the least scandal on these at present highly esteemed degrees. Once more it resolves itself into a professional question. If these examiners are chosen so much from one school, ought not that school to ensure at least the election of the very best men to fill its chairs? Yet, as you show in your article, by the present system a poor man is virtually excluded, whatever his professional acquisitions.—Apologising for the length of these remarks, I remain, sir, yours truly, G. H. PERCIVAL, M.B.

Brinkleyford, November 9th, 1876.

* * * We learn with pleasure that the questions raised by our article of October 7th, on the appropriation of the fees of the staff to the support of the hospital, are now under the active consideration of the authorities; that a meeting of a deputation of the staff with the Council took place a few days since; and that the Council are now considering the matter. We hope that they will arrive at a liberal and just conclusion. Surely the present tax on the staff is neither liberal nor just, and has been too long allowed to continue.—ED.

UNIVERSITY COLLEGE HOSPITAL.

SIR,—I am very pleased to see that Dr. Llewelyn Thomas has, following your lead, had the courage to come forward and to tell some very plain truths to the authorities of University College Hospital; and it is to be earnestly hoped that the matter will not now be allowed to drop. Dr. Thomas's strictures are unanswerable; but their scope might well have been enlarged.

For what reason do the staff of University College Hospital give their labour for nought, not only to the patients, but to the pupils? Evidently it must pay them to do so, unless they are endowed with more disinterestedness than is the general lot of humanity—with more than is even credited to our profession. Do they not see that they are educating their pupils to court a gratuitous *clientèle*? Have they any logical ground against acceptance of underpaid Poor-law and other public service appointments; against the establishment of shilling or sixpenny dispensaries, with advice and medicine included? Can they uphold the desire on the part of many of their fellows of equal standing for an increase in the fees of consultants? Some of the staff of University College Hospital are connected also with the Hospital for Sick Children, where a stand is being made against the abuse of hospitals.

How do they recognise their varying lines of conduct at the two institutions?

There is one more point. I believe I am right in stating that the entries of medical students at University College have considerably fallen in the last year or two. We know that the success of a school, *ceteris paribus*, depends greatly on the combined and individual energy of the staff, and especially of its junior members. Is that energy likely to be increased—is the teaching likely to be better—because unrewarded even by a bare vote of thanks? Formerly, University College men were in the foremost ranks in the pass and honour lists of the London University. Is it so now?

I trust you will not think these few remarks as altogether irrelevant to the important question you have raised, although they come only from your obedient servant,

AN OUTSIDER.

November 7th, 1876.

REPORT OF THE CLINICAL SOCIETY OF LONDON.

SIR,—From the report in the BRITISH MEDICAL JOURNAL of November 4th of the discussion on Dr. Cayley's and Dr. Broadbent's cases of rapid death after thoracentesis, I fear I must have expressed myself very unintelligibly, as the summary of my remarks entirely differs from what I believe I said and what I know I meant. There is one statement in particular which I feel I ought not to allow to pass uncorrected.

I am represented to have said "an empyemic abscess should be regarded as a psoas abscess, and only opened when the fluid had collected to so large an extent that it produced trouble by its presence". Thus stated, this is altogether contrary to my experience and opinion. Referring to an assertion made by some French writer, that more deaths from pleurisy had occurred since thoracentesis has become so common, I ventured to suggest "that, in cases in which the effusion was considered due to the presence of tubercle, and in which, after once withdrawing the fluid, it was found that *the lung showed little or no tendency to expand*, it would be better to refrain from further operative proceedings until constitutional disturbance was threatened by the presence of the effused material; just as in psoas abscess, where we cannot hope to remove the source of the pus, we postpone operating as long as possible".

There are one or two other points upon which, from the report, I seem to have been misunderstood; but I will not trespass further upon your space by detailing them.

I remain, sir, your obedient servant, HENRY MORRIS.
2, Mansfield Street, Portland Place, W., Nov. 6th, 1876.

THE ORGANISATION OF BRANCH MEETINGS.

SIR,—There can be no doubt, of course, that our Association is in a most flourishing state, so far as numbers and financial prosperity can make it so; but, perhaps, one might almost imitate, in its epigrammatic form, a famous declaration, and say, "La société, c'est le JOURNAL". Now, I am very far indeed from having any quarrel with the JOURNAL; while, on the other hand, it would ill become me to praise it. But I have often thought, and it is often remarked by speakers at various meetings, more particularly by incoming presidents of branches or of districts, that an association so numerically strong and so scientifically important as this of ours might, by united action, greatly aid in arriving at definite conclusions upon many disputed or ill-defined points. We, the rank and file of the Association, do not do so now. Individuals among us work, work hard and work intelligently, but their work comes to little or nothing, because it is and remains single and individual. I do not know how the case may be with other sections of the Association, but that to which I formerly belonged for nearly thirteen years is, or was, in a languishing state; the papers at the few meetings we held (some three or four in the year) being only occasionally good for purposes of debate, while the ensuing discussions were generally of the vaguest. It is impossible to meet an assembly of one's brethren, however, without learning something; but six or seven thousand men need not band themselves together in a great association merely to give each other stray hints and "tips" for practice.

Now, sir, I am by very much too infinitesimal a member of this great body to propose what I hope, nevertheless, some other and greater person will undertake to do, either in his own Branch or district, or else at the general meeting of the Association in August next, viz., that not only the President of the Association should be elected for a year, but that there should also be a president of every district elected to hold office for a year, to preside at every meeting of the dis-

strict held during that year, and to organise and guide the work and debates of the members.

What happens now at such an ordinary meeting? An inexperienced president, perhaps young, possibly nervous, almost certainly afraid of giving offence by interfering with irrelevant speakers, allows the discussion, or rather the talk, to go on anyhow and anywhere. "Tips" are exchanged; cases very distantly resembling those related in the paper, possibly not resembling them at all, are dragged in: according to the old joke, "we aim at nothing and hit". What ought to happen, if we mean to really try to do any good by our meeting together? A president, elected for a year or more (for good presidents are not too numerous), and conscious that something was expected of him, would set some problem before himself and call upon his fellow-members to aid him in solving it. He might, for example, say to himself and then to them, Why should there be all this doubt and uncertainty about the proper treatment of acute rheumatism? Let us, during a given period, take notice of our cases, especially as to the persons attacked, the causes of the disease, the time at which the treatment was begun, and some other particulars readily imagined; let us compare these cases and generalise from them. Such a subject might even engage the attention of the whole Association, and, if only one member in twenty would take the trouble to collect the required facts, surely some happier conclusion might be arrived at than that mint-water, or that alkalies, or quinine, or steel should be given to any or every case at every or any stage. The president of a district might even broach a theory for or against which arguments drawn from observation might be brought forward. Thus, in the example taken, he might lay down the proposition that "acute rheumatism, having constantly as one of its antecedents or causes exposure to cold and damp, while other antecedents (those which are "constitutional") are necessarily variable, the only treatment which can be expected to be constantly necessary is exposure to warmth and dryness; while all other treatment, medicinal and dietetic, must vary with the previous state of the patient, whether healthy, full-blooded, impure-blooded, anæmic, aguish, syphilitic, gouty, or strumous".

It is not essential that such a theory should be maintainable, if it be sufficiently probable for observations to be made with interest concerning it. I may repeat what I have said above, and what I have heard others also say, that, until some such scheme as the one I have feebly sketched is put in force, until our President is a general commanding-in-chief of an army of workers officered by presidents of branches and of districts under him, and by diligent secretaries under them, to make any progress even in our own peculiar departments of practical medicine and surgery is for us, as an association, impossible.

I am, sir, your obedient servant, T. C.

THE NON-ALCOHOLIC TREATMENT OF DISEASE.

SIR,—The article you have published on "The Non-alcoholic Treatment of Disease" will deserve the thanks of all who are interested in that subject, if it have the effect of inducing your readers to make trial of the principle so described. In regard to the brochure of that name, the objection brought against it as not sufficiently scientific in its nomenclature and details, will not apply to it when it is regarded (as it should be) in the light of a statement intended for the eye of the general public. Medical men often complain that they are urged to recommend intoxicating liquors for supposed medicinal uses; and to show unprofessional readers that the diseases they conceive more, particularly to need alcoholic agents can be cured without them is a service both to them and to the doctors they might otherwise pester, which the organs of the medical profession ought not lightly to esteem.

As to the charge that the non-alcoholic treatment does not conform to the Baconian philosophy, let me inquire whether some great misapprehension does not exist. One chief object of that philosophy was to discriminate true causes from imaginary ones; and the method prescribed by Bacon was to eliminate the latter by successive experiments until the former alone remained. Now, the founders of the London Temperance Hospital, acting in the spirit of the Baconian philosophy, have sought to ascertain, by direct investigation under trained scientific control, whether alcohol does act as a true cause in the cure of disease of diverse kinds. They have been moved to this step, not by speculative and party bias, nor even by that imaginative idealism which, we are told, plays so great a rôle in scientific discovery; but by a large induction of cases occurring in private medical practice. They had thus seen reason to suspect that alcohol is not a true cause of recovery in the cases where it is commonly administered, and the results of the non-alcoholic treatment pursued in the London Temperance Hospital since October 1873 have tended, in a striking degree, to the confirma-

tion of that suspicion. It must be remembered how the question stands. A large majority of the profession still consider the use of alcohol necessary to the cure of disease; many regard it as essential to any recovery, and many more to a good and rapid recovery. Clearly, then, this opinion is disproved if, in the treatment of various diseases, and of many persons of different constitutions, the supposed necessary cause of cure be withheld, and yet recovery is not prevented or delayed; but, if any difference be perceptible, is facilitated and more perfectly effected. This is not a case of comparing one remedy with another, but a case in which a certain agent is held to be indispensable, and where, therefore, the theory being true, its absence should ensure failure and long-lingering illness. There is surely nothing scientific in continuing to attach a peculiar value to a drug which can be dispensed with, and yet recovery is promoted rather than hindered. It does not seem, moreover, to have occurred to the writer of the article in the BRITISH MEDICAL JOURNAL that the medical staff of the London Temperance Hospital are not prevented from using alcohol, if they think it needful, for medical purposes; and the fact that they have not seen any reason for administering it in any of the stages or crises of the severe diseases they have been called to treat is a fact the significance of which can be appreciated by lay as well as professional readers. It is from the lack of applying the Baconian philosophy that preposterous notions of the value of alcohol in illness have been cherished and diffused. Let a wiser and bolder course be adopted, and, if the new facts do not fit the old theory, let a theory be formed which will include and explain the facts.

I am, sir, respectfully yours, DAWSON BURNS.
99, King Henry's Road, N.W., September 30th, 1876.

INFECTIOUS DISEASES AND THEIR PROPAGATION.

SIR,—Will you permit me to supplement Mr. Allbutt's letter, in your impression of the 4th instant, by calling attention to another fertile source of infectious disease; viz., the letting out on hire of suits of mourning clothes for funerals? This practice is by no means uncommon in poor neighbourhoods. The clothing thus loaned out from house to house may be, in fact often is, introduced into very hot-beds of infection, and is, when not disinfected, a dangerous medium for the spread of infection.

I am, sir, yours, etc., HENRY R. HATHERLY,
Medical Officer of Health, Radford and Lenton.
Nottingham, November 7th, 1876.

SIR,—It was with great pleasure that I perused the remarks of Mr. H. Allbutt, in your JOURNAL of November 4th, with reference to the propagation of infectious diseases. To the three causes which that gentleman mentions I can yet add another; viz., the reckless manner in which parents allow their healthy children to run into the houses of acquaintances who have members of their families suffering from scarlatina, etc. I have often seen children thus affected surrounded by a perfect levée of healthy playmates, and, under my own observation, I have seen the infection thus carried from the patient and several families attacked; and, only within the last month, two children in separate families lost their lives in consequence.

I am, sir, yours very truly, THOMAS G. B. HUTTON,
L.R.C.P. Ed., L.R.C.S.I.
Market Place, Malton, Yorkshire, Nov. 7th, 1876.

THE MEDICAL INSPECTION OF SHIPS AND EMIGRANTS.

SIR,—The importance of the above subject induces me to attempt its consideration; and from the many opportunities I have had, as a medical officer of the mercantile marine, of observing the mode in which a medical examination of ships and emigrants is conducted by those officers deputed to the work, I have resolved to make this communication; and I will endeavour to show, as clearly as possible, that much remains to be done yet to improve upon the existing state of matters. In order thoroughly to comprehend the subject, it may be necessary to state that, before a ship can convey emigrants from any ports in this country, the Government ordains that an inspection of the compartments to be occupied by steerage passengers shall be made, in order to discover any defects, either in regard to want of suitable accommodation for sleeping, or adaptability for the free ingress and egress of fresh air; in fact, that sufficient space be allowed for all necessary purposes, and that nothing may interfere with the comfort and health of the passengers during the voyage. This examination, to be rightly conducted, should occupy some considerable time; but what is the

usual case? Before any inspection of the compartments has been gone through, the steerage passengers are sent on board, and, perhaps, remain a night or two on board the ship, before the Government officers arrive to perform their work of inspection! Then, on the arrival of these officers, the passengers are huddled from the steerages on deck at a moment's notice, and the work of inspection of steerages commences. No doubt, under the circumstances, as minute an examination as possible of the quarters to be occupied by the passengers is made; but still, it has often appeared to me that the work was most hurriedly and imperfectly performed. It cannot be otherwise, seeing that many circumstances constrain the gentlemen who perform the duty to hasten with their work as rapidly as possible. In fact, in an incredibly short space of time the inspection is completed; and, as is usually the case, entirely to the satisfaction of the captain of the ship and those representing the owners of the vessel. Then arrives the momentous period for the medical inspection of the steerage passengers; and, in regard to this, I must say that the whole affair is a perfect farce. Take, for example, the case of a large steamship, intending to sail with passengers for New York, or any other American port. A large number of steerage passengers embark, and, after a considerable amount of trouble, are congregated *en masse* on some part of the deck of the ship. The Government medical inspector and the surgeon of the ship take up position at a barrier, in order to enable them to detect any person labouring under symptoms of infectious disease; and as each individual passes by these officials, he is merely scrutinised. Now, how can any medical man presume to say that he can at once, and in the short space of time allotted to him for the examination, detect a person suffering from such diseases as small-pox, scarlatina, typhoid fever, etc., in their stage of incubation? I contend that it is an utter piece of nonsense to expect to discover anything from such a cursory examination; and this procedure will account, at least in one way, for the outbreak of epidemics on board emigrant vessels. The passengers come from all quarters of the kingdom, and neighbouring countries, and thus may be the means of spreading disease far and wide.

Then, again, they are permitted to come on board in many cases in a filthy condition; and, especially, is this the case with the Irish and Germans. The Irish are notoriously famed on board-ship for their dirty habits, and very often their bodies and apparel are covered with vermin. Their outfit, which usually consists of what is on their backs, is often in a similar dirty and ragged condition; and no provision is made to remedy this state of matters before proceeding on board.

Printed instructions are supplied to every emigrant, to enable him to see what clothes, etc., are to be provided for the voyage; but such instructions might as well be thrown to the winds, as there is no duly appointed officer invested with power to see that these rules are carried out; and, as a natural consequence, many steerage passengers, either through ignorance or want of forethought, proceed on board with a most inadequate outfit for the voyage.

My proposals are: 1. That in every large shipping port, whence vessels carrying emigrants sail, there should be provided a suitable building to receive all persons intending to emigrate as steerage passengers. 2. That this said building be so constructed that provision be made for a hospital capable of containing any stray cases of infectious disease which may be discovered amongst the passengers. 3. That a careful inspection of the clothes and outfit of the intending emigrant be made in the building by a responsible government official, and that no one be permitted to proceed on board ship without the requisite amount of outfit. 4. That a rigid medical examination of all parties be made in this building, to discover any symptoms of infectious disease, before any one is allowed on board. 5. That a suitable bathing establishment be also provided in the building, and that all steerage passengers be compelled to take a bath before going on board. This latter proposal would not meet with much favour from a certain class of the community, who look with horror on anything in the way of cleanliness; but this most essential procedure should be strictly enforced. Ships are dirty enough without adding to their unsavoury condition by thrusting a number of persons covered in many cases with filth and vermin into a steerage compartment; and, as such persons are usually much afflicted with sea-sickness, they have to be permitted to lie in their berths for a few days. Then, of course, any attempt at washing themselves would be repugnant to their feelings.

If these foregoing precautions were taken, it would do much to lessen the danger of importing disease on board, and would add much to the comfort and safety of the passengers during the voyage. The difficulty lies in this, that much opposition might be expected from the shipping companies; and they would, of course, object to the extra expenses that would be entailed if these proposals were adopted. But surely, for their own credit, they should hail with satisfaction any attempt to lessen the outbreak of disease at sea. Two cases occur to my

mind just now to warrant my suggestions. Two emigrant-ships sailed from London to Australia. During the voyage of one, a fever broke out on board, and large numbers of the passengers died; and, on the ship's arrival at Brisbane, a court of inquiry had to be held, but what their verdict was I am unable at present to state. The other ship had nearly five hundred emigrants on board, and typhoid fever appeared amongst the passengers during the voyage. There were several deaths from this disease; and, on the ship's arrival at Maryborough, a large number of passengers, who had been infected with the disease, were removed to the hospital there. I leave these facts to speak for themselves, and conclude with the earnest hope that some one in authority may be induced to take up the subject more fully than I have done.—I am, etc., JOHN COCHRANE, L.R.C.P. Ed. & L.R.C.S. Ed.,

Passed Surgeon for Royal Navy (1875); Parochial Medical Officer, Colmonell, Ayrshire.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TAUNTON SANITARY DISTRICT.

SIR,—In reference to your remarks on the proceedings which have taken place with regard to the Hospital for Infectious Diseases at Taunton, will you allow me to state that, on Thursday last, at a meeting of the Rural Sanitary Authority, a communication was read from the Local Government Board? In it, it is stated that "the Board have carefully considered all the circumstances in connection with this matter; and they are of opinion that the scheme, as proposed by the Joint Committee, should be carried into execution." Thereupon, the Joint Committee was requested to meet; and there appears to be every probability of the scheme being proceeded with.—I am, sir, your obedient servant,
HENRY J. ALFORD, M.D., Medical Officer of Health.

Taunton, November 6th, 1876.

POOR-LAW MEDICAL SERVICE.

SIR,—After having occupied an office for a period of eight years, it might be expected that one ought to know the duties required, but circumstances have lately happened to me to render that a disputable point. I hold the office of parochial medical officer in a rural district of an area of 33,000 acres, and with a population of 6,000. I want to know (1) what cases are legally to be entered on the district medical officer's relief-book, which has to be laid before the Board of Guardians every fortnight; and (2) how often ought such cases to be visited by the medical officer, so as to justify him in entering them on his book? Hitherto I have been guided as regards the frequency of my visits by the requirements of each case, and I have entered such cases as I attended on the book supplied to me (P Form); but those who were considered incurable or deformed were certified as such, and as permanently disabled, and consequently were not continued on the usual monthly list. The guardians, however, now hold that they cannot legally allow any out-door relief to any infirm persons (whether temporarily or permanently so) unless they are on the doctor's book, and visited by him as often as once a month at least. How Herculean and impracticable a task, and at the same time useless and degrading, would thus be imposed on the medical officer of this district, may be imagined from the fact, that, according to the printed list of paupers for the half year ending September 30th, 1874, the number who received out-door relief were 230, and of these 216 were alleged to have some infirmity; consequently, I am expected once a month at least to see each of these 216, scattered over ten to twelve miles of hilly country.

Perhaps you, sir, or some of your numerous readers, can enlighten your humble correspondent on the law of the question, or refer him to the best published authority on the subject.—I am, sir, yours truly,
RUSTICUS.

October 23rd, 1876.

* * However arduous—nay, all but impossible—the duties of our correspondent may be, we consider the guardians are strictly within the limit of their powers in insisting on his visiting and recording the date of his attendance on every pauper, whether permanent or otherwise, receiving relief, on account of bodily or mental infirmity. Thus on page 54, Glen's Poor-law Board Orders, will be found the following: "To entitle the person to medical relief under Article 76, his or her name must be actually on the list, and not merely the name of the head of the family and the medical officer ought not to discontinue his visits so long as the guardians give a ticket entitling the pauper to permanent medical relief, as the medical officer's attendance is thereby required for the case while the ticket remains in force." There is, however, one fact made apparent in the letter of Rusticus, and it is that the area of his district is in flagrant violation of Order 159, which puts the limit that may be assigned to a medical officer at 15,000 acres. We would advise Rusticus to address a temperate letter to his board, pointing out how great a hardship would be entailed on him by a literal compliance with their requirements, not forgetting to remind them that the arrangements made by the Poor-law Board were framed to meet an area of 15,000 acres, and not a district of more than double that size. It is not impossible that, thus reminded, the guardians might be disposed to come to a compromise.—EDITOR.

OBITUARY.

HENRY W. RUMSEY, M.D., F.R.S.

DR. RUMSEY, whose death we last week recorded, will long be remembered in the profession, especially in the British Medical Association, as a man of peculiarly high intelligence, great power of generalisation, unrivalled knowledge of the principles of public medicine, and original genius in developing and applying them. He had neither the scientific insight into the particular facts of disease, nor the organising power and thoughtful eloquent diction of Simon; nor had he the patient love of figures and the masterly capacity—such as Farr has—for deducing from them conclusions which seize the imagination while they convince the reason. He was a philosopher who leaned to legislation; a *doctrinaire* who sought inspiration for his doctrines in a wide research, and a profound enthusiasm for humanitarian progress. To him State Medicine was not a word: it was the central idea of his life; preventive legislation was not a dream—as to many others it seemed, when in early years he first incessantly agitated the questions which lead up to it. It was the imperative necessity of the century, the ensign of our progress, the duty of our civilisation. His enthusiasm, his persistence, the largeness of his views, the sacrifices which he made of time and labour—such as others devote to personal advancement and professional success—did more than can now well be known to connect the dream of his earlier life with the commonplace dicta of the “sanitarians” of the Congress and the Parliament. Of the many who now devote themselves to the quasi-popular question of “public health”, few know how much they are indebted to him. His character was one of much refinement, gentleness, and culture; but he was gifted with persistence as well with earnestness. Those who worked with him soon learned from the volume of the correspondence with which he overwhelmed them, that he took his work with great seriousness; that he spared no pains to classify and to develop his ideas; and that he expected no small effort of attention from those who undertook to elaborate his schemes.

The memorandum in which his claims to a civil pension were set forth by the Joint Committee of the British Medical Association and Social Science Association, describes succinctly some of his chief public labours; although the catalogue is, of course, only one of results, and gives but little idea of the half century of patient, unwearying, ceaseless labour, by which he prepared his achievements, and at length commanded a measure of public success.

Dr. Henry Wyldbore Rumsey was born at Chesham, Bucks, on July 3rd, 1809. His grandfather, a younger son of an old family in South Wales, settled at Chesham about the middle of the last century to practise medicine, and was succeeded in his practice by his father, Mr. Henry Rumsey, who became a laborious and successful practitioner, almost the only surgeon within that distance from London who ventured to perform capital operations. He was an eminent botanist, and had prepared a work on botany for the press, when he found himself forestalled by another author, and therefore abandoned his purpose. Mr. Henry Rumsey's manuscripts of Hunter's Lectures were the best in existence, and were, consequently, used when those lectures were published. He married late in life Elizabeth Frances Catherine, second daughter of Sir Robert Murray, Bart., by whom he had four sons, and one daughter who died in infancy. Of this family, Henry Wyldbore Rumsey was the eldest. His education was somewhat desultory; among his tutors were the late Dr. Bosworth the Saxon scholar, and the Rev. Thomas Scott, of Gawcott, near Buckingham.

Under his father's auspices he was introduced to an elementary knowledge of medicine. When about sixteen years of age, H. W. Rumsey was sent to study at the Nottingham Hospital under Mr. Attenborough, a local celebrity; thence he passed to St. George's Hospital, and while there he was for a time a house-pupil of Mr. Cæsar Hawkins.

At the age of twenty-two, Dr. Rumsey was selected as resident physician to accompany the then Lord Dillon to his seat in Oxfordshire. After three months, however, his father, whose health was declining, was obliged to summon him home to take charge of the practice at Chesham, to which he was destined to succeed.

In 1835, Dr. Rumsey married Frances Sophia, eighth daughter of his father's friend, the late Rev. Stephen Langston, of Little Howard, in the county of Bucks, and practised upwards of three years in his native place. An opening at Gloucester, occasioned by the late Mr. Carden's leaving for Worcester, induced Dr. Rumsey to move thither in 1838, where he practised for twelve years.

In 1849, he was appointed cholera inspector at Gloucester, and the arduous labours which he then underwent entailed the loss of his own health, and compelled him to relinquish his practice in Gloucester at the close of 1851. He then moved to Cheltenham, and gradually gathered together a select practice, which placed him in the leading rank of the Cheltenham physicians, a position which illness compelled him to relinquish. His patients almost invariably looked to him as a personal friend, and adviser in difficulties unconnected with his profession. Their attachment to him has been shown by numerous acts of kindness, from the time of his first seizure until the hour of his release from his long and distressing illness. Dr. Rumsey's leading natural characteristics were delicate generosity and untiring industry. His suavity of manner and genuine kindness of heart endeared him to all with whom his private and professional career brought him into contact.

The name of Henry Wyldbore Rumsey was for forty years identified with the national sanitary movement, of which he was, from its commencement till he was disabled by illness, a recognised and influential leader.

In 1835, after having devoted much attention to the establishment of Provident Societies among the working-classes, he commenced his labours as Honorary Secretary of the Sick Poor Committee of the Provincial Medical and Surgical Association—labours which were continued for ten years. He furnished materials for a series of Reports, on which was founded a Bill, introduced into the House of Commons in 1840, by Mr. Serjeant Talfourd, for the better regulation of Medical Relief under the Poor-Law. This led to his being examined, first in 1838, by the Poor-Law Committee of the House of Commons, and again, in 1844, by Lord Ashley's Select Committee on Medical Poor Relief, when he submitted a mass of evidence, collected with much labour, relating to the sickness prevalent among the poor in towns, and forcibly showing the need of preventive measures, under the superintendence and control of a General Department of Public Health. The results of these investigations, and of his previous inquiries into the working of the so-called Self-supporting Dispensaries, were embodied in two pamphlets published, the one in 1837, on the advantages to the poor of Mutual Assurance against Sickness, the other in 1846, in connection with Lord Lincoln's Public Health Bill, and Sir James Graham's Bill for the Regulation of the Medical Profession, on the “Health and Sickness of Town Populations”.

Since the publication in 1836 of his paper on the Statistics of Friendly Societies, with suggestions and forms for an improved Registration of Sickness in connection with them, Dr. Rumsey on many occasions, either singly in papers of remarkable ability, or in co-operation with others, pointed out with much clearness and force certain “fallacies of Vital and Sanitary Statistics”, and the difficulty of drawing correct conclusions regarding the Public Health from returns of Mortality, apart from Records of Sickness.

In 1848, in his “Remarks on the Constitution of the Authorities under the Public Health Bill”, then before Parliament, he anticipated, and indicated with great precision, the defects, many of which are still unremedied, of that important measure. The same high intelligence and remarkable mental activity and acuteness were conspicuously manifested by him in the prominent part he took in all the subsequent phases of sanitary legislation, and in the valuable evidence given by him before the Royal Sanitary Commission in 1869.

The fact of his having been consulted in 1849 by the Colonial authorities of St. Christopher's, with reference to a system of medical and sanitary management for the labouring classes in the island; and in 1850, by the Canterbury (New Zealand) Association, as to the sanitary arrangements for their infant colony, shows how high a reputation he had even then acquired as an authority in sanitary science. This reputation was established on a firm and lasting foundation by the publication in 1856 of his standard work, entitled *Essays on State Medicine*, which marked an epoch in the sanitary history of England, and was for many years the only systematic work on the subject in the English language. The very numerous and able papers presented by him since then to the British, the Social Science, and the British Medical Associations, and to the Manchester Statistical Society, or published either separately or in various reviews, form a record of unwearied literary and philanthropic activity such as not many public men can boast of. Among the most important of these, not already adverted to, are his Address on Sanitary Legislation and Administration, read at the first

meeting of the Social Science Association in 1857; Public Health, the right use of Records founded on Local Facts, in 1860; A Proposal for the Institution of Degrees or Certificates of Qualification in State Medicine, in 1865; Comments on the Sanitary Act, in 1866; an Address on State Medicine, delivered at the Dublin meeting of the British Medical Association in 1867, and followed by the formation of the Joint Committee of the British Medical and Social Science Associations, which applied for and obtained from Her Majesty's Government the appointment of the Royal Sanitary Commission in 1868; On Population Statistics, with reference to a County Organisation for Sanitary Administration, in 1870; and a paper on The State Medicine Qualification, which was read before the London meeting of the British Medical Association in 1873, and led to the appointment of a Committee for the promotion of legislation on that subject.

Dr. Rumsey's high personal merits and great public services were repeatedly and authoritatively recognised; viz., in 1863, by the Privy Council, by whose advice he was nominated by Her Majesty a Member of the General Medical Council; in 1867, when the degree of Doctor of Medicine, of Trinity College, Dublin, was conferred upon him, *honoris causa*; in 1868 and 1869, when he was nominated a member of the Royal Sanitary Commission; and in 1874, when he was elected a Fellow of the Royal Society.

Almost the last work upon which Dr. Rumsey was engaged, before the final break-down of his over-worked constitution, was the preparation for press of a series of *Essays and Papers on some Fallacies of Statistics, concerning Life and Death, Health and Disease* (Smith, Elder, and Co.) The title of this work always appeared to us as somewhat ill-judged, as those portions of Dr. Rumsey's brilliant essays on sanitary subjects, which deal with their statistical aspect, are by far the weakest; and in so far as they led Dr. Letheby and a number of less-widely known medical officers of health to attempt to discredit the national system of mortality statistics, they are to be regretted—regretted because, in attempting to point out statistical fallacies, he committed himself to fallacies which have misled many students of sanitary statistics. No one, however, who reads this volume of essays, can fail to admire the energy and earnestness which was brought to bear upon the discussion of the various branches of public health administration. These essays, which date between 1859 and 1871, discuss ably many of those questions which have yet to be answered. The registration of sickness, the scientific certification of all causes of death, the rectification of the gross anomalies in the boundaries of registration districts, which, during a long series of years, Dr. Rumsey laboured for so heartily and so disinterestedly, have still to be obtained; and it cannot but be useful to those who are striving for these necessities to successful sanitary administration, to read the convictions on these subjects of so earnest a sanitarian as Dr. Rumsey. The general appointment of medical officers of health throughout the country naturally affects some of Dr. Rumsey's suggestions, but cannot destroy their value for those still engaged in the struggle for improvement in our present chaotic system of sanitary organisation.

As a prominent member of the British Medical Association, the name of Henry Wyldbore Rumsey will always be held in honour. Mainly under his guidance, and largely at his instigation, it procured the appointment of the Royal Sanitary Commission, whence has sprung the improved sanitary legislation of our days; and he will be remembered among the band of workers—Farr, Simon, Stewart, Michael, Acland, Stokes, Clode, and Chadwick—who have placed the health of the people upon a new and surer footing during this half century, and have saved more lives than the Napoleons have sacrificed.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on November 7th; and, when eligible, will be admitted to the pass-examination.

Messrs. George D. Dickinson, Alexander S. Greenway, Charles E. Walker, and William S. Palm, students of the Edinburgh School; S. T. D. Weston, John Whitehouse, and William H. Smith, of the Birmingham School; George D. M'Reddie and George P. Schakman, of the Calcutta School; Damodar P. Warlikar and Hormasji D. Masani, of the Bombay School; Herbert G. Cronk, B.A. Cantab., and T. W. H. Garstang, of St. Bartholomew's Hospital; Samuel H. Lyle and Arthur Jones, of the Liverpool School; Maurice Forde, of the Dublin School; Edward M. Knapp, of the Bristol School; and George S. Ward, of King's College.

The following gentlemen passed on November 8th.

Messrs. John G. Harwood, James Harrison, James W. Joram, and John Buckle, of St. Bartholomew's Hospital; Alfred R. A. Ayres, Edward J. Havens, Charles E. Cockesedge, and Frederick W. D. M'Gachen, of the London Hospital; James W. Evans, John S. Buck, and Henry Ewbank, of University

College; Wm. T. Ward and Richard L. MacDonnell, of the Toronto School; George H. Garland and John J. Powell, of St. Thomas's Hospital; James Dobb, of the Manchester School; Richard Bowman, of St. Mary's Hospital; and Thomas A. Appleton, of St. George's Hospital.

Fourteen candidates out of the fifty examined, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 2nd, 1876.

Congreve, George Thomas, Coombe Lodge, Peckham
Heelas, James, Fellows Road, South Hampstead
Ling, Charles Arthur Squire, Gorleston, Suffolk
Richardson, Thomas Arthur, Newport, Pembrokeshire

The following gentlemen also on the same day passed their primary professional examination.

Bellaby, Frederic, Middlesex Hospital
Hall, James Lees, St. Thomas's Hospital
Read, Edward Inskip, London Hospital
Stuart, Henry Ogilvy, Guy's Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ARDEE UNION—Medical Officer. Salary, £90 per annum. Applications on or before November 17th.
BANDON UNION—Medical Officer. Salary, £100 per annum. Applications on or before November 17th.
DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Applications on or before November 25th.
GLENORCHY and INISHALL—Parochial Medical Officer. Salary, £60 per annum, with cottage. Applications on or before November 15th.
HACKNEY UNION—Medical Officer. Salary, £80 per annum. Applications on or before November 14th.
LEEDS FEVER HOSPITAL—Resident Medical Officer. Salary, £150 per annum, with board and lodging. Applications on or before November 20th.
LONGFORD UNION—Medical Officer. Salary, £120 per annum. Applications on or before December 5th.
NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.
NEWHILL and DYCE—Medical Officer. Salary, £100 per annum. Applications on or before November 13th.
NORTH RIDING OF YORKSHIRE LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum, with board, lodging, etc. Applications on or before November 18th.
ROYAL ALBERT EDWARD INFIRMARY, Wigan—Assistant House-Surgeon. Salary, £60 per annum and rations. Applications on or before November 27th.
TRINITY COLLEGE, Glensalmond—Resident Medical Officer. Applications on or before November 20th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BLUMER, Percy, L.R.C.S., appointed Junior House-Surgeon to the Sunderland Infirmary, *vice* Jas. Murphy, M.B., resigned.
BUCK, Henry J., L.R.C.P. Edin., elected one of the Surgeons of the Saffron Walden Hospital, *vice* Edward Harley, L.R.C.P., resigned.
***CLARKE**, J. Lockhart, M.D., F.R.S., appointed Consulting Physician to the Chelsea Hospital for Women.
DENTON, A. H., M.R.C.S., appointed Assistant House-Surgeon to the Sheffield Public Hospital and Dispensary.
EVANS, T. M., M.R.C.S. Eng., appointed Assistant-Surgeon to the General Infirmary, Hull.
***GOWANS**, William, L.R.C.P. Ed., elected Medical Officer to the *Wellesley Training Ship*.
LAMB, George, L.R.C.P., appointed Assistant-Surgeon to the General Infirmary, Hull.
***NICHOLSON**, R. H. B., M.R.C.S. Eng., appointed Assistant-Surgeon to the General Infirmary, Hull.
SHERBURN, John, M.B., appointed House-Surgeon to the General Infirmary, Hull, *vice* Henry Thompson, L.R.C.P.
THOMPSON, Henry, L.R.C.P., appointed Assistant-Surgeon to the General Infirmary, Hull.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

EATON.—At Trumpet House, Cleator, Cumberland, on October 29th, the wife of *John Eaton, M.D., of a daughter.

BOOKS, ETC., RECEIVED.

Operative Surgery and Surgical Anatomy. By Professor Claude Bernard and Ch. Huette (De Montargis). Translated from the French and edited by Arthur T. Norton, F.R.C.S. London: Ballière, Tindall, and Co. 1876.
On Alcoholism. By Dr. F. Magnan. Translated by W. S. Greenfield, M.D. London: H. K. Lewis. 1876.
Book of Medical Information and Advice. By J. Warburton Begbie, M.D., F.R.S.E. London: T. Nelson. 1876.
Epitome of Skin-Diseases. By Tilbury Fox, M.D., and T. C. Fox, B.A. Cantab., M.R.C.S. London: H. Renshaw.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY	.....	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	.....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY	.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY	.....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY	.....	Medical Society of London, 8.30 P.M. Three Cases of Subcutaneous Osteotomy (communicated): two performed by Dr. John Ashhurst, and one by Dr. Ewing Mears (New York). Dr. Edwards Crisp, "Croupal Membrane"; Dr. Dick, "On Division of Urethral Strictures by Cutting".
TUESDAY	.....	Royal Medical and Chirurgical Society, 8.30 P.M. Sir James Paget (President), "On a Form of Chronic Inflammation of Bones (Osteitis Deformans)", etc.
THURSDAY	.....	Harveian Society of London, 8 P.M. Dr. Dowse, "On the Value of Jaborandi and Gelsemium Sempervirens as Therapeutic Agents".
FRIDAY	.....	Medical Microscopical Society, 8 P.M. Mr. C. H. Golding-Bird, "Rodent Ulcer".

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

ALCOHOL IN ARCTIC VOYAGES.

SIR,—I shall be much obliged if you can refer me, through your correspondents' column, to any reliable records of experience as to the use of alcohol in Arctic voyages, or by any bodies of men under exposure to extreme cold. I am especially anxious to obtain information, as soon as it is procurable, as to this point in the medical history of the expedition which has just returned; also, any information as to the issue of spirit-rations in the Royal Navy.—Yours faithfully,
November 7th, 1876. T. MORTON, M.D.

MR. WHITHAM (Bradford).—See the Educational Number of the BRITISH MEDICAL JOURNAL (September 9th, 1876).

RECOVERY OF FEES.

SIR,—I hold the M.D. degree of the University of Edinburgh, and am registered. Does it entitle me to recover for medicine and medical attendance in the county court in England? If you think so, please state your authority. An answer will oblige yours truly,

* Yes, under Section xxxi of the Medical Act, which is as follows. "Every person registered under this Act shall be entitled, according to his qualification or qualifications, to practise medicine or surgery, or medicine and surgery, as the case may be, in any part of Her Majesty's dominions, and to demand and recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients: provided always, that it shall be lawful for any College of Physicians to pass a by-law to the effect that no one of their Fellows or members shall be entitled to sue in manner aforesaid in any court of law; and thereupon such by-law may be pleaded in bar to any action for the purposes aforesaid commenced by any Fellow or member of such College."

MR. H. BROWN.—The arrangements for the annual meeting are made by the Committee of Council, to whom communications on the subject may be addressed.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, twelve o'clock.

ENTERIC FEVER.

SIR,—Will you allow me to make an inquiry of my medical brethren in your columns? We have always a few and at present a considerable number of cases of well marked enteric fever in this town and county, and our fever-house is pretty full (it is for ordinary "fever", excluding scarlatina, etc.) In several of my cases in the fever-house, I have for some time past observed, about the end of second or beginning of third week, a peculiarly white streaky tongue, whiteness extending over the sides. This has induced me to examine the fauces, where I have found flecks and patches of deposit—sometimes on the buccal mucous membrane, sometimes on the uvula, sometimes on the tonsils, sometimes on the velum palati, sometimes on the hard palate, varying in size from a peppercorn to a shilling-piece, or larger—adherent; i.e., not removed by rinsing, and, on detachment, leaving a reddish surface, neither raised nor depressed. At the same time, the thermometer discontinues its diurnal jumps, and keeps continuously high—103 to 104 deg. I give considerable doses of tincture of iron; in two or three days the temperature goes down with a run, and convalescence commences. Two or three times after leaving off the iron, the deposit has returned, again disappearing on its resumption. I call this diphtheric poison and deposit, and treat it as above. Will any one tell me what I am to call it, if not diphtheria? They say it is "only milk" adhering to the mucous membrane; but the majority of cases have no such white tongue, have no such deposit, and yet have the same quantity of milk. I have in private practice, both in town and country, observed the same outburst of, as it were, a fresh disease, as a complication in other ailments; the same is remarked by other practitioners, while some still say, "I do not believe in diphtheria, and never will".—Your obedient servant,

JOHN BARCLAY, M.D., F.R.C.P.

Leicester, October 30th, 1876.

ERRATA.—In last week's JOURNAL, page 587, column 1, line 6 of second paragraph of report of a Case of Poisoning by Paraffin, for injection, read ingestion. At page 596, column 2, line 5 of article on "An Unfortunate School", for Bootle, read Borth.

A QUESTION OF TREATMENT.

SIR,—Could any of your readers give me a hint as to treatment in the following case. A B., aged 25, farm servant, feels a "crackling" over each temple, and constant headache. On placing the hands over the temples, a distinct throbbing can be felt. It prevents his either working or sleeping, and now his appetite is leaving him. Although most marked over the temples, he feels the "crackling" all over the head, and equally on both sides of the skull. I have tried phosphorus, quinine, strychnine, arsenic, iodide and bromide of potassium, blisters, morphia, leeches, chloral, etc., with no effect. Ten-grain doses of quinine, on the third dose, gives relief for some hours, but no more.

In the hope that some of your readers could give a hint towards more effective treatment, I enclose this to you.—I am, etc., M. B.

UMBILICAL HÆMORRHAGE.

SIR,—In his further remarks upon the case of death from umbilical hæmorrhage, Mr. Lattey says that thread was the ligature employed by him; but even thread requires careful management, to make certain that such an accident will not occur. Only once in about four thousand cases have I found hæmorrhage to take place, and that was attributed to some slight inattention to the necessary precautions, which are—1. Not to use the thread too thick, and this is a point of great importance; 2. To tighten the ligature gradually by successive pulls, until it is felt that the cord will not yield any more. Hæmorrhage, I believe, will never happen where these essential points are duly attended to, no matter whether pulsation has ceased or not, as that I consider makes no difference with regard to the effectual tying of the cord. In proof of the efficiency of the above method, I enclose a small portion of cord, tied while pulsating, which has now dried up, and yet the ligature retains its place without any appearance of its hold being loosened from shrinking. Certainly at no time could the point of the scissors have been passed under it.—I am yours, etc., R. BRUCE.

Edinburgh, October 25th, 1876.

R. M. S., DR. L. FURST.—"Reflections of a Fœtus" are very amusing, and have much literary merit as a medical *jeu d'esprit*; moreover, our correspondent's translation is spirited and good; but we are so much cramped for space for serious composition, that we fear we cannot find room for so lengthy a joke.

DIABETES AT NEUENAH.

SIR,—Pardon me the suggestion that it would be doing good service to follow up the subject commenced in your issue of October 21st, by a short article upon the treatment of diabetes at Neuenahr. The questions which arise seem to be—1. As to the modes and duration of the treatment, also the nature and composition of the mineral water ordinarily used. 2. The method used for the separation of the sugar. A mistake may easily be made, especially in cases complicated by gout or rheumatism, coming fresh from a journey, and after fatigue of any kind: moreover, in this class of cases the sugar varies in quantity very much (see Seegen upon this point). 3. The diet-table should be given, and the patient's weight given in each case, both upon arrival and departure. 4. Some account of the climate and geological features of Neuenahr would also help us in our judgment. There is no doubt but that any diabetic, so long as his case continues uncomplicated, benefits by any change, except perhaps one to the sea-side; and also every allowance must be made for the rest, change of air and scene, and, above all, from that freedom of worry and anxieties which absence almost always insures. Neuenahr is much more accessible than Karlsbad; but I am confident that the statistics of the latter place, if thoroughly worked out, will bear comparison with those of any other resort. I cannot but agree with you, that much fuller information is needed, and hope there may be room for this letter.—Yours obediently,

October 25th, 1876.

FREDERICK SIMMS.

DR. WILLIAMS.—Mr. John Birkett succeeded Dr. Ogle as the Inspector of Provincial Anatomical Schools.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN OCTOBER 1876. The following are the returns of the Society of Medical Officers of Health.

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen		Ammonia.		Hardness. (Clarke's Scale.)	
			As Nitrates, &c.		Saline.	Organic	Before Boiling.	After Boiling.
	Grains.	Grains.	Grains.	Grains.	Grains.		Degs.	Degs.
<i>Thames Water Companies.</i>								
Grand Junction ..	20.40	0.084	0.135	0.000	0.008		13.8	2.4
West Middlesex ..	20.41	0.082	0.135	0.000	0.008		13.8	2.4
Southwark and Vauxhall	20.20	0.050	0.105	0.001	0.008		13.8	2.8
Chelsea	20.90	0.077	0.120	0.000	0.007		13.8	3.8
Lambeth	20.06	0.091	0.120	0.001	0.007		13.8	3.3
<i>Other Companies.</i>								
Kent	24.24	0.010	0.255	0.000	0.000		18.2	5.1
New River	19.38	0.027	0.120	0.000	0.004		74.3	3.3
East London	19.51	0.037	0.105	0.000	0.005		13.3	2.4

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it. The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Southwark and Vauxhall.

C. MEYMOTT TIDY, M.B.

MR. C. DARNLY.—Several communications of the same kind were received, including two from surgeons of metropolitan hospitals. The first received was published.

PHOSPHORUS PILLS.

SIR,—My name having been mentioned in your JOURNAL in connection with my having first noticed the insolubility, or rather indigestibility, of the phosphorus pills of the Appendix to the *British Pharmacopœia*, for the information of your readers will you kindly republish the following formula, which I have now used for upwards of ten years? It was devised by me at the request of the late Mr. Morson, who had been asked by Dr. Tilbury Fox to supply the want—a convenient mode of administration of phosphorus, and was first published in the *Pharmaceutical Journal* on November 10th, 1870.

"Phosphorus is sometimes ordered in a pillular form; and to exhibit it in that condition, oil of theobroma is a good excipient. One per cent. of phosphorus may be readily dissolved in this by the following process. Having melted the oil contained in a wide-mouthed bottle placed in a water-bath, add the phosphorus, and, partially closing the mouth of the bottle, heat till this too melts, and the temperature of the mixture becomes about 180 deg. Fahr. Then cork it tightly, and with a little brisk agitation the phosphorus will dissolve almost immediately. Allow the fluid to cool and solidify; and having in this condition divided it into suitable lots for rolling, beat each in a mortar to render it plastic before applying it to the machine, and work off quickly. A three-grain pill will contain 1/3rd of a grain of phosphorus. They may be coated with a solution of sandarach in absolute alcohol in the following manner. Place the pills in a covered pot, and pour upon them a few drops of the solution, agitate well, and turn them out upon a slab; separate them from each other, and allow them to dry in the air. This gives them a tolerably impervious coating. The process of coating may be repeated if necessary."

It is better to heat the oil previously to use, to free it from all aqueous moisture. These pills, of which I send you a sample herewith, have been found successful both in hospital and in private practice. Their manipulation requires care, but they have the advantages (1) of the phosphorus being in solution, (2) of melting below the temperature of the body, and (3) of the formula being published. The mass may be kept a reasonable time if in a stoppered bottle, with the neck well greased, to prevent admission of oxygen from the air; but both it and the pills are better as freshly prepared as possible, and kept from the light in a cool place, not on the mantelpiece of an ordinary sitting-room, else they readily liquefy.

Next to phosphorated almond oil, which is perhaps the most staple solution of phosphorus, I believe that these pills, if carefully and freshly made, produce from a given dose of phosphorus more medicinal effect than the other preparations of it in general use. This requires to be borne in mind in prescribing, as in one class of the pills mostly sold, the phosphorus exists in only a minutely divided condition; and, as it requires a temperature of 220 deg. Fahr. to liquefy it, it is probable that not much of it is absorbed. In another class of pills the solvents are resins, with which phosphorus is apt to form combinations which may modify its physiological action. Phosphorated cod liver oil is uncertain, as I notice that it quickly deposits its phosphorus in a changed condition; and the gelatine globules of phosphorated oil largely sold are irregular in size and strength, so that the conclusion at which I have arrived is, if patients cannot be got to take phosphorated almond oil, the formula I have given, although it is by no means a perfect one, is perhaps the best for general use.—Your obedient servant,

WILLIAM MARTINDALE.

20, New Cavendish Street, November 6th, 1876.

UNQUALIFIED PRACTITIONERS.

SIR,—With regard to medical defence, I should like to offer a suggestion (I am not aware whether it has been made before), which, if carried out, would answer every purpose. It is this: that every person practising as a medical man should be compelled to take out an annual licence, at a charge, say, of one guinea, and that none but registered medical men should have the power to take out such licence. The onus of prosecuting unqualified practitioners would then fall on the Inland Revenue officers; and from the alacrity with which they prosecute now whenever they have an opportunity, we may rest assured that quacks and prescribing druggists would soon be as "the light of other days."—I am, sir, yours truly,

J. E. BURTON, L.R.C.P. Lond.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

LOSS OF TASTE AND SMELL FOLLOWING AN ACCIDENT.

SIR,—The cases of "loss of smell and taste" after accidents, recorded by *Chirurgus* and Dr. C. Stuart in recent numbers of the JOURNAL, are extremely interesting, as adding two more to a series of similar cases first described by Mr. Hilton, and more recently by Dr. William Ogle, who has given five cases in the fifty-third volume of the *Medico-Chirurgical Transactions*. In my work on *Diseases of the Nose*, I have alluded to a case of the same kind that had come under my own observation. In all these instances, as in Dr. Stuart's, the seat of the principal injury was in the occipital region; and there can be little doubt that Mr. Hilton's explanation applies to them all. The olfactory bulbs lie, as that gentleman has pointed out, directly on the floor of the cranium, unprotected by any cushion of cerebro-spinal fluid. They are, therefore, more liable to be torn from their bed by severe shocks than the more protected parts of the base of the brain behind them, under which there is a cushion of cerebro-spinal fluid. It is clear from Dr. C. Stuart's description, that in his case the sense of smell, and not that of taste, is impaired. Taste proper distinguishes differences only in the crystalloid bodies having the qualities of sweet, sour, bitter, and saline. It has no relation to the perception of flavour. Flavours, or the odorous qualities of sapid substances, are only recognisable by the olfactory organ. As, however, many articles of food have odorous qualities upon which their flavours depend, we are accustomed to attribute their perception to taste, though they are really only perceived by the olfactory organ through the posterior nares.

It seems at first sight difficult to reconcile this view of the matter with Dr. Stuart's case, because he distinctly states that the odour of verberna was on one occasion perceived by the patient; as, however, he afterwards failed to detect the same scent, there was probably some fallacy in the first experiment. He may have been misled by a sense of pungency, the existence of which only proves that common sensation is not in abeyance in the Schneiderian membrane, but proves nothing as to the state of the olfactory region.

The patient alluded to by *Chirurgus* was able to distinguish between bitters and sweets, and probably would also have perceived sour and salines had he been tested carefully. There was, therefore, probably no loss of taste proper in this case. In Dr. Burney Yeo's case, however, there seems to have been loss of taste as well as of smell, and this, therefore, indicates that a double lesion had occurred; and when we consider that the force of the blow in these injuries is very violent, it is not surprising that several different parts of the cranial contents should suffer simultaneously, and that more than one of the special senses should be impaired. In my own case above alluded to, hearing was affected as well as smell.—I am, sir, your obedient servant,

W. SPENCER WATSON.

November 4th, 1876.

A PROVINCIAL TEACHER.—You can offer yourself as a candidate for a seat on the Board of Examiners of the Royal College of Surgeons of England in Anatomy and Physiology. There will be two absolute vacancies caused by the retirement of Mr. Luther Holden of St. Bartholomew's Hospital, and of Mr. John Cooper Forster of Guy's Hospital. The other members of the Board will offer themselves for re-election, and no doubt be re-elected. It would be gratifying to provincial teachers to have a representative or two at this Board.

ARGUS (Plymouth).—The General Medical Council publishes, but not, we believe, for indiscriminate circulation, a list of those persons who have been struck off the Register for unprofessional conduct. The name of Henry Pearson, formerly in practice at Ely, appears in the list.

A GENERAL PRACTITIONER'S CHARGES.

SIR,—The scale of fees mentioned by a Member in to-day's BRITISH MEDICAL JOURNAL, under the heading of "A General Practitioner's Charges," are rather under than over the usual scale. Five shillings is the usual charge for a visit made during the day, and at night such fees are doubled. If, as we infer, in this case there be a charge for mileage, the night visit should be fourteen shillings, not ten and sixpence, which gives the balance as a gift to the patient; but my own practice is not to make a charge, other than that made for the visit, for syringing the ears, if the operation be performed on the person against whom the visit is charged. On the other hand, should it be performed on any other member of the family, it forms a distinct medical and surgical charge, because it is in reality a distinct case, requiring a preliminary examination on the subject, as well as the exercise of thought, and the application of medical knowledge in the diagnosis and the application of a remedy. It frequently happens, however, that an attempt is made to have advice for several members of the same family at one charge when the medical attendant is in the house, but the manner in which this is done at once shows that the effort is considered an unfair one. It is a transaction of which the person making the effort is ashamed; nor have I ever seen it in good families. The charge is distinctly for advice; the mileage, if such be charged, is quite a separate charge, and would not, of course, be added in each case, although each advice would form a separately distinct item where several members of the same family consult a medical man in the course of one visit.

The consultation fee mentioned is the usual one; and that it is not considered high by the public, is apparent from the way in which it is frequently supplemented.—I am, etc.,

F. R. C. S. Ed.

CYNRO.—There are no preliminary examinations in December.

PESSARIES.

SIR,—Will any of your readers kindly inform me what pessaries are the most useful in (1) retroversion of the uterus, most probably of long standing, and (2) in ante-flexion, also very likely of long standing, the most important trouble of which is "incontinence of urine," which is not present when the uterus has been replaced in the proper position by the aid of Simpson's sound.—I am, yours very truly,

Honley, Nov. 7th, 1876.

T. SMAILES, L.R.C.P., etc.

L.R.C.P. LOND.—The case to which you refer was brought under the consideration of the Court of King's Bench, in consequence of the officer of Lord Pawlett having distrained the silver tankard of Sir Hans Sloane, then President of your College. The case was never settled, but the opinion of the judges was, that the physicians were liable to contribute in money, although they might possibly be exempted from personal service. The Asclepiades were by no means emulous of the military renown of Machaon and Podalirius, who figure as supporters in the arms of the College of Surgeons.

QUALIFICATION TO PRACTISE IN CANADA.

SIR,—If F. wish to practise in the province of Quebec, he must attend personally one of the meetings of the Council of the College of Physicians and Surgeons of Lower Canada, held half-yearly at Montreal and Quebec alternately, pay a registration fee of ten dollars, and exhibit his diplomas, making affidavit as to their genuineness. By doing this, he receives the licence of the College to practise in the province. If he wish to practise in the province of Ontario, he must appear before the Board of Examiners appointed by the Medical Council of Ontario, and pass the usual examinations, after payment of a fee of sixty dollars, when he will be registered and receive the diploma of member of the College of Physicians and Surgeons of Ontario. He will not be allowed to register simply on his British qualifications. The reason for this stringency on the part of the profession in Ontario is this: in 1869, after considerable efforts had been made for several years to raise the standard of medical education, the provincial Parliament was induced to pass the Act at present in force, by which, although the power of granting degrees was not taken away from the various colleges, yet it was made compulsory on all who should hereafter enter the medical profession, that they should pass an uniform examination both for matriculation and graduation, no matter from what college they might hail, before they could register or hold any public appointment. No exceptions were made, saving in the case of those already practising in the province. It was hoped by those who took part in the passing of this Act, that gentlemen admitted to practise by the Medical Council of Ontario would be allowed to register in Great Britain without further examination, as the standard required and enforced is at least equal to that required by the various licensing bodies here. This hope not having been fulfilled, the Medical Council decline to admit British graduates to registration without examination till a similar privilege is accorded to their own.—I am, sir, yours, etc.,

H. J. SAUNDERS, M.D., Queen's Univ., Kingston,
Canada, M.R.C.S. Eng.

P.S.—Registration in one province does not entitle to practise in the other.

LOSS OF TEMPORARY TEETH FROM ABUSE OF THE FEEDING-BOTTLE.

SIR,—Dr. Prall, in the JOURNAL of 14th October, condemns what may be called the "constant supply" system of feeding infants, and it would be strange were so great a departure from the periodic feeding at the breast altogether harmless. When prolonged, as it generally is, after the upper front temporary teeth are in place, it indirectly causes decay, and not seldom the complete destruction of their crowns. Opportunities of observation enable me to affirm that instances of the complete loss of the crowns of these teeth have greatly increased since artificial feeding has lost its terrors, and the use of the long tube in improved feeding-bottles has become so very general. The food put into the bottle at night cannot fail to have an acid reaction long before morning, and, being rubbed on the backs of the teeth by the teat while sucking, it dissolves them more or less completely, as nursing is more or less protracted. Were infants fed at intervals, as at the breast, with fresh food, the bottles and teats being thoroughly cleaned immediately after feeding, the teeth would remain sound. The few cases of complete loss of the crowns of the upper front temporary teeth that formerly came under my notice were caused by the quieting expedient of a teat, without a bottle, soaked in sweetened milk, and sucked almost continuously, often a year or two after infancy; and this expedient comes now into use when the infant, having emptied its bottle, continues to suck as before. Parents are alarmed lest the early loss of these teeth indicates some constitutional delicacy, or may affect their replacement by their permanent successors. On both points they may be assured there is no reason for alarm, and, besides that, the temporary roots need not be interfered with.—I am, etc.,

A. STEWART, F.R.C.S. Ed.

SIR,—The communication of Dr. Prall on the above subject in your JOURNAL of October 14th, will doubtless prove of great service in directing the attention of medical men generally to the question of infant feeding, especially as it is very difficult to persuade many mothers and nurses that milk is sufficient in itself for the majority of dry-nursed children. But in my judgment he attaches too much importance to the nature of the bottle used, and overlooks the quality of the food supplied. His strictures are directed against the mode of administration rather than the fact, that, from want of cleanliness, the milk, or other food introduced into the bottle in a perfectly sound state, becomes speedily unfit for infant food. I have, ever since the introduction of the bottle with the glass and India-rubber tube, regarded it, used rightly, as one of the greatest boons ever conferred on mothers compelled to dry-nurse their infants, as well as on the little ones themselves; but I have also long since convinced myself, by careful observation, that, like every other good thing, it has been dreadfully abused. Used rightly, that is, kept clean, both as regards bottle, tubes, and teat, any food left after the child has finished its meal being immediately poured out, and on no account used for the child again, the bottle being at once washed thoroughly, and kept immersed in cold water until required, the tubes being also frequently cleansed by means of the little brush supplied for that purpose—thus used, the Alexandra bottle appears to me to supply all that can be desired, and to provide, as nearly as possible, a substitute for the mother's breast. Twenty-five years' extensive experience, both in private practice and as a Poor-law medical officer, have afforded me ample opportunities of comparing the various methods of artificial feeding, and I cannot think that we have retrograded in this matter.

Well do I remember the period of the system of feeding by spoon with so-called "pap", a mixture of bread (not always the purest) and milk and water, sweetened with sugar. The child, often irritated by repeated interruptions in the feeding, bursts into a fit of crying, necessitating spasmodic swallowing, and often choking, by the food getting into the larynx. Added to this, the temperature of the food had to be tested by the nurse's mouth (a by no means infallible criterion), incurring the risks of contamination by unhealthy saliva or ulcerated lips or gums; and lastly, it was next to impossible to gauge the quantity of food necessary, the nurse being evidently unable to decide how far the child's crying was due to excitement or unsatisfied appetite.

The plain bottle without tube was a decided advance upon the "spooning" system; but some of the above objections applied to it, the rate of supply depending not upon the instinctive efforts of the child, but upon the judgment or caprice of the nurse. The bottle now in common use ought to meet all these difficulties, necessitating as it does voluntary effort on the part of the child, and admitting of instant cessation of the supply when the requirements are satisfied. I take it for granted that no child will take more nourishment (unless forced upon it) than necessary, and therefore it is not fair to say "the most important part of the operation of feeding—viz. . . . is left to the ingenious contrivance of the bottle to accomplish". It would be more correct to say that it is left to the instinct of the child, for the supply can only be in proportion to the demand. As I before observed, extreme care is necessary, and this has been forced upon my notice in scores of cases of infantile diarrhoea proving intractable to ordinary treatment;

but an examination of the contents of the bottle, giving off a horribly offensive putrescent smell, has revealed the secret. Generally the mother has assured me (and I have had no reason to doubt her statement) that she has recently put fresh milk in; but the fact is, that the bottle has not been fairly washed out for some time, and the particles of milk left after each rinsing have undergone putrefactive decomposition, and thus set up the same in the fresh milk. Every housekeeper knows how soon milk decomposes, in hot weather especially. Another common practice amongst the poor I have found to be that of allowing food left by the child to stand near the fire in the bottle until required again. I need scarcely attempt to point out the evils of this practice. Fortunately, the remedy is a very simple one. Have two or three bottles in use alternately; insist on their being kept perfectly clean; take care that the infant is fed regularly every two, three, or four hours, according to age and circumstances; never allow the teat to remain in the mouth after feeding is over; and I believe all the evils attributed to bottle-feeding will soon disappear. I think medical men cannot be too particular in insisting on regular feeding, whether by the breast or bottle, as it is too much the custom of mothers and nurses to attribute every fit of crying to hunger, and thus they feed again too soon, thereby aggravating the mischief, if proceeding from gastric disorder, by mixing up fresh food with that which is already partly digested—a thing repulsive to common sense and reason, even in the case of an adult; how much more injurious must it be to the delicate stomach of an infant!

If medical men, ministers, district visitors, and others thrown much in contact with the poor, were to exert their influence in correction of these evils, I believe much infant mortality would be averted.—I remain, sir, your obedient servant,

JOHN EWENS, L.R.C.P. & L.R.C.S. Ed., Surgeon to the Hospital for Women and Children, Bristol.

P.S.—I have used the term "food" in a general sense, as applied to those articles generally recommended by the profession for infant feeding, but I wish to express my strong conviction that milk should form the principal, if not entire, article of diet up to the age of one year; and, as a rule, if it can be obtained, good cow's milk diluted, in proportion to age, is better than condensed milk.

ERRATUM.—In Dr. E. Long Fox's account of Bulbar Paralysis, in last week's JOURNAL, twelve lines from bottom of page 589, for "choreic suffering", read "chronic softening".

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Sir Joseph Fayrer, London; Dr. Bradbury, Cambridge; Dr. G. Johnson, London; Mr. W. Spencer Watson, London; Dr. Barnes, London; Mr. C. Heath, London; Mr. Nettleship, London; Mr. George O. Mead, Chichester; Mr. H. Jones, Welshpool; Dr. T. H. Thomas, Bristol; Dr. R. S. Hudson, Redruth; Dr. Alfred S. Taylor, London; Dr. E. Long Fox, Clifton; Dr. L. W. Marshall, Nottingham; Dr. Bell, Glasgow; R. M. S., Manchester; Mr. W. H. Michael, London; Dr. G. S. Buchanan, Dublin; Dr. Gowan, South Shields; Dr. A. G. Burness, London; Mr. R. H. B. Nicholson, Hull; Mr. Wanklyn, London; A. Member; Dr. J. Milner Fothergill, London; M.D.; Dr. George Lamb, Hull; Dr. G. H. B. Macleod, Glasgow; Mr. R. Davy, London; Mr. Lennox Browne, London; Dr. J. Maclean, Portree; Dr. T. B. Bott, Southport; Mr. F. Field, Chudleigh; Dr. T. D. Stanistreet, Clonmel; Mr. G. F. Rossiter, Farnborough; Mr. Ralph Goodall, Silverdale; Dr. B. Foster, Birmingham; Dr. Chadwick, Tunbridge Wells; Dr. C. Parsons, Dover; Dr. Waters, Chester; Dr. D. Leech, Manchester; Dr. C. Harrison, Lincoln; Dr. De Bartolomé, Sheffield; M. W.; Dr. Falconer, Bath; Mr. S. Snell, Sheffield; Mr. E. C. Board, Bristol; The Secretary of Apothecaries' Hall; Dr. J. E. Shaw, Clifton; Dr. T. D. Wilson, Leith; Mr. R. Hutchings, Prestwich; The Registrar-General of England; Dr. W. Stewart, Edinburgh; Dr. A. H. Jacob, Dublin; Dr. W. W. Grieve, Port Glasgow; The Registrar-General of Ireland; Mr. W. Square, Plymouth; The Secretary of the Harveian Society; Dr. Dowse, Highgate; Mr. R. A. Gibbons, Ipswich; Dr. Dougall, Glasgow; Mr. William A. FitzGerald, London; Dr. H. J. Saunders, Bristol; Mr. H. A. Reeves, London; Dr. Thurston, Ashford; Dr. Corfield, London; Dr. Rolleston, Oxford; Mr. Batterbury, Wimborne Minster; Dr. Alford, Taunton; Dr. J. E. Burton, Liverpool; Dr. E. J. Syson, Huntingdon; Cymro, Dudley; F.R.C.S. Ed.; Dr. Cassells, Glasgow; Dr. Mackenna, London; Mr. H. Sewill, London; Dr. Coats, Glasgow; Our Edinburgh Correspondent; Dr. Alexander Paterson, Rio de Janeiro; Mr. H. Burdett, Greenwich; Mr. G. D. Brown, Ealing; The Secretary of the Royal Medical and Chirurgical Society; Mr. Vincent Jackson, Wolverhampton; Dr. Sayer, Kirby Stephen; Mr. H. R. Hatherley, Nottingham; Our Dublin Correspondent; Dr. Smiles, Honley; Mr. R. W. Whitham, Bradford; Mr. R. McBride, Gifford; M.B., L.R.C.S.P.; Mr. G. H. Brown, London; Mr. Lloyd Owen, Birmingham; Dr. Lockhart Clarke, London; Mr. Heward, Stamford; Dr. Armistead, Cambridge; Dr. Procter, York; Dr. Walter, Long Eaton; Mr. Henry Morris, London; Mr. Hitchcock, Greenwich; Mr. S. M. Bradley, Manchester; Dr. Peart, Tynemouth; Mr. Henry Brown, Northallerton; Mr. James Hogg, London; Dr. Morton, Kilburn; Mr. R. S. Fowler, Bath; Mr. J. W. Groves, London; Mr. W. G. Cresswell, Birmingham; Mr. J. Netten Radcliffe, London; Dr. Prall, West Malling; Mr. Thompson, Hull; etc.

REMARKS

ON

INTESTINAL OBSTRUCTION: WITH SPECIAL
REFERENCE TO DIAGNOSIS.*

BY GEORGE H. B. MACLEOD, F.R.S.E.,

Regius Professor of Surgery in the University of Glasgow; Surgeon to and
Lecturer on Clinical Surgery at the Western Infirmary; etc.

I.

GENTLEMEN,—I make no apology for bringing before you the subject of obstruction of the bowel, as I am well aware that many of you have had personal experience of the difficulty and anxiety which attend its management; and that a review of the whole subject, with the aim, if possible, of placing clearly before you the points which chiefly bear on diagnosis and treatment, together with the relation of cases which have mostly occurred in the practice of my hearers, may prove acceptable. I have placed on the table a large number of morbid specimens, illustrative of the different points touched on, and to these I will from time to time direct your attention.

In what follows, I do not include strangulated hernia, hysterical affections, or malformations. They lie beyond my present thesis; but it is necessary prominently to state that, as hernia is by far the most common of all causes of intestinal obstruction, the surgeon should, in any case in which symptoms of occlusion are present, convince himself by personal examination that there is no hernia. No statement, however positive, on the part of the patient, should cause him to dispense with such an examination.

Intestinal obstruction may arise from very many causes. Some of these are not difficult to discover; but others are very obscure, and, not unfrequently, the exact source of the affection entirely eludes our research during life.

The causes of obstruction may be classed as follows:

- A. Those existing within the bowel itself;
 - B. Those existing in the wall of the gut;
 - C. Those seated in surrounding parts.
- A. Of causes lying within the intestinal canal, we may have
- (a) Foreign bodies which have been swallowed, or have formed within the bowel, or been inserted by the anus. I need not recount the vast variety of foreign bodies which have been swallowed and caused more or less obstruction. Suffice it to say that, while the most heterogeneous substances—false teeth, coins, knives and forks, masses of hair and string, pins, seeds and kernels of fruit, etc.—have passed downwards into the stomach and bowels, it is remarkable how seldom they have occasioned (when there was no previous or coincident narrowing of the passage) complete obstruction. The most formidable agents have been expelled without injury, while articles (like fruit-seeds) apparently innocuous have caused the most serious consequences.
 - Of concretions formed within the body, gall-stones are the most frequent sources of occlusion; but the aggregation of certain chemical materials taken as medicines (subnitrate of bismuth, magnesia, sesquioxide of iron, saccharated solution of lime, etc.), and, in a few cases, collections of the *ascaris lumbricoides* and masses of faeces, have been known to close the bowel.

Various agents, inserted into the lower end of the gut, have also obstructed its canal. A soda-water bottle and a box containing instruments adapted to favour the escape of a prisoner from jail may be mentioned as among the recorded examples.

(b) Intussusception or invagination, in which one portion of the bowel passes within another, is, according to Brinton, the cause of obstruction in nearly half of the cases of the affection under review.

(c) Incarceration of the bowel in old irreducible herniary protrusions.

(d) Growths, simple or malignant, protruding into the intestinal canal.

B. Causes seated in the wall of the gut. (a) Spasm, such as may arise occasionally in enteritis and lead-colic. (b) Paralysis of the bowel, as in violent catarrhal inflammations and after herniotomy. (c) Stricture, due to cicatrization after ulceration, or to malignant disease of the bowel. (d) Volvulus or twist in the bowel. (e) Hypertrophy of one of the valvulae conniventes, as in the specimen on the table from the Hunterian Museum.

C. Causes lying outside of the bowel. (a) Adhesions of the bowel to

some surrounding part, or to another coil of bowel. (b) Bands or diverticula constricting the bowel. (c) Tears or apertures in the omentum, or mesentery, or peritoneum, allowing the passage of a coil of bowel. (d) Internal hernia, as diaphragmatic, obturator, ischiatic, into the foramen of Winslow, etc. (e) Enlargements or displacements of the uterus, ovary, liver, pancreas, spleen (Pétrequin), kidney (Wieger), etc. (f) Tumours, mesenteric, ovarian, or other. Abscesses connected with dead bone, or that of perityphlitis.

Such is a summary of the various causes of intestinal obstruction. Some of them produce acute and others chronic effects; and, as the violence of the symptoms bears a very constant relationship to their exciting cause, it will be useful to arrange them into two classes, according as they give rise to early and acute symptoms, or late and chronic ones.

The following occasion urgent early effects: Invagination, spasm, volvulus, loops and internal hernia, and, in many cases, adhesions and bands. On the other hand, the signs of obstruction come on slowly when foreign bodies, incarceration, growths within or without the canal, paralysis, stricture, the pressure of neighbouring organs or tumours, occasion it.

What, then, are the signs by which intestinal obstruction makes itself known?

1. Constipation. This is frequently the sign which chiefly attracts attention. It and stercoraceous vomiting are the most characteristic of all the signs of closure of the bowel. The contents of the bowel below the seat of obstruction may, of course, be evacuated after the closure of the canal has taken place, and irregular action and even diarrhoea may precede the establishment of the occlusion. Fluid faeces, in limited quantity, may escape even when the lesser bowel is to all intents closed, yet, with all this, it is true that complete constipation is the rule in cases of true intestinal obstruction.

2. Pain varies much in different cases, and may range from a mere feeling of weight to violent suffering. It is, as a rule, most severe in invagination and volvulus, and least so in the case of stercoraceous collections. The seat, character, and amount of pain always deserve careful study, as occasionally it coincides very exactly with the place of the lesion. The pain may begin suddenly and violently, or be for long little regarded. Most commonly, if it be not very severe at the outset, it soon becomes so. At first colicky in its nature, it wholly changes its character as inflammation becomes developed, and finally, the accumulation of fluids and air causes such distension as to give rise to much distress. In most cases, the pain has its seat chiefly about the umbilicus; but, when inflammation is established, it becomes more or less diffused. The absence of pain is no positive evidence that even the most unmanageable sources of obstruction are not present.

3. Vomiting occurs early or late, chiefly according to the part of the canal involved. The higher up the obstruction lies, the sooner will regurgitation of the intestinal contents take place. The vomiting is usually (though not always) accompanied with nausea, and it is a great cause of distress and exhaustion. Only food or bilious matters are ejected at first, but afterwards the characteristic "feculent" vomiting appears. Even when the occlusion lies in the small gut, the ejected matters come to have the smell of faeces. This is the only certain sign of obstruction. Brinton thought it was produced, not by an antiperistaltic movement, but by a return current, starting from the obstacle and passing backward in the centre of the tube. The vomiting may be continuous or it may remit, and before death it may cease from sheer exhaustion.

4. Swelling confined to a portion of the abdomen or affecting the whole cavity. If the patient is seen early, this is often a very important and instructive sign. It arises from the accumulation of fluids above the obstruction, and later on to flatulent distension. Careful percussion will indicate which of these causes is present, and its exact seat. In some cases, the swelling is very slight throughout.

5. Movements of the bowel, accompanied by violent gurgling, are often very apparent in chronic cases of obstruction when emaciation has attenuated the abdominal walls and the bowel has become hypertrophied from its long efforts to overcome an increasing obstruction. When inflammation has been set up and the bowel becomes paralysed from over-distension, these writhings cease. In obstructions high up in the gut and in acute cases, they are not observed. The movements may extend only to one point, and this will give important information.

6. Hiccup is frequently a late and very distressing condition. In obstructions high up, it may appear very early and be very violent.

7. Sedgwick has shown that, if the attack be sudden and acute and implicate the small gut, it is likely that the secretion of urine may be diminished or even suppressed; but in chronic obstruction, low down in the canal, a reverse effect may be produced. Habershon, again, gave its due weight to the vomiting in diminishing the urine; and doubtless the amount of fever, local inflammation and collapse will

* Communicated to the Medico-Chirurgical Society of Glasgow.

act in the same way. The influences referred to, and not the seat of obstruction (as limiting the absorbing surface of the bowel), as Barlow supposed, are evidently those which affect the secretion of the urine in these cases.

To the above symptoms we have to add the "*facies Hippocratica*", often markedly present—the general prostration, and the evidence of that enteritis or peritonitis which, in many cases, is the immediate cause of death. The whole aspect of the patient is usually most distressing and significant, and the dyspnoea a source of constant disquietude. The ailment has been known to set in with fainting, and rapid collapse is not uncommon when the small gut is implicated. Death is usually occasioned by exhaustion, or gangrene, or blood-poisoning. Nélaton thinks the directly poisonous effects of the retained fæces have much to do with it.

All the symptoms which have been described may undergo much modification and abatement in chronic cases. The constipation may be preceded by long periods of irregularity in the action of the bowels, and even by diarrhoea, alternating with constipation. The shape, bulk, and consistence of the motions may be much altered, and the final constipation may very slowly become complete. In these cases, too, the vomiting may not become feculent till a very late period; and even the sickness and eructations may not be so clamant as to attract much attention. The distension and prostration, together with the pain and constitutional disturbance, are in some chronic cases marvellously subdued till near the end, which again may be remarkably delayed. Complete closing of the bowel may, in chronic cases, however, be very rapidly established before death.

With this preliminary statement, let me now glance at the means we have of determining, in any given case, what the cause of the obstruction may be, and where it is probably seated. Before any idea can be formed on these points, we must obtain a clear clinical history of the origin and progress of the case, and carefully examine the patient's present condition.

This will be best secured by following some such order as this:—
1. What is the age and sex of the sufferer? 2. Does he present any marked diathesis? 3. Has he ever before suffered from any abdominal affection?—inflammation, colic, gall-stones, dysentery, hernia, or any attack at all like the present one. Is there any history of tubercular affection of the mesentery or bowel? 4. Has he been using any article of food or medicine likely to occasion the symptoms present? 5. What has been the usual, and especially the recent, condition of his alvine evacuations, both as to regularity and to character? 6. What are the degree and duration of the constipation? 7. Has there been vomiting? If so, when did it begin and what is its nature? Has it been continuous and accompanied by hiccup? 8. Did the symptoms set in suddenly and severely, or the reverse? If suddenly, how had the patient been engaged immediately before? Had he been making any sudden effort? 9. Was the patient aware of having any "lump" in his abdomen before this attack; and if so, how long has it been present? Has it been fixed or movable? Has it altered its shape, or position, or size? Is it painful, and what are its physical characters and anatomical position? 10. Does the patient suffer pain; and if so, what are the character and seat of that pain? Is it relieved or increased by pressure? Does the pain radiate from or cease at a certain spot, or does it intermit? 11. Is there any swelling? If so, is it diffused or is it specially marked on one side, or at one place? 12. What do we learn from percussion and palpation? 13. Are there any vermicular movements apparent, and do they appear to be arrested at one point? 14. What is the condition of the urinary secretion as to quantity and quality? 15. Lastly, what are the patient's strength, aspect, courage, and constitutional power, and what evidence is there of the presence of inflammation?

It may be noted that the right iliac region is that which should receive our most careful attention, as it is there that obstructions in either large or small gut are most apt to exist, and make themselves evident by swelling, pain, etc. It is by a careful consideration of the above points that an opinion can be best formed of the cause and seat of obstruction.

In inspecting the abdomen, we should, if possible, place the patient alternately on the back, side, and face. The condition of the flanks should be carefully scrutinised. Fagge recommends that their relative weight and fullness should be judged by "poising" them on the hand. Palpation and percussion must be directed to discover any irregularity in the cavity, or any special seat of pain, together with the full and empty portions of the bowel. Chloroform is often of great assistance after our inquiries have been addressed to the patient. When the affection has subsisted for some time, and the distended portions of the bowel have changed their position, and come to cover over and conceal the empty parts, or if the parietes be rigid, or loaded with fat, or much stretched and tender, then a minute and satisfactory examination by palpation can

hardly be made. The attendant should, in following out his inquiry, try and realise to himself the position of each abdominal organ. The groins and rectum should be carefully explored, and in females the uterus must be attentively examined. In many cases, the investigation of the rectum by a tube or current of fluid, or, when feasible, by the introduction under chloroform of the whole hand, is capable of affording very valuable information.

Let us now see how each of the points to which attention has been called helps us in recognising each kind of obstruction.

1. Most foreign bodies are apt to be arrested at the cæcum and at the sigmoid flexure and in the rectum. (Preparations were shown illustrative of this). Seeds and small bodies may get into the appendix, and thus cause fatal results. Of this, I shall afterwards relate an instance. It is very remarkable, as has been before said, how often the most formidable bodies which have been swallowed (open knives and large coins, for example) have passed, without causing injury, through the whole length of the canal, while small and apparently innocent bodies have given rise to fatal consequences. Foreign bodies, however, rarely cause fatal obstruction, and the symptoms which their presence occasion are very uncertain and inconstant. Neither their position nor nature can be usually made out. They are, of course, liable to give rise to inflammation and ulceration, and in this way secondarily to stricture. Sometimes, they spontaneously escape by the ulcer they form; and the points at which they are thus most apt to emerge are either in the right iliac region (when they are impacted in the cæcum), or near the umbilicus (when they are seated in the small gut). The enormous gall-stones which are occasionally met with may, doubtless, be felt moving slowly down the canal, but even they often escape detection. The history of a short and sudden or more prolonged attack of pain in the region of the gall-bladder, with possibly jaundice, in an elderly female, with symptoms afterwards of embarrassed function in the alimentary circulation, would render it probable that a gall-stone was present. Gall-stones are most apt to be arrested in the jejunum and just above the ileo-colic valve. Such sources of obstruction are, however, rare; and other concretions, as those formed of masses of worms, are rarer still. Stercoraceous tumours are not very uncommon and may entirely arrest all passage through the bowel. In persons of extreme costive habits, such masses may be always present to a certain degree. In pregnancy and old age; in cases in which, from fear of the suffering which defæcation causes (ulceration, fissure, or other affection of the anus), the bowel is rarely emptied; in hysteria, too, and paralysis, such feculent accumulations may form. It is especially in the sigmoid flexure and cæcum they are found, *i. e.*, in the groins. They have been recognised in the transverse colon. They occasionally attain a great size. Their situation, slow formation, soft, kneadable, irregular, and painless character—their shape corresponding somewhat to the bowel—possibly their varying size, will cause them to be recognised. Sciatica and oedema of a limb may come on from their pressure. Liquid fæces, and even a species of diarrhoea, may coexist with these accumulations from a small channel remaining through them. An examination of the rectum by the finger or probang, or stream of water, will, in most cases, clear up the diagnosis.

2. Invagination may implicate a few inches or several feet, as in one of the cases afterwards related. In very rare cases (Bucquoy relates four), we have "*retrograde intussusception*", *i. e.*, the lower portion of the bowel is invaginated into that above it; but in general it is, as we would expect, an upper section which is driven into that lower down. The two conditions have, it is said, been combined. This constitutes nearly a half of the causes of obstruction met with. The invaginated bowel is not invariably strangulated; but if it be, then a train of very violent effects follows. More than half of all the cases of invagination occur at the ileo-cæcal valve—the ileum passing through it, and the caput coli inverted and dragged down into the colon. This process may go on till both ascending and transverse colons are "*swallowed*". The cæcum and ascending, and even the transverse colons may pass into the lower portion of the gut, and drag the ileum after them, without altering the relationship of the valve. The lesser gut is rarely alone implicated. Nor is it at all common for the transverse and descending colons to be the only parts invaginated. Multiple intussusceptions have been found after death, probably occurring during the last agony.

Young infants (below six months), and children below seven years of age, are the usual subjects of this dire affection; but it has been seen at all ages, and even in the old, and that more commonly than in those of middle life. It is easy to conceive how, if one part of the intestinal canal be fixed and distended with gas, and the vermicular action of the portion above be rendered more energetic by any irritation, such as chronic diarrhoea, worms, a growth, or foreign body, or even if it be acted on suddenly and violently by muscular pressure, one section may be driven into the other; and if the action continue, great portions

may be thus invaginated, so that the ileum may come to project at the anus. It is in the right iliac and in the hypogastric regions that we seek for evidence of these intussusceptions. The arch of the colon may be so dragged down as to lie transversely across the belly, forming a horizontal massive ridge, as in one of these preparations.

The signs most characteristic of invagination are—the age of the patient; the previous history of some irritability of the bowels; the frequent desire to go to stool, with straining when there; the discharge of blood (apt to be set down as “dysentery”); much restlessness, with pain in paroxysms; thirst; and vomiting. The matters ejected are not by any means invariably feculent; and the attack, though frequently sudden, is not always so. The gut may remain partially pervious, and thin feculent discharges occur. In such cases, the child may survive for an unusual period, and die finally of exhaustion. The blood lost may vary greatly in amount. Dr. Brinton and others assert that, when the higher portions of the lesser bowel are involved, blood may be also vomited. A copious discharge of blood would point to the lesser gut being the seat of the affection. The abdomen is by no means always distended in these cases, but may be little altered.

If with such symptoms we find an elongated, cylindrical, tender, movable tumour lying in the axis of the bowel or across the lower part of the belly, and well described as “sausage-like”, and if, above all, we discover, on inserting the finger into the rectum, a body which feels like the os uteri, and which recedes from and again returns on the tip of the finger, the diagnosis is complete. As felt through the parietes, the tumour spoken of may alter its place, shape, and size at different times, and it may sometimes elude our search altogether. As a rule, these tumours tend to travel downwards, as regards the bowel, from the lower portions of the gut devouring the upper. In time, adhesion may take place between the various layers of invaginated bowel, and then, in favourable cases, as is well known, the included part may separate by sloughing and be discharged, leaving the channel of the gut more or less free; and possibly, if extravasation do not occur and no further complication arise, recovery may follow. I have known several such happy results. In the great majority of cases, the patient dies within a few days; and, from the effectual way in which the one portion of bowel is glued by adhesions to the other, we cannot safely separate them, even if the abdomen were open; thus the measure which in a certain proportion of cases brings safety, renders, in most cases, an operation useless.

Remarkable instances are on record of the slow chronic establishment of invagination, and that chiefly in the ileo-cæcal variety of the affection. The tumour, too, may in occasional instances be found before the constipation and bloody discharges, or even the sickness, appear. Whenever strangulation is established, however, the symptoms become severe. Dr. Fagge, in the thirteenth volume of *Guy's Hospital Reports*, endeavours to lay down certain distinctions between intussusception as occurring in the lesser bowel and in the ileo-cæcal region. In the former, the tumour, he says, is smaller and placed to the right of the umbilicus, and there is more free bleeding. In the ileo-cæcal variety, the tumour is in the line of the colon, in the iliac fossa or suprapubic region, and commonly descending into the rectum, and it is accompanied by more tenesmus, straining, and bloody mucus, while the pain may precede the other signs by a considerable interval and the various symptoms may subside for varying periods.

Obstruction from the incarceration of herniary protrusions need not detain us. Small protrusions of bowel into the internal ring, or into old herniary sacs, are occasionally causes of an arrest of the alimentary circulation, and all local evidence of their presence may be wanting. Even the pain they occasion may be referred to parts distant from the seat of strangulation. The fact that a hernia did at one time exist should, in cases not otherwise to be explained, cause us to explore the possible seat of the obstruction.

Growths within the canal, unless they can be reached from the anus, or unless large enough to be felt through the parietes, cannot be recognised by any certain signs. They are usually malignant. They are not unfrequent in persons below middle age. Of ten cases which I have seen within three months, where cancerous growths were present in the lower bowel, all but three of the patients were under middle life.

Spasm, as a source of obstruction, is very rare. It may, however, occur from inflammation, and even (notwithstanding the incredulity of Trousseau) without that accompaniment, as in “nervous ileus”—the true iliac passion of Sydenham. Briquet has related cases in which most of the signs of obstruction (distension, sickness, eructations, and persistent constipation) arose from pure hysteria. It comes on suddenly and assumes the features of “cramp” in the lesser bowel.

Stricture will have a history of antecedent inflammation, or ulceration, or intussusception. Not unfrequently there may have been previous

attacks of obstruction. Dysentery, or tubercular disease, or syphilis, or cancer, or severe catarrhal inflammation (“typhitis”), may occasion such ulceration (that which passes round or transversely to the bowel) as eventuates in stricture. A wound or any inflammation which gives rise to thickening may be its source. It is by tracing the clinical history that we recognise stricture as the cause of obstruction. While stricture has been found as high as the duodenum, yet it is almost always situated below the transverse colon—commonly in the sigmoid flexure and rectum. Its occurrence in the small bowel is very rare, and not evidenced by any characteristic features. The invasion and progress of these cases are slow and chronic, and much irregular action of the bowel may mark their early stage. As the patient becomes much emaciated and the gut hypertrophied above the seat of obstruction, those movements of the bowels which are so characteristic of obstruction may be very evident. If cancer exist, then the cachexia which so soon marks that disease will be present; and, if its seat be, as is usual, low down in the gut, pain in the sacrum and thighs, as well as the discharge of blood and mucus by the anus, will aid the diagnosis. The alteration in the shape and calibre of the motions (pipe-stem, or ribbon, or sheep's dung-like) will mark the influence of narrowing of the bowel near its termination, and then, too, a digital examination may accurately define its presence and seat.

Twists or strangulation by rotation of the bowel produce effects similar to internal hernia. These twists usually follow sudden exertion, such as jumping, but they may also follow inflammation. It has been said by Rokitsky that they may occur in three ways or forms. The bowel may revolve on its own axis, or it may roll up on the mesentery or on another coil of intestine. It does not require much torsion to produce obstruction; half a turn may be sufficient to establish it. Enteritis soon results, and a rapidly fatal issue is the usual consequence. It is in the sigmoid flexure, ascending colon, cæcum, and lower part of the ileum that these twists have been most commonly met with. As a rule, the symptoms set in suddenly and acutely; this, together with the history of the producing cause—the pain frequently confined (at first) to a spot—the unequal distension before general inflammation has set in, followed often by great distension when the inflammation is fairly established, and the remarkably rapid evolution of the symptoms,—are our chief means of diagnosis.

Adhesions with surrounding parts, and bands of lymph or diverticula from the bowel may constrict the intestine. These adhesions and bands result from antecedent attacks of inflammation or from old hernia. It is not uncommon to trace their history from an attack of peritonitis which has been followed by repeated colics and constipation, ending in fits of diarrhoea and temporary relief. Bands have been most frequently found just opposite the promontory of the sacrum. They have been frequently found in females, arising from inflammation of their pelvic organs. The vermiform appendix may, by becoming adherent, form a loop under which a coil of bowel slips, or the pedicle of an ovarian tumour may form the snare which imprisons the gut. Tears in the omentum, meso-colon, mesentery, or reflections of the peritoneum, or an abiding urachus, or rents in the abdominal walls, or diaphragm, or uterus, or coats of the bladder, may be the cause of the strangulation of a portion of bowel; but these causes are only revealed after death. Adhesions may remain after herniotomy, or be set up by it or the taxis, and obstruction result. Tubercular or cancerous disease may originate the adhesions, which may be to any of the surrounding parts or to a contiguous coil of intestine. The lesser bowel is that most frequently implicated. No tumour need be looked for at the seat of such bands or adhesions, and there are no characteristic indications of the source of the embarrassment beyond the history of the patient, the mode of attack, and the local nature of the pain at first.

Intra-abdominal Hernia.—Many of the accidents referred to in the last paragraph are of this nature; but more correctly what is now alluded to are protrusions and strangulation of the more movable portions of the bowel into some of the orifices in the parietes. The patient, often young and healthy, is suddenly and violently affected with symptoms of strangulation after some exertion. There is great pain at the part or about the navel, and collapse may occur early. There is no tumour and no bloody discharge. We can only surmise the cause. It cannot be distinguished from twists.

Enlargement or Displacement of Neighbouring Organs and Tumours are formed slowly, and are generally recognised before they come to affect the bowel. Uterine tumours, fibroids and even pregnancy, ovarian growths, hydatid cysts, enlarged mesenteric glands, abscesses in the neighbourhood of the caput cæcum, floating kidneys, enlarged spleen, intra-abdominal tumours of any kind—may constrict the bowel and close its canal. In an interesting case of perityphlitic abscess afterwards described, the symptoms of obstruction did not set in till late in the history of the case. I have lately had in hospital a man

with so greatly enlarged a prostate, that extreme constipation was occasioned by it, and, since he went home to a distant part of the country, I am informed complete obstruction has taken place. The preparation lies before you connected with a curious case, in which, in consequence of gelatinous cancer of the sigmoid flexure, a free communication between the bladder and bowel was established and obstruction occasioned.

Thus, then, it may be said generally that the lesser bowel is most liable to spasm, adhesions and bands, and internal herniary formations, while the great gut is more liable to be obstructed by foreign bodies, feculent accumulations, invagination, stricture, and twists.

As regards age, it may also be considered approximately correct that obstruction arises from invagination most frequently in male children under six months old; from bands and adhesions in young and middle-aged persons, especially in females; from volvulus, foreign bodies, strictures, bands and loops, and internal hernias, in middle-aged men; and from cancer, feculent accumulations, gall-stones, and incarcerated hernia in the old.

[To be continued.]

TWO CASES OF HYDATID TUMOUR OF THE LIVER SUCCESSFULLY TREATED BY ASPIRATION: WITH REMARKS.*

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At the Norwich meeting of the British Medical Association, I read notes of six cases of hydatid tumour of the liver treated by puncture. Of these six cases, five were cured, and, so far as I can ascertain, remain well up to the present time. These cases are recorded in detail in the second volume of the BRITISH MEDICAL JOURNAL for 1874. Since their publication, two additional instances of this disease have come under my notice, one in private, the other in hospital practice.

CASE I.—The first case is that of a married gentleman (J. I. E.) aged 36, without family, and living in Cambridgeshire, who consulted me last October for intense pain in his right side. He had been ill for a long time, and under treatment for some obscure affection of the liver. When I first saw him, he was suffering from acute pleurisy on the right side; friction-sounds of a very marked character and friction-fremitus being present. The patient's countenance betrayed great suffering. I ordered him to go home to bed at once, and prescribed eight grains of Dover's powder at bedtime, with a saline mixture to be taken the following day. He was enjoined to keep perfectly quiet, and a large linseed-meal poultice was applied to the right side. It is unnecessary to give all the details of the treatment, and it may suffice to say that the pleuritic friction-sounds disappeared in a few days, and the patient was very much relieved. On October 4th, three days after first seeing this gentleman, I elicited the following additional facts with regard to his previous illness. He had been in his usual health (never very good) till June 4th, when he had in the night a severe bilious attack, the vomited matter being slightly streaked with blood. He was attended by his usual medical attendant for congestion of the liver, being confined to bed for two weeks. He was very unwell for some time after this; and on July 17th, at the urgent wish of his friends, consulted a very distinguished physician, who told him he had enlargement of the liver. About a month previous to my seeing him, he had a severe rigor, which was succeeded at intervals by several shivering fits. At times, indeed, he had attacks not unlike those of ague. On September 26th, he had a very severe pain in his side, which continued up to the time of my seeing him on October 1st, 1875.

When the patient was relieved of his intense pain, I made a more careful examination of his chest, and found the percussion-dulness on the right side higher in front than behind. The line of dulness also descended with deep inspiration. Behind, there was not that complete dulness and absence of vocal fremitus which one would have expected in simple pleurisy. The intercostal spaces were completely obliterated. The patient was ordered a drachm of syrup of the iodide of iron twice daily in water. I told the friends I suspected my patient had hydatid tumour of the liver, and that the pleurisy was secondary to this.

On October 6th, I visited my patient again, and had the advantage of a consultation with Mr. Prince of Sawston, a friend of the family.

Mr. Prince coincided in the diagnosis. On this day, I made a note to the effect that the dulness was decidedly higher in front than behind, and that there was good breathing posteriorly almost to the base.

On October 8th, my friend Dr. Banham, at that time house-physician to Addenbrooke's Hospital and now physician to the Sheffield General Infirmary, accompanied me to see my patient. He had seen the cases of hydatids which I brought before the Norwich meeting, and I was anxious to see if he would confirm the diagnosis of Mr. Prince and myself. After making a most careful examination, Dr. Banham thought the case was not one of hydatids of the liver, although there could be no doubt of the liver being enlarged. The girth of the chest on a line with the ensiform cartilage was 34 inches; the right semicircumference being 17½ inches, and the left 16½ inches. The patient felt much better.

On October 9th, the friction-sounds and fremitus returned, and the patient had to resume the linseed poultices, etc. In the course of a few days, the fremitus disappeared, but friction-râles remained audible for a long time. He was, however, sufficiently well to go into Suffolk for three weeks towards the end of October, and was benefited by the change.

On December 30th, he was not so well. For some days he had had a good deal of pain in his right side, and the friction-sounds were still audible. Before puncturing the cyst, I recommended him to have another opinion, and the following day I accompanied him to London to see Sir William Jenner, who regarded the case as one of hydatids of the liver with attendant pleurisy. A distinct "hydatid-fremitus" was now manifest, and Sir W. Jenner recommended the immediate insertion of the needle of an aspirator.

January 2nd, 1876. To-day one of my surgical colleagues at the hospital accompanied me to tap the cyst. After carefully examining the patient, however, he hesitated to use the aspirator—(1) because he was not sure there was a cyst, although he thought he could feel hydatid-fremitus; (2) because, if there were a cyst, it was so near the gall-bladder that it would be dangerous to operate. He also thought the symptoms not sufficiently urgent for operative interference. After this expression of opinion, I at once wrote to Sir W. Jenner, and asked him if, after all, we were both wrong in our diagnosis. He replied as follows.

"Dear Dr. Bradbury,—I cannot see myself why the vicinity of the gall-bladder should be any objection to opening a hydatid cyst; and I can see no injury that could follow the insertion of an aspirator, and I think such insertion ought to be made. I know nothing but a hydatid cyst which could give the fremitus present in this case—a fremitus, be it observed, on percussion, not on auscultation. I should not hesitate to have it punctured were I the patient; and I think, if it be a hydatid cyst, that it is the right thing to puncture it. As to the gall-bladder giving any such fremitus, it is out of the question. I can only repeat that, in my opinion, it is a case in which an aspirator ought to be introduced.—Yours very truly, "W. JENNER."

January 7th. I visited him again with my surgical colleague, who introduced an aspirator and drew off two pints of a clear fluid, which had all the characters of hydatid-fluid. After the operation, the patient went on uniformly well, the temperature and pulse quickly becoming normal. There was no urticaria after the puncture. The patient was at a dance on January 28th, having previously undertaken a long railway journey.

February 28th. He had not been so well for the last fortnight. He had had a bad cold, cough, and considerable pain in the right side, which had been somewhat relieved by poultices, etc. At the end of a deep inspiration, a friction-râle could be heard at the right base in front. There was still tenderness over one point of the liver. He looked worse, and had been sweating again, and not sleeping well.

March 22nd. He still felt very unwell, with pain in both sides, cough, etc. He at times lost his voice, and had shortness of breath. The right side of the chest measured one inch more than the left at the most prominent point. No hydatid fremitus could be detected. Another puncture was recommended.

March 25th. The needle of the aspirator was again introduced at the site of the old puncture, and a pint and a half of a fluid like pus withdrawn. The withdrawal of the fluid gave the patient more pain than on the first occasion. For some days previous to the operation, he had been exceedingly nervous, not sleeping, depressed in spirits, etc. He had diarrhoea (nervous?) on the day of the operation, and could not micturate without discomfort.

March 26th. He passed a restless night; not an hour of sleep. He had gripping pains in the abdomen, sickness, and diarrhoea. Pulse 92. The temperature was not taken till 3.40 P.M. to-day, when it was 101.6 deg. Fahr. He had no cough. The tongue was much coated with white fur. He had no appetite, and was very thirsty. Dr. Burrell

* Read before the combined annual meeting of the South Midland and Cambridgeshire and Huntingdonshire Branches.

of Cambridge, a friend of the patient, who was present at the operation, kindly remained with him, and gave him twenty minims of laudanum with advantage. When I saw him in the afternoon, I gave him ten grains of chloral-hydrate, as I thought the diarrhoea was probably, like the frequent desire to micturate, spasmodic. I also prescribed thirty grains of chloral at bedtime, and hot flannels sprinkled with laudanum to the abdomen.

March 27th. The diarrhoea returned in the evening, but was checked by an injection of starch and laudanum. This also relieved the pain in the abdomen, and the patient slept after it for two hours. At 2 A.M., he had the thirty grains of chloral, and slept after this till nearly 6 A.M. Diarrhoea then returned again, but was checked by fifteen minims of laudanum. When I saw him at 3.30, I found him much more comfortable. He had had a little pain in the abdomen, which had been relieved by linseed-meal poultices. The tongue was cleaner; pulse quiet, 78; temperature 101 deg. Fahr. He was not so thirsty, but slightly flushed. I ordered milk and lime-water, and a bismuth and morphia mixture for the diarrhoea.

March 28th. He had one relapse of diarrhoea last evening, which bismuth mixture soon relieved. He passed a comfortable night without chloral or opiates.

From this time his progress towards recovery was uninterrupted. He was going about again on April 3rd, his temperature and pulse being normal. No increased liver-dulness could now be detected. Dr. Burrell and I again carefully examined this gentleman on May 22nd, and we could detect nothing abnormal about the liver. The patient expressed himself as feeling quite well. On June 9th, the patient wrote to me from Hastings, stating that he was still going on satisfactorily.

CASE II.—H. W., aged 16, an errand boy, living in Cambridge, was admitted into Addenbrooke's Hospital, under my care, April 5th, 1876. The lad had a healthy appearance, and gave the following account of his illness. He came of a healthy family. His own health was quite good up to four years ago, when he was in the hospital for a period of sixteen weeks, under one of my colleagues. His symptoms at that time were slight constipation, nausea, abdominal pain, and the presence of a hard lump at the epigastrium. He got stronger during his stay in the hospital, but did not lose the swelling, which seems to have been present ever since, but has given him no trouble with the exception of a little pain at rare intervals. Two weeks ago, he felt a settled pain and soreness in the centre of the epigastrium, and aching pain across the chest.

A large tumour of the size of a foetal head occupied the right hypochondriac and epigastric regions, and was apparently continuous with the liver. The surface of the tumour was somewhat nodulated. The tumour was very prominent and globular below the right ribs; the left half did not stand out so well, and was rather difficult to define; on it could be felt several small flat elevations, one of which was acutely tender. There was a loss of the elasticity of the ribs over the tumour. The tumour itself felt rather elastic, and moved up and down on breathing. No hydatid fremitus could be detected.

The case was diagnosed by Dr. Humphry and myself as one of hydatid of the liver. Accordingly, on April 9th, Dr. Humphry, at 11 A.M., introduced a needle of the aspirator into the tumour at a spot one inch below the point of the ensiform cartilage and three-fourths of an inch to the right of the middle line. Twenty-two ounces of hydatid fluid containing echinococci were withdrawn.

6 P.M. Immediately after the withdrawal of the fluid, the patient felt easier, and was soon quite comfortable. Pulse 94. Temperature, 99.2 deg. Fahr. Ordered beef-tea and milk.

April 10th. He complained of frontal headache and of being dizzy. He twice vomited a small quantity of thin, yellowish, bilious-looking fluid. He did not sleep much last night. Temperature, 99.8 deg. Fahr. Pulse 98. The bowels acted last night.

From this time, the patient went on satisfactorily in every respect. No urticaria followed the operation.

On April 15th, it was noted that the patient felt quite well.

On May 25th, the patient presented himself at the hospital for careful examination. The lad said he felt perfectly well. There was no pain nor tenderness over the region where the tumour had been; and careful percussion failed to reveal any enlargement of the liver. So far as one could judge, the cure was perfect.

REMARKS.—My remarks on these cases shall be very brief. In Case I, I at first could not make up my mind whether I had to deal with simple pleurisy, or with an enlarged liver complicated with pleurisy. When the pleuritic signs had diminished and the patient could bear a more careful examination, I came to the conclusion that the patient had, in all probability, hydatid tumour of the liver, for the following reasons. 1. The dulness reached further up in the front of

the chest than behind; whereas, in pleuritic effusion, we get usually the very opposite condition. 2. The line of percussion-dulness was depressed on deep inspiration, and moved upwards on expiration, which does not take place in cases of large pleuritic effusion. 3. At the base of the right lung behind, there was not that complete dulness and absence of vocal fremitus which are usually present in simple pleurisy. 4. Although the margin of the liver was not much depressed below the ribs, the latter were pressed against by the liver, and prevented the normal resilience of that part on percussion, which, as Sir W. Jenner remarked to me, was positive evidence of increased pressure in the region of the liver. At first, I could not detect the hydatid fremitus; but, when this became evident, of course all doubts as to the nature of the malady were dispelled from my own mind, as I regard this sign, when present, as quite pathognomonic of hydatids. The absence of jaundice, ascites, etc., and the age of the patient, were against the supposition of cancer of the liver. In previous cases, when I have found the fluid purulent-looking at the second aspiration, I have thought it better to make a large opening with a trocar and insert a drainage-tube. I now prefer to perform successive aspirations rather than convert the hydatid sac into a large abscess, unless serious constitutional symptoms imperatively demand a free opening.

Case II calls for no special remarks.

A STUDY OF TWO ILLUSTRATIVE CASES OF EPILEPSY.

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THE two cases of epilepsy which I venture to relate seem to me to illustrate some points in the nature of this process. I bring them forward chiefly because they present certain divergencies from the ordinary phenomena of epilepsy, and because these very divergencies throw some light, as I believe, on the nature of epilepsy in general.

I presume that all are agreed that, in the epileptic seizure, there is a violent perturbation in some part of the central nervous system, which perturbation often extends widely in that system. It is convenient to call this, with Hughlings Jackson, a discharge by the nervous tissue. The discharge is sudden and usually violent. It is also certain that the central nervous system consists of some parts which are related to the reception of impressions from without, and which may be named sensory parts, and others which are related to the muscular apparatus, and which may be named motor portions. If we cannot divide the whole nervous system into sensory or motor portions, we can at least say that some are motor and some non-motor. We must also believe that there are some parts more intimately related to intellectual processes than others; and this would form a third division, perhaps, overlapping the other two. Recent investigations seem to show that the convolutions on the surface of the brain are divisible in some such way. It seems to be proved that there is a part of the convolutions which may be definitely called motor, and many individual motor centres have been distinguished in this district. The sensory and other centres are not so easy to distinguish; but something has been done even in this direction. It seems probable also, from the results of recent research, that epilepsy usually begins in the discharge of nervous tissue in the convolutions, and the discharge may begin in any one of these presumed districts; and may remain there, though it generally extends beyond. The symptoms, at the commencement of the attack, are of very great importance; because, for one thing, they indicate where the discharge begins, and, besides, the patient can often tell us something about them if they have occurred before consciousness is lost. The symptoms will be different according to the kind of nervous tissue which discharges. If it be motor which first discharges, then spasms or convulsions will be the earliest manifestation. If a sensory part be first affected, then some peculiar feeling, referred to the periphery, such as a sensation of colour, will be the initial symptom. If, on the other hand, a centre related to the intellect be primarily attacked, then some idea or thought will first manifest itself. It is a fact worthy of the most careful attention, that the discharge seems always to begin in the same centre; the initial symptom is, in a given case, nearly always the same. Of course, there are cases where the loss of consciousness is so sudden that the patient is able to tell us nothing about it; but when we get a description from the patient, I believe it is almost invariably found that, in the individual case, the same movement, or feeling, or thought, always begins the attack. As the attack progresses, generally the whole brain is by and by set into a state of commotion; but we can often learn much by the

order in which the phenomena develop. The cases offer subject for reflection on these various points, as will be seen further on.

But before proceeding to the cases, I have something to say as to a matter on which the first case seems to me to have some bearing. In every case we ought to endeavour to find whether any cause is discoverable of this condition of the nervous system. Has anything occurred to set up this state, by virtue of which the nervous system is subject to sudden and severe discharges? Various causes have been adduced, to one of which only I shall refer. Convulsions are frequently referred to peripheral irritation. The convulsions of tetanus undoubtedly owe their origin to a peripheral cause; and the convulsions frequent in children are often ascribed to dentition or intestinal irritation. In the normal process of sensation, we must believe that the irritation of the sensory nerve sets up some temporary change in the central nervous system, this being the correlative of sensation, and we know that this change is often propagated to motor centres. The whole process of reflex action involves the reception by a sensory centre of an impression from without, which is propagated to a motor-centre, and thence to the muscles. We can readily believe that a sensory irritation, if continued, may induce some permanent change in the receiving centre. There is a case, quoted by Hughlings Jackson from Paget, in which a neuralgia was induced by an injury to a nerve. After an operation, in which the nerve was divided, the neuralgia persisted, evidently because an independent process had meanwhile been set up in the centre. It seems that peripheral irritation may set up processes in the central nervous system, by virtue of which it becomes unstable, subject to sudden and violent discharges. The parts primarily affected will, of course, be sensory parts; but here, just as in the case of reflex action, the discharge may pass from the sensory to the motor, and so a convulsion may result. It is also to be borne in mind that some centripetal nerves are not, in the strict sense, sensory; and irritation of such peripheral nerves may lead to convulsions without any sensory manifestation. In the first of my cases, we shall find, however, a sensory irritation apparently producing an unstable condition of the nervous system, in which discharge of a sensory part is followed by that of a motor.

CASE I.—S. G., a boy, aged 15, was admitted to the Western Infirmary on August 18th, 1875, with the statement that he was suffering from epileptic fits. On inquiry, it appeared that about a fortnight before admission, while at his usual occupation of holding a hammer against a rivet, the hammer slipped off the rivet, and the index finger was crushed between the shaft of the hammer and an iron bar. This caused great pain at the time, which soon passed off; but the nail was subsequently lost. He continued at the same occupation; but, in the course of a week or ten days, he experienced a feeling of numbness, or stinging, which began in the ball of the thumb, or base of the index finger, extending to the palm of the hand to the fingers, and afterwards up to the wrist. This was followed by twitches, first in the thumb, and afterwards in the fingers and forearm. For three or four days the convulsions went no further, occurring three or four times in each of these days. But on the fourth and fifth day after the first attack—the patient having all this time continued at work—the convulsion extended up the arm, and, when it had reached the chest, he became unconscious. While the spasm was still confined to the arm, and the patient was yet conscious, he was sensible of twitches on the right side of the face. He did not remember the legs moving during the attack; but he was told that, while unconscious, he kicked. When this first severe attack came on, he was in a ship which was building; and his first recollection, after the events mentioned above, was his lying in the dead-house (a place to which accidents are carried), with men standing around him. He soon recovered sufficiently to walk home. The same evening, he had a second severe attack exactly like that described. Since then, he had only one before admission, and it did not reach beyond the shoulder, and was unaccompanied by loss of consciousness. After each of the attacks, either small or great, the arm was left powerless and cold. The patient remained in the ward for about seven weeks, having, in the interval, an acute abdominal affection, but there were no fits during his residence.

About a month after he left the hospital, he returned to the dispensary. He had gone back to his employment, and the fits had recurred. He was advised to get some other kind of work, and bromide of potassium was prescribed. He has not been seen since. It may be added that the boy had been previously healthy, and had no attacks of this kind before those related.

The interesting feature in this case is the close relationship which seemed to exist between a peripheral irritation and the onset of the convulsive attack. An injury is inflicted on the sensitive index finger, involving the loss of the nail. The boy continues at an employment which involves a series of shocks and severe vibrations to the hand hold-

ing the hammer. In a week or ten days, an affection presents itself, which has for its immediate or physiological cause a peculiar condition of the central nervous system. The part of the nervous system involved is obviously related to the injured part of the body, and the first manifestations are sensory—a peculiar numbness or stinging in the hand and fingers. This is followed by motor phenomena; and here, again, the first symptoms are in the same locality—the twitches follow the order of the peculiar sensations. The analogy to reflex action is very striking. We have the peripheral irritation, the central sensory impression, and the discharge of motor impulse; but the sensory impression is, as it were, prolonged and stereotyped, and has been established as a confirmed condition before it leads to those very obtrusive motor phenomena. It is to be remarked here also, that the cessation of the sensory irritation seemed sufficient to put an end to the attacks. He had only two fits after he stopped work, and the second one was not severe. He had none while resident in the hospital, although treatment was intentionally delayed in order to observe the case. The recurrence of the irritation when he resumed work seems to have set up the condition again.

As to the part of the brain involved, we must suppose that the portion first discharged was a sensory part, and we have no very certain indications as to the locality of the sensory centres of the hand. But the parts discharging, when motion of the hand begins, are probably those in the neighbourhood of the fissure of Rolando, in the left side. The spread of the spasm, in this case, seems to confirm the view that the centres for the hand, arm, and for neighbouring parts in general, lie near each other.

CASE II.—W. B., aged 30, a saddler, consulted me at the Dispensary of the Western Infirmary, in June or July of last year, for epileptic attacks; and I was at once struck in his description with the fact that, while in the fit, he seemed on some occasions to perform actions closely resembling those of volition. He seemed to be greatly benefited by large doses of bromide of potassium, and, after attending for some time, was absent from the dispensary for a good many months. He returned in February last, and, in the meantime, a pulmonary affection had developed, for which he was sent into the hospital. This pulmonary disease forms itself a very interesting series of facts; but I propose to leave it entirely out of account, and devote attention to the nervous symptoms.

He has been subject to fits for about four years, and there is a doubtful history of one attack when he was twelve years of age. During these four years, the fits have been very irregular, both in frequency and severity, sometimes recurring several times daily, sometimes remaining away for weeks or even months, but they subsided when under treatment. The character of the individual attacks has also varied considerably, some of them being unaccompanied by loss of consciousness, but this being the exception. It is worthy of note, however, that in the most severe of the fits, he has not had any general convulsions, and has never fallen, although often attacked while in the erect posture. Observations made by patients and attendants in the ward during some recent attacks agreed that, though there was some movement of the hands, this was very slight, and did not amount to much more than clenching of the fists. We shall see afterwards that several of the phenomena are inconsistent with general convulsions.

In answer to questions as to the existence of any warning previous to the fit coming on, he gives what at first sight appears to be rather an unsatisfactory answer; but, as he is an intelligent man, the unsatisfactory nature of his communications must be taken as an index of his own feelings. He says that, with a few exceptions, to be presently noted, every fit he has ever had was preceded by giddiness, and a peculiar "thought", as he expressed it. He obviously attached great importance to this "thought", saying that, if it were known, the whole case would be explained. He cannot tell what the "thought" is, yet is confident that it is always the same. He always recognises it at once when it occurs, and he tries to fix it in his memory, but he invariably forgets it when the fit is over. On a few occasions, this giddiness and "thought" have been absent, but these have been times when the attack came on suddenly without any warning. When he has had warning, it has invariably been this same one. At the end of the fit, there is nearly always vomiting.

Sometimes, the fit only consists of the aura, followed by a peculiar feeling in the abdomen, which passes up to the head, and back to the abdomen, when vomiting results. This slight attack is not accompanied by unconsciousness, at least of any duration. At other times, there is the aura, then a period of unconsciousness, and then the vomiting.

It is to the phenomena, during this period of unconsciousness, that I wish to direct particular attention. If the attack come on while he is lying in bed, nothing special seems to happen; but if he were up and

going about, there are often occurrences which are worthy of notice. I shall here subjoin the descriptions of one or two of these attacks.

He was standing on a chair, putting a hat-box on a shelf, when one of the fits came on. His child noticed something queer, and ran for his wife, who found him standing on the chair with pallid face, and the box raised in his hands. He stood in this position for a minute or two, and then, recovering, placed the box on the shelf.

He was working in a shop in Renfield Street, at a time when a son was lying ill of fever. He thinks he imagined his son was dead; but, at any rate, without being the least conscious of what he did, he (according to the account of his shopmates) laid aside his tools, took off and hung up his leather apron, and, after muttering some unintelligible words to the foreman, left the shop. He himself remembers nothing of this; but woke to consciousness to find himself sitting on one of the benches in George Square. On comparing the hours, it seems that this was about ten minutes after he left the shop, and in the interval he walked through the busy streets from Renfield Street to George Square.

On another occasion, while he was sitting on a trunk, his wife noticed by the pallor of his face that he was having a fit. After the paleness had gone, he cried out: "There it is; take it, lift it", pointing to the floor. He at the same time made efforts to raise the lid of the trunk on which he was sitting. All this time he was quite unconscious, and has no idea of what he saw or supposed he saw.

Several times, he has walked considerable distances while perfectly unconscious, and has once or twice dropped his staff while in this state. Quite recently, he was outside the hospital on leave, and met a friend in Partick. One of the attacks came on, and the next thing he remembers is standing in a public-house and pointing to the bottles on the shelf. His friend, seeing him ill, had asked him to go to the public-house, and he had walked there, a distance of over a hundred yards, apparently without difficulty, but absolutely unconscious.

In the relation of this case, one is struck at once with the peculiar nature of the so-called aura or warning. In speaking of the former case, I regarded the feeling of numbness in the thumb and fingers as the first evidence of action in the nervous centres. This feeling, which I suppose would be called an aura, I regarded as, in fact, the beginning of the attack, and as affording evidence to us of the seat of origin of the process. And the aura in the present case I would regard as of similar import. The peculiar thought which the patient describes as preceding every attack indicates that the action always begins in the same part of the nervous centres. He says there is nothing specially terrible or unpleasant about the thought, nor is it a particularly agreeable one; but he has always found it there, and has always found it the same. The fact that a phenomenon of this kind is the initial one in the present case I regard as of considerable importance in relation to certain other peculiar features in the case. The centre primarily involved must be a very high one; it is one intimately related to mental or intellectual processes. This I regard as of consequence in view of an explanation, originated by Hughlings Jackson, of such phenomena as we find here. In an article in the *West Riding Asylum Reports* for 1875, there is a paper by that author, to which I would refer for a more detailed exposition of the theory. Suffice it to say that, in those cases in which patients are found to perform actions during a fit which have all the appearance of voluntary acts, these actions are really automatic. The nervous system is apparently built up in successive stages. The lowest centres, such as those in the cord, are simple; but, as we ascend, we come to more and more complex centres till we reach the highest, which are presumably most intimately related to the mind and will. The lower centres are, to a certain extent, independent, but also under the command or control of the higher. We may perform such actions as walking without any appreciable exercise of volition, or we may do them with the most direct volition. In the former case, the centres concerned in walking are acting, in a measure, automatically; in the latter, they are dominated by the higher centres. And now, if a high centre be put out of action, the lower may act automatically. If, as the result of an epileptic attack, a high centre be temporarily paralysed, then the lower centres may go on acting out of the control of the will. We know that epilepsy does produce a temporary exhaustion or paralysis of the centres which have discharged, and, if these be high centres, and if, along with them, low centres be not affected, then, after the discharge of these higher centres, there may be an unconscious and automatic action of the lower ones. And we may apply this to our case. The fact that the fit always begins with some indescribable thought indicates that a high centre is affected; and the fact that there are never serious convulsions shows that the fits are not in the habit of going deep, at least to motor centres. But, as a result of the fit, we have these peculiar automatic actions which I have so often referred to.

I would here advert to one other point involved in this view of Hugh-

lings Jackson. He insists that these actions occur after the discharge; are not actually the fit, although often described as if they replaced it. The case before us adds confirmation to this view. It is noted that paleness always accompanies the attack, and, in describing one of these peculiar occurrences, he distinctly states that, according to the evidence of his wife, it was after the paleness had gone that he pointed to the floor and cried out, "There it is; take it, lift it", and so on.

The particular kind of automatic action seems to be determined by accident. Hitherto he has never done anything peculiar when the fits occurred while he was in bed. He just lay still. But, if he were walking, he continued walking. In the last occurrence reported, the action seemed to be determined by the invitation of his friend to adjourn to a public-house. In this respect, the phenomena of the fit itself contrast with those following it, and I believe this to be a general rule. The attack comes on in an invariably constant form; but these automatic actions depend on the particular centre which happens to be most active at the time.

But this and similar cases have also some importance in a medico-legal point of view. Suppose that this man, instead of being a gentle and peaceable citizen, had been a rather ferocious man, with frequently thoughts of ill in his head; or suppose even that, at the particular time of the onset of one of these fits, his thoughts had been running on evil things. In either case, the subsequent automatic action would probably be determined by the ideas present, and, instead of an innocent and perhaps absurd performance, we might have a gross and palpable outrage. In such a case, I think there are few lawyers who would believe that the act was otherwise than criminal, especially if the previous conduct of the accused lent any weight to this view.

NOTES OF A VISIT TO THE MILITARY HOSPITALS OF THE CONTINENT.

By ALBERT A. GORE, M.D., Surgeon-Major, Dublin.

ON entering Austria, the traveller gets into an altogether different military atmosphere from that of Germany. The more practical dress of the German soldier gives place to uniforms more diversified in colour, and to an army less homogeneous in its rank and file. The men are of lighter build and rather taller than those composing the German infantry. The white uniforms, with turn-down grey or green collars, the light-blue trousers, and cow-skin knapsacks, have a pretty effect. Both men and officers wear a small stock, with a white rim, which shows above the collar. The men of the Hungarian regiments wear tight-fitting pantaloons and laced boots. Blue and brown loose-fitting patent jackets are also worn. The knapsack appears smaller than the one carried by the Prussians; but the folded greatcoat is more round the body, as in Germany, and the chako replaces the helmet. The general effect of the different uniforms in large masses is striking. The Hungarian soldiers are small, active fellows, with dark beards. The "campaign dress", or every-day uniform, of the Austrian medical officer is a pretty one, and very similar to that worn by officers of infantry: a small chako, with a gold beading round the bottom and a gold-lace device in front; a short light-blue patent jacket, with breast and side pockets, gilt buttons, a black velvet patch on the collar, on which was embroidered the badges of rank in gold—one, two, or three stars, according as the officer is an under-surgeon, over-surgeon, or battalion-surgeon. These stars are replaced by two pieces of gold-lace, indicating the rank of brigade-surgeon or surgeon-major. The collar of the Generalarzt is of gold-lace, with a broad Austrian knot of the same material on the cuffs. Gold-lace round belt, cavalry-pattern sword, and dark-coloured trousers, with a red or gold stripe, are worn by all officers. The hospital orderlies, or men of the Garnitals corps, wear dark-green patent jackets, with a patch of magenta on the collar. There are twelve companies of ambulance and hospital service; 1,180 on a peace footing, 3,876 on a war strength, and a "sanitary department", 1,291 in peace, 6,200 in war. The standing army numbers 278,470, capable of being raised to 831,709. The different ranks of medical officers are: Unterarzt, Oberarzt, Regimentsarzt, Brigadearzt. Each regiment of the line is composed of three field-battalions, two reserve, and one dépôt-battalion. When a soldier falls sick, the procedure is very similar to that in use in Prussia. An under-surgeon resides in barracks or the immediate neighbourhood.

Previously to the termination of the Franco-Italian war in 1854, and as late as the military events in Bohemia in 1866, the punishment in the Austrian army had been most severe, applications of the cane being not uncommon for very slight offences. Since then, a milder code has sprung up, with the happy effect of creating a far better feeling between officers and men. Arrest in barracks, or, in graver cases, the use of

irons or definite periods upon bread and water, work upon the fortifications, or confinement within the walls of a fortress, have replaced the regulations of former times.

The Austrian soldier rises with the lark, and goes to his drill in the early morning between five and six o'clock, and sometimes has a long way to get to his drill-ground. He returns between ten and eleven to his dinner, after which he has no regular meal. He is allowed a little over two pounds of bread a day and twenty kreutzers, out of which last sum he has to provide his dinner. He is paid a florin (100 kreutzers) every five days; but this sum is retained by the pay-sergeant, who deducts the price of the dinner-meals; these cost something less than the 100 kreutzers, so that the soldier has about twenty kreutzers to spend every fifth day on beer, if not in debt for blacking or some small thing of the kind. A private of the company acts in turn as cook, and accompanies the sergeant to market daily in order to bring home meat, vegetables, potatoes, for soups, etc. The friends of the soldiers often send them small sums of money, which the richer shares with the poorer comrade who may have nothing but his pay. Men who re-engage after their eight years' service are entitled to a medal.

Some of the barracks in Vienna are very fine ones. In one of the largest, which held three regiments, the cavalry-stables occupy the lower storey, above which are the rooms for the troopers, and over these those of the infantry. Early in September, forty thousand men were encamped not far from the capital, near Gunterdorf, ten to eleven miles distant. From there the sick requiring hospital treatment were sent daily to Vienna, and transferred from the station in old-pattern ambulances or omnibuses drawn by two horses.

The military hospital—"Garnisons-Spital"—is situated not far from the great civil hospital in the Alsenstrasse, founded in 1873, and containing two thousand five hundred beds in one hundred and eighty-four rooms, with fifty physicians and four hundred nurses. The "Garnisons-Spital" is very large, and arranged in two quadrangles. In the centre of one is a garden for the men; in the centre of the other, one for the officers. It contains eight hundred beds, and, on September 5th, seven hundred sick, one hundred and sixty of which number were cases of venereal. The hospital receives the sick from the garrison of Vienna, numbering some six thousand, and from the camp near Gaumdorf. They arrive at 9.30 A.M., bringing with them their regimental clothing and equipment, which are received into store. The ward-windows open upon the circumference of the quadrangle; the doors, upon the windows, which run along the hollow of the blocks. In each of these last are a ground, first, and second floor. On the ground-floor are the offices for the administration; wards for infectious diseases; prisoners; the guard-room; cook-house; pharmacy; apparatus for supplying hot water; and the baths, which are capable of bathing one hundred patients in a day. There are forty-five beds for officers, twenty-five of which were occupied on September 5th. Each officer's ward contains from one to five beds; it is very neatly furnished, the beds with blue and white counterpanes. The floors are stained oak-colour and polished. At the foot of each bed is an ornamental screen. There are also some easy-chairs, and to each patient is appropriated a wardrobe. Ten servants or orderlies were allocated to sick officers. On every landing are the closets and an urinal arranged in a circle; and the hospital orderlies sleep in barrack-rooms; which appeared very neat and in excellent order.

Each division or corridor of the hospital was in charge of a surgeon-major or division-surgeon, a regimental surgeon ranking as captain, an upper and an under surgeon, and some one year's volunteers, and a proportion of students, some two hundred, of whom were undergoing instruction in the Military Medical School. In these corridors were the consulting rooms of the division medical officers. The medical chief of the hospital—a surgeon-major—had entire control over the establishment, with the exception of administering punishment to offenders against discipline, who were handed over to the military authorities. The regular staff consists of a medical chief, five surgeon-majors, two brigade-surgeons, four regimental surgeons, five under-surgeons, three volunteers, and some student-assistants. The two latter classes of officials perform the greater part of the clinical work in the wards. The officers of administration wear grey uniforms with silver lace.

Five hundred, seven hundred, and eight hundred cubic *mètres* of air-space are allowed to individual patients. The beds are of wood, massive, and oak-coloured. The contrast of colour with the lime-washed walls is pleasing to the eye. The wards are lighted with paraffin-lamps, and warmed by heated air. The number of beds varies from two, five, fifteen, to thirty. Two junior medical officers and the chaplain reside in the hospital. The under-surgeon on duty wears his uniform with a sword, and does not leave the precincts of the hospital. The quarters of the resident surgeons are very nicely

furnished. On entering from the corridor, a small closet is met with, in which is the bed of the officer's servant, a private of the Sanitary Corps. Immediately beyond is a large sitting-room, communicating with a bed-chamber.

The divisions are external or surgical, internal or medical; venereal, and similar divisions for diseases of the throat, eye, and nerves. There are also separate wards for insane patients and prisoners. In the hospital are also the lecture-rooms, pathological museum, and mortuary of the medical school, and a store-room in which are a supply of coffins, in shape not unlike a sarcophagus, richly gilt for officers—a plain white cross marks the soldier's. From sixty to eighty deaths occur in each year. In the pathological museum are some very large skeletons. One, of a soldier who died during the revolution of 1848, is nearly eight feet in height from the floor.

In order to ventilate the wards, the cold air is made to enter from the outside through a large opening in the base of the wall; this is protected by a grating. From here it is conducted by means of a shaft to the ward, previous to entering which it is warmed in passing through an air-chamber in a large stove, and then enters the ward through louvred openings. There are two openings, one near the floor, the other at the ceiling. In summer, the former opening is closed, and the cold air descends from the latter as from the Sherringham valves in our hospitals. The foul or heated air makes its exit through openings near to the ceiling above, or between the windows on the opposite or outside walls. The absence of an unpleasant odour on entering a ward affords a good test of this system of ventilation. Along the centre of the larger wards is a long table, and, at the bed-heads, a small oak-painted cupboard with a small drawer. The pharmacy is a very large one, and in charge of three chemists and their assistant. A large shed in the hospital yard affords protection to recent ambulances.

There are only two kinds of sick diet in use—"full portion" and "half portion", with the addition of extras when required. Vermicelli enters largely into the preparation of the soup, which is prepared in a large copper boiler. A number of cases of pulmonary consumption appeared to be under treatment. This consisted chiefly of the administration of tonics, quinine, acids, and wine, but not of cod-liver oil; a medicine the advantages of which did not seem to be fully appreciated.

No females are allowed in the streets without a male companion after 10 P.M. The better class of *femme de publique* are allowed to choose their own physicians, whose certificate of health has to be produced to the police authorities weekly. He has certain hours for seeing them, and receives a fee of two or three florins for each examination, and is responsible for the correctness of his view. One of the effects of this curfew law is that, after 10 P.M., the streets are nearly deserted by females, who resort to the *cafés* of the hotels until conveyed home in hackney *voitures*.

There is one sight in this most charming of capitals which no soldier should fail to see; the Town Arsenal, containing a very fine collection of armour and weapons of different ages, including in the collection the skull of Mustapha Pasha, who threatened Vienna in the sixteenth century. After his repulse, he retired to Belgrade, when he received from the Sultan a silk rope, with which he was immediately strangled. The skull, a very small one; the rope, and his shirt, are preserved in a glass case. They were removed from his tomb at Belgrade when taken afterwards by the Austrians. The shirt, now dark with age, is covered over with Arabic characters, and is woven in one piece. The custodian of the museum says that the ponderous armour of the knights of old only weighs sixty pounds; not a great weight for heavy armed cavalry. It is difficult to conceive how they could have fought in so cumbrous a defence.

CASE OF INTUSSUSCEPTION OF BOWEL: SPHACELATION; RECOVERY.

By E. A. FOX, L.R.C.P.ED.,

Physician to the Warrington Dispensary and Infirmary.

B. B., AGED 4½, was a boy of delicate constitution, subject to bilious attacks and paroxysms of violent temper, and of rather costive habit.

July 12th, 1876. He was perfectly well and running about. He had his bowels naturally moved during the day. On the 13th, he complained of pain in his bowels, and was vomiting everything he took. His mother gave him an enema, which produced a natural alvine evacuation. On the 14th, his mother, finding that there was no improvement, and the pain and vomiting continuing, sent for me.

I found him lying in bed, with marks of bilious vomiting on his night-dress; his tongue coated, skin cool, pulse natural. He com-

plained of pain in the abdomen. On examining the abdomen, a distinct, hard, oblong tumour, about two inches and a half long and an inch and a quarter wide, and painful on palpation, was discovered in the right iliac region, about the situation of the ileo-cæcal valve. A second smaller tumour was also present, about one inch to the left of the umbilicus. He was ordered milk and lime-water, hot fomentations to the abdomen, and an enema of soap and water. The enema was soon returned, mixed with blood and mucus, and smelling very feculent; but there was no feculent matter. My suspicions were now confirmed that this was a case of intussusception at the ileo-cæcal valve. He was ordered four minims of tincture of opium every four hours while in pain.

July 15th. The tongue was coated; vomiting was incessant; there were borborygmi and great thirst. The tumour was larger and painful. The skin and pulse were natural. After elevating his pelvis and depressing his shoulders, I injected a quart of water mixed with oil, and then tried to dislodge the invaginated bowel by friction towards the diaphragm. The enema returned, and was again mixed with blood and mucus. In the evening, I made a second attempt to disengage the bowel by manipulation; and this time the enema brought away a lump of feces of the size of a walnut. The smaller tumour had disappeared.

July 16th. As there was no improvement, a third attempt was made to reduce the bowel, but without success. Finding that the obstruction still continued, all hope of displacing the intussusception by manipulation was now abandoned. I now trusted to opium, fomentations, and nutrient enemata; and ordered his thirst to be relieved by a little iced water (he would not take ice).

July 17th. The vomiting now became distinctly fecal, and signs of prostration began to set in—sunken eyes, feeble pulse, etc. The abdomen was swollen to an enormous size, so that one could count in tiers the coils of intestines.

July 17th to 22nd. He continued much in the same state just described, but gradually became weaker. The enemata were retained for two or three hours, and then returned. They had a fecal odour, but there was no feculent matter.

July 23rd. The vomiting began to diminish. The child looked much better. The abdomen was less tympanitic, and flatus was passed *per anum*.

July 24th. He was still improving. The swelling was nearly gone; the tumour was just perceptible. There was no vomiting, and a small loose evacuation took place without any blood in it.

July 25th. He had four copious pale motions. With the last there was a lump of fleshy-looking substance, which, upon examination, was found to be a foot of large bowel turned inside out, with the vermiform appendix attached, which also was turned inside out. On slitting open, the ascending colon, it was found to contain nine inches of small intestine, showing that the intussusception commenced at the ileo-cæcal valve. The whole of the separated bowel was quite black and gangrenous.

The boy was now fed on beef-tea and farinaceous diet. He gradually improved; his bowels acted naturally daily, but this was preceded by a little pain for about a week. He is now (September 30th) quite recovered and strong.

I ought to point out that there was absence of inflammatory symptoms, except the pain. The separation did not take place until the tenth day, and its expulsion not until the twelfth day. I think it is also remarkable that the length of sphacelated bowel measured twenty-one inches.

SUDDEN DEATH: PERFORATION OF THE SUPERIOR VENA CAVA.

By R. E. POWER, L.R.C.P.,

Medical Officer to the Invalid Convict Prison, Dartmoor.

THE following case is an instance of an unusual cause of death.

W. S., aged 49, went to bed in apparently good health, and was found dead in his bed the following morning. On inspecting the body, I noticed that there was not any disturbance of the bed or bed-covering, the body was on its back, the legs semiflexed in an attitude of repose, both arms bent, the hands nearly touching the respective ears. The face was calm; the mouth slightly open; the lips free from blood, froth, or mucus. The entire appearance conveyed the impression that death had taken place during sleep. Rigor mortis was complete; the body still warm.

POST MORTEM EXAMINATION in twenty-six hours.—The body was well nourished and muscular. On opening the chest, nothing abnormal

was presented; but, on making pressure at the apex of the right lung, venous blood welled out freely, and, on the removal of the contents of the thorax, flowed in large quantity into that cavity, previously to the division by the knife of any of the vessels. On separating the pleura from the adjoining tissues beneath the clavicle, a quantity—eight or ten ounces—of unhealthy grumous purulent fluid discharged itself. It resembled the digested contents of the stomach, for which it was first mistaken, the œsophagus having been divided; it was of a greyish colour, less consistent than pure pus, and less flocculent than the contents of a strumous abscess. On searching for its origin, no pyogenic surface or sac could be discovered. It had apparently formed the contents of a diffused intercellular abscess above and outside the pleura in the region of the inferior triangle of the neck, chiefly amongst the cellular tissue that forms the superior thoracic boundary; it had dissected for itself a cavity at the back of the sterno-mastoid muscle, reaching to within about an inch of the mastoid process; but thence and from elsewhere it had flowed without leaving a trace of its origin other than that the surrounding tissues were soft and blood-stained; the superior vena cava especially so. In this vessel, about half an inch from the junction of its factors, was a perforation about the diameter of a split-pea, from which the blood had oozed. A noticeable fact was that there was no internal hæmorrhage during life; all the blood that flowed being during the *post mortem* manipulation; no doubt, the lesion being outside the pleura, the tissues prevented any hæmorrhage, which would have been passive had there been an exit for it. Death, too, apparently was caused by syncope at the moment of perforation of the vein, so that the cessation of *vis à tergo* was instantaneous. The lungs were healthy, and free from adhesions, but were both gorged with blood. Some fluid blood was found in the heart, but not any fibrinous clots. This organ was flaccid, but otherwise healthy, and the valves perfect. The trachea and œsophagus were also both free from any appearance of disease. The previous medical history of this man, so far as is known, was a healthy one.

I have never heard or read of a similar cause of death.

CASE OF PTERYGIUM CRASSUM IN BOTH EYES, TREATED SUCCESSFULLY BY LIGATURE AND SUBSEQUENT IRIDECTOMY.

By H. PENFOLD, M.R.C.S.,

Surgeon to the Eye Infirmary, Brighton.

OF the various ways of operating for pterygium, the ingenious mode by ligature, as suggested by Szokalski, was the one adopted with complete success in the subjoined case.

A robust man, a farm-bailiff, sixty-five years of age, consulted me in November last, suffering from serious impairment of vision in both eyes, particularly in the left, which had compelled him for six months or more to give up his occupation. He resided in a very bleak district in the South Downs, and his duties necessitated his being out of doors a good deal on horseback and on foot; and, as a consequence, he had been exposed at times to boisterous winds and inclement weather. On such occasions, his eyes had become weak, irritable, and bloodshot, especially at their inner canthi.

On examination, a thick fleshy and vascular growth was very obvious at the inner angle of each eye, particularly in the left, where the pterygium was rather more developed. These symmetrical pterygia were fan-like in shape, and their apices encroached very nearly to the centres of the corneæ, and covered more or less the corresponding pupils. They were very dense; and their attachments to the sclerotic and corneal structures were somewhat firm in places and loose in others, whereby the free movements of the eyeball were in a measure impeded. He had used various eye-washes for years past, with no other result than a steady and gradual increase of the pterygia, local discomfort, and impairment of sight.

A few days afterwards, I effected a removal of the pterygia by ligature, in the manner adopted by Szokalski. I inserted two small curved needles, armed with the ends of a fine silk thread, perpendicularly beneath them; then cut off the needles and firmly tied each portion. The effect of the ligatures was to cause considerable local pain and chemosis, and required the diligent application of cold water-dressing; but at the end of a week all these symptoms subsided, and I was enabled with a pair of forceps to remove the strangulated portion of the growth.

He now went home for a month, when he returned to me for farther examination, and I noticed a great diminution in the pterygia; but there remained two or three small vascular growths, which I easily

snipped off, and in each cornea, near its centre and in front of the corresponding pupil, a considerable opacity, which no doubt very much interfered with good vision. I therefore made a moderate-sized iridectomy downwards in each eye, and was pleased to find that the result fully answered my hopes and expectations, as the patient has been enabled since March last, by the aid of lenses suitable to his age, not only to resume his occupation, but to read any ordinary type.

THERAPEUTIC MEMORANDA.

A RESPIRATOR VEIL.

IT must be admitted that the ordinary respirator is but a partial safeguard against the inhalation of injurious

atmospheres, and it is also greatly objected to by ladies on account of its disfigurement. Equal objection is made to silk gauze or gossamer veils, or to Shetland veils, on account of obstruction of vision. Lastly, the so-called invisible respirator is very unsatisfactory in practice. I have for some time recommended a veil which, simple as it is, appears to answer all purposes and to meet all objections. It consists of an ordinary piece of blonde (that without spots is best, for ophthalmic reasons) about twelve inches deep, over the lower four of which is sewn a double thickness of silk gossamer. By wearing this as a veil, mouth, nostrils, and ears are sufficiently and equally protected from cold, the external atmosphere being warmed in the chambers formed by the layers of gossamer. To prevent the veil from becoming unpleasantly damp by the moisture of the breath, that portion which comes over the nose and mouth may be stiffened with a layer of



very thin wire-gauze, so as to stand away from the face; and it may be prevented from blowing up by a piece of elastic braid threaded through the lower hem. These veils are also useful as a protection against dust. They are quite easily manufactured at home. Messrs. Marshall and Snelgrove have long kept them in stock for me, and supply them at a very moderate price.

LENNOX BROWNE, F.R.C.S. Ed., Senior Surgeon
Central London Throat and Ear Hospital.

JABORANDI AS A GALACTAGOGUE.

DR. MUNRO stated, in the BRITISH MEDICAL JOURNAL of October 28th, that an ointment of Calabar bean applied to the breast had in his practice increased the secretion of milk where this had failed: I may, therefore, mention what will be found a safer agent than applying a poisonous ointment where it might readily, by carelessness or forgetfulness, come into contact with the infant's mouth. Jaborandi, in doses of five grains of the powder, infused, and taken three times a day, has had a very decided effect in increasing the secretion of milk in several cases where mothers have had scarcely any flow, and have in consequence been unable to suckle their children. After taking the above-mentioned powders, the flow has very soon been much more satisfactory, to the surprise of the patient, and somewhat to that of the doctor, as I have not hitherto had much faith in galactagogues. It is, however, necessary, if the breasts be not well developed, and therefore do not readily take to their secreting function, to continue the drug for some time, as the secretion will probably again fall off if the powders

are discontinued too early. The resulting milk, I need scarcely say, agrees quite well with the infant, the jaborandi having no unfavourable effect upon its quality. The drug itself is said to have no such action upon children as upon adults. The above property was indicated, and the earliest accounts of the effects of jaborandi published, by Dr. Ringer and others, by whom it was noticed that it increased the secretions of the skin and of the salivary and mammary glands. In giving any galactagogue, however, the necessary materials for the supply of good milk, in the shape of a liberal diet, should be administered at the same time; for in some persons having a difficulty in nursing, one could almost say *ex nihilo nihil fit*, the mother being badly nourished herself, and therefore having little pabulum to spare for her offspring, though no doubt by some mothers milk is secreted abundantly, while they are themselves very indifferently nourished.

R. S. PEART, M.D., etc., Tynemouth.

CLINICAL MEMORANDA.

SHOULDER-JOINT FRICTION.

FRICTION-SOUND, of respiratory rhythm, produced in the shoulder-joint, may be sometimes heard in the supraspinous fossa. It often deceives students, and occasionally more experienced auscultators are led by it to diagnose local pleurisy. Once suspected, its source is so obvious that it has probably often been recognised, although I have not chanced to meet with a description of it. It is dry and rubbing in character, usually single, and most commonly heard only during inspiration. It may be heard over the whole supraspinous fossa; but becomes louder on passing from within outwards, and is loudest when the stethoscope is placed over the shoulder-joint. It is evidently due to a movement of the two articular surfaces, one upon the other, produced by the movement of the thorax during respiration. It may be produced by slight movements of the arm, the thorax being fixed, and may be removed by placing the arm in some different position, as raised above the head. It may often be heard during ordinary breathing, but is louder on deep inspiration. No doubt it is conducted by the bone to the supraspinous fossa. I have not heard it beneath the spine. In the cases in which it is heard, there is perhaps some deficiency of synovial fluid in the joint.

W. R. GOWERS, M.D., Queen Anne Street, W.

CASE OF AORTIC ANEURISM, WITH REMARKS.

JOHN WALSH, aged 42, was admitted into the Leicester Infirmary, under the care of Dr. Crane, on April 8th, 1873. He stated that, two years previously, he observed his voice begin to fail him; shortly afterwards, he was seized with severe pain over the upper part of the sternum, cough, and occasional attacks of dyspnoea; he could not trace his disease to any particular cause. There was no history of syphilis. On admission, he complained of a throbbing sensation over the upper part of the sternum and sternal extremities of the right clavicle; severe cough of a peculiar ringing character; the voice was reduced to a whisper. He was frequently aroused during the night with great difficulty in breathing, and a feeling of immediate dissolution. He had lost flesh considerably. The right radial pulse was weaker than the left. Both pupils were equal, but much contracted. The jugular and superficial veins on the right side of the chest were dilated. On inspection, a swelling was observed at the upper part of the sternum, extending to the sternal extremity of the clavicle on the right side. On palpation, a heaving impulse and very distinct thrill were detected, with dulness on percussion over the seat of enlargement. On auscultation, a loud murmur, corresponding with the heart's systole, was heard from the fourth costal cartilage to the clavicle on the right side. A belladonna plaster was applied over the swelling, and a mixture of dilute hydrocyanic acid and camphor administered, and the most perfect rest insisted upon. For three days, the urgent symptoms continued gradually to diminish, but with no apparent alteration in the size of the tumour. On April 13th, an increase was observed, attended with severe neuralgic pain extending through the sternum and back. The patient remained in much the same condition till the evening of the 27th, when he was seized, whilst sitting up in bed, with a severe attack of dyspnoea, and shortly afterwards expired. On *post mortem* examination, an aneurismal sac presented itself, about twice the size of the closed fist, situated near the junction of the ascending and transverse divisions of the aorta, partially filled with laminated fibrin. The internal lining of the artery could be traced distinctly throughout the whole interior of the sac, perfectly intact. On dissection, the right pneumogastric and recurrent nerves were found, not

only compressed and much reduced in size, but the nerve-sheath divided and the neurilemma wasted. No signs of rupture could be detected in the sac, but between its coats was considerable atheromatous deposit.

REMARKS.—The above case is interesting, owing to the fact that the internal lining of the artery could be traced throughout the whole interior of the sac intact. The distinct thrill, detected on palpation, indicated a corresponding deposit of atheroma in the walls of the sac, which was discovered to be the case on *post mortem* examination. The cause of death was no doubt pressure on the pneumogastric and recurrent nerves.

SAMUEL LEE, M.R.C.S., late Resident Medical Officer to the Leicester Infirmary and West London Hospital.

WASHING-OUT OF THE PLEURAL CAVITY AFTER PARACENTESIS OR INCISION.

I THINK that all the risk accompanying this operation, due to the alteration of the intrathoracic pressure, is done away with by using a double tube, and injecting the fluid through one channel whilst it runs freely out of the other. This cannot cause any considerable change in the amount of pressure on the contents of the chest during the process. After incision for empyema, I have used two pieces of India-rubber tubing, in the way described above, having first cut them of suitable lengths to reach the lower part of the cavity. Any desired quantity of fluid can thus be washed through the cavity; and, by observing that which flows out, one can see when the process has been sufficiently continued.

THOS. EASTES, M.D., F.R.C.S., Folkestone.

POISONING BY WALL-PAPER.

IN the JOURNAL of November 4th, Dr. Donkin mentions an interesting case of arsenic-poisoning by wall-paper, and he remarks that "the manufacture and sale of poisoned furniture proceed with impunity". I can bear witness to this fact, having been a sufferer in my own person.

I have occupied my present rooms since the beginning of the year; previously, I had been perfectly healthy in every respect. About March, I began to be troubled with an irritating bronchial cough, with expectoration of mucus and muco-pus. I noticed especially that every night, on going to bed, there was much wheezing and coughing. I attached little importance to these symptoms at first—in fact, not until they had lasted six or seven months without abatement. I frequently suffered also from sore-throat; but there was no other disturbance of the alimentary tract. Occasional coryza, with sneezing, was present; but this was not a marked symptom. For some time, I thought I might be suffering from hay-fever; but this was disproved by the symptoms continuing through the summer and autumn.

About a month ago, severe conjunctivitis came on, first in the left eye, then in the right, and lastly in both together. This was comparatively mild in the morning, but increased in severity towards night, when there was a plentiful secretion of thick mucus. It was on the appearance of this symptom that my partner, Mr. Wyke-Smith, suggested poisoning by arsenic. My bedroom paper was innocent of suspicious colour; but my sitting-room paper contained a good deal of dark green, amongst other colours.

I scratched off some of the green pigment and put it in a reduction-tube. On applying heat, I obtained a white sublimate, which, under the microscope, presented the characteristic appearance of crystals of arsenious acid. I also applied Reinsch's test, and obtained abundant evidence of the presence of large quantities of arsenic in the paper. I had the paper immediately removed, and have since been gradually recovering from all my symptoms.

I may mention that there was great irritability of the skin as well as of the bronchial mucous membrane. I was unable to wear an ordinary gold ring, in consequence of the violent eczema it produced. I had previously worn it for years. This irritability has since disappeared, and I can now wear my ring without discomfort.

Another interesting fact is, that the symptoms very much abated during the summer months, when I was much in the open air; and increased in October, when I sat much in my room with a fire, and, for several hours in the evening, a lamp. There was an entire absence of the nervous symptoms mentioned by Dr. Donkin. His was a case of almost acute poisoning, whereas mine was very chronic. There has been no impairment of nutrition, and no loss of appetite.

I certainly think, with Dr. Donkin, that there ought to be legislation on this subject. Arsenical wall-papers are, no doubt, still very common, and, being bright-coloured and cheap at the same time, are tempting to the unwary.

G. H. BATTERBURY, M.B.Lond., Wimborne Minster.

INTRODUCTORY ADDRESSES AT THE DUBLIN HOSPITALS AND MEDICAL SCHOOLS.

THE MATER MISERICORDIÆ HOSPITAL.

THE Inaugural Address was delivered by Dr. CRUISE on November 6th. He pointed out the magnificent future before those who studied carefully the two branches of medicine and surgery, and contrasted the advance that had been made in these sciences. There was one vital point connected with the student's study which the lecturer strongly impressed upon his audience—the general mental training needful for the proper study of medicine. Of all the evil influences which overshadow the education of the modern physician, none, he was satisfied, was comparable to the almost universal neglect of extra-professional mental culture. Dr. Cruise strongly recommended the scientific study of medicine and the sister branch. This consideration was doubly needful for such of them as pursued their studies in Great Britain, where but little encouragement is given by the executive to scientific research. Just now, the medical profession in Great Britain felt a recent Act of legislation, insultingly carried in the teeth of its protest, most uncalled for, and especially calculated to impede progress in the higher branches of their studies; he alluded to the Vivisection Bill. This singular outcome of hysterical sentimentality tended seriously to limit those investigations by which in the past they had acquired nearly all their knowledge of circulation, of vaccination, of the functions of the nervous system, of the significance of the sounds of the heart, and of the familiar facts which helped them to save life and mitigate pain in daily practice, and to which they looked in the future for the alleviation of the great scourges of cancer, tubercle, cholera, hydrophobia, snake-poisons, and a host of miseries as yet beyond control. After giving some general advice to the students, Dr. Cruise said they should be prepared to risk their lives daily and hourly—if needful, to go into the field of battle, and work under fire like their noble brethren Mac Cormac and MacKellar, at Alexinatz—to face scenes of harrowing pain, bodily and mental, amidst which they should move, striving to do what good they could—succeeding sometimes, failing often; for such must be their lives, the grief and glory, the anxiety and consolation, mingled as the smoke and the flame. He strongly advised students to avoid the army, at home and abroad, and the navy. The social position was doubtful, the pay miserable, promotion tedious, the sacrifice of liberty for the best years of your life unbearable, and ultimately ruinous; the compensation on retirement, after the waste of the brightest and most fruitful period of your existence, preposterously inadequate. The Indian army offered a better reward, but the risk of health was very great. Dr. Hayden had placed in his hands a very remarkable table, which showed the steady decadence in the quality of the answering of the Army Board Examinations for the last few years. This is just what the profession expect, and what he thought it should desire. Until the regulations of the military and naval services are amended in favour of officers, it would be a sad pity to see men of ability sacrifice their prospects by entering them. There was only one service which he knew worthy of attention—the service of the public. In the long run, the public was a keen and just judge, and was sure to find them out and place them, provided they gave their time, and were not deficient in knowledge, earnestness, and tact. He could not say much of the Poor-law service, but it did not bind one captive like the army or navy; so they should use it for their convenience, and as far as it helped them. General practice in England, with certain disadvantages, offered good prospects, and the colonies were a magnificent arena for work.

ST. VINCENT'S HOSPITAL.

THE Inaugural Address was given on October 31st by Dr. QUINLAN, who selected as his topic the alcohol question, the settlement of which, he believed, could not be far distant. In the course of his remarks, he said that there was no doubt that the introduction into the system of a small quantity of alcohol—for example, of a glass of sherry, or half that quantity of spirit diluted with water—stimulates the nervous system, quickens and strengthens the action of the heart, and slightly elevates the temperature. After a certain interval, these effects cease and reaction sets in. By repeating the dose, the same results are again obtained, and the process can be kept up for a time, but not indefinitely. It is on this principle that the physician proceeds. He has a patient before him suffering from some acute disease, accompanied by such a prostration of vital power as threatens that the patient will

die before the physician has sufficient, or in fact any, time to combat the acute attack. By small and often-repeated and carefully watched doses of alcohol, he supports the flickering lamp of life for twenty-four or thirty-six hours, and thus gains time for the action of his remedies. If denied it, such cases usually end fatally; and a hard and fast line of treating all diseases without alcohol is opposed alike to physiology and to good sense. The prescribing of alcohol as a dietetic remedy of habitual use to persons in delicate health, or in conditions of chronic debility, is one of the most difficult, perilous, and responsible duties which the physician has to discharge. There is no doubt that in very many elderly persons, and in those recovering from acute illness, the action of the heart is weak, and the nervous system is prostrated; and that in such cases moderate quantities of wine, porter, or ale are found beneficial. In many forms of weak digestion a small quantity of spirit and water, taken with a meal, promotes the secretion of gastric juice, and thus helps digestion. But the physician must use this two-edged sword with the utmost caution. Thousands have thus acquired a taste which has been their ruin, and which they otherwise might never have acquired at all. The matter is best left to the judgment of the profession. Alcohol, like tobacco, cannot, under any circumstances, be regarded as a necessary of life to the healthy. There is no doubt, however, that the moderate and rational use of alcohol or tobacco, with many persons with whom they agree, greatly conduces to the enjoyment of life, and is occasionally beneficial.

MEATH HOSPITAL.

MR. ORMSBY delivered the Introductory Address on November 1st. After alluding to the progress of the Meath Hospital, which had now reached its one hundred and twenty-sixth session, he entered upon the subject of his lecture—"The Study of Medicine and Surgery as a Profession", and held, from the outset, that there was no reason why that profession should not hold a higher place in public esteem than the Church, the Bar, the Army, or the Navy; and yet the State generally placed this "godlike profession" last in its recognition. The lecturer expressed regret at the small number of medical men—six in all—who had seats in the House of Commons. He likewise deplored the fewness of the baronetcies and other honours with which medical men were rewarded in comparison with their merits. Alluding to medical legislation, Mr. Ormsby continued: Among the many subjects that must be decided by Parliament before very long, and which emphatically demand the best attention of a sound medical opinion, are the following: the Health and Management of Prisoners, the Treatment of Habitual Drunkards, the Further Restriction of the Pollution of Rivers, the opposition to Compulsory Vaccination, the Position and Qualification of Coroners, and last, not least, the war-cry of self-constituted humanitarians, the Vivisection question, of which we hear so much in the present day, with its alleged abuses and needless barbarities. Such abuses the profession were the very first to set their faces against, and to require and imperatively demand stringent State legislation; but certain painless experiments, under the administration of anaesthetics, on animals are useful, considering the imperfections of our art. If those who oppose all such experiments could witness the scenes of horror and anxiety that often occur in hospital and private practice, owing to a want of knowledge regarding the administration of certain substances, their opposition might be considerably less. The life of the late Sir Robert Peel might have been saved had the action of chloroform or other anaesthetics been better known. What about pigeon-matches, coursing, fox-hunting, and all such supposed manly pastimes? Was it more culpable to take life in the interests of science than of sport? In consequence of the circulation of statements, either exaggerated or false, on vivisection experiments, a tumult of emotion has swept over the public mind; its powers of reasoning and its sense of justice had been alike disturbed; and, on the plea of outraged humanity, there has arisen an hysterical outcry for action, which has precipitated the Government into a hasty and repressive legislation.

RICHMOND HOSPITAL.

THE Introductory Lecture was delivered by Dr. GORDON, on November 2nd. He proposed to glance at the clinical functions which the hospital had exercised. Clinical teaching was the great instrument of enlightenment in connection with various diseases, and, in its absence, it was exceedingly difficult to make accurate observation of practical disease. Through its agency, Bright had been enabled to make observations which were simply invaluable, and Cheyne, in the *Cyclopaedia of Medicine*, had given to the profession information of a practical character in relation to disease; and, in connection with this subject, the name of Edward Percival would occur to every one conversant with

clinical teaching. Cold affusion, in cases of typhoid fever, had come to be a recognised medium of reducing temperature; and they had it on record that the temperature in the mouth of typhoid fever patients had been reduced from 105 deg. to 98 and 90, through the agency of the cold-water affusive method. In considering the history of the hospital, it was impossible not to refer to the name of Corrigan, whose learning, zeal, and ability had extended his fame far beyond the medical schools of Dublin. So successful had been his treatment of a disease that, on the Continent, a special ailment was known as *la maladie de Corrigan*. He regarded Sir Dominic Corrigan as a bridge between the practitioners of the past and the present, and it was gratifying to know that he still continued consulting-physician to the Richmond Hospital. Many names of excellence occurred to him in connection with the hospital, both in its active and highly efficient staff and in the public service of the State and the country; and he would say, in conclusion, that his own progress in the profession; he ascribed to his training in that hospital as a clinical clerk.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE Opening Address was delivered by Mr. STOKES, on October 30th, who, after some general remarks upon the duty and influence of the medical instructor, drew attention to what, he believed, were grave errors within the ranks of their profession, committed by persons whose views, were they realised, would tend to lower the profession in public estimation. The great and besetting peril to the profession in the present day was the tendency to abandon the principle of unity of research in it, and to run into narrow specialistic grooves. This tendency, which had been well termed "centrifugal disintegration", was doing its best to tear their science into shreds, and to break up the republic of medicine and surgery handed down to them strong, intact, and firm. He did not mean to utter one depreciative word in reference to the workers in those branches of the profession that had ever been and ever would be real specialities, such as obstetrics, dental surgery, and ophthalmology. Another question which had arisen was in connection with the scheme for establishing a conjoint examining board for each division of the kingdom. If this scheme were established, it would inevitably be promptly followed by the destruction of the independence, individuality, and prestige of the great corporations of medicine and surgery in the three divisions of the kingdom. If licensing powers were taken away from these corporations, it would be difficult to understand their *raison d'être*, and, stripped of all their power, they would degenerate into professional clubs at best. The principle of centralisation in education was a great mistake. He would next draw attention to some of the obstacles thrown in the way of scientific advancement by persons outside their ranks. He alluded to the morbid sentimentality, the outcome of which had been an insensate and almost hysterical agitation directed against experimental physiology and the carrying out of the Contagious Diseases Acts. Nothing more unjust or unnecessary had ever yet passed than the Bill "to Prevent Cruelty to Animals", which cast an unmerited slur on their profession. It was a strange anomaly that, whereas public opinion placed no restriction on the sportsman and the gourmet, the scientific physiologist and man of science, if he did not fulfil all the vexatious conditions of this extraordinary Act, was to be fined and incarcerated, although his aim is to save life and to relieve suffering. Such a Bill was an ugly blot in the history of scientific progress in England, and he trusted it would soon be erased. He passed a high encomium on the Contagious Diseases Acts, and commented in severe terms upon the mock sentimentality and foolishness of those who opposed their operation.

UNIVERSITY OF DUBLIN MEDICAL SCHOOL.

THE Introductory Address was given by Dr. SINCLAIR, King's Professor of Midwifery, on November 6th. Dr. Sinclair commended the principle which enabled the students to have a practical acquaintance with surgery and medicine before commencing obstetric studies. Midwifery, he continued, was the sister of medicine and surgery. The origin of each was obscure, but it had taken a much longer time to clutch midwifery from the hands of women than to take surgery from the hands of the barbers. Midwifery was, up to the present day, in the same position with regard to her sisters medicine and surgery as if she had to play the rôle of Cinderella. He had himself heard an experienced medical man assert that an old woman was good enough for practical midwifery. He read a number of extracts—some of which were rather humorous—from old resolutions framed by the King and Queen's Colleges, to show the difficulties which were thrown in the way of obstetric study, and said that they were a great evil to it, but that the Board of the University of Dublin had proved itself its cham-

pion. Their alma mater had touched with her magic wand the hazes which surrounded poor Cinderella, and brought her to the fore resplendently. For his own part and on the part of those who practised the use of obstetric medicine, he returned to the Board of the University of Dublin his thanks for the zeal they displayed in cherishing the studies of obstetricians. He was there to teach them midwifery, but he could not make them distinguished obstetricians in a single session. In that room, he hoped to put them in a position to teach themselves, and to lay a basis upon which they might raise any superstructure which their talents and energies would admit.

CATHOLIC UNIVERSITY MEDICAL SCHOOL.

THE Opening Address was given by Mr. CAMPBELL on November 3rd. He said that the work of the student who acknowledges no criterion but success should resemble the patient unceasing toil of the zoophytes we read of in natural history; the zoophytes that, in Eastern seas, gradually but surely uprear from immense depths those remarkable coral reefs destined in time to be changed into palm-crowned islands, stupendous monuments of the untiring industry and productive labour of those humble creatures. The model student, whose portrait he would hold up, will, in carrying out his resolve of labouring conscientiously and never squandering any of his precious time, encounter difficulties which will, as a matter of course, retard his progress, and may, therefore, diminish his zeal. But difficulties are not always an evil; on the contrary, they are generally productive of solid advantage, for uninterrupted success does not qualify any of us for a career of usefulness. The lecturer referred to Hippocrates, the physician, philosopher, and patriot, to show how the great men of antiquity proceeded to qualify for medical practice. How they girt up their loins for the task that was before them, and not only applied themselves to the acquisition of medical information, but also enriched their minds with the treasures of poetry, fable, and philosophy. How they nerved themselves to the endurance of privations and fatigue on the long travels they undertook to see and judge for themselves, and to converse with men of letters and science in foreign countries; how they collected, from all quarters and from every available source, the scattered rays of knowledge which soon converged into a beam bright enough to illumine many a dark problem in physic; and, if those present desired to win a high place in their profession, they must neglect no opportunity of acquiring such accomplishments as would tend to elevate them in the social scale; they must not be content to store their minds with principles of their own science merely; they must also enlarge and embellish and refine them by the cultivation of the liberal arts.

SELECTIONS FROM JOURNALS.

SURGERY.

BILIARY CONCRETIONS IN THE URINARY BLADDER.—L. Güterbock describes in *Virchow's Archiv*, vol. lxxi, a case in which calculous concretions were removed by lithotomy from the bladder of a woman aged 50, who had observed no other symptoms than those produced by the presence of the calculus. An examination made by Schultzen showed the concretion to consist of cholestearin, with small quantities of urea, phosphate of lime, and bile-pigment. O. Liebreich found crystals of cholestearin and bilirubin, with a superficial layer of uric acid. The urine had contained bile-pigment; chemical examination showed it to be free from cholestearin. The concretions removed weighed in all two hundred grains. On being put together, they evidently constituted a gall-stone too large to have been voluntarily introduced into the bladder. The author refers to two recorded cases of gall-stone in the urinary bladder. In one, there was found an obliterated communication between the gall-bladder and urinary bladder through the urachus. There had been a temporary discharge of biliary colouring matter with the urine.

ABDOMINO-VAGINAL DRAINAGE IN OVIARTOMY.—Olshausen (*Berliner Klin. Wochenschrift*, 1876, Nos. 10 and 11), basing his observations on a series of twenty-five ovariectomies, speaks of the efficacy of abdomino-vaginal drainage. In ten cases treated by the ordinary methods, there were two cures. The fifteen other ovariectomies, of which nine were grave cases, were performed according to the method of Marion Sims; there were eleven cures and four deaths. He uses catgut ligatures, cut off close to the knot. The drainage-tube measures eighty centimetres in length by one in breadth. He introduces it into the abdominal cavity by the recto-vaginal cul-de-sac, which he perforates by the aid of a trocar. To give it more length, and thus

prevent it from bending, he passes it through the superior angle of the wound. He uses Koeberle's suture for closing the wound, and does not include the peritoneum in the suture. The patient is dressed every two hours with a solution of salicylic or carbolic acid. At the end of twenty-four to thirty hours, all sanguinolent serosity disappears. The drainage-tube is removed towards the twelfth day; in some cases, it may be removed from the fourth day.

THERAPEUTICS.

CHRONIC DIGITALIS-POISONING.—Bälz describes in the *Archiv für Heilkunde*, vol. xvii, the case of a woman suffering from mitral stenosis in a high degree, who had so long accustomed herself to the use of large doses of digitalis that, when deprived of the medicine, she fell into a most miserable condition, from which she was relieved, as by magic, by the use of the drug. She used every morning and evening 0.3 gramme of digitalis, and had taken more than 800 grammes in seven years. The case presents a very strong resemblance to the results of long continued use of morphia.—*Centralblatt für die Medicinischen Wissenschaften*, November 4th.

TREATMENT OF INCONTINENCE OF URINE.—In a paper in the *Ohio Medical and Surgical Journal* for October, Dr. W. A. Hammond says that he has found the following plan of treatment so efficacious, that he has for several years adopted it exclusively. 1. Supposing the patient to be a child, the bladder should be emptied on going to bed, and then two or three times afterwards the patient should be taken up and again made to urinate. 2. Sleeping on the back should be prevented. The prone position increases the amount of blood in the cord, and augments its irritability. 3. The following prescription should be given for several months—three or four at least. R Zinci bromidi ʒss; ergotæ extracti fluidi ʒiv. Dose, ten drops three times a day, increased five drops every month. It is preferably administered after meals, being less apt then to excite nausea or vomiting. Should either of those symptoms prove troublesome, the ensuing two or three doses may be smaller. Occasionally the bromide of zinc is not well tolerated; it irritates the stomach, and induces emaciation, paleness, dry and rough skin, obstinate constipation, etc. In such instances, the bromide of iron may be substituted with advantage. It should be given in the form of a syrup (one part in six), beginning with five grains three times a day, gradually increased to fifteen or twenty at the end of three or four months. With each dose of the bromide of iron, the fluid extract of ergot should be given separately. For adults, bromide of potassium, sodium, or calcium, should be used instead of bromide of zinc, and it is not necessary to gradually increase the dose.

PATHOLOGY.

LEUCOCYTHEMIC TUMOURS OF THE SKIN AND VISCERA.—Biesiadecki describes in the *Wiener Medicin. Jahrbücher*, 1876, a case of leucocythæmia, in which, besides very considerable increase of the colourless corpuscles, and enlargement of the spleen, liver, and lymphatic glands, numerous lymphatic tumours were found in the skin. On transverse section, these were found to consist of a soft yellowish grey or yellowish white mass, containing but little blood, the smaller nodules of which implicated the superficial layer, the larger the deeper layer of the corium. The epidermis over the tumours was tense and smooth, but entire. In the largest nodules, the medullary substance extended into the subcutaneous adipose tissue and was sharply defined, while the limits of the smaller nodules was less distinct. On microscopic examination, Biesiadecki found principally round cells of the size of white blood-corpuscles, often undergoing fatty change, as well as branched connective tissue corpuscles, and large flat epithelioid cells. The colourless blood-corpuscles were not only remarkably increased in number, but exhibited signs of degenerative change; the nucleus was vesicular, granular, and enlarged; in many, the cells contained numerous vesicular formations. These changes were also observed in the cells of the spleen and lymphatic glands. The enlargement of the former depended on a cellular infiltration of the connective tissue which accompanied the arteries as far as their finest ramifications, while the proper parenchyma of the spleen was atrophied. On the other end, the swelling of the liver was caused by an enormous accumulation of the blood-cells in the hepatic capillaries, while the hepatic cells were markedly atrophied. Biesiadecki draws a parallel between this observation and the facts ascertained by MM. Recklinghausen and Ponfick, that particles of cinnabar introduced into the blood-current were arrested in the same organs which are the chief depôts of the colourless blood-corpuscles in leucocythæmia—the spleen, liver, spinal cord, and lymphatic glands;

while other organs become the seat of deposit only when they specially undergo local irritation. Biesiadecki argues that, as the changes which the spleen and liver showed were of a retrograde character, and did not depend on the new formation of colourless blood-corpuscles, as the latter had evidently undergone morbid change, as the lymphatic glands first began to enlarge when the blood had already undergone extensive change and the tumours had been formed in the skin, and as extirpation of the spleen in animals does not produce that change of the blood which leads to leucocythæmia, it may be rightly concluded, that the swelling of the spleen and lymphatic glands, and also of the liver and kidneys, was not the cause, but the result, of the leucocythæmia.

MIDWIFERY AND DISEASES OF WOMEN.

SYMPTOMATOLOGY OF UTERINE ULCERATION.—In a paper by Dr. Halton on excoriations of the os and cervix uteri, published in the *Dublin Journal of Medical Science*, June 1876, the writer calls attention to a symptom which he has rarely found to be absent in the affection under consideration. When this symptom occurs in a married woman who has borne children, or has had an abortion or miscarriage, it should lead to an uterine examination, if the gastric or head-affections refuse to yield to ordinary treatment. The sign in question is a numbness of one limb, most commonly on the left side, usually commencing in the thigh and running down the leg. It is occasionally, though rarely, met with in the arm. It is a very marked and unmistakable symptom when present, some patients declaring that they cannot feel that they are touching the limb when they put their hands on it; in other cases it is accompanied by a tingling or stinging sensation, as of nettles. There is also to be very frequently found distinct tenderness on pressure in the ovarian region of the affected side. If these symptoms be present, an examination will commonly reveal excoriation of the os and cervix. The diminution and disappearance of these symptoms indicate the approach of healthy action and consequent cure, even before the local affection shows much alteration for the better.

EXTIRPATION OF THE UTERUS, WITH BOTH OVARIES.—Dr. Gillman Kimball reports (*Boston Medical and Surgical Journal*, July 13th, 1876) the case of a woman, aged 36, upon whom he successfully operated for fibro-cystic disease of the uterus and both ovaries. The operation was begun with the ordinary incision in the median line below the umbilicus. The abdominal walls were very thin, with but little fat. There then appeared a fleshy-looking substance of a dark pinkish colour. The tumour was tapped, and a quantity of straw-coloured fluid escaped through the cannula. The bulk of the tumour was greatly reduced, but there still remained a considerable fulness in the lower part of the abdomen. The sac was quite adherent to the peritoneal lining of the upper anterior portion of the abdomen. These adhesions were carefully torn away with the fingers, and the sac brought out through the incision. The pelvis was nearly filled with a fibrous growth which formed the lower portion of the sac, from one to three inches in thickness, and gradually fading upwards into the thin walls of the cyst. The fibrous growth extended by prolongation to the uterus, and was thoroughly blended with that organ. Both ovaries had small cysts in their substance. The left broad ligament was perforated to the left of the ovary, and a silk ligature was passed around it and firmly tied. The tissues between the ligature and the tumour were then divided. Considerable hæmorrhage from the cut surface then occurring, a temporary ligature was applied. It was now possible to bring out the whole mass through the incision, and the wire *écraseur* was applied at a point corresponding to the external os, involving the remainder of the broad ligament and the round ligament of the left side, the upper part of the vagina, and the round and broad ligaments of the right side beyond the right ovary. The wire was tightly drawn and twisted for security, and the mass removed by the knife. The *écraseur* was allowed to remain, and the stump was transfixed just outside of the loop of the *écraseur* with a curved trocar, which was arranged to give additional security against the return of the stump into the abdominal cavity. The abraded surface of the peritoneum, where the adhesions had been torn away, was carefully wiped with a dry cotton cloth, the wound was closed with silk sutures, and the stump cauterised with the hot iron. Care was taken throughout the operation to keep the room at a temperature of 70 to 80 degs., and to hold the flaps of the incision close to the tumour, that the abdominal organs might be as little exposed to the air as possible. No dressing was applied, except a folded compress of cotton-cloth laid over the wound and upon the trocar and the *écraseur*. The operation occupied an hour. The pulse and respiration continued natural throughout. The patient soon rallied, and made a good recovery.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 18TH, 1876.

THE ROTUNDA (LYING-IN) HOSPITAL, DUBLIN.

THE Rotunda Hospital is the mother of all the lying-in hospitals in the United Kingdom, the earliest charities of this kind in England having been founded, after communication with the managers, upon an exactly similar basis and with the same rules and objects. To Dr. Bartholomew Mosse belongs the honour of having first originated and successfully carried out the plan upon which this hospital was built in 1745. This distinguished surgeon was a wonderful man, of great abilities, much originality, and deep research; and it is to be regretted that his life has not been more publicly recorded, and that it has been left without any other public recognition than the existence of a hospital which Dr. Mosse himself planned and built. Not even a gravestone has been erected to his memory. In the *Dublin Quarterly Review of Medical Science* for 1847, vol. ii, is to be found the only detailed account of the history and career of this noble man, whose whole life was devoted, to the pecuniary loss of himself and his family, to the promotion of works of philanthropy and charity. The hospital, when first opened, was situated in George Lane, and afforded accommodation for twenty beds. This small hospital was for some time entirely supported by Dr. Mosse; but as the work progressed successfully, many wealthy people associated themselves with him in the work, and he was enabled with this assistance to purchase the land upon which the hospital now stands, and to commence the erection of the new buildings in 1750.

In 1757, Dr. Mosse received a Royal Charter, incorporating the hospital as a Maternity Charity and Clinical School for the instruction of "all students in physic or apprentices to surgeons, and all such, whether men or women, as intend to practise midwifery"; and the hospital was formally opened with great ceremony by the Lord-Lieutenant, the Duke of Bedford, towards the end of the same year. It is interesting to remark that, although the Rotunda is the oldest and largest chartered school of midwifery, not only in Great Britain, but, with one exception, in the world, the profession were fully alive, at the date of its formation, to the importance of admitting women to practical instruction in this branch of medicine, as the words in the charter clearly prove.

The hospital has passed through many trying years of poverty and depression, which were first felt with severity in the year 1798, and reached their climax two years later. Before this period, the annual subscriptions amounted to nearly £2,000; but in 1800 they fell to £300. In spite of this, the hospital has continued to flourish, and within the past two years nearly £3,000 have been spent upon the restoration of the old and the erection of new buildings. Thus the floors in all the wards have been thoroughly overhauled, and in many places renewed. The whole of the chronic wards have been restored, and a new and improved system of ventilation has been introduced; a new dispensary for out-patients, with bed-rooms for intern pupils on the first floor, has been erected; a block of water-closets, etc., has been added; and many other improvements have been carried out. So great are the changes made that a stranger, familiar with what the old Rotunda was formerly, would have much difficulty in recognising the hospital as it is. The hospital is divided into two parts. The main hospital, with

eight ordinary and six pay wards, is devoted to lying-in cases; and a detached building, called the Chronic Wards, is used for the treatment of the diseases of women. In the lying-in department there are at the present time eighty beds, about seventy of which are available for patients. Each of the lying-in wards is ventilated by circular openings next the ceiling, by cross-windows, and by air-flues communicating with the roof. Each ward averages in size 34 by 24 feet, and is 13 feet in height. Each contains five beds for patients, which gives quite 2,000 cubic feet to each occupant. A wide corridor runs from east to west the whole length of the building (133 feet), having large windows at each end, which are always kept open. The hospital stands in its own grounds, and is 88 feet from the street, which is at least 60 feet wide, so that on all sides it is freely accessible to the air, and the ventilation throughout is excellent.

The sanitary condition of the hospital has recently been improved by the substitution of brass-spring mattresses, on the Vienna model, for the old straw ones before used; and by sending the whole of the dirty linen away from the hospital to be purified and cleansed. The brass springs are a great improvement, as no other mattresses are necessary; a piece of felt, placed on the wires, with a Mackintosh over it, and then the sheet, are all that is required. The greatest possible cleanliness is thus everywhere secured; and we understand that this alteration has saved the hospital annually a sum of £40, which was formerly spent in the straw used for the old mattresses. Each ward contains a couch, on which the patient is delivered, and from which, at the expiration of two hours, she is removed to a clean bed. In these wards there is, strange to say, no bath to be found. The patients, who are more often than not admitted in a disgustingly dirty state, are not even sponged, but are delivered and put into a clean bed in precisely the same state in which they arrived. Surely, the example of English and Scotch hospitals might be followed with advantage; and a rule enforced by which no person should be allowed to receive the benefits of the hospital unless she consented to submit to a course of soap and water on admission, provided the circumstances of the case allowed it. A supply of water is also much needed in each of the labour-wards, and new slop-sinks should be erected. Steps are, we believe, about to be taken to remedy these drawbacks.

The supply of instruments and other appliances is very defective. Thus, for instance, there is not a pair of forceps belonging to the institution, while thermometers, urine-glasses, test-tubes, etc., are not to be found in any of the wards. Catheters and syringes are much too scarce, and there is not a microscope in the whole building. These are, in one sense, small matters; but, in the largest school of midwifery in the three kingdoms, the students' fees at which amount to a very considerable sum each year, they are omissions which should at once be remedied for the credit of the school.

The Chronic Wards, devoted exclusively to the treatment of diseases peculiar to women, contain thirty-six beds. Under the present management, these wards have been materially improved; and they may now, in all sanitary respects, bear comparison, without detriment, with those of any similar institution. Attached to each general ward is a smaller one for paying patients, and at the top of the building a special ward is set apart for cases of ovariotomy. The beds in these wards are nearly always full, and a large field for clinical work is thus constantly afforded. It would be of material assistance to the students and visitors if the English custom of having a prescription paper at the head of each bed, with the diagnosis and treatment in each case briefly stated, were followed. At the present time no particulars are given, and, unless the Master is present, it is generally impossible to ascertain accurately the particulars of any of the cases.* As it is well known, Dr. Atthill has made this branch of medicine peculiarly his own, and his work on the subject has reached a fourth edition, and has had a large circulation in England and America. It can easily be imagined, therefore, that to those qualified practitioners who wish to complete their knowledge of

this difficult subject before entering private practice, a field for study of the utmost practical value is here afforded, of which they can easily avail themselves. The out-patient department is a large one, the cases treated last year amounting to 4,261; and from these the in-patients for the chronic wards are in the main selected. In addition to the departments already mentioned, there is an extern maternity, which is steadily increasing, nearly four hundred patients having been attended at their own homes in the year 1875. Such is briefly an outline of the hospital and its work at the present time.

Let us now consider the opportunity it affords the student as a school of obstetric medicine. Until very recently, all the arrangements for the accommodation of the intern pupils were of the most primitive kind. It is not very many years ago that the intern pupils, at that time limited to seven, had one large room allotted to them, in which they lived, cooked, and slept; seven partitions, resembling loose boxes, being set apart as bedrooms. Some of our most eminent obstetricians will well remember their life here, and will, no doubt, smile at the scenes then enacted are recalled to their remembrance. All this is now altered. Each intern has a separate bedroom to himself, a large dining-hall is provided as a mess-room, and a regular mess, with a president and vice-president, is formed on the model of that in a regiment. It may be well to state that, when the present alterations are finished and some new furniture is provided, there is every reason to hope the provision made for the accommodation of the "doctors" will be adequate and complete. We may add that the fees are, for intern pupils, for one month, £6 6s., and £3 3s. for each succeeding month; and for six months, £21; for externs, for one month, £3 3s.; and for six months, £10 10s.; and that the weekly mess-bill averages £1 5s. a week.

It will be necessary, in order to take full advantage of the opportunity for study here afforded, that a student shall remain in residence for at least two months. If he do this, he will be enabled to see at least one hundred or one hundred and fifty cases of midwifery, and to be present at almost every kind of operation which is practised. To give some idea of the work done in the lying-in department, we quote the following particulars of the cases treated at the hospital last year (1875):—1,065 patients were delivered in the hospital, of which 813 were perfectly natural cases, 40 were abortions. In two instances, the child presented with the upper extremity, and in 37 with the lower. There were 113 instances in which the forceps were used. Craniotomy was performed five times, and version four times. Labour was induced in two instances. In eleven cases, the labour was complicated by twins, in one by triplets, and in four by convulsions. There were eleven cases of accidental hæmorrhage, two cases of placenta prævia, thirty-one of *post partum* hæmorrhage, fifteen of retained placenta, and four cases of prolapse of the funis. Chloroform was administered in one hundred instances. A careful study of the seven clinical reports published by the late master, Dr. George Johnston, to whom we are indebted for these figures, has shown that the above list of cases is rather below the average for interest and difficulty. Dr. Johnston has in these reports conclusively proved to the satisfaction of himself and the members of the Dublin Obstetrical Society, that the death-rate at the Rotunda Hospital is as low as in private practice, and that a large maternity, if properly conducted, is a safe asylum for those poor creatures who seek its shelter in the hour of their need.

It will be seen from the above statement how much can be learnt at this school, and how, under proper instruction, a medical man can here make himself fully competent to successfully grapple with any case of midwifery, however severe its character, which he may meet with in after-practice, provided he will diligently devote himself for a short time to the work afforded him at this great maternity hospital. To army surgeons or hospital residents about to enter practice, the Rotunda Hospital, Dublin, is an inestimable boon.

In conclusion, we wish briefly, and in no unfriendly spirit, to make some suggestions as to the method of clinical teaching which should,

* Since the above was written, this improvement has, we learn, been carried out.

in our opinion, be instituted by the Master and his assistants. Dr. Atthill is so anxious to make his hospital the completest school of obstetric medicine in the country, and he has already done so much in this direction, that we offer no apology for taking such a course. First, then, let us say boldly that we are convinced that chloroform might with advantage be used more frequently in operation cases in the chronic wards. That much pain is often caused by the application of fuming nitric acid to the cervix and fundus, we have ascertained by actual personal observation. The operator has complained in our hearing of the hysterical tendencies of a patient who winced under this treatment; but most certainly chloroform should be administered in all cases where the uterus is scraped with a *curette* and fuming nitric acid applied to the uterine walls. We are convinced from what we have seen that the case of Mrs. S., recorded in the case-book, who had nitric acid applied fourteen times to the fundus and twice to the cervix for acute antelexion of the uterus, and who is reported not to have experienced great pain until the eleventh application, must be exceptional. Women are very patient sufferers and bear pain well, and consequently it is often difficult to accurately gauge their actual sufferings.

Again, it is true the Master visits all the patients in the labour-wards twice a day, but neither the Assistant-Physicians nor himself gives any instruction in the after-treatment of these patients; indeed, this branch of practice seems to be regarded as of little importance, which we cannot but think unfortunate in many respects. Pathology is steadily discouraged, but, strange to say, although of course tacitly forbidden, there are no rules to prevent extern pupils from dissecting during their pupilage. *Post mortem* examinations, when held, are not open to students. We quote a case which has recently occurred to prove the importance of an alteration being made in this respect. K. P., aged 25, single, was admitted on May 23rd. She was attacked with great pain in the bladder before passing urine, compelling her to micturate every ten minutes. The pain continued for fifteen or sixteen months, when complete incontinence set in, the pain disappeared, and she had been unable to retain any urine up to the date of her admission. Menstruation had been regular up to fourteen months ago, but since then had been entirely absent. Soon after her admission, the pain in her back returned, and she had great pain for three days. At the end of this time, the sound was passed into the bladder, and an examination was made without result. On June 6th, the patient died. A *post mortem* examination was held, but the result did not transpire, nor is any record of the examination entered in the case-book. We can well imagine that the authorities should naturally object to allow any of the resident officials or students to make these examinations; but surely a pathologist from one of the other hospitals might be appointed, a new mortuary might be erected at a small cost in the grounds, and this important branch of study would then receive the amount of attention it has too long lacked. The clinical work is in a very imperfect and ill-developed state, but the present Master is doing his best to improve it. Thus the cases were formerly taken by the Master and his Assistants jointly, and it can easily be imagined that, where more than one person entered details respecting the treatment of a given case, the records were at best fragmentary and incomplete. Recently, a fourth year's student has been appointed resident clinical clerk at a small salary. He must be unqualified, and he has to visit all the extern cases, and to attend them when summoned in cases of difficulty. He has also to enter and to take down all the details respecting each case admitted into the Chronic Wards. This is an improvement upon the former arrangement; but, in the interests of the clinical school, we cannot regard it with favour. At the present time, there are twelve intern pupils at the Rotunda, nearly all of whom are qualified men. Here is surely a field of clinical skill which should be utilised in the interests of the pupils and the profession. We suggest that each patient in the Chronic Wards should be placed under the care of one of the interns on admission, and that it should be his duty to take the case, to record its symptoms,

progress, and treatment, on the same plan as that adopted at the English schools with reference to clinical clerks. By such a system as this, a complete and reliable history would be secured, and the value of the intern pupilships would be materially increased. It would tend to enhance the reputation of the school if case-taking were made one of the duties of the intern pupils, while it would afford an opportunity to those gentlemen, the want of which is at present much felt, to watch closely and with accuracy the results of the treatment in each case. Under the present system, we are not surprised to find that the cases are often imperfectly taken, so much so that the results of the treatment and the ultimate fate of the patient are frequently omitted. Attention to these points and the provision of the appliances for clinical purposes, to which we have alluded, will make this school of the greatest possible value. We notice a strong tendency to reduce the number of cases admitted to the labour wards as the extern cases increase; but care must be taken that the number of lying-in cases is not allowed to sink below one thousand annually, and that the chronic wards do not supersede the midwifery departments. Altogether—especially remembering the great professional reputation of the present Master, and his desire to make his teaching thoroughly practical, we recommend anyone who really desires to acquire a complete knowledge of midwifery to enter his name for two months' study at the Rotunda Hospital, Dublin.

THE HORSHAM BOARD OF GUARDIANS AND THE SUPPLY OF EXPENSIVE MEDICINES.

We are pleased to observe that this question has again come before the guardians of the Horsham Union. It will be remembered that, on September 23rd, we drew attention to the fact that this board had adopted a resolution that, in future, they would not pay for quinine, opium, and other expensive medicines ordered by the medical officers; and we pointed out how vicious was the economy thus sought to be effected. Our article, copied into several of the local journals, naturally excited much attention, and this, coupled with a remonstrance from the medical officers against the injustice which had been perpetrated by the guardians, led to the appointment of a committee to inquire into and report upon the subject. At the meeting which was held on the 1st instant, the report was brought up, and from this we learn "that they found serious extravagance on the part of one medical officer", and "they recommend that he should be called on to explain his conduct". As the annual outlay for expensive medicines for the last three years averaged only £30 7s. for the whole union, and there are six medical officers, we are at a loss to see where any room exists for serious individual extravagance. The Committee further "recommended that the district medical officers should send in their accounts at the end of each quarter", and that payment be allowed at the discretion of the guardians. The reading of the report led to considerable discussion, some of the guardians admitting they had made a mistake, others suggesting that the resolution not to supply expensive medicines should be tried for twelve months. Ultimately, the further discussion of the subject was adjourned for a fortnight. As the chairman of a Board of Guardians is generally selected on account of his intelligence, we quote Mr. J. G. Braby's words: "This, after all, was a very small matter, and a great many thought so. It was sometimes best to give expensive medicines, but how often did the cost come to more than a farthing or a halfpenny more than the cheap medicines? It was to the advantage of the doctor to get cases off his hands as soon as possible, and, as this was the object of these high-class medicines, he presumed it would be to the advantage of the doctor to go to this slight extra expense, in order to save himself much additional trouble and expense." He, therefore, proposed "that the matter should remain as it was".

Comment on such a speech we hold to be wholly unnecessary. As

the subject will come up again, we will, for the special advantage of this board, inform them that a Select Committee of the House of Commons in 1862 reported in favour of expensive medicines being found by guardians; that, since that time, a Select Committee on Scotch Poor Relief has reported in favour of all drugs being found by the Scotch Parochial Boards; that all drugs are found under the provisions of the Metropolitan Poor Act, 1867; that Mr. Goschen, when president, deputed four of the inspectors of the board to inquire into the question of medical relief, and they all testified in favour of all drugs being found by guardians. One of these inspectors (Mr. Farnall) thus summarises a most exhaustive report. He writes: "I cannot advise your board to disturb the rules and regulations which now govern the administration of out-door medical relief. I, nevertheless, am of opinion that a remedy might be found which would meet the objections which many of the guardians entertain as to the proceedings of their medical officers in ordering food and stimulants to some of their pauper patients, and that remedy consists, as it seems to me, in establishing dispensaries in every union; the guardians being legally bound to provide such dispensaries with competent dispensers and sufficient medicines of the best quality. I am of opinion that these dispensaries would be beneficial alike to the ratepayer and the poor, because the supply of cod-liver oil, quinine, and other expensive medicines, would be at the disposal of district medical officers, whose salaries are generally insufficient to enable them to administer expensive drugs to the sick poor under their care."

We especially commend the common sense view of the facts embodied in this quotation to the intelligence of the chairman and members of the Horsham Board of Guardians.

At the last meeting of the Medical Society of London it was resolved that ladies are not eligible as members or as visitors.

DR. WALLACH, a physician in large practice at Frankfort, was lately stabbed with a knife in the neck by a man named Oppenheim, whom he was examining physically on account of disease of the heart.

THE death of Mr. Ellis Jones, a very old and formerly a very active member of the Association, is reported from Liverpool. We shall publish next week a short notice of his life.

At the last meeting of the Senate of the University of London, a letter having been read from Dr. W. S. Playfair, stating that he had received her Majesty's commands to proceed at once to Malta to attend the Duchess of Edinburgh in her approaching confinement, and proposing to delegate to Dr. Braxton Hicks, F.R.S., his duties as examiner at the second M.B. examination now in progress, it was resolved to make such appointment, and also (if necessary) at the M.D. examination.

THE movement for "hospital extension" appears to have taken an inverse direction—*comme de droit*—at the London Homœopathic Hospital. The hospital is growing downwards. At the last congress, Dr. Drury said that "a few weeks ago the number of patients in the wards was only twenty-eight; and his colleague Dr. Mackechnie, who seemed especially anxious to let all know how low the hospital had sunk in popular esteem, corrected him by saying that the number was twenty-six! A few years ago, there were sixty-five beds, all filled, and patients desiring admission were compelled to be refused for want of room!"

XANTHIUM SPINOSUM AND HYDROPHOBIA.

At the meeting of the Paris Société de Pharmacie, on October 4th, M. Yvon described to the Society some experiments that had been made in the school at Alfort, by MM. Trasbot and Nocard, respecting the alleged prophylactic action of *Xanthium spinosum* against hydrophobia. The results had been entirely negative.

LEADING LIBERALS AND THE MEDICAL PROFESSION.

THE leaders of the Liberal party are doing much to disgust the members of the medical profession with their leadership in sanitary and social questions, and to induce them to distrust their judgment in matters most important to the welfare of the nation. Mr. Gladstone, by his eccentric coquetting with the fanatics who doubt the virtues of vaccination, and who would doubt the light and heat of the sun if their continuance were a matter of parliamentary legislation; Mr. Stansfeld, by his unscrupulous manipulation of figures to abet the crusade in favour of free trade in contagion; and Mr. Forster, by his persistent preference of the interests of the frog to those of mankind,—have done much to convince a class of men, who look to interests which are above those of party, that it is not from these statesmen that we can expect calm, sound, and sincere judgment in forwarding measures destined to arrest the excessive mortality which accompanies the growing mass of population and complex dangers of civilisation. Many of the leading philosophic liberals appear to be possessed by an essentially antiscientific spirit, which is in itself as narrow, intolerant, and obstructive as any form of theological intolerance or ignorant superstition.

WORKHOUSE MISMANAGEMENT.

AN inquest was held last week at the Birmingham Workhouse on the body of an infant found dead in the Tramp Ward under the following circumstances. The mother, a single woman, having been turned out of her lodging late at night, as her confinement was coming on, was admitted to the ward. The assistant, an inmate, forgot to tell the nurse for a long time; the latter, when she came, said the pains would go off, but the watchman should call and inquire; the watchman never called; the labour progressed; the room-bell was found to be broken (it had been so for two years). The other women in the ward shouted and knocked to no purpose, and either could not or would not help the unfortunate mother. At length, the child was born, but only to be found dead when the doors were opened in the morning. A more painful picture of workhouse mismanagement we have seldom had before us. After long deliberation, the verdict was returned as follows: "That death was accidental; but that, had proper assistance been given to the mother in her confinement, the life of the deceased would have been saved; that the mother had been deprived of such assistance by the neglect of the master and Tramp Ward mistress; and are further of opinion that the Visiting Committee have shown neglect in allowing the bell to remain in a broken state." The Local Government Board have sent down an officer to investigate the case independently.

TYPHOID OUTBURST IN PARIS.

OUR Paris correspondent writes:—About a month ago, typhoid fever seemed to be disappearing for a time from Paris; but, within the last fortnight, it reappeared with renewed and extraordinary intensity, and the mortality, which from this disease alone amounted, for the week before last, to 59, suddenly increased to 171, the number reported in the last mortuary returns of the capital. Indeed, there has been a general increase among all affections, the number of deaths for the past week amounting to 1,083, making a difference of 244 for the week preceding. The maladies giving the greatest contingent are those grouped under the term "pulmonary affections", the deaths from these alone amounting to from 371 to 428, of which number 175 were put down to pulmonary phthisis.

DEATH FROM SELF-ADMINISTRATION OF CHLOROFORM.

DR. GUSTAV JUDELL, *privat-docent* and chemical assistant in Professor Leube's clinic at Erlangen, was on October 26th found dead in his bed. He had been accustomed to take chloroform at night as a remedy for sleeplessness, by which he was much troubled; and a bottle containing the anæsthetic was found near him. It appears that vomiting was excited by the chloroform, but that he was too deeply narcotised to eject the contents of the stomach, so that portions of the food remained in the œsophagus and caused death by suffocation.

EXAMINERS AT THE ROYAL COLLEGE OF SURGEONS.

AT the ensuing annual election of the Board of Examiners in Anatomy and Physiology of the Royal College of Surgeons, we understand that all the members of the present Board will offer themselves for re-election, and will probably be reappointed, with the exception of Messrs. Luther Holden of St. Bartholomew's Hospital, and John Cooper Forster of Guy's Hospital, who decline being put in nomination. The following Fellows of the College have been nominated for seats on this Board, viz., Messrs. W. Marrant Baker of St. Bartholomew's Hospital, Edward Bellamy of the Charing Cross Hospital, Arthur E. Durham and H. G. Howse of Guy's Hospital, Sydney Jones and Francis Mason of St. Thomas's Hospital, B. T. Lowne of the Middlesex Hospital, and W. Rivington of the London Hospital. The Committee will meet on Tuesday next to nominate other names to be submitted to the Council. "*Vates*" states that the choice of the Council will fall on Mr. Marrant Baker of St. Bartholomew's Hospital, and Mr. Arthur Durham of Guy's Hospital.

MR. J. A. SHAW STEWART.

WE regret to have occasion to announce that Mr. J. A. Shaw Stewart has resigned the several offices he has long held in connection with the various charities and benevolent institutions in the metropolis, and has decided for the future to live in the country. Mr. Stewart was one of the earliest members of the Workhouse Infirmaries Association, and there is no doubt that to his influence and example was largely attributable the fact that many of the upper classes joined that Association. So soon as Mr. Hardy's Act became law, Mr. Stewart was nominated by the Government a member of the Asylums Board, and from that time to the present he has been most energetic in the performance of the duties of his office. Mr. Stewart was one of the originators of the Newport Market Refuge and Industrial School, and, as Chairman of Committee, has been unremitting in his efforts to make the institution a success. He has long held the treasurership of St. George's Hospital, and was for some time an active member of the Weekly Board of the Middlesex Hospital. By the retirement of Mr. Stewart from the metropolis, the sick and indigent poor will lose a great friend. Mr. Stewart, we understand, has accepted the bursarship of Keble College, Oxford.

FOOTBALL.

A FATAL case this week reminds us that deaths from injury received at football, and injuries hardly less serious than death, are sufficiently frequent to make it very desirable that more caution should be exercised by delicate persons in engaging in that manly and invigorating pastime, and that football-kickers should remember that bones are brittle and viscera susceptible of rupture. The death of Sub-lieutenant Drummond from injuries received at football at the East India College, Dulwich, is very far from being a solitary incident. It seemed quite clear that he was not in a state of health which justified his engaging in such rough games, since he had been invalided from an East India station, and was under treatment for blood-poisoning; and, according to the verdict, his death resulted from that cause, accelerated by a "kick in the side" received in a scrimmage at football.

SOCIETY FOR MUTUAL DISSECTION.

OUR Paris correspondent writes:—A new society, called the "*Société d'Autopsie Mutuelle*", is being formed in Paris, the members of which are by mutual agreement, and by will and testament in due form, to leave their bodies, after death, at the disposal of the Society for dissection, with the view of promoting pathological and physiological science. The body may be disposed of as the Society may think fit; but the skull, with its contents, should be made over to the Anthropological Society, with the view of its verifying, if possible, any particular quality, talent, or propensity for which the testator may have been noted during life. The founders of the Society are not over-sanguine of success, as they will have many obstacles to overcome,

not the least of which are certain deeply rooted prejudices "which have their source in thoughtless sentimentality, which time and the example set by the Society will help to eradicate". The "*Société d'Autopsie Mutuelle*" is not founded by the Anthropological Society of Paris, as announced by one of your London medical contemporaries. The one has nothing to do with the other beyond that the founders of the former are chiefly composed of members of the Anthropological Society. Indeed, it was Dr. Condereau, a young and zealous member of the last-named society, who has taken the initiative, and to him is to be addressed all applications for the membership of the Mutual Dissection Society.

DIARRHŒA OR CHOLERA.

THE Registrar-General, in his last Quarterly Return, draws attention to the "considerable want of uniformity in the judgment which guides medical practitioners in certifying the cause of death from epidemic summer diarrhœa"; and he remarks that "this causes marked discrepancies in the numbers of deaths referred to cholera, which include all those certified from choleraic diarrhœa". Thus, in the subdistrict of Carlton, near Nottingham, ten deaths were referred to English cholera, and but three to diarrhœa (all the ten deaths being certified by the same practitioner, who refers to cholera all cases of collapse supervening upon diarrhœa); whereas in the other neighbouring subdistricts of Basford district, ninety-seven deaths from diarrhœa were registered, and only three from cholera. In other districts, the same discrepancies are noted. It may, perhaps, be difficult, in times when cholera is epidemic, to decide exactly where epidemic summer diarrhœa ends and choleraic diarrhœa or cholera begins; and the symptoms of the two diseases do probably differ in degree rather than in kind. Still, the retention of colour in the stools and the slow progress of the disease are usually sufficiently indicative of the milder malady; and, where diarrhœa is the cause of death, it is desirable on all accounts that it should be so stated.

PERIPATETIC SMALL-POX.

IN a case of a woman summoned before the sitting magistrate at Southwark last week, it was elicited in evidence that a boy was found in bed suffering from small-pox, his body being covered, to keep him warm, with wadding used by the defendant for lining mantles. In the room also were found two sewing machines and materials for making mantles and dresses. It is possible that the woman acted in ignorance of the fearful responsibility she was incurring in thus using a material which might be the means of spreading small-pox in a manner which could scarcely be guarded against; however, the most perverse ingenuity could hardly have found a more effectual method of disseminating the disease broadcast. The magistrate, Mr. Partridge, fined the woman five pounds and costs—in our opinion, a very insufficient penalty.

TETANUS FROM HYPODERMIC INJECTION.

THE following report of an inquest at Southsea is in many ways instructive.

The deceased, who was the wife of Lieutenant and Adjutant Cyril Frampton, of the Portsmouth Division of Royal Marines, was twenty-five years of age, and, when at Walmer in 1871, Dr. Woodman, then a medical practitioner at that place, used morphia by the hypodermic method to relieve a sickness from which she suffered, always injecting the solution himself. On leaving Walmer, the deceased resided with her parents in London, during which time her mother, under medical sanction, used the subcutaneous injection of morphia for her; but, during the three months she had been at Southsea, her husband understood that she had completely given up the use of the narcotic. This, however, appears not to have been the case; for, a few days after her arrival in Southsea, the deceased sent Martha Jane Williams, a domestic servant, to the shop of Mr. Cruse, in Palmerston Road, with a bottle containing a label of "Poison", the servant being without any prescription, but each time the name of the servant was signed in a book. The deceased had told her servant that she had been in the habit of using what she had procured, but had not told her how.

The last bottle of the solution of morphia was procured on the previous Monday, but the deceased complained of a pain in the back of her neck on Wednesday evening, in consequence of which the attendance of Mr. Norman was procured by the deceased herself (her husband then being absent in London), and a draught was administered. The doctor was fetched again between two and three o'clock on Thursday morning, as she appeared to get worse, and was seized with convulsions, during which the head was drawn forcibly back and the back was curved. Her husband returned at seven o'clock on Thursday evening, and, after remaining up with her all night, she died from exhaustion at a quarter before five on Friday morning, lockjaw having taken place early on the previous morning. From statements made by Mr. Burford Norman, it transpired that, in an examination with Dr. H. B. Norman and Dr. Jackson, a large number of old scars were discovered on both arms, the result of hypodermic injections five years since, and upon the thighs there were a large number of similar marks, together with recent punctures, around some of the latter being a redness of the skin in different stages, showing that they had been made for injecting solution of morphia. Some syringes in a dirty condition were shown to the medical man on Friday morning, and also some rusty steel needles likely to set up inflammation. In the deceased's wardrobe in her bedroom, a number of phials and a hypodermic syringe were found to be secreted, the whole of the bottles but one being empty.—The evidence of Mr. Cruse showed that, on ten occasions in August, on nine in September, and on nine in October, morphia was sold to the deceased, for the whole of which she signed the "Poisons Register Book" on its being taken to her house.—The jury returned the following verdict: "That the deceased died from tetanus or lockjaw, caused by inflammation arising from punctures made by the deceased herself for the purpose of subcutaneous injection of solution of morphia."

Such a case reminds us of the dangerous facility with which chemists supply the most potent medicines, without medical sanction: an abuse which is prohibited in many countries of Europe. It affords another instance of the insidious character of the temptation inherent in narcotic medication, and of the varied forms of danger attaching to the practice of self-administration of hypodermic injections by patients. This is a practice which medical men should always oppose: we hear now and then of their not only countenancing, but recommending it.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THERE was a large attendance at the meeting of this Society on Tuesday, to hear a paper by the President on a rare form of disease of bone. An illustrative case of the disease, the characters of which are given in our Reports of Societies, was described in full detail, and several others were more briefly reported. Sir James Paget believes that he has made out a claim for a place in nosology for the disease which he described; he considers it to be a chronic inflammation, and suggests for it the provisional name of "osteitis deformans". After the reading and discussion of the paper, a letter was read from the delegates of the Society to the Philadelphia Congress, expressing their strong sense of gratification at the earnest and complete manner in which the proceedings of the meeting and of the sections were conducted, and at the cordial welcome which they received from their American brethren. At the conclusion of the meeting, the President laid on the table the new volume of *Transactions*.

THE AMBULANCES IN SERBIA.

THE *Daily News* correspondent telegraphs from Belgrade: "It is reported that the National Society intends to close the English hospital on December 1st. It is hardly credible that English humanity should receive such a stigma. The hospital contains one hundred and thirty-five patients, mostly serious cases requiring many weeks' care. It would be cruel to turn these sufferers over to inexperienced hands. The English surgeons have consented to remain during the winter. The chief surgeon, Mr. Attwood, to whose quiet devotion to duty and professional skill the greatest share of the success of the hospital is due, has stated that £200 per month is sufficient for the hospital expenses." From Uchitza comes the following telegram: "The town is full of officers on leave. Last night, at the mess, the health of the Russian Emperor was proposed by Mr. Baker, the surgeon. In reply, Prince

Helker proposed 'Queen Victoria, and eternal amity between the English and Russian nations'. All the officers, Russian, Austrian, and Servian, drank the toast with loud cheers, and sang the English National Hymn. The Russians here do not believe that the English people are jealous of their sympathy for the Christian subjects of the Porte."

RECENT URBAN MORTALITY.

DURING last week, 5,660 births and 3,713 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 24 deaths annually in every 1,000 persons living. The annual death-rate was 18 per 1,000 in Edinburgh, 23 in Glasgow, and 21 in Dublin. In the twenty English towns the death-rates were as follow: Norwich, 13; Newcastle-upon-Tyne, 17; Hull, 19; Brighton, 20; Sunderland and Leeds, 21; Bristol and Nottingham, 22; Wolverhampton, Leicester, and London, and Birmingham, 24; Sheffield, 25; Oldham and Plymouth, 26; Portsmouth, Manchester, and Liverpool, 27; Bradford, 28; and again the highest rate during the week, 40, in Salford. The annual death-rate from the seven principal zymotic diseases averaged 3.0 per 1,000 in the twenty towns, and ranged from 0.6 and 1.3 in Norwich and Bristol, to 6.7 and 9.4 in Portsmouth and Salford. Scarlet fever caused 11 more deaths in Portsmouth, and measles showed fatal prevalence in Bradford. In London, 2,810 births and 1,635 deaths were registered. The births exceeded by 339, and the deaths by 77, the average numbers in the week. The annual death-rate from all causes, which in the three previous weeks had been equal to 18.3, 19.1, and 21.0 per 1,000, further rose last week to 24.4. The 1,635 deaths included 48 from small-pox, 19 from measles, 32 from scarlet fever, 8 from diphtheria, 22 from whooping-cough, 24 from different forms of fever, and 16 from diarrhoea; in all, 169 deaths, against 157 and 144 in the two preceding weeks. These 169 deaths were 90 below the corrected average number, and were equal to an annual rate of 2.5 per 1,000. The fatal cases of measles, scarlet fever, whooping-cough, fever, and diarrhoea, were considerably below the corrected average. The 24 deaths referred to fever were 18 below the corrected average; 20 were certified as enteric or typhoid, 2 as typhus, and in two cases the form of fever was undistinguished in the medical certificate. To diseases of the respiratory organs, 452 deaths were referred, against numbers increasing steadily from 191 to 333 in the six preceding weeks. In greater London, 3,046 births and 1,905 deaths were registered, equal to annual rates of 37.1 and 23.2 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 17.7 and 1.5 per 1,000 respectively, against 24.4 and 2.5 in inner London. At Greenwich, the mean reading of the barometer last week was 29.93 inches. The mean temperature of the air was 38.6 degs., or 5.7 degs. below the average. Rain fell on Sunday and Thursday to the aggregate amount of the twentieth part of an inch.

IMPROVEMENTS AT THE GERMAN HOSPITAL, DALSTON.

BY the courtesy of Dr. Hermann Weber, we have had an opportunity of inspecting the great improvements now in progress at this excellent institution. A new out-patient department, quite detached from the main building, is built, and nearly ready for occupation; it contains a waiting hall, sixty feet long by twenty-four, and of proportionate height, with boarded floor, and wainscoting, and open fireplaces. There are four separate consulting rooms, and an excellent dispensary, with the necessary passages and partitions. The removal of this department from its former inconvenient position in the hospital has left space for the enlargement of the accident ward, which is now nearly sixty feet long, with space for fifteen beds; it has double lights, and has a particularly cheerful aspect. The railway company having required a neighbouring church, a new one has been built close to the hospital, and connected by a covered way, leaving the former chapel to be converted into a very good children's ward. A new *post mortem*

room has also been built. When the improvements are completed, by the admission of more light and air into what is now the syphilitic ward, the staff and the governors will have every reason to be proud of their institution.

THE VOLUNTEER SERVICE.

AN effort is being made to organise a corps of Volunteer "Sick-Bearers". It is stated that the originators of the scheme have become convinced of the necessity for such a corps, the more especially as the "existing Army Hospital Corps is at present less than one-fifth of its proper strength. They therefore propose that the medical officers of Volunteer Corps should acquire a knowledge of the system now in use in the Hospital Corps of the Regular Army, so as to be able to give the necessary instruction to the members of their respective corps in the preliminary handling of the sick and wounded."

MEDICAL MAYORS.

AMONG the mayors elected last week are the following members of the medical profession: Mr. W. T. Boreham, Wareham; Dr. J. A. Bright, Glastonbury; Mr. W. Cadge, Norwich; Dr. Kelburne King, Hull (re-elected); Mr. John J. Nason, Stratford-on-Avon (third year); Dr. Brisco Owen, Beaumaris; and Mr. Walmsley, Salford.

ALLEGED FAILURE OF SALICYLIC ACID.

AT the meeting of the Société de Thérapeutique, October 11th, 1876, Dr. Martineau reported that neither in typhoid fever nor in articular rheumatism did he obtain any influence, either by the temperature or the pulse, by the use of salicylic acid. This was confirmed by M. Dujardin-Beaumetz, who thought, however, that it calmed the articular pains.

DEATH FROM AN OVERDOSE OF CHLORAL.

ANOTHER death has to be added to the long list of casualties from the dangerous habit of taking hydrate of chloral. The victim in this case was Mr. Robinson, who formerly held the position of head-master at Chatham Dockyard. It seems that he was in the habit of taking hydrate of chloral; and that he took an overdose, from which he was found dead in his bed. As there was no evidence to show that he took the poison intentionally, the coroner's jury returned a verdict that he met his death by misadventure.

SUFFOCATION BY POISONOUS VAPOURS.

A PRISONER named Brereton, aged fourteen years; confined in the county gaol of Shrewsbury, has died, and nine other prisoners have been seriously affected, by inhaling poisonous vapours. The gaol is heated by hot air. The flue, it is stated, got out of order, and it is supposed that a quantity of impure air passed from the pipes into the cells. The prisoners went to bed at night, and the next morning Brereton was found dead, and nine of his fellow-prisoners in an alarming condition. The medical evidence showed that the deceased had died in consequence of having inhaled carbonic acid gas; and, at the coroner's inquest, held on Saturday, a verdict to that effect was returned accordingly.

SMALL-POX AND VACCINATION.

It is to be much regretted that many members of the medical profession, in their certificates relating to deaths from small-pox, omit all reference to vaccination. The Registrar-General observes that, in consequence of this omission, complete statistics as to the proportional mortality among vaccinated and unvaccinated persons cannot be compiled. This want of co-operation in such a cause should not exist. Small-pox, which for a few weeks had seemed almost stationary in London, last week showed much wider distribution. From the quarterly return, we learn that the deaths in the metropolis referred to this disease, which were but 6 in the last quarter of 1875 and 7 in the first quarter of 1876, rose to 26 in the second quarter of this year, and were 110 during July, August, and September last. Of these 110 deaths,

62 occurred in hospitals and 48 in private dwellings; 42 were of children under ten years of age, 17 of persons aged between ten and twenty years; and 51 were of adults aged upwards of twenty years. All the 110 fatal cases, except five, occurred among the labouring classes. The 110 deaths included 36 which were certified as vaccinated and 49 as unvaccinated; in 25 of the cases, the medical certificates gave no information as to vaccination. Among the vaccinated cases, only 3 were of children under ten years of age; whereas, of the 49 cases certified as unvaccinated, 36, or 61 per cent., were of children aged under ten years. No fewer than 92 per cent. of the vaccinated persons who died were aged over ten years. What more decided proof of the necessity of revaccination could be given? During last week, the deaths from small-pox in London, which had been 15 and 21 in the two previous weeks; further rose to 48: the highest weekly number since May 1872; 21 were certified as unvaccinated cases, 15 (all of adults) as vaccinated, and in 12 cases the medical certificates did not furnish any information as to vaccination. Of the 48 fatal cases, 22 occurred in the two Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell, 3 in the Highgate Small-pox Hospital, and no less than 23 in private dwellings. Excluding two hospital cases in which the residence was not stated and three extra-metropolitan cases, 4 belonged to the West, 11 to the North, 2 to the Central, 6 to the East, and 20 to the South groups of Districts. The two Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell contained 269 patients on Saturday last, against 177, 185, and 231 at the end of the three preceding weeks; 117 new cases were admitted during the week, against 43 and 101 in the two previous weeks.

CORONERS' INQUESTS.

DURING the third quarter of the present year, 6,459, or 5.4 per cent. of the deaths registered in England and Wales, were inquest cases, and registered from the certificates of coroners, slightly exceeding the average rate in the corresponding quarters of the six years 1870-75. In the twenty large towns, the percentage averaged 5.8, and ranged from 2.4 in Sheffield to 7.6 in Manchester. The Registrar-General hereupon remarks, that no stronger evidence of the want of uniformity in the discretion exercised by coroners as to the necessity for holding inquests could be adduced, than the fact that, in an equal number of deaths, more than three times as many inquests are held in Manchester as in Sheffield.

HOME FOR INCURABLES NEAR OXFORD.

THE Home for Incurables which was some time ago founded at Cowley St. John, near Oxford, is so far completed that the Committee is ready to receive patients. This institution has been established for the purpose of receiving persons afflicted with incurable disease, in order that they may be provided with that care and attention which they could not otherwise obtain except at considerable expense; preference being given to cases in which the relatives can contribute a small payment towards the funds of the home. We are glad to learn from the prospectus that no canvassing for election will be permitted, but that the selection of the persons to be admitted as inmates will be placed in the hands of the Medical Board. The Cowley Home for Incurables promises to be an institution of great public utility, providing as it does for the wants of a large class of persons who are not admitted to the general hospitals. Applications concerning the home should be made to the Lady Superior, Miss Sandford.

THE KEIGHLEY GUARDIANS.

THE Keighley Guardians were brought up for judgment before the Queen's Bench on Thursday morning. The Solicitor-General observed that, inasmuch as the proper order had been made in compliance with the peremptory mandamus, the Local Government Board would be willing to consent that the defendants should be liberated on their own recognisances to come up for judgment when called upon, on their undertaking not to do any act either to rescind the order, or to prevent its being carried into effect. The Lord Chief Justice remarked that that would

be a happy ending of the matter, and that it was a very liberal and generous suggestion on the part of the Local Government Board. The defendants, having assented to the proposal, entered into their own recognisances in the sum of £1,000 each to come up for judgment when called upon, it being intimated to them that, while they remained on the Board, they must neither in their official nor private capacities do anything to obstruct the carrying out of the order by taking part in demonstrations or otherwise. The Lord Chief Justice, in his remarks on the case, said that the submission of the defendants had relieved him from the necessity of passing the heavy sentence which it would otherwise have been necessary to inflict on them.

AN AMBULANCE SCHOOL.

A SCHOOL for ambulance attendants on a novel plan has just been set to work at the military school at Vincennes. Every day a squadron of hospital orderlies learn how to get ready in the quickest possible manner tents for field ambulances. These tents are immediately furnished with complete bedding and furniture for from six to twenty patients. At a given signal, the bedding is removed, the tents folded, and the patients are supposed to be lifted into vehicles to remove them out of gunshot. Trials were made with all the appliances submitted to the administration of this school. Shelter-tents, jack-saddles, carriages, stretchers, etc., are all examined in succession.

CHINCHONA PLANTATIONS.

THE departmental reports made to the Government of India show that in Sikkim 385,000 chinchona trees, chiefly the red bark variety, were planted out in the financial year 1874-75, bringing up the total number in the permanent plantation to 2,765,000. The red bark trees were in good condition. Though this bark is not so rich in quinine as the yellow variety, it apparently yields a greater quantity of alkaloid, which is an equally efficacious febrifuge. The inquiries of the Government quinologist have resulted in a cheap and efficient method of extracting the febrifugal alkaloids from chinchona bark. The area of land under chinchona in the Nilgherry Hills is reported at about 3,000 acres, part Government and part private plantations. The manufacture of amorphous quinine having ceased in August 1875, all the bark is now despatched for sale in the London market. During the year, 28,659 lbs. of mossed bark were shipped to England, and the prices averaged about 4s. per lb., an advance of more than 1s. on the average of the preceding year. The cultivation of chinchona in the Sittang division of British Burmah was carried on with success. There were at the close of the year, 19,234 plants growing well, and the nurseries contained 46,823 plants. The Government of India have decided not to manufacture quinine in British Burmah, and also prefer that the extension of the cultivation should be carried out through the agency of the Karens, and they have accordingly suggested that four Karen youths should be sent to the Sikkim plantations to be trained in the work.

SCOTLAND.

AN official return shows that the number of dogs taken charge of by the Glasgow police during the recent crusade, was 1,295, and that of these 1,155 were killed.

THE death-rate of Edinburgh during last week was 17 per 1,000 against 16 in the previous week, while the deaths from diseases of the chest, constituting one third of the total mortality in the week before, rose last week to one half.

FOR the vacancy in the post of Assistant-Physician to the Royal Infirmary of Edinburgh, caused by the election of Dr. Grainger Stewart to a Chair in the University, and the elevation of Dr. Muirhead to the office of full Physician, we hear of three candidates, viz., Dr. Wyllie, Pathologist to the institution; Dr. Andrew Smart, Lecturer on Physiology; and Dr. Affleck, assistant to the Professor of Medical Jurisprudence.

THE Police Commission of Forfar have determined to rescind a resolution passed by their predecessors providing for the introduction into the burgh of a new water-supply. Plans had already been prepared, and considerable expense undergone.

THE one hundred and thirty-ninth session of the Royal Medical Society of Edinburgh was opened on November 10th by an address by Dr. Matthews Duncan. The address was devoted mainly to a consideration of the works of Hippocrates. The large hall of the Society was full to overflowing, many having to stand.

THE Registrar-General's returns for October show that the death-rate in the principal towns of Scotland was much below the average during that month, that of Edinburgh being at the rate of 14 per 1,000, of Dundee 18, and in Perth, the highest of the principal towns, it was only 24. Of all the deaths, 43 per cent. were of children under five years of age. The mean temperature for the month was 50.6 degs., the highest recorded in the same period since 1867.

WE deeply regret to learn, that Dr. M. Brunton, house-surgeon of the Paisley Infirmary, who had been ill with fever in that institution for about a week, escaped this week from his bedroom while in state of delirium, climbed the wall enclosing the grounds, and was shortly afterwards found drowned in the river Cart, which runs close by. Deceased had only been appointed house-surgeon three weeks since. He was twenty-three years of age, and was son of Dr. William Brunton, late rector of the Paisley Grammar School.

UNIVERSITY OF GLASGOW.

AT a meeting of the Glasgow University Court on Saturday last, it was agreed to recognise, for the purpose of graduation in the University, the lectures of the following: Dr. M. Charteris, Dr. H. E. Clarke, Dr. J. Dougall, Dr. W. J. Fleming, Dr. A. Lindsay, Dr. W. McEwan, Dr. A. Wood Smith, Dr. J. Sturton, and Dr. J. Morton. The Court appointed Dr. Jamieson and Dr. Kirkwood managers of the Western Infirmary for the current year.

TYPHOID FEVER AND POLLUTED WATER.

THE outbreak of typhoid fever at Linlithgow Bridge, which began recently, has assumed an epidemic form, upwards of thirty cases having occurred, several of which have ended fatally; in some instances whole families have been seized. At a special meeting of the local authority held on November 10th, a report was read from Dr. Littlejohn, Medical Officer of Health of Edinburgh, recording the results of the investigations he made in conjunction with Dr. Hunter of Linlithgow two days before. The reporter ascribes the outbreak primarily to the polluted state of the water in the wells which form the ordinary source of supply to the village, and says that its epidemic character is due mainly to propagation by milk from three dairies, which he names. All these dairies could be distinctly made out to be separate centres of infection to their customers. From what he saw, there could be no doubt that the incautious manner in which the inhabitants disposed of the excreta of the sick also largely contributed to the spread of the fever. As to the measures to be adopted by the authority, he recommends that all polluted wells should be closed, and that a supply of wholesome water should be provided instead; that the distribution and sale of milk from the infected dairies should be at once stopped, as the milk coming from them in their present state could only be looked upon as a virulent poison; that middens and other accumulations of filth, and other refuse to be found in the gardens and courts of the houses in the village, should be removed; and that means be taken not only to supply disinfectants, but to see that they were properly used. The meeting approved the report, and resolved to carry out its recommendations as far as practicable; and, in the afternoon, circulars were posted up, calling upon the inhabitants to remove all filth from the vicinity of their dwellings within twenty-four hours on pain of immediate prosecution.

IRELAND.

A SANITARY MAGISTRATE FOR DUBLIN.

A DEPUTATION from the Corporation of Dublin has been appointed to wait on the Lord Lieutenant to ask his Grace's influence with the Government for the appointment of a magistrate to deal specially with cases under the sanitary law. It is rumoured that a member of the Town Council expects to obtain the new post.

QUEEN'S COLLEGE, GALWAY.

THE Chair of Midwifery, vacant for the past year by the death of Dr. Doherty, has recently been conferred upon Dr. Kinkead of Tuam. There was a very large number of applicants for the post, the emoluments of which are about £350 *per annum*.

ANATOMICAL MUSEUM OF THE UNIVERSITY OF DUBLIN.

THE new anatomical museum, which has been in course of construction for some time past, has now been completed, and, as a vehicle towards medical and scientific education, cannot be too highly valued; indeed, no more productive outlay than the cost of this museum has ever been incurred by the authorities of the Trinity College School of Physic.

DUBLIN HOSPITAL SUNDAY.

THE collections for this purpose took place last Sunday, and although the weather was extremely wet and disagreeable, yet, as far as can be judged—for the full returns have not yet been received—it is believed that the result this year will be satisfactory. Placards were extensively posted on the [previous day containing some doggrel rhyme, evidently inspired by the antivivisection party, recommending the public not to give any subscriptions to the hospitals on account of the practice of vivisection being carried on in those institutions. The object of this vile slander was to diminish the collections for the hospitals; but we are confident that, outside the limited number which comprise that peculiar society in Dublin, it met with the contempt it deserved.

ARTISANS' DWELLINGS ACT.

DR. MAPOTHER, the Medical Officer of Health for Dublin, having reported twelve areas under provisions of the Artisans Dwellings Act, as fit places for putting it into operation, the matter was referred to a Committee of the Corporation of Dublin to draw up a scheme; and, they having recommended that two areas (the Coombe and Boyne Street) in the worst part of the city should be cleared, it was determined at a special meeting of the Corporation held recently, to apply to the Local Government Board for a provisional order to borrow £17,000 for carrying into effect the provisions of the Improvement Act. A dozen other localities are equally bad, or rather worse; but now that a beginning is to be made in the areas selected, turning dens of disease, infamy, and dirt, into commodious and well ventilated houses for the working classes, it is to be hoped that the sanitary authorities will not for the future sit complacently with folded hands and fancy they have done all that is necessary, but, on the contrary, will not cease their efforts so long as a single "unhealthy area" exists in the city of Dublin.

THE REPRESENTATION OF THE UNIVERSITIES OF GLASGOW AND ABERDEEN.

THE voting in connection with the election of a member to represent the Universities of Glasgow and Aberdeen in Parliament was concluded on November 10th. The voting had been continued at both cities since November 6th, the candidates being Lord Advocate Watson (Conservative) and Dr. Anderson Kirkwood (Liberal), with the following result. At Glasgow—for the Lord Advocate, 1,176; for Dr. Kirkwood, 1,088. At Aberdeen—for the Lord Advocate, 1,216; for Dr. Kirkwood, 700. The Lord Advocate has thus a majority of 88 in Glasgow and 516 in Aberdeen, giving a total majority of 604.

THE MILITIA SURGEONS.

A NUMEROUSLY attended meeting of the militia surgeons was held at the Charing Cross Hotel on Tuesday last; Dr. SMYTH of Yarmouth in the chair. A large number of English militia surgeons were present, and a deputation from Ireland; and Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee of the British Medical Association, was present by invitation. The feeling was unanimous that the late Warrant entirely destroyed the past emoluments and advantages of the majority of surgeons holding commissions in the militia, and offered no compensation or corresponding advantages in the future. Notwithstanding that the Secretary of State for War had promised that each case should be considered on its merits, it did not appear that the War Office had shown any willingness to afford compensation in some striking test-cases which had been submitted; in these cases, the emoluments of which the surgeons were deprived amounted to some hundreds a year.

On the other hand, Mr. Hardy's communication to Dr. Goodchild, which was published lately in the *BRITISH MEDICAL JOURNAL*, stated that no claim to compensation would be affected injuriously by the surgeons now holding commissions placing their names on the departmental list under the new system; it was, therefore, resolved to recommend:

1. That militia surgeons be advised to enrol their names on the departmental list, if they individually desire to do so.
2. That each militia surgeon be advised to send in a statement of his loss under the new Warrant to the Secretary of State before December 31st, and ask for compensation.
3. That each militia surgeon be requested to furnish the secretary of this society forthwith with a statement of his loss, on a form to be furnished to him.
4. That, shortly after the meeting of Parliament, an influential deputation, accompanied by members of the legislature, do wait upon the Secretary of State for War to represent to him any grievances then unredressed.
5. That the Society requests the continued assistance in their behalf of the Parliamentary Committee of the British Medical Association.

ZYMOTIC DISEASES IN ENGLAND AND WALES.

THE Registrar-General remarks that, of the 119,909 deaths from all causes in England and Wales, registered in the quarter ending September 30th, 1876, 14,755 were referred to diarrhoea, 3,772 to scarlet fever, 2,443 to fever, 1,683 to measles, 1,491 to whooping-cough, 601 to diphtheria, and 543 to small-pox; in all, 25,288 deaths resulted from these seven principal zymotic diseases, and were equal to an annual rate of 4.1 per 1,000, which was 0.7 below the average zymotic rate in the six preceding corresponding quarters. The zymotic rate was lower during the quarter than in the summer quarter of any of the six years 1870-5, except in 1873, when it did not exceed 3.9. The death-rate from these seven diseases in the three months just ended ranged in the eleven registration Divisions from 2.2 in Wales and 2.6 in the South-western, to 5.1 and 5.5 in the Metropolitan and the North-western. The zymotic rate was but 1.4 in Dorsetshire, 1.5 in Westmorland, and 1.8 in Wiltshire and Suffolk; whereas it was so high as 5.1 in Warwickshire, 5.3 in Nottinghamshire, 5.8 in Lancashire, and 7.5 in Leicestershire. Exclusive of the borough of Leicester, the zymotic rate in Leicestershire was equal to 5.0 per 1,000, the excess both in the borough and in the ex-municipal portion of the county being mainly due to the exceptional fatality of diarrhoea. In the twenty large towns the rate from these seven diseases averaged 6.0 per 1,000, and differed but slightly from that which prevailed in the summer quarter of 1875; in the several towns it ranged from 3.3 and 3.5 in Plymouth and Brighton, to 10.2 and 11.5 in Salford and Leicester. Plymouth and Brighton suffered but slightly from epidemic diarrhoea, whereas the rates from this disease were excessively high both in Salford and Leicester, small-pox being also epidemic in Salford. In fifty other large towns, the zymotic rate averaged 4.8; while it was as low as 1.6 in Merthyr Tydfil, and 1.8 both in Hastings and Reading, it ranged upwards to 8.6 in Cheltenham, 8.7 in Stockport, and 8.8 in St. Helen's. All these excessive zymotic rates were mainly due to diarrhoea; scarlet fever, however, was fatally epidemic in Cheltenham, and the deaths from scarlet fever, diphtheria, and fever were numerous in St. Helen's.

Of the total deaths referred to diarrhoea in England during the three months ending September, an average proportion equal to about 80 per cent. is of infants under one year of age. During last quarter, 14,755 deaths were referred to diarrhoea, equal to an annual rate of 2.4 per 1,000; the diarrhoea-rate in the summer quarter of the six preceding years averaged 2.6, and ranged from 3.1 in 1870 to 2.2 in 1874. The mean temperature was exceptionally high during July and the first three weeks of August; and the rainfall in July was unusually small. The weekly fatality of diarrhoea increased rapidly throughout July, and reached its maximum during the fortnight ending August 5th, after which it rapidly declined during the remaining weeks of the quarter. While it appears more than probable that the rapidly increasing fatality of diarrhoea in July was mainly due to the hot and dry weather which prevailed during that month, it is worthy of note that the still higher temperature in the middle of August did not check the decline in the weekly number of deaths from this disease. The direct effect of heat upon the fatality of diarrhoea is proved by the low death-rates from this disease during the comparatively cold summers of 1860 and 1862, and by the highest rate having occurred in the remarkably hot summer of 1868. But there are other controlling elements in the causation of diarrhoea than high temperature; and these are in all probability to be found in what is understood by the sanitary condition of a population.

The diarrhoea-rate last quarter in the different registration Divisions ranged from 0.84 in Wales and 1.13 in the agricultural South-western counties, to 3.17 and 3.23 in the North-western and Metropolitan Divisions. In North Wales, the death-rate from diarrhoea was only 0.58 per 1,000, and in Herefordshire and Westmorland but 0.62 and 0.65. The highest county diarrhoea-rates were 3.4 in Warwick, 3.7 in Nottingham, and 4.9 in Leicester. Infantile diarrhoea is essentially an urban disease. Among the fourteen millions living in the town districts the annual death-rate from diarrhoea last quarter was equal to 3.3 per 1,000, whereas in the remaining or rural population of ten millions it was not higher than 1.2. In the twenty largest towns the rate was 3.9, and slightly exceeded that which prevailed in the summer quarter of either 1874 or 1875; in fifty other large towns it was equal to 3.1, and was somewhat lower than in the third quarter of 1875. In the whole of England and Wales, exclusive of the seventy large towns, the summer diarrhoea-rate was equal to 1.6 per 1,000 both in 1875 and 1876. Notwithstanding the higher temperature of last summer, diarrhoea was generally less fatal in England and Wales, except in the twenty largest towns, where its fatality had increased. In these twenty towns the diarrhoea-rate was equal to 1.8 in Plymouth and 2.4 in Brighton and Oldham, and ranged upwards to 5.9 and 8.4 in Hull and Leicester. Diarrhoea was nearly twice as fatal in Bristol last summer as in the summer quarter of either 1874 or 1875, whereas in Newcastle-upon-Tyne it showed a further decline from the rates which prevailed in two previous corresponding quarters. Leicester, again, showed the same exceptional fatality from diarrhoea which has in recent years attracted so much attention. During the summer quarters of the three years 1874, 1875, and 1876, the annual death-rate from diarrhoea in this town was successively 8.5, 9.2, and 8.4 per 1,000, and averaged 8.7; whereas the average diarrhoea-rate in the twenty largest towns during the same summer quarters did not exceed 3.7. It still remains to be explained why the diarrhoea fatality in Leicester should exceed by 135 per cent. the average fatality from this disease in twenty of our largest towns. In the fifty towns, the diarrhoea-rate during last quarter was less than one per 1,000 both in Merthyr Tydfil and Reading; whereas it was equal to 6.3 in Stockport, 6.5 in Yarmouth, and 6.8 in Wigan. The low death-rate from diarrhoea throughout Wales, and especially in Merthyr Tydfil, was more remarkable last quarter than in the summer either of 1874 or 1875.

The 3,772 deaths referred to scarlet fever during last quarter showed an increase of 500 upon those returned in the preceding three months, although they were considerably below the numbers in the corresponding quarters of 1874 and 1875. The largest increase in the fatal cases of scarlet fever occurred in the South-western and West-midland Divisions, especially in the counties of Somerset, Gloucester, and Hereford. The disease also showed increased fatality in London, Hampshire, and Cornwall. The annual death-rate from this disease was equal to 0.62 per 1,000, against 1.02 and 0.76 in the two preceding corresponding quarters; in the second quarter of this year, however, it did not exceed 0.53, and in the second quarter of 1873 it was but 0.36. During the three months ending September last the annual death-rate from scarlet fever was but 0.22 per 1,000 in the Eastern, whereas it ranged upwards to 0.71 and 0.74 in the South-western and South-eastern Divisions. The counties of Huntingdon, Westmorland, and Cumberland were almost free from scarlet fever fatality, whereas the disease caused a death-rate of 1.29 in Somersetshire, 1.35 in Gloucestershire, 1.42 in Leicestershire, and 2.02 in Herefordshire. In the twenty largest Eng-

lish towns, the scarlet fever rate averaged 0.74, and but slightly exceeded the general rate in England and Wales; in Portsmouth it was so high as 5.3 (showing a further increase upon the rates prevailing in the two preceding quarters of the year), and it exceeded one per 1,000 in Leeds, Sheffield, Sunderland, and Leicester. Among the fifty other large towns, scarlet fever was severely epidemic in Cardiff, Northampton, Southampton, Barrow-in-Furness, Cheltenham, and Bath. The disease also showed fatal prevalence in other localities. With reference to the outbreak of scarlet fever in the parish of Tillingham (Essex), the local registrar states that the drainage is defective and the water-supply bad, and that upwards of 200 cases of the disease have occurred among the 1,200 inhabitants.

The 2,443 deaths referred to fever, including typhus, enteric or typhoid, and undistinguished forms of fever, show a further marked decline from the numbers returned in the corresponding quarters of the six preceding years. The death-rate from fever was equal to 0.40 per 1,000, which was 31 per cent. lower than the average rate in the summer quarters of the six years 1870-75. In the principal town districts of England and Wales the fever-rate last quarter averaged 0.43, whereas in the remaining rural population it was 0.36. In the Eastern and Metropolitan Registration Divisions the death-rate from fever was but 0.25 and 0.30 respectively; it ranged upwards, however, to 0.52 and 0.53 in the Yorkshire and North-western Divisions. Thus in the counties of Chester and Lancaster 212 persons died from fever last quarter, to 100 in an equal number living in the counties of Essex, Norfolk, and Suffolk. In the twenty large English towns, the fever-rate averaged 0.41; it was but 0.12 in Brighton, but ranged upwards to 0.71 in Leicester and 0.72 in Leeds. A high fever-rate also occurred in Worcester, Huddersfield, Oxford, Bolton, Stockton, and St. Helen's. In the borough of Southport the deaths from fever showed an annual rate of nearly 3 per 1,000, which was more than five times as high as the fever-rate in Liverpool. The continued and marked decline in the fatality of typhoid fever in England may fairly be claimed as the results of recent national sanitary progress.

The annual death-rate from measles, which in the four preceding quarters had steadily increased from 0.19 to 0.54 per 1,000, declined in the three months ending September last to 0.28. The disease was comparatively fatal in Herefordshire, Staffordshire, and Shropshire, whereas no death resulted therefrom either in Cambridgeshire or Rutlandshire. The death-rate from measles in the twenty towns averaged 0.30, and but slightly exceeded the general rate in England and Wales, whereas it was equal to 0.67 in Plymouth, 0.71 in Leicester, and 0.85 in Bradford. Measles also showed exceptional fatality in Dover, Stoke-upon-Trent, Dudley, Coventry, Stockport, Chichester, Trowbridge, Poole, Burslem, Ashton-in-Makerfield, and Barnsley.

The 1,491 deaths referred to whooping-cough showed a rate of 0.24 per 1,000. The fatality from this disease was lower than in any quarter since the beginning of 1870, but was excessive in Milton, Ramsgate, Biggleswade, Coventry, and Wrexham.

The fatal cases of diphtheria were fewer than in any quarter since the third of 1873. The disease showed, however, a relatively high rate of mortality in Warwickshire, Lincolnshire, Northumberland, and North Wales; and was exceptionally fatal in Kidlington (Oxfordshire), Penkridge, Brailes (Warwickshire), Gainsborough, and Hexham. This disease in its most fatal epidemic form is of more frequent occurrence in small villages than in large towns. In the parish of Brailes, near Shipston-on-Stour, which has a population of less than 1,300 persons, a remarkable outbreak of diphtheria has recently occurred; during the six months ending September last no less than 26 deaths occurred from this disease within the parish, being equal to an annual rate of 40 per 1,000 persons living. This outbreak has been the subject of a Local Government Board inquiry by one of its medical inspectors.

In the last quarter of 1875 only 149 deaths were referred to small-pox in the whole of England and Wales, showing a considerably lower fatality from this disease than in any quarter since civil registration was established in 1837. During the first three quarters of this year the deaths from small-pox were successively 262, 501, and 543. Of the 543 fatal cases in England and Wales, 368 occurred in Lancashire, 110 in London, and only 65 in the rest of the country. No death from small-pox was registered either in 23 of the English counties, or in 13 of the twenty largest towns. The 368 fatal cases registered in Lancashire included 157 in Manchester and Salford (35 of which occurred in the Monsall Hospital), 131 in Liverpool, 10 in Blackburn, and 8 in Southport. In the township of Bispham (Lancashire), 5 fatal cases of small-pox occurred in one family, being the only deaths from this disease in the sub-district. The 43 deaths from small-pox occurring out of London and Lancashire, included 5 in Minster (Kent), 6 in Bristol and Clifton, 6 in Cheshire, 16 in the West Riding of Yorkshire, and 7 in Wales.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Feeding of Infants.—Poisoning by Lead in Cheese.—Effect of Gymnastics.—Anthropological Society.

It is now generally admitted in the profession that one of the most potent causes of the excessive mortality among infants is premature or artificial feeding, or the substitution of the milk of animals and of other substances for their natural food. M. Magne, however, lately read a paper before the Academy of Medicine, in which he endeavoured to show that, after the age of six months, milk of any kind was not only insufficient, but positively injurious to the child. He, therefore, recommended that, on attaining the above age, children should be fed on raw or cooked eggs, meat, bread, flour, oleaginous grains and seeds, all of which contain the elements of nutrition necessary for the growth and development of the tissues. In his veterinary practice, he had observed that young colts and calves, and even lambs, were, on coming into the world, separated from their mother and fed artificially, not only without any prejudice, but that they were afterwards far superior in every respect to those brought up with their mother's milk. Judging from analogy, he saw no reason why the young of human beings could not be brought up in a similar manner. M. Bouley, another veterinary member, pointed out how illogical it was to compare man with herbivorous animals, which are, anatomically and physiologically, differently constituted. M. Magne would have been nearer the mark had he made the comparison with carnivorous animals, whose digestive apparatus approaches more to that of man than does that of herbivora. The speakers who followed simply went over the old ground, that milk, being a perfect aliment, and being in a liquid form, was better suited to the digestive powers of the young animal than any other substance, particularly when it sucks the milk from the breast. Consequently, they could not accept M. Magne's theory, which was opposed to all that had been taught by physiology and by experience. M. Devilliers remarked that, in countries where lactation was rigorously carried out and continued until the child was able to digest more solid food, the mortality among infants was considerably less than where they were brought up by hand. M. Jules Guérin said that, if premature feeding of infants were prejudicial to their health, prolonged lactation was also injurious to both mother and child. He had known cases where the children had nothing but their mother's milk for twelve or fifteen months, and yet they became scrofulous and delicate. It was impossible to fix the age at which a child should be weaned, but its powers of digestion and the state of the mother's health should be the principal, if not the only, criteria in the matter. M. Magne made no attempt to reply.

Lead is seldom or never used for suicidal or homicidal purposes, and yet slow poisoning by this metal is more common than is generally supposed. Not to speak of painters and others whose profession places them in daily contact with the various preparations of lead, we are all more or less exposed to the absorption of this poison with our food and drink. This is so well known, that there is a law in France prohibiting the use of leaden sheets for enveloping confectionery, chocolate, etc. It might, however, have been usefully extended to all edible substances, as instances have occurred in which lead-poisoning has been produced by the ingestion of other meats not included in the above law. Among the substances not named in the prohibitory list is cheese, and a case lately occurred in which a gentleman was suddenly seized with symptoms of lead-colic, which were soon recognised as such by the physician who attended him, and which were relieved by appropriate treatment. No lead could be found in the cooking utensils or in the food and drink of the patient. Lead was discovered, however, in a piece of a Roquefort cheese, which was enveloped in a metallic sheet composed of twelve parts of tin, eighty-five of lead, and three of undefined matter. The conclusion drawn was, that the lead contained in the cheese was imparted to it by the envelope. The report has been submitted to the Council of Hygiene in Paris, with the view that the law already referred to be made to apply to all edibles without exception.

Dr. Burcq has recently made some researches as to the effects of gymnastics on the body. He obtained permission from the commandant of the Military School of Gymnastics near Vincennes to weigh a certain number of the men who had to go through these exercises, to measure the capacity of their chest, and, by means of a dynamometer, to gauge their muscular strength. These observations were to be taken before and after the series of exercises which the men had to

go through for a certain period, and the following were the results of observations on one thousand men at the end of six months. The muscular strength was increased by 23 and even to 38 per cent.; the capacity of the chest was enlarged at least by one-sixth, and the weight of the men was augmented by 15 per cent. It may be observed that the weight of the subject was increased at the expense of the bulk: rather a desirable result for fat individuals, who ought to feel encouraged to adopt such simple means to get rid of their superfluous fat by converting it into force.

The Anthropological Society, or rather Institute, has taken possession of its new premises in the Musée Dupuytren, and the members have every reason to be proud of such an institution. The premises have been arranged for the purposes of the Society, and, besides the usual bi-monthly meetings, lectures on all subjects appertaining to ethnology are to be delivered there to the general public. There is a splendid ethnological museum attached to the premises, which is well worthy a visit.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Manchester Royal Infirmary.—Children's Hospital at Pendlebury.—A Medical Mayor of Salford.

THE Infirmary question has advanced another and a very decided step. The Committee met on the 13th instant, which was appointed in February last, to consider—1. Whether it is desirable to change the site of the infirmary; 2. Should it be so decided, to consider what steps should be taken for the disposal of the property; 3. To report as to the application of any moneys which may be obtained by the sale thereof. When the Committee held its first meeting on March 6th, it was resolved, having regard to the magnitude and importance of the questions submitted, to appoint two subcommittees—a sanitary and a finance; the one (sanitary) to report upon the present condition of the building; its suitability to meet modern requirements in regard to hospital accommodation, and further to report upon any alterations which may be thought necessary; the other (finance) to consider whether it is desirable, on financial grounds, to remove the infirmary from its present site. The Sanitary Subcommittee applied to the Local Government Board for the assistance of one of their medical officers; and Mr. Netten Radcliffe was instructed to report on—1. The salubrity of the site in reference to the infirmary requirements; 2. The sanitary condition of the hospital, including the drainage; 3. The suitability and adaptability as regards construction and accommodation, and further to report upon any (medical) points included in the resolution under which the Committee was appointed. During Mr. Radcliffe's investigations, the attention of the Subcommittee was called to the defective construction of the drains and their extremely foul condition. The Weekly Board, in consequence of a communication from Mr. Radcliffe to the Medical Committee, and, on the advice of the Sanitary Subcommittee and the medical staff, determined on the erection of tents within the infirmary grounds for the reception of cases requiring isolation, and of other cases the removal of which the crowded state of the wards rendered advisable. Tent-accommodation for about one hundred patients was, therefore, provided; a part of one of the tents is now occupied with ordinary surgical cases. Mr. Radcliffe's report was received by the Sanitary Subcommittee on September 20th. In this report, attention is particularly called to the structural defects of the building: the ventilation of the wards into the corridor, the position of the water-closets within the building, the drains and drainage, the position of the deadhouse, etc. The effect of Mr. Radcliffe's report is clearly to condemn the present building. Its structural arrangements are radically bad; its accommodation is inadequate; there is no proper provision for the isolation of patients with traumatic infection. In the meantime, the Finance Committee carefully examined the subject referred to them, and resolved that, in their opinion, it is not desirable to increase the accommodation upon the present site. The two subcommittees came, therefore, substantially to the same conclusion; viz., the great increase necessary in the infirmary accommodation and the desirability of the removal of the main buildings. The original committee now presents its report, and advises their conclusions to be submitted forthwith to the general body of trustees for their approval. These conclusions are:—1. That a new infirmary or new infirmaries be forthwith built with adequate accommodation for at least four hundred in-patients on such plan and site or sites as to admit of two hundred additional in-patients being at a future time provided for; 2. That at least one of such infirmaries (containing not less than fifty beds, and to be used as a reception-house) be provided in a central position, either upon some part of the present site, or within a few hundred

yards therefrom ; 3. That, if it be determined to maintain such receiving-house upon any part of the present site, the existing buildings should not be retained, but an entirely new building erected ; 4. That the present site of the infirmary buildings and ground, except such parts, if any (1), as it may be determined to leave open and unbuilt upon, and (2) as may be retained for the purpose of the site for such receiving-house as aforesaid be forthwith sold ; 5. That, out of the proceeds of the sale of the site, each receiving-house and infirmary (or infirmaries) as aforesaid be provided. These recommendations will be brought before a general meeting of the trustees at an early date. It is sincerely to be hoped that no more time will be wasted in fruitless and unnecessary discussion, but that determined and definite steps will be taken towards the practical adoption of the conclusions arrived at by the Sites-Committee.

The completion of the Children's Hospital, Pendlebury, is fast becoming a realised fact. Two out of the three pavilions necessary to finish the building are already under roof. The last and front pavilion will be two-storied, and it is intended to utilise the basement as nurses' dormitories. When completed, the hospital will afford accommodation for one hundred and sixty-eight children, and will be one of the most perfect of its kind in England.

Salford is to be congratulated on having secured a member of the medical profession as its mayor. Mr. Walmsley, one of the surgeons to the Salford Royal Hospital, has well earned the position to which he was unanimously elected last week. He entered the town council about eight years ago, and since then he has for some years held the post of Chairman of the Health Committee. He took a prominent part in the purchase of Wilton House, Cross Lane, now converted into a hospital for infectious diseases.

ASSOCIATION INTELLIGENCE.

GLOUCESTERSHIRE BRANCH.

THE next meeting and supper will be held at Gloucester, under the presidency of Dr. WRIGHT of Cheltenham, on the evening of Tuesday, November 21st.

Business.—The election of officers ; to receive a recommendation of Council with regard to the death of Dr. Rumsey, and the question of the Government Pension.

The following papers are promised.

1. Dr. Wright : On the sources of information for the Sanitary Medical Officers.
2. Dr. Wilson : On Diabetes.
3. Mr. Bubbs : Surgical Notes.
4. Mr. Holland : The Spectroscope as an aid to Diagnosis.

RAYNER W. BATTEN, M.D., *Honorary Secretary.*

Gloucester, November 7th, 1876.

SOUTH-EASTERN BRANCH: EAST AND WEST KENT DISTRICTS.

A CONJOINT MEETING of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on November 24th, at 2 P.M. : Dr. STEPHEN MONCKTON, the President of the South-Eastern Branch, will preside.

Dinner to take place at the Bull Hotel at 3 o'clock precisely. Charge, 6s. 6d., exclusive of wine.

Notices have been received of the following communications to be read at the meeting.

1. Mr. M. A. Adams : Cases of Intraventricular Hæmorrhage.
2. Mr. Rigden : Case of Hydrophobia.
3. Mr. Nankivell : Case of Pencil Fistula.
4. Mr. Teevan : Cases of Retention of Urine.
5. Dr. Thomas Eastes : Case of Intussusception successfully treated by Inflation.
6. Dr. C. E. Hoar : Case of Paracentesis Thoracis.
7. Dr. Wordsworth Poole : The expediency of an arrangement by which Surgeons would cease to Dispense, and Druggists to Prescribe.
8. Dr. Monckton : Case of Lymphadenoma.
9. Dr. Monckton : Case of Simultaneous Obstruction of both Ureters by Calculus ; Recovery.
10. Dr. John Armstrong : Jottings from my Note-Book.

It is particularly requested that those intending to be present should inform Mr. Edward Thurston, Ashford, the Secretary to the East Kent District, on or before Tuesday, November 21st.

FREDERICK J. BROWN, M.D.

EDWD. WHITEFIELD THURSTON. } *Honorary Secretaries.*

November 7th, 1876.

STAFFORDSHIRE BRANCH.

THE first ordinary meeting of the Session will be held at the North Staffordshire Hotel, Stoke, on Thursday, November 30th, at 4.30 P.M.

VINCENT JACKSON, Wolverhampton. } *Honorary Secretaries.*

RALPH GOODALL, Silvérdale.

Wolverhampton, November 13th, 1876.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICT MEETINGS.

A CONJOINT meeting of the above Districts will be held on Thursday, November 30th, at the Marine Mansion Hotel, opposite the Old Chain Pier, Brighton, at 5.30 P.M. ; Dr. E. F. FUSSELL in the Chair.

Dinner at 5.30 P.M. ; charge, six shillings, exclusive of wine.

The following communications are promised.

1. Dr. Fussell : On some Outbreaks of Diphtheria.
2. Mr. N. P. Blaker : On a Successful Case of Ovariectomy.
3. Mr. Banner : On his System of Sanitation, illustrated by models, as applied to the drainage of Guy's Hospital.

Other communications are invited, and notice thereof requested to be sent to the Secretaries on or before Tuesday, the 21st instant, in order that they may be inserted in the notice convening the meeting.

W. J. HARRIS, 13, Marine Parade, Worthing, Hon. Sec. for the West Sussex District.

THOS. TROLLOPE, M.D., 35, Marina, St. Leonard's-on-Sea, Hon. Sec. for the East Sussex District.

Brighton, November 14th, 1876.

BATH AND BRISTOL BRANCH.

THE next ordinary meeting of the Session will be held at the York House, Bath, on Thursday, December 7th, 1876 : H. F. A. GOODRIDGE, M.D., President.

R. S. FOWLER, Bath. } *Honorary Secretaries.*

E. C. BOARD, Clifton.

Bath, November 9th, 1876.

BORDER COUNTIES BRANCH: AUTUMNAL MEETING.

THE autumnal meeting was held in the Board Room of the Whitehaven and West Cumberland Infirmary on Friday, October 20th ; the President, Dr. BARNES of Carlisle, in the chair. There were present eighteen members and several visitors.

Report of Committee on Fees.—The consideration of the report presented by this Committee was resumed, and several alterations in their scale were agreed to. It was resolved that it be remitted to the Secretaries to print and forward to each member a copy of the amended tariff, and that the members of the Branch be recommended to adopt this scale as a basis for their fees.

Papers.—The following papers were read.

1. On the Effect of the Warm Bath in a Case of Acute Mania, by Dr. G. J. MURIEL, Whitehaven.
2. On the Removal of Intra-uterine Polypi by the *Ecraseur*, with Cases, by Dr. M. W. TAYLOR, Penrith.
3. A Year's Clinical Surgery in the Cumberland Infirmary, by Dr. MACLAREN, Carlisle.
4. Dr. HORAN exhibited a Case of Necrosis of the Radius.
5. Dr. ABLETT showed a Case of Necrosis of the (Left) Body and Ramus of the Lower Jaw.

Dinner.—The members and friends afterwards dined together ; Dr. Barnes being in the chair, and Dr. Taylor in the vice-chair.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE first ordinary general meeting of the Session was held in the Queen's College, on Thursday, October 12th. There were present Dr. G. F. BODINGTON, President, in the chair ; and fifty-one members.

New Members.—The following members of the Association were elected members of the Branch : T. F. Chavasse, M.B. ; and W. G. Creswell, Esq.

Communications.—1. Dr. Dewes exhibited a Tumour of the Cerebellum. 2. Mr. Jolly showed a specimen of Progressive Cario-necrosis of the Os Calcis. 3. Dr. Saundby exhibited a specimen of Unilateral Hydronephrosis. 4. Dr. Russell read a paper entitled Clinical History of Tumours of the Brain.

Notice of Infectious Diseases.—Dr. JAMES THOMPSON moved, and

Dr. DEWES seconded, the following resolution, which was carried, with one dissident: "That, in the opinion of this Branch, the occupier of a house in which infectious disease occurs should be the person to give information to the Medical Officer of Health of the existence of such disease."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 14TH, 1876.

Sir JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

ON A FORM OF CHRONIC INFLAMMATION OF BONES (OSTEITIS DEFORMANS).

BY SIR JAMES PAGET, BART., D.C.L., LL.D., F.R.S., PRESIDENT.

THE paper contained a description of cases of a form of chronic osteitis, of which the following were given as the chief characters. It begins in middle age or later, is very slow in progress, may continue for many years without influence on the general health, and give no other troubles than those which are due to the changes of shape, size, and direction of the diseased bones. Even when the skull is hugely thickened and all its bones exceedingly altered in structure, the mind remains unaffected. The disease affects most frequently the long bones of the lower extremities and the skull, and is usually symmetrical. The bones enlarge and soften; and those bearing weight yield and become unnaturally curved and misshapen, suggesting the proposed name "osteitis deformans". The spine, whether by yielding to the weight of the overgrown skull, or by change in its own structures, may sink and seem to shorten with greatly increased dorsal and lumbar curves; the pelvis may become wide; the necks of the femora may become nearly horizontal. But the limbs, however misshapen, remain strong and fit to support the trunk. In its earlier periods, and sometimes through all its course, the disease is attended with pains in the affected bones, pains widely various in severity and variously described as rheumatic, gouty, or neuralgic, not especially nocturnal or periodical. It is not attended with fever. No characteristic conditions of urine or feces have been found in it. It is not associated with any constitutional disease, unless it be cancer. The bones examined after death show the consequences of an inflammation affecting, in the skull, the whole thickness, in the long bones chiefly the compact structure of their walls, and not only the walls of their shafts, but, in a very characteristic manner, those of their articular surfaces. The changes of structure produced in the earliest periods of disease have not yet been observed; but it may be believed that they are inflammatory; for the softening is associated with enlargement, with excessive production of imperfectly developed structures, and with increased blood-supply. Whether inflammation, in any degree, continues to the last, or whether, after many years of progress, any reparative changes ensue, after the manner of a so-called consecutive hardening, is uncertain. One case especially, which had been for many years under Sir James Paget's observation, was reported in full detail. Microscopical examinations of the diseased bones by Mr. Butlin were reported; and the altered shapes of two persons suffering with the disease were shown in photographs. The diagnosis of the disease from various forms of hyperostosis and osteoporosis was pointed out, and an attempt was made to indicate the variety of diseases which had given rise to different examples of the great porous skulls found in museums.

Mr. BRUDENELL CARTER said that the patient whose case was described by Sir James Paget consulted him about three years ago on account of failure of vision. On ophthalmoscopic examination, small hæmorrhagic points were found diffused near the circumference of the retina. Dr. Andrew Clark had also made a careful examination of the patient, and believed that there was considerable hypertrophy of the heart; this, however, seemed not to have been confirmed by the *post mortem* examination.—Sir JAMES PAGET said that he had endeavoured in vain to ascertain by what ophthalmic surgeon the patient had been examined. He asked Mr. Carter whether there were any signs of compression of the optic nerve.—Mr. CARTER said that there were none.—Mr. BARWELL would like to know whether the weight of the femora had been compared with that of average femora. The bone appeared to have lost substance interstitially and replaced it by external deposit, so that there might not be absolute increase in quantity. He thought that the disease had some analogy with chronic rheumatic arthritis. Continental writers had given the name of arthritis deformans to chronic rheumatic arthritis—and there was no reason for regarding this latter disease as rheumatic. He questioned whether some such name as

osteitis dilatans would not be better than osteitis deformans. It was also worth consideration how far the disease differed from osteoporosis. The disappearance of what Quekett had called the Harveian system in Sir James Paget's specimens resembled what was found in osteoporosis.—Sir WILLIAM GULL made some remarks on a case mentioned in the paper which had been under his observation. He would ask the President what was the cause of the condition. Why was it symmetrical? Why did it affect the hyoid bone and leave the phalanges free? If it were an osteitis, what was its cause? Was it in any way explained by comparative pathology?—Dr. GOODHART called attention to the fact that a large proportion of the patients in whom osteitis deformans was observed had died of cancer. Might not the disease be a generalised form of tumour? This idea would be supported by the fibrillating cell-growth seen in cancer of the liver, and by the condition of the subcutaneous tissue in molluscum fibrosum.—Sir JAMES PAGET could not say what was the specific gravity of the bone in his specimens as compared with healthy bone; but he believed it was not changed. He had no doubt that the disease was an osteitis; it manifested degeneracy of tissue with increased quantity, which was characteristic of chronic inflammation. As to its real pathology, he was still in doubt; but the same absence of knowledge of pathology existed with regard to chronic rheumatic arthritis, of the cause of which nothing is known. He differed from Mr. Barwell as to the existence of any similarity between the disease which he described and chronic rheumatic arthritis. If anyone could have noticed osteitis deformans in connection with chronic rheumatic arthritis, it was Mr. R. Adams of Dublin, who had thoroughly examined the last-named disease; but he made no mention of any condition of the shafts of the bones, such as that which formed the subject of the paper. With reference to Dr. Goodhart's suggestion, he thought it would be enlarging the field of tumours to place osteitis deformans among them.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 10TH, 1876.

Sir WILLIAM JENNER, Bart., M.D., D.C.L., F.R.S., President, in the Chair.

Hæmophilia.—Sir WILLIAM JENNER reported this case, which was that of a lad aged 13, who was admitted into University College Hospital on November 4th, on account of hæmorrhage from the bowel. He was known to be suffering from the hæmorrhagic diathesis, having been several times in the hospital on account of severe hæmorrhage from slight causes. He had also often suffered from spontaneous bleedings from the nose and mouth, and also from frequent swellings of the joints; of late, the left knee had been permanently affected. A brother of the boy also suffered from the same condition; but no other member of the family. On admission, the boy was pale and prostrate, with numerous subcutaneous ecchymoses and considerable swelling of the right thigh. The hæmorrhage from the bowel, generally of dark blood, continued, in spite of an ergotin injection and turpentine and acetate of lead by the mouth, employed before the boy was seen by Sir William Jenner, who ordered an injection of perchloride of iron into the rectum, and gallic acid to be given internally. The injection returned in ten minutes, but there was no more hæmorrhage, although small stools were passed. The boy, however, became paler, weaker, and more restless, and died twenty-four hours after admission. At the *post mortem* examination, blood was found in moderate quantity on each side of the heart, and the clots were firm. The lungs presented no consolidation, but many peculiar pale patches, sharply defined, a little raised, with some adjacent hyperæmia, containing air and fluid, and a little more solid than the adjacent parts. The lower part of the rectum contained a very firm clot, and all the blood had evidently come from the lower six inches, where the mucous membrane was undermined by extravasations which had broken through it. The liver and spleen were healthy. The left kidney was absent; its suprarenal body was disc-shaped. The right kidney was hypertrophied, weighed seven ounces, and presented traces of foetal lobulation. The aorta was rather small but healthy, and the arteries and veins were also healthy in appearance. The enlargement of the right thigh was due to an enormous extravasation of blood beneath the fascia. The clot was two inches thick, and very firm. The left knee-joint was found full of purple blood and stringy synovia. The synovial membrane was stained ochre-brown. The cartilages presented evidence of chronic inflammation. Sir William Jenner remarked that the case resembled, in its general features, several other cases which had come under his notice; it resembled them, too, in the seats of the hæmorrhage, in the character of the blood lost, and in the joint-affections. The joint-affections were of three kinds, and the boy suffered from the two forms which were

most characteristic of the disease—spontaneous swelling, tenderness, and general puffiness of the joint, such as occurred in rheumatism; and swelling, the result of successive secretion, with hæmorrhage, the result of a slight injury. A rarer form sometimes seen in the disease was much simple effusion. The firmness of the clots in the heart and rectum illustrated the important fact that the blood in a case of hæmophilia, after death and during life, did not lose its power of coagulating firmly. The case lent no support to the view that the walls of the arteries were in these cases of abnormal thinness. In most of the cases Sir William Jenner had seen, the bleeding was venous, not arterial. The source of the blood, the lower part of the rectum, was a point of great practical importance, and so also was the firmness of the clot which was found, a firmness probably due to the effect of the perchloride of iron, the best local styptic in these cases. It was very doubtful whether death in this case resulted from the hæmorrhage from the bowel; the extravasation into the thigh probably assisted, and the peculiar state of the lungs and bronchial tubes might have been the immediate cause of death. The points in the pathology of the disease which had been impressed on Sir William Jenner by the cases he had seen were—1. That the tissues were all soft, so that they bruised easily; 2. That the blood was rather slow in coagulating, although it coagulated as firmly as in health; 3. That the blood was formed rapidly: that there was a tendency to plethora of the smaller vessels, and that when the patient was looking his best was the moment when injuries had the worst effect and spontaneous hæmorrhages were the most likely to occur. With regard to the etiology of the disease, in some cases, as in this one, it was certainly impossible to trace it back to the ancestors of the patient; but, when once developed, it often affected more than one member of the family; Sir William Jenner had known it transmitted by a daughter who was not herself the subject of the disease. The most important points in the treatment of the disease, as distinguished from the hæmorrhages, were the administration of a mercurial and saline sulphate of soda aperient every three weeks, with the latter repeated once a week; that the diet should be rather dry, with a considerable proportion of white fibrinous meats; and that plenty of open-air exercise should be taken, with the greatest care to avoid mechanical injuries.

Mr. CHRISTOPHER HEATH said he remembered the boy as a patient under his care. The rest in the hospital did him good. It was, however, rather curious that two instances of such a rare form of malady should be in the hospital at the same time, for at the present moment under his care there was also a patient, all the male members of whose family were bleeders. He had carefully traced the family history in this case, and it was reported in the *BRITISH MEDICAL JOURNAL* for January 11th, 1868. The female members of the family did not suffer, but they transmitted the affection to their male offspring. In the case of the boy under his care, there was also local infiltration, but it seemed to be more superficial than in Sir W. Jenner's case. The tendency to bleed in him could only be overcome by continuous irrigation by cold water. Internally, he gave iron and hydrochloric acid. As a result of this tendency, all the males of the family had died out; only the females were left alive.—Mr. HOWARD MARSH had seen four or five such cases among children. In all, or almost all, of these, the joint affection was present, but there had been no means of determining its nature. In one instance, the elbow-joint had been destroyed, probably as the result of effusion. As a rule, the joints resembled rheumatic joints.—Sir WILLIAM JENNER did not think that iron given internally did much good in these cases. When relief had been afforded by bleeding, almost anything would stop it. Locally, matters were quite different; there, he thought that iron was of the greatest value. If the bleeding came from the bowel, it was generally from the lower part of the rectum, to which the iron could be readily applied.—Dr. GREENHOW knew of one family which had completely died out from this affection, yet there was no family history of bleeding. Two died under his cognisance; one from bleeding at the nose in whooping-cough, the other from bleeding after the removal of a tooth.—Sir WILLIAM JENNER said he had seen bleeding from the socket of a tooth promptly relieved by crystals of perchloride of iron.—After some remarks by Dr. MAHOMED on the condition of the vessels, Dr. GREENFIELD said he had seen plastic exudation in the bronchi in two cases where death had followed hæmorrhage.—Sir WILLIAM JENNER, in reply to Dr. A. P. Stewart, said that there had only been one subcutaneous injection of ergotine (four grains). He also observed that Professor Rheinkens of Brussels, whom he had seen, and who had recommended regular bleeding to keep off the malady, had had five cases; all of these patients were now dead.

Sequel of a Case of Rapid Contraction of a Cavity in the Lung. (Communicated to the Society in 1871.)—Dr. THEODORE WILLIAMS read a further account of this case. He said that, in 1871, some eminent Fellows of the Society had expressed doubts as to the existence of a

cavity, in spite of the physical signs narrated; but the death of the patient in 1875, which permitted an inspection of the lungs, cleared up all doubts. The patient, a widow, aged 53, was admitted into the Brompton Hospital in April 1871, with a history of pleurisy of twelve years' standing, and of phthisis of one year's duration. Dulness was detected over the whole left side; cavernous sounds were audible from the first to the third ribs and rhonchi and *râles* below, and also in the right lung. Subsequent examinations showed a gradual diminution of the cavernous sounds; and, in July 1871, *i.e.*, three months after admission, they had entirely disappeared. No marked displacement of adjacent organs was then to be found; but, a few months later, the heart and stomach were drawn up, the right lung being drawn across the median line, and some shrinking of the side was visible. In 1872, the patient had survived a severe attack of capillary bronchitis; but died of congestion of the right lung in 1875; the physical signs before death indicating great shrinking of the left lung. The necropsy showed an old puckered cavity, about the size of a date-stone, near the apex of the left lung, underlying the portion of the chest-wall where the cavernous sounds had formerly been audible. The bronchus leading to the cavity was blocked and obliterated, and the greater part of the lung was in a state of fibrosis; the right lung, drawn across the median line, was partly emphysematous and partly congested. The heart was drawn up, and the left chest measured one inch and a half less than the right in circumference. Dr. T. Williams remarked that, in this case, each step of the contractile process had been noted by physical signs; and the *post mortem* examination thoroughly confirmed the diagnosis. The fibroid process may have had its origin in the old attack of pleurisy, and was the means of limiting the caseation and arresting the disease. The cavity-sounds were quite distinct; and he could not understand the existence of a cavern being doubted. Cavities were overlooked during life by accomplished auscultators; but this arose either (1) from the bronchus leading into them being blocked, or (2) from their being small and deep-seated, or (3) from the development of emphysema in the neighbourhood. On the other hand, consolidations should not be mistaken for cavities, the difference in the expiration note, the succussion sound, the gurgle, and examination of the sputum being easy means of distinction. Dr. T. Williams remarked, in conclusion, that far more cavities were overlooked than erroneously diagnosed.—A few observations followed the reading of this paper.

Localised Hypertrophy of the Scalp.—This case was shown by Mr. WALSHAM. The patient, a boy aged 16, presented on the left side of the head a peculiar hypertrophied condition of the scalp, appearing as a soft loose mass, which could readily be pinched up from the parts beneath, was doughy yet elastic to the touch, not painful except on being handled, and did not pulsate. In front, it presented a peculiar lobulated appearance, the lobulated portions being raised, irregular, and of a pinkish white colour. The hair-follicles appeared enlarged and farther apart than usual; but the hair itself was healthy. The temporal and posterior auricular arteries were not involved in the disease. Two enlarged glands could be felt at the lower part of the swelling. The pericranium was not affected. The temperature of the part was slightly raised. This affection was said to have begun some eight or nine years previously as a small lump behind the ear, and was attributed by the friends of the patient to the application of a blister in this situation for an affection of the eye. It was said to have increased at first slowly, but afterwards rather rapidly. Mr. Walsham was inclined to regard the disease as an hypertrophy of the scalp and adjacent cellular tissue, probably of the nature of the so-called fibroma molluscum, as it bore some resemblance to the cases of fibroma shown by the late Dr. John Murray before the Royal Medical and Chirurgical Society in March 1873. The non-congenital history of its origin, and the absence of any pulsation or visible enlargement of the vessels precluded the idea of its being of a nævoid nature. The tumour was roughly confined to the distribution of the auriculo-temporal branch of the fifth nerve; and, as the disease appeared to have followed some affection of the eye, a reflex irritation of this nerve was suggested as a possible origin. Continuous pressure and partial excision were suggested as methods of treatment.

Leucocythæmia Treated by Phosphorus.—Dr. BROADBENT exhibited a patient suffering from this disease. The case will be discussed at a future meeting.

Dr. MACKEY.—The following is a copy of a resolution of the Committee of the Queen's Hospital, Birmingham, passed November 5th. "That this Committee, with great regret, accept Dr. Mackey's resignation; and, while thanking him for his onerous and able services as physician to the Queen's Hospital during the past five years, wish him every success in the new sphere upon which he has entered in London."

CORRESPONDENCE.

THE COLLEGE OF PHYSICIANS AND THE COURTS OF LAW.

SIR,—When any discussion is clouded with personalities, it is, perhaps, no wonder that principles are overlooked; but one cannot help feeling curious to know on what principle the Board of Censors of the College of Physicians entertained the complaint made to them by one Fellow of the College against another Fellow on account of evidence given by the latter in a court of law. The by-laws of the College lay down rules of conduct and demeanour to be observed by its members towards each other in their professional duties, that is to say, in their duties as physicians; but the ancient men who framed these by-laws wisely forbore from making futile regulations as to conduct or demeanour outside the limits of professional duty, and they would probably be not a little astonished at the boldness of their successors in office, could they know that the authority of the Censors had been extended to regulating the words and the temper of physicians, who, in the discharge of their citizen duties, were called upon to give evidence upon oath in courts of law.

The Board of Censors have, in the first place, expressed a strong opinion respecting the evidence given by two of their Fellows in the *Bravo* inquest, as being, in the one case, "very objectionable, from being so open to misinterpretation", and in the other, because "the answers given in court indicated considerable warmth of feeling"—faults which, if they existed, one would have thought it was the proper function of the court itself to deal with.

In the second place, the Board of Censors have laid down what seems to be a new rule of conduct for medical witnesses, which can scarcely be accepted without further inquiry; and, perhaps, not without the sanction of higher authority.

This new rule appears to be that, if one medical witness should hear evidence given in a court of law by another medical witness which is "open to misinterpretation", the former is bound to communicate to the latter "the impression made on his mind, so as to give the opportunity of publicly repudiating the interpretation put upon his words".

The inevitable result of such a rule, if adopted, will be that the lawyers and the public will understand that medical evidence has been pre-arranged by private conference, with the intent that no medical witness may find his "position in the case" prejudiced. The elucidation of truth in the interests of the public does not seem to have been so much regarded in this judgment as the witness's "position in the case", a consideration which is apt to be overlooked in the proceedings of our courts; but whether the new rule will tend to improve the medical witness's "position in the case" is much to be doubted.

The proceedings of our courts of law provide tolerably effective means of correcting evidence which is "open to misinterpretation", and even to any improper display of "warmth of feeling"; but, to supplement these checks by the private expostulations of witnesses who have, perhaps, observed the same facts from different points of view, would discredit medical evidence far more than these very common faults could possibly do. Such private conference or expostulation between witnesses would be mischievous, even when they were on the same side of a case, or in an inquiry where no two sides were distinctly discernible; but, in ordinary trials, either civil or criminal, it would be simply impossible to adopt such a rule of conduct between witnesses on opposing sides. The lawyers would forbid it; and, if it took place without their knowledge and were exposed under cross-examination, the court would condemn it; and the witnesses who had adopted it would find their position very much prejudiced indeed.

One question remains. When a medical witness has found his own evidence in more or less disagreement with that of a professional brother, is he, or is he not, under any obligation to present himself for re-examination?

Practically, the question is answered by the fact that the conduct of the case is not in the hands of the witness, but of the lawyer; and, if the lawyer should claim a re-examination, the witness cannot help himself.

But, more than this, a witness is sworn to tell the truth and the whole truth; and, if he find that he has not told the whole truth in his first examination, he is strictly bound by a "sense of public duty" to pay the whole debt of testimony which he owes to the community; and, if he were to withhold it out of consideration for the feelings of a professional brother, he would, by so doing, place a misconceived professional etiquette above the higher considerations of right and justice.

On the whole, it may appear that the worthy physicians who form the Board of Censors of the Royal College had better stick to their last, regulating with righteous judgment the consultations of the sick room, but leaving their Fellows to follow the dictates of conscience and to obey the rules of legal procedure when called upon to appear in the witness-box of courts of justice; and for medical witnesses, when they have been ruffled in court, there is no good reason why they should take their complaints to the Board of Censors. Surely, they had better follow *Tranio's* advice, and

"Do as adversaries do in law:

Strive mightily, but eat and drink as friends."

I am, Sir, yours, etc., A FELLOW OF THE COLLEGE.

UNIVERSITY COLLEGE HOSPITAL.

SIR,—Certain inaccurate letters having appeared in the *BRITISH MEDICAL JOURNAL* respecting the medical school of University College, London, I have to request that you will give the following statements similar prominence.

1. The question of the total relinquishment of the clinical fees by the staff of University College Hospital has been under discussion by its members during more than a twelvemonth, and the suggestions of the medical staff have been met in the most liberal spirit by the Council of the College.

2. It is sufficient to appeal to the public professional positions of the past and present staffs of University College Hospital, to show the fallacy of statements that the withholding of the fees had driven away eminent and able men from the institution.

3. That the quality of the clinical teaching has not been impaired by the nearly gratuitous nature of it, is best shown by the last return of the College of Surgeons (*BRITISH MEDICAL JOURNAL*, July 22nd, 1876), in which it will be seen that University College sent up a larger number of candidates for the diploma of Member of the College of Surgeons, with a smaller rate of rejections, than any other medical school.

4. So far from the honours gained at the University of London falling off, an investigation of the *Calendar* shows that, during the last ten years, out of sixty possible First Gold Medals, with Exhibitions or Scholarships, University College men have taken sixteen, and of forty possible Second Gold Medals they have also gained sixteen, in competition with the best men from all other schools. The total number of "honours" gained by University College men, during the same period, is one hundred and thirty.—Yours obediently,

THE DEAN OF THE MEDICAL FACULTY.

University College, November 15th.

CERTIFYING FACTORY SURGEONS.

SIR,—In the *JOURNAL* for October 28th, p. 563, is an article on Certifying Factory Surgeons, which commences by a reference to the Factory Act of 1874, in regard to which it says, "It was completely overlooked that a reduction of sixty to fifty-six hours and a half per week implied a diminution in the work time of *all* the operatives in textile factories." If your contributor means to imply that this consideration was overlooked in the report presented by Dr. Bridges and myself to the Government in 1873 (the recommendation of which was closely followed by the Act of 1874), a reference to p. 60 of that report will show him that he is in error. That page contains the commencement of the "conclusions" to which our inquiry led us, and is, therefore, the one to which a hasty reader would probably turn first, and to which a reader who intended to use the report would pay the most careful attention. We say there, "Without entering deeply into the probable economic results of further legislative restriction of the hours

of labour, with regard to which the most contradictory opinions prevail, we shall assume, as the most simple if not the most probable hypothesis, that wages as they now stand will be reduced proportionally to the diminution of hours—*i. e.*, 10 per cent., and then we go on to argue on that hypothesis. In fact, it passes my comprehension, how persons so acute as those who took part on both sides of the short time movement in the factory districts, could have overlooked a consideration so very obvious.—I am, yours, etc.,

November 9th, 1876.

T. HOLMES.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent Second M.B. Examination.

First Division.

Barton, Samuel Herbert, University College
 Edwardes, Edward Joshua, St. Mary's Hospital
 Ferner, John Christian, Guy's Hospital
 Fox, Thomas Colcott, University College
 Hancock, John Gatchell, King's College
 Harrison, Charles Edward, St. Bartholomew's Hospital
 Hellier, John Benjamin, Leeds, and University College
 Hunt, Joseph William, University College
 Jones, Arthur Henry, Guy's Hospital
 Kidd, Walter Aubrey, Guy's Hospital
 Lamb, William Henry, Guy's Hospital
 Parker, Augustus Joseph, University College
 Pinnell, Thomas Mark, University College

Second Division.

Blake, Henry, St. George's Hospital
 Boddy, Hugh Walter, Royal School of Medicine, Manchester
 Briggs, Harry Beecham, King's College
 Duke, Herbert, Guy's Hospital
 Langley, John Geoffrey, University College
 Parry, Thomas Sharp, University College
 Pughe, Rhinallt Navalwalp John, Liverpool Royal Infirmary
 Rogers, Thomas King, University College
 Rossiter, George Frederick, St. Thomas's Hospital
 Seward, William Joseph, University College

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on November 13th.

Bain, David S. E., L.S.A., Newbury, Berkshire
 Blaker, Thomas F. J., L.S.A., Brighton
 Coates, William H., Hackney Road
 Cree, Percy K., L.S.A., St. John's Park, N.
 Grant, James D., M.B. Edin., Edinburgh
 Hassall, John, M.B. Edin., Northwich
 Higgins, George H., L.R.C.S. Edin., Leeds
 Irwin, John A., M.B. Dub., Manchester
 Jackson, Edwin, L.S.A., Whalley Range
 Jolly, Robert W., L.S.A., Shooter's Hill
 Mills, Robert J., M.B. Aberd., Norwich
 Northrup, Domingo, M.D. Caracas, Port of Spain, Trinidad
 Norman, John E., Durham
 Proffitt, William J. W., Burton-on-Trent
 Rees, Alfred, L.S.A., Maesteg, Glamorganshire
 Rigby, William B., L.S.A., St. Helens, Lancashire
 Rule, George F. H., L.S.A., Elgin Crescent
 Scott, William F., M.D. McGill, Hull, Canada
 Simpson, James H., M.B. Aberd., Pontefract
 Skerman, Sidney, L.S.A., Waltham Abbey
 Smelt, Frank H., L.R.C.S. Edin., Old Trafford
 Symons, John, L.S.A., Penzance
 Taylor, Henry E., L.S.A., Bradford
 Thain, Leslie, L.S.A., Peckham Rye
 Todd, Howard J. McC., L.S.A., Kennington
 Tucker, Milton M., M.D. Toronto, Ontario
 Watson, Charles S., M.B. Edin., Ochterlony, Forfar
 Wilkie, David W. B., M.B. Melb., Melbourne, Australia

The following gentlemen were admitted members on November 14th.

Alford, Charles E., L.S.A., Crewkerne, Somerset
 Blake, William H., Lymington, Hants
 Buncombe, John D., Wellington, Somerset
 Cambridge, Thomas A., L.S.A., Gower Street
 Dring, William E., L.R.C.P. Edin., Camden Road
 Farbstein, Henry, Hull
 Ferguson, John, Manchester
 Gibson, Charles P., Leeds
 Goodchild, Francis, Ealing
 Greenwood, Major, Dalton
 Herbert, Ethelbert E. H., L.R.C.S. Edin., Devonport
 Hudson, James, L.S.A., Holt, Norfolk
 Kyan, John H., Preston
 Newton, James, Manchester
 Procter, Henry C., Leeds
 Sangster, John J., Barnsley
 Walker, Horace, L.R.C.S. Lond., Camberwell
 Whitley, Francis G. H., L.S.A., Turro
 Wickham, Henry, L.S.A., Tetbury, Gloucestershire

The following gentlemen were admitted members on November 15th.

Collins, William E., Brecon
 Cuthbert, William W., L.S.A., Mendlesham
 Elcum, Donald, L.S.A., Hampstead
 Gadsby, John T., Godmanchester
 Giles, George M. J., Alexandra Square
 Ingram, Ernest F., Worcester
 Lewis, Thomas P., Edinburgh
 Rean, William H., L.S.A., Poplar
 Richardson, Sidney Longden, Sydney, N.S.W.
 Sedgfield, Arthur R. W., Hammersmith
 Webb, William H., L.S.A., Wellington, Shropshire
 Wickers, Henry A., Pimlico
 Young, Archibald P., Norwood

MEDICAL VACANCIES.

The following vacancies are announced:—

BOURNEMOUTH GENERAL DISPENSARY—Resident Surgeon. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Testimonials, diplomas, etc., to be sent in on or before December 31st.
 BRIDGEND and COWBRIDGE UNION—Medical Officer and Public Vaccinator for the Western District. Salary, £58 per annum, and fees. Applications on or before the 24th instant.
 CONSUMPTION HOSPITAL, Brompton—Resident Clinical Assistants. Applications, with testimonials, on or before December 4th.
 DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. Applications on or before November 25th.
 EAST LONDON HOSPITAL FOR CHILDREN and DISPENSARY FOR WOMEN—Resident Medical Officer. Salary, £60 per annum, with board, lodging, and washing. Applications on or before the 24th instant.
 LEEDS FEVER HOSPITAL—Resident Medical Officer. Salary, £150 per annum, with board and lodging. Applications on or before November 20th.
 LINCOLN UNITED FRIENDLY SOCIETIES' DISPENSARY—Medical Officer. Salary, £170 per annum, with house-rent free, and midwifery fees. Applications on or before the 30th instant.
 LONGFORD UNION—Medical Officer. Salary, £120 per annum. Applications on or before December 5th.
 NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.
 NORTH RIDING OF YORKSHIRE LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum, with board, lodging, etc. Applications on or before November 18th.
 QUEEN'S HOSPITAL, Birmingham—Honorary Physician. Applications, with testimonials, on or before December 2nd.
 ROYAL ALBERT EDWARD INFIRMARY, Wigan—Assistant House-Surgeon. Salary, £60 per annum and rations. Applications on or before November 27th.
 ROYAL SOUTH LONDON DISPENSARY—Honorary District Surgeon. Applications on or before the 30th instant.
 ST. GEORGE'S and ST. JAMES'S DISPENSARY—Surgeon. Candidates to attend with diplomas and testimonials at 60, King Street, Regent Street, on the 30th instant, at 4 P.M.
 TRINITY COLLEGE, Glenalmond—Resident Medical Officer. Applications on or before November 20th.
 WEST SUSSEX, EAST HANTS, and CHICHESTER INFIRMARY and DISPENSARY—Assistant House-Surgeon. Salary, £20 per annum, with board, lodging, and washing. Applications on or before November 27th.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

SKRIMSHIRE.—On November 2nd, at Clydach Villa, near Abergavenny, the wife of Charles Parnham Skrimshire, of a son.

DEATH.

WILDING.—On November 8th, at Church Stretton, Shropshire, Susanna, wife of Richard Wilding, M.R.C.S. Eng.

THE Assistant Professorship of Pathology at Netley will be filled by Surgeon-Major J. P. H. Boileau, M.D.

LADY BELL, widow of Sir Charles Bell, F.R.S., expired at her residence in Albany Street, on November 9th, in the ninetieth year of her age.

COUNTY HONOURS.—Amongst the gentlemen nominated for the office of High Sheriff of their county, we observe the name of Richard Woosnam, Esq., a retired officer of the Honourable East India Company's Medical Service, and a member of the Royal College of Surgeons. His son, Mr. Bowen Pottinger Woosnam, B.A. Oxon., is in the office of the Secretary of the College.

At the Mansion House, a proceeding under the Nuisances Removal Act was instituted by the Commissioners of Sewers relative to a quantity of tea estimated to weigh 40,000 lbs., which had lain for nine years in a warehouse of the Messrs. Wrightson. The medical officer of health, in his evidence, said the tea was adulterated with colouring matter, sand, and olive leaves, and his samples were putrid. The Messrs. Wrightson stated that they were merely the custodians of the tea, and they did not even know to whom it belonged. The magistrate ordered it to be destroyed by fire.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.

FRIDAY Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Lawson, "A Casual Communication"; Dr. Woodman (of Philadelphia), "Micro-Photographs of the Blood-corpuscles"; Dr. Dick (paper of the evening), "On Division of Urethral Strictures by Cutting".

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Gould: Sarcoma of Thigh. Dr. Goodhart: Diffuse Suppurative Inflammation of Mediastinum. Dr. Hilton Fagge: Primary Contracting Scirrhus of Liver. Dr. Hilton Fagge: Epithelioma of Bladder secondary to long standing Stricture. Dr. Thorowgood: Concretion in Vermiform Appendix removed through Incision in Back. Dr. Lediard: Aneurysm of Thoracic Aorta—two cases. Mr. Walsham: Unobliterated Ductus Arteriosus. Mr. A. Doran: Fracture by Muscular Action of both Sesamoid Bones of Forefoot of a Horse. Mr. Holmes: Stricture of Esophagus. Dr. Griffiths: Dermoid Ovarian Tumours removed from Patients aged 12 and 22 years. Mr. Butlin: Fatty Tumour. Mr. Butlin: Perforating Ulcer of Foot with Shortening. Mr. Godlee: Circulation Arterial from White Swelling of Knee. Dr. Julius Pollock: Perforating Ulcer of Endocardium. Mr. Howse: Ossification of Axillary Artery following Injury. Dr. M. Ord: Spontaneously Fractured Vesical Calculi.

WEDNESDAY.—Hunterian Society, 8 P.M. Mr. Jonathan Hutchinson, "On Colles's Law with reference to the Transmission of Syphilis".—Association of Surgeons Practising Dental Surgery (Chandos Street), 8.30 P.M. Mr. Cartwright (President), "On Teething and its Complications"; Mr. T. Edgewell, "A Remarkable Case of Maxillary Disease"; and other communications.

FRIDAY.—Clinical Society of London, 8.30 P.M. Sir Wm. Jenner, "A Case of Leucæmia treated by Phosphorus"; Dr. Gowers, "A Case of Lymphatic Leucæmia treated by Phosphorus"; Dr. Greenfield, "A Case of Hodgkin's Disease with excess of White Blood-corpuscles treated by Phosphorus"; Mr. Brodhurst, "Cases of Subcutaneous Section of the Neck of the Thigh-bone".—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Ordinary Meeting.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

WE are compelled by press of matter to defer several communications and some columns of notices to correspondents which are in type.

ENTERIC FEVER.

SIR,—I beg to suggest to Dr. Barclay that microscopic examination of the deposit will show him whether it is a diphtheritic exudation, or, as I think more likely, consists of a growth of "oidium albicans".—Yours truly, T. S. Leeds, November 17th.

* Mr. R. M'Brice and other correspondents make the same suggestion.

SALUS.—The space of air allowed should be from 900 to 1,200 cubic feet for each individual.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

OBSCENE DOCUMENTS.

SIR,—The medical adviser of the Lady Director of the General Agency Company, 14, Great Castle Street, Regent Street, kindly brought to our notice a paragraph in the "Letters, Notes, and Answers to Correspondents", in the BRITISH MEDICAL JOURNAL of November 4th—*Obscene Documents*—respecting complaints made by Dr. Bartleet and others. We immediately placed ourselves into communication with that gentleman, who kindly explained the matter to us, and thus enabled us to act so as to defeat the purpose of the man who made so unpardonable an use of our office. We are glad to inform you that no letter has been received for D. Boileau; and, if there had been any, they would have been handed to the proper authorities.

We beg the favour of your notice of the present, thanking you for the prompt assistance you have given us. Should any medical gentleman or any of your readers wish for particulars, they will obtain full explanation by applying to the Director.—Yours very respectfully, *pro* the Director, J. D. A.

Enclosed card and prospectus.

The General Agency Company, 14, Great Castle Street, Regent Street, London, W., November 16th, 1876.

B. M. J. (Bradford) is evidently haunted by needless fears. We do not recommend any practitioner in particular; but B. M. J. will easily find, on inquiry, who are the most eminent and trusted practitioners of his town; and needs only to be cautioned by us not to believe the mischievous nonsense contained in the quick pamphlets, and never to consult or put any confidence in advertising practitioners such as he mentions.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following were the questions submitted to the candidates at the primary examination for the diploma of membership of the Royal College of Surgeons on November 3rd.

Anatomy and Physiology.—1. State the facts and experiments which prove the existence of motor, sensory, and vaso-motor nerves. 2. Describe the mechanism and movements of respiration; and name the chief muscles and nerves concerned in the process. 3. Describe the os calcis and its articulations: mention the muscles attached to it. 4. Give the dissection requisite to expose the brachialis anticus, and mention the parts in relation with it. 5. Describe the formation of the superficial and deep palmar arches, their respective branches, and the dissection required to display them. 6. Describe the course and relations of the colon, including the cæcum and sigmoid flexure, and the arteries by which it is supplied. Candidates were required to answer four, including one of the first two questions.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; The Redditch Indicator; The Dundee Evening News; The Hampshire Post; The Hull News; The Penrith Observer; The Buxton Advertiser; The Border Advertiser; The Edinburgh Courant; The Bournemouth Visitors' Directory; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Hampshire Telegraph; The Falkirk Saturday Herald; The Craven Herald; etc.

* We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. G. H. B. Macleod, Glasgow; Dr. J. G. Swayne, Clifton; Dr. G. Johnson, London; R. M. B.; Dr. L. W. Sedgwick, London; T. S., Leeds; Dr. B. Foster, Birmingham; Dr. Michael Taylor, Penrith; Dr. Ab'ett, Whitehaven; Mr. Fenwick Hele, Aldeburgh; Dr. Bathurst Woodman, London; M.D. Edin.; Dr. R. McBride, Gilford; The Rev. J. B. Windsor, Brentwood; Mr. G. Eastes, London; Dr. Edis, London; Mr. R. F. Hall, Evesham; Mr. H. Brown, Northallerton; Our Paris Correspondent; Dr. Mackey, London; Dr. James Russell, Birmingham; Mr. D. Kent Jones, London; The Registrar-General of Ireland; Dr. J. Milner Fothergill, London; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of Ireland; The Secretary of Quekett Microscopical Club; Mr. F. Gordon Brown, London; A Prescriber of Salicine; Dr. Spender, Bath; Dr. Watson Campbell, Dunse; Dr. Waller Lewis, London; Mr. Lloyd Owen, Birmingham; Dr. Corner, London; Mr. Lennox Browne, London; Dr. Pepper, Philadelphia; Mr. T. Holmes, London; Dr. A. H. Hill, London; Dr. Heywood Smith, London; Dr. McStrachan, Dollar; Our Edinburgh Correspondent; Dr. Frodsham, Upper Streatham; Mr. Francis Whitwell, Shrewsbury; Dr. Prall, West Malling; Dr. Gowers, London; Dr. George Gray, Castlewellan; Dr. A. A. Steele, Liverpool; Mr. J. E. Ingpen, Putney; The Secretary of the Hunterian Society; Mr. Eustace A. Brickwell, Sawbridgworth; Mr. Nettleship, London; Mr. C. Grillon, London; Dr. James Gardner, Chippenham; Dr. Cayley, London; Salus; Dr. Trollope, Sevenoaks; Spero; The Secretary of the Royal Medical and Chirurgical Society; Spero; Inquirer; An Associate; Dr. Albert Venn, London; B. M. J.; Mr. Thomas Jones, Manchester; Inquirers; Dr. Lauder Brunton, London; Mr. Richard Davy, London; The Secretary of the Clinical Society; Dr. Bell, Glasgow; Dr. Coats, Glasgow; Rusticus (No. 2); Dr. R. A. Warwick, Richmond; Beta; Dr. Jukes Styrax, Shrewsbury; Mr. T. Whithall, London; M.D. Glasgow; Students; Mr. F. G. Larkin, London; Dr. Graily Hewitt, London; Dr. Markham Skeritt, Clifton; Mr. Hamilton S. Cartwright, London; Delphra; Dr. G. G. Sparrow, Chichester; etc.

REMARKS

ON

INTESTINAL OBSTRUCTION: WITH SPECIAL
REFERENCE TO DIAGNOSIS.*

By GEORGE H. B. MACLEOD, F.R.S.E.,

Regius Professor of Surgery in the University of Glasgow; Surgeon to and
Lecturer on Clinical Surgery at the Western Infirmary; etc.

II.

I WOULD now invite your attention to a consideration of the question, what opinion can be formed in any case regarding the seat of the obstruction. It must be conceded that frequently the elucidation of this point is impossible; but, in a certain number of cases, we are able to define the spot where the barrier exists. The higher up in the bowel the place of obstruction lies, the sooner will vomiting set in and become feculoid, and the more violent and persistent will it prove. In obstructions low down, the vomiting may come on very late and be only bilious. When there is free bleeding and early collapse, we may confidently predict that a high part of the small gut is involved.

Langier, as is well known, thought that the seat and character of the swelling, during the earlier stages of the ailment, were distinctive of the part obstructed. He said that, when the swelling was placed chiefly or exclusively in the centre of the abdomen, and the loins were free or depressed (causing a globular or prominent condition of the belly), the obstruction was to be looked for in the small bowel, and that the lower down in that portion of the gut the obstruction lay, the more would this globular shape appear; while, when the distension existed in the periphery of the abdomen, it was caused by obstruction in the great bowel. This observation of Langier has hardly been confirmed by subsequent investigators. When the colon is obstructed, the distension comes on more rapidly, and attains a greater size than when the small gut is involved. If the swelling early become general and marked, and be accompanied by little pain or sickness, then probably the obstruction is in the lower portion of the colon. There may be tympanites in the right groin, and no change in the left, when the obstruction lies above the cæcum. As the bowel is frequently much displaced from its normal position during the progress of a case of obstruction, we are not always well able to determine what the exact part is which may be involved in any tumour lying at the point of obstruction. The invaginated portion of the higher bowel may thus come to create a mass, which is felt only a short way from the anus.

It must, however, be confessed that great uncertainty attends the interpretation of the conditions above spoken of, and that it is only when they are combined that they afford really valuable aid in the diagnosis.

When the obstruction is supposed to lie low down, then great aid may be got from the use of a bougie or a stream of warm water in determining the point; but erroneous deductions may be thus made, if care be not taken. It is not always easy to pass a rectal bougie, and those who are called most frequently to undertake it will readily admit this. If, then, it do not pass easily, or if it cannot be introduced at all, or if it double on itself and so seem to penetrate higher than it really does, erroneous opinions are in either case formed. When the whole hand can be passed, as, under chloroform, it, with care, can be in many cases, then much more accurate data are secured. No such constant relationship exists, as Dr. Brinton supposed, between the amount of fluid which can be pumped into the bowel and the position of the obstruction. If the occlusion be not complete in cases of stricture, fluid may pass in considerable quantity, and it may also insinuate itself past other obstructions which have prevented feces being expelled. Still, it may be said that the free entrance of fluid in quantity may, in the vast majority of cases, be taken as proving the non-existence of a closure of the bowel low down.

As regards the *Prognosis* in cases of intestinal obstruction, the chief points for guidance are the acuteness of the attack, the assumed cause and its removability, the presence of inflammation or other complication, the completeness of the occlusion, and, lastly, the vigour of the patient. The early establishment of acute inflammation is perhaps the worst feature which can arise in a case. It usually points to an early fatal issue. If the obstruction be high up in the canal and not quickly relieved, death will usually take place within a week; but, if it be low

down, the patient may survive for weeks, and the longer he lives the better is the chance of his recovery. Invagination, twists, and internal hernias of the small gut are the most quickly fatal forms of obstruction, as a rule, but now and again the most astonishing recoveries occur in perfectly desperate cases, where all hope has been abandoned.

The Treatment of a case of intestinal obstruction will, of course, depend on the cause. In any case, if inflammation arise, it must be subdued by opium, ice to the abdomen, or fomentations. Opium is, of course, the sheet anchor. To the adult it is best administered in pill, and to the child in Dover's powder. It must be used freely in any case in which the attack is violent. It may be combined with calomel. Belladonna is now comparatively little used; but formerly it was frequently employed both internally and externally, alone or with calomel. Atropia, too, which was recommended strongly by Dr. Fleming of Birmingham, is little heard of in our day. If leeches be used, they should be applied in such numbers as to produce a decided effect; but they are rarely employed, from the desire to husband the patient's strength. Counterirritation may possibly be beneficial in the later stages. Ice, by its power of calming irritation and spasms, is of much use. It may also possibly aid the passage of gas by causing intestinal contractions. Grisolle speaks with commendation of cold drinks and cold enemata in these cases.

In the great majority of cases, purgatives must be wholly avoided, and enemata alone used—a principle which is constantly and grossly overlooked in most of the cases one is called to see. When given early, in most instances, purgatives only augment the already exaggerated peristalsis; and, if administered late, they have an exhausted and paralysed bowel to deal with. How frequently, however, is it the case that the whole list of purgatives have been administered—each succeeding dose surpassing in strength that which preceded it; and if at length a favourable change do take place, and the obstruction cease, the most exhausting diarrhoea follows from the combined action of the drugs employed. When, however, a careful examination fails to show that any organic obstruction exists, and there is otherwise no objection to the practice, the exhibition of from ten to twenty grains of calomel in one dose—repeated, if necessitated by its rejection—often works miracles. Of this, I have seen a few remarkable instances, and two will be afterwards related. Galvanism has been tried in cases of obstruction, occasionally with good effects. It is when stercoraceous masses occasion it, that this mode of treatment is of most service. In 1825, Leroy d'Etiolles recommended the current to be passed from the mouth to the anus; but Duchenne proposed that one pole be inserted into the rectum and the other be moved over the surface of the abdomen, according to the place of suspected stoppage in each case. Personally, I have had no experience of its employment. Even in cases of obstruction by foreign bodies, the use of purgatives is reprehensible. It is now well known by utterers of false coins, who swallow their base counterfeits when detected, that a system the very reverse of purgation best rids them of their burden. They keep their bowels confined and distended by bulky and costive food, so as to envelope the coins and allow them to be slowly carried downwards.

If the bowels be much distended with air, they may be punctured with much advantage. By percussion, we easily make out the best spot for the insertion of the small trocar and cannula; and then, if gentle pressure be made on the abdomen, both air and fluid may be made to escape. As the distension goes down, the tube must be gently pushed on to prevent it escaping from the portion of gut it has entered. There is no fear of undue inflammation or extravasation, as adhesions soon form even when it is thought desirable to leave the cannula in place. Mr. Platt (see *Lancet*, January 11th, 1873), in a very curious case of obstruction, removed no less than forty ounces of fluid feces through a small tube, by using a probe as a piston. Doubtless, in many cases, the aspirator would be found very useful in unburdening the bowel, and so diminishing congestion and tension, and improving the chance of its resuming its function. In cases fitted for it, the small aperture made by the cannula might be enlarged by means of a tangle-ent, so as to serve the purpose of an artificial anus. It has been frequently found, after death, that a vast amount of the accumulation above the place of obstruction was sufficiently fluid to be removed in some such way as has been above hinted at.

In all cases of obstruction, a most restricted dietary must be observed; in fact, only enough given to support life. No solid or bulky food should be allowed; but small quantities of the most soluble and sustaining meat-essences, milk, egg and brandy flip, ice, etc. The stomach must not be loaded even with water. Nutritive enemata will help much.

No reference need be made to exploded methods of administering mercury, shot, etc., to act mechanically in cases of obstruction; and such medicaments as tobacco-injections, strong coffee, ergot, nuxvomica, etc., are now very seldom employed.

* Communicated to the Medico-Chirurgical Society of Glasgow.

In volvulus and stricture, the chance of successful treatment is very small. By operation, the bowel may occasionally be reached above the place of closure. Internal hernias, even if recognised, are almost hopeless. For invagination low down, large enemata, or the old Hippocratic plan of distending the bowel (now easily accomplished under chloroform) with air, introduced by bellows or special instrument, from below, should be employed, if they can be carried out before the portions of bowel involved have become hopelessly fused together. Teliæferri's absurd idea of generating gas in the colon by the introduction of chemicals capable of evolving it, need hardly be mentioned. The inversion of the patient cannot do good; but the careful insertion of a bougie (possibly armed with a sponge) might prove advantageous in certain cases of intussusception pressing down near the anus. The strength of the patient should be well supported, and time gained for the occurrence of those changes in the bowel by which a spontaneous cure may be secured.

Stercoraceous accumulations must be mechanically removed. A lithotomy-scoop or ordinary spoon may get at a good deal of the material; but a stream of warm water, made to play vigorously on the mass, or got more slowly to permeate and disintegrate it, by being allowed to come into contact with it through a long tube connected with a reservoir raised high above the bed, is a better plan. A calomel and jalap purge will complete the cure. The long tube of O'Beirne is a great aid in many of these cases. The water-current may be passed through it, and thus gain access to the bowel high up.

Colotomy and enterotomy, in cases of obstruction, have not hitherto yielded very promising results. In invagination, operation has been peculiarly unfortunate, though two recent cases, in which success was obtained, will probably lead to a further consideration of its merits. The difficulty of accurately diagnosing the condition of affairs, and the natural inclination to wait, in the hope of a favourable issue by the spontaneous elimination of the invaginated bowel, have hitherto opposed operation at a period when it might prove useful in intussusception. There is no doubt that, in a very considerable proportion of cases of invagination, a spontaneous re-establishment of the canal takes place; and also that, when gastrotomy (in itself most dangerous) was attempted, the condition of the bowel was found to be such that nothing could be done to relieve it.

In stricture of the lower portion of the bowel, colotomy should be performed; and that as early as the necessity is clearly present, and before the patient's strength is exhausted. More patients are lost by delay than die directly from the operation. The operation in the right loin (Amussat's operation) meets the requirements of some cases better than that in the left (Callisen's); while Nélaton's method of seeking for the cæcum, or at least the upper distended part of the bowel, in the right groin, has been much practised abroad, and with great success. Maisonneuve's suggestion, to excise a portion of hopelessly obstructed gut, and unite the upper and lower portion by sewing them together, has never as yet succeeded; but an artificial anus might be secured after the portion of occluded bowel was found by gastrotomy, and it was seen that the closure could not be otherwise rectified.

Adhesions, bands, twists, loops, etc., are so difficult to recognise clearly, or to find even after the abdomen is opened, that gastrotomy (which, after other treatment has failed, is the only resource) offers but a slender chance of success. Inflammation becomes so soon developed as to make the operation very hopeless.

An exploratory operation should always be promptly performed, if obstruction occur and resist treatment, in the case of a patient who had been subject to rupture, and that even though there be no local evidence pointing to the seat of the former hernia as the place at fault.

It is in chronic cases that operative measures afford the most reasonable chance of success. If, after large enemata, the use of concentrated food, and a calomel purge at the right moment, the symptoms do not yield and the patient's vital powers begin to give way, the surgical art should be appealed to. It may be added, with reference to the use of enemata, that they require care and skill for their proper administration: and should, when so much depends on their proper employment, be superintended by the medical man himself. If the fluid be not thrown up steadily and slowly, and in sufficient quantity, no good will be got; while if too much force be used, the bowel may be ruptured. The fluid should be retained as long as possible.

In conclusion, I propose to relate some cases illustrative of several of the sources of obstruction to which allusion has been made; and various preparations connected with which (many from my own collection, others from the Hunterian or Hospital Museum, and a few kindly lent me by professional friends), are on the table for inspection.

In the course of my practice, I have seen many cases of intestinal obstruction in which no definite or satisfactory opinion could be formed

as to the source of occlusion; and, as neither the patient recovered or no *post mortem* examination could be procured, the obscurity was never removed. I shall not occupy your time by recording cases in which pregnancy, or ovarian cystic tumours, or displacements of the uterus, or merely extreme costiveness, have given rise to symptoms of obstruction more or less complete. I have never known any foreign body which had been swallowed occlude the bowel, though several instances have occurred under my observation in which coins, false teeth, etc., have passed safely through the bowel after being swallowed.

Of *stercoraceous tumours*, I shall shortly record three. In all, entire obstruction was produced.

1. An old feeble man, who had long suffered from constipation, was brought into the Royal Infirmary apparently dying. The friends who brought him to the house left before the house-surgeon saw them, or any definite information concerning him was got. His bladder was much distended, and was relieved by catheter shortly after admission. When examined, it was found that he was almost pulseless and partially comatose. His pupils were contracted and his tongue dry and furred. His temperature was much depressed, and he desired to be left alone and not be interfered with. His abdomen was tender and very much distended, even after the bladder had been emptied; and marked dullness, on percussion, was made out up the left side and across the belly, on which he kept one of his hands pressed. Elsewhere, the belly was resonant. He was made warm and stimulated, and, after he had somewhat recovered from the state of collapse present on admission, he told us that his bowels had not been opened for a long time—he could not say how many days—that a doctor had told him he had “stoppage of the bowels”, and had sent him into the house to be treated for that. A careful examination made out a large elongated doughy mass in the line of the descending colon, which seemed to receive the impress of the fingers (he was much emaciated) when it was pressed upon, and the rectum was packed full with dry faeces, which hardly allowed any effect to be produced by the fingers passed by the anus. He had no hernia. Before admission, he had been vomiting, and his clothing was stained with a dark fluid which smelt of faeces. He had considerable hiccup. With much difficulty, the contents of the rectum were partially removed by the aid of a lithotomy scoop, and long perseverance with hot water enemata dislodged more of the same material, which was as black as tar, and could only be washed out in small morsels. The process of removal was a very slow one, and produced considerable irritation and exhaustion to both patient and surgeon. After a time, the deposit was found to be softer, and a long tube was introduced; and, as it passed far into the mass, it suddenly seemed to get into fluid matter, as a terrible explosion took place through and along the tube, covering the bed and floor, and causing such a smell as to send all the patients who could move away to the other end of the ward. This flow continued for some minutes, accompanied by much flatus and tar-like masses coming away by the side of the tube. Some of these lumps had to be extracted. At first, the effects on the patient's condition were most alarming. He almost died of exhaustion, and had to be freely stimulated. The tube was withdrawn after a time; but all night a certain escape went on, giving emission from first to last of an incredible amount of feculent matter. The abdomen soon fell and the hardness disappeared, and, though we had need to pay great attention to his support, he made a good recovery, only requiring a few doses of castor-oil and one enema afterwards to complete his cure. From what was afterwards learned, he appeared to have suffered from entire obstruction for fully three weeks; and we were told that “what should have come through him” had been ejected by the mouth for nearly two days and a night before admission.

2. In the case of a lady, on whom I afterwards operated with the late Sir J. Simpson and Professor Leishman, a mass hardly less in bulk than was found in the former patient had accumulated in the descending colon, sigmoid flexure, and rectum, in consequence of the pressure of a malignant tumour of the left ovary. She suffered so much pain on going to stool that she neglected to relieve her bowels for many days at a time, and a tumour along the course of the bowel slowly formed. At last, no motion could be got at all, and enemata, purgatives, etc., had no effect. Much sickness and irritability of stomach set in, but there was no stercoraceous vomiting. The abdomen was very irregularly distended by the feculent accumulation and the ovarian growth. She had some pain when pressure was made along the colon and no flatus passed, so that the upper bowel was much enlarged and tympanitic. The rectum had to be emptied by means of a table-spoon, and then a column of water was made to act on the mass, till it slowly gave way and was washed out. The quantity was very great, and polluted the whole house for several days with its foetor. The sickness remained for days after the channel of the bowel was restored.

3. In a case I saw with Dr. Messer of Helensburgh, a feeble gentleman, who had lived much abroad and was suffering from malignant disease of the bowel, had, a year before his fatal attack, suffered from complete obstruction for many days; and finally passed, with horrible pain, two very hard black and large masses (he had been taking iron at the time), after which his bowels acted freely and largely.

I have only once known obstruction arise apparently from gall-stones; and the case is related, because it differs in an essential point from those recorded of occlusion from such a cause. Usually, it is one large gall-stone which has ulcerated its way out of the gall-bladder into the intestine; but here it seemed to be due to the rolling up of many common gall-stones into a ball.

4. A farmer's wife, aged 63, came to Glasgow from Perthshire to visit a son. She had suffered for years from "attacks of gall-stones", and had only recently recovered from a prolonged and severe seizure—to aid her recovery from which had been one object of her coming south. During the first week she was in town, she had one scanty motion; but for eight days before I was asked to see her, she had had no movement of her bowels. When I visited her, she had some pain down the right side of her abdomen and across the umbilicus. Pressure augmented this pain. There was some fulness of the belly. She was drowsy, and had some hiccup. She had rejected her food for the first time the night before I saw her, and, as she had continued to do this, her friends became alarmed and sought my aid. She supposed that she was about to suffer an attack of her old enemy, and had taken opium freely to relieve the pain. She had also taken large doses of various purgatives without medical advice. I could find nothing in the abdomen worthy of note, except the pain on pressure, the distension, and slight tympanites. A large enema passed easily and removed very little material from the bowel, though its use gave her a feeling of relief. Some flatus was occasionally passed. In the evening, the drowsiness having disappeared and the pain and restlessness being considerable, a large poultice was put over the belly, morphia administered subcutaneously, and milk and ice in small quantities allowed. Beef-tea was twice thrown into the bowel during the night. Next day, there was little change. The pain was less, but the distension was greater and she was very sick and restless. Fifteen grains of calomel were given and retained, and at night (no motion having occurred) ten grains more were administered. Her pulse remained good and her temperature nearly normal. She had rejected milk several times, but had no abiding retching. The urine was freely secreted and was natural. Enemata of beef-tea were repeatedly employed, and she had slept at intervals. About four in the morning, suddenly, "as if something had broken inside", which startled her greatly, a free motion took place in bed, followed rapidly by three others. The feces passed were very foetid, and in the cloth containing the second motion a hard dark mass, said to have been as large as two walnuts, was passed, which was separated and thrown into water. This mass was broken up when I saw it in the morning, and from it sixteen ordinary gall-stones were taken. I had no means of accurately estimating the size of the mass before it was disintegrated; but its dimensions must have been about that stated from the description given me. Several other biliary calculi were got in subsequent motions, but no mass such as that spoken of. The patient made a good, though a slow, recovery.

5. All the unequivocal cases of *invagination* I have seen have been in children. One of the preparations on the table was taken from the body of a girl, aged 12, who was admitted into the Royal Infirmary in 1869, after six weeks' entire occlusion of the gut. The mass you see (measuring $6\frac{1}{2}$ " in length) projected from the anus, and was in a sloughing condition. It was removed. Her ailment had been apparently caused by a fall from a height—at least the protrusion appeared immediately after such an accident. On admission into hospital, she was much exhausted and emaciated by pain, sleeplessness, and want of food. Her expression was most agonising, and her pulse very rapid and thready. She had purgatives administered by the mouth and by injection very many times before coming into the house; and everything had been done to torture her and make her condition more hopeless. Constipation had been complete from the first, and retching almost constant. The vomited matter was stercoraceous on admission. The abdomen was distended and painful, and a firm broad band could be felt extending across the lower part of her belly. This was dull on percussion. The large mass which projected from the anus was hard and solid to the touch, and firmly fixed. A bougie passed through it for a considerable way, and it was semi-gangrenous. By careful nursing, and throwing as much nutrient fluid as possible up what appeared to be the channel of the bowel, her condition amended, and for two days her life was preserved, but she finally sank from sheer exhaustion. The movements of her bowels had been at times very evident through her attenuated abdominal parietes. After death, the greater portion of the

small gut was found to have entered the colon and to have been repeatedly invaginated—one part within the other. The combined mass had passed beyond the anus, so that the vermiform appendix and caecum lay just within the sphincters. There was evidence of general inflammatory action in the abdominal cavity, and the invaginated bowel was intensely congested and at some spots gangrenous.

6. This preparation was taken from a little patient I saw with Dr. Patrick of Dalmarnock Road, and to him I am indebted for the notes I give of the case. The child was aged four years, and had suffered more or less from colic since birth, though it became plump and healthy looking. When lying on its mother's knee, it suddenly started as if in pain and began to s'rain. Blood was passed in small quantities the first day, and shreds of mucous membrane on the second. I saw the child on the third day, and at once detected the peculiar nipple-like tumour in the rectum. Very little hardness or dullness could be discovered in the abdomen. The child moaned a good deal, and was pale and evidently in distress. It took food greedily, but generally quickly rejected it. The temperature was high and the pulse rapid. No treatment was of any avail, and it died within seventy-two hours of the outset of its complaint. The ileum, as you see, lay within the colon, carrying the valve with it, and a portion had sloughed off and been thrown out within the short time mentioned. The invaginated part was so congested as to look, when it was removed from the body, like a mass of dark blood. It was ascertained that a servant had violently tossed the child in play a day or two before the seizure.

7. For this very admirable specimen of invagination I am indebted to Dr. Hugh Miller. The patient was a male, six months old. He suffered from irritable bowels almost from birth, and required much care as regards feeding. His ailment set in suddenly with pain in the belly, thirst, vomiting, and slight diarrhoea. Pure blood appeared next day, and rapidly exhausted him. Enemata of various kinds were used. No tumour was felt in the belly, but there was some general fulness. The child vomited blood before its death on the evening of the second day. White granular deposits, but no ulcers, were present on the greater part of the lining membrane of the bowel; and the ileum was found (as is here seen) to have passed through the valve and protruded several inches into the colon, but not so low down as the rectum. The free bleeding here and the place of invagination are worthy of remark.

8. In the case of this poor little infant (seven months old), from whose body this preparation was taken by Dr. Samuel Moore (who kindly allows me to show it), the cause appears to have been wilful starvation and neglect. Three invaginations were found, probably established after death. They are easily undone, and there are no signs of congestion or inflammation. The whole body was bloodless, and the weight was but $7\frac{3}{4}$ lbs.

[To be concluded.]

A CASE OF DISSEMINATED INSULAR SCLEROSIS.*

By EDWARD T. WILSON, M.B. Oxon, F.R.C.P.,
Physician to the Cheltenham General Hospital.

THE following case is still under treatment. I am, however, induced to bring forward some details concerning it. 1. Because it is a rare form of disease; 2. Because the disease has only recently been described and distinguished; 3. Because the course of the disease is usually so prolonged that many years will probably elapse before its issue.

We owe to Professor Charcot of the Salpêtrière all that is known of this very singular affection, to which he has given the name of "sclérose en plaques". The only notices of it in English, as far as I am aware, are some papers in the *Lancet*, by Dr. Moxon, and some in *Guy's Hospital Reports* for 1875, to which, and to Professor Charcot's admirable volumes (*Leçons sur les Maladies du Système Nerveux*; Paris, 1875), I would refer all those who wish to know more of its pathology and usual course.

A. S., aged 8, was admitted as an in-patient of the Cheltenham General Hospital on April 19th, 1875. Her history, so far as it could be gleaned from the mother, was as follows.

Both parents are healthy, as are also all their near relations, with the exception of an aunt on the father's side, who is decidedly nervous and hysterical. The child was healthy at birth and remained so up to four months of age, when she had whooping-cough very severely. This lasted seven months, and during the attack she had one fit of convulsions, followed by internal strabismus of the left eye. The convulsions

* Read before the Gloucestershire Branch.

soon passed away, not to return; but the strabismus lasted three months before finally disappearing. Having recovered completely, so far as her parents could see, she remained well for one month only; for, at twelve months of age, she received a severe shock and fright by having a dead goose thrown at her. This was followed by a fit of convulsions without any affection of the eyes; there was rigidity of the limbs, and for three or four nights she started in her sleep. There was only one convulsive attack, but it left her feeble and easily knocked up for some time. At five years of age, her mother describes her as having quite got over all her illnesses. Her progress in walking and growth had been satisfactory, and her health continued unbroken (if we may except the passing of a large round worm at four years) until a fortnight before Christmas of last year (1874). She went to school, learned to read and write with facility; indeed, was rather sharp at her lessons. We are thus brought up to the time of her present illness, which began with complaints of giddiness and double vision while she was at school. Her mother says she looked ill, but there was no apparent alteration of the eyes at this time; nor was there any loss of power in the limbs. Within a very few days, however, her left eye was noticed to be turned inwards, and she was in consequence taken to the Branch Dispensary (December 9th, 1874). Worms were suspected; and the administration of *santonine* and steel revealed the presence of a few *ascarides*, but nothing more. She continued to walk to and from the dispensary for some six weeks. Her eye resumed its natural position, and at first she improved, taking food readily, even with craving; but the improvement did not last, and in about a month, tremor came on rather suddenly in the lower limbs, over which she gradually lost control. Occasional pains were complained of at this time over the region of the heart, but they did not last long. On Good Friday, March 26th, 1875, she walked for the last time. Her mother describes her as going to the doctor's house, about half a mile, with great difficulty; walking like a drunken person. Her legs seemed to give way under her, the left being most affected. The back, arms, and head were then quite unaffected, and no pain was complained of. During the next week or two, the tremor gradually increased, involving the trunk and head. Her flesh fell off rapidly, and at the date of her admission, on April 19th, her condition was as follows.

On coming to examine her, I found her lying on her back perfectly motionless, with a somewhat absent expression of countenance. There were double internal strabismus, slight dilatation of the pupils, and double vision. The body was in an extreme state of emaciation, the bones almost coming through the skin. Sensibility was unimpaired; but there was almost complete inability to move the lower limbs, the left side being the most affected. She could move the toes, and bend the foot at the ankle, but there was no power to flex the limbs or to raise them in the bed; the arms also were affected with loss of power so far that she could not raise them, any attempt to do so being accompanied by a jactatory movement, almost rhythmical in character. At the same time, the finger, if placed fairly in her hand, was squeezed with a force quite unexpected. The tongue was coated, and when protruded oscillated from behind forwards before coming to rest on the lower teeth. On trying to make her sit up, the body, which had to be supported, was so violently jerked with a certain rhythm that she had at once to be laid down; then all was quiet, and tremor ceased. The eyes, which at first seemed to have a fixed stare, were, on her attention being drawn to any object, affected with the horizontal nictitating movement which goes under the name of nystagmus. When asked a question, she replied intelligently, in a clear voice and with the most deliberate utterance, laying emphasis on every syllable alike. The words were generally distinct, but there was an occasional slurring of certain letters. The pulse was feeble, but not otherwise remarkable. The heart-sounds were normal. There was good breathing all over the chest. Her motions and urine were passed under her without warning; and there was constant sickness. Nothing appeared to stay upon her stomach. Some urine that was procured showed no albumen, but gave a cloud with heat (phosphates), readily soluble in dilute acid. She was at once put upon milk and lime-water, which suited her. At the same time an attempt was made to get the secretions and stomach in better order by grey powder, soda, bismuth, and rhubarb. Constipation was a troublesome symptom; but it yielded to simple remedies, such as syrup of senna; under this treatment the sickness improved, and she was able to take more food. Attempts to put her on bark and ammonia, however, at once brought back the sickness, which proved a troublesome symptom during the first six weeks. Her temperature at this time was always low, never rising above 97.5 deg. Fahr. She complained of no pain, her emaciation was extreme, and nothing but the constant watchfulness of the nurse prevented bed-sores. On her better days, she was cheerful and laughed with the children in the ward. She could not, however, be called emotional, and she never cried.

Various medicines were tried in succession as the sickness subsided; iodide of potassium, bromides of potassium and ammonium, turpentine, arsenic, nitro-hydrochloric acid, with bark, etc.; but no marked improvement took place in her general symptoms. Her feet were always cold, and whenever I came to see her I was saluted by a nervous cannonade of flatus, loud enough to attract the attention of the patients in the ward. Thus matters went on until June 23rd, when she was ordered cod-liver oil with syrup of phosphate of iron, a milk-diet, and fish three times a week. From that date, improvement has been slow, but steady and well marked. I regret that, at this critical time, the thermometric observations were omitted; for it is noteworthy that, whereas the temperature up to June 19th was rarely above 97.4 deg. Fahr., on July 14th and to the end of the month it was never less than 98.3 deg. Fahr., and at one time, when phosphorus had been added temporarily to the cod-liver oil, it rose as high as 100 deg. Fahr. There has nearly always been a marked difference between the temperature of the two arm-pits—that in the right being higher in May; latterly, however, the left has on several occasions been the higher, and this has apparently been concomitant with a marked increase in power of the left side, which is now as good, if not better, than the right. It has been mentioned that phosphorus was tried at one time; but as it seemed to cause a little feverishness and there seemed no gain from it, it was discontinued at the end of a fortnight. The constant current was applied on one occasion, but in her nervous state it evidently did more harm than good. Latterly, nitrate of silver has been given, in addition to her regular medicines; but I am not sure that it helped her, and it has been omitted. From the second week in June, when the sickness had entirely ceased and improvement had been uninterrupted but slow, her diet has been milk, with meat and fish on alternate days, and an ounce of wine divided between her meals. I may perhaps shorten a long story, and show the rate of progress, by describing her state at the present time (November 16th, 1875). She lies quietly on her back, slightly propped up with pillows. The expression is vacant, unless specially addressed or amused, when there is a bright intelligent smile. The eyes are generally looking straight forward, but occasionally a slight inward squint is noticed—now of one eye, now of the other; there is no double vision, but the sight is not good; nystagmus is present when the attention is attracted. The tongue is clean and oscillates but slightly on protrusion. The bowels are regular, and she always draws attention to her wants. There is no sickness, and the appetite is good. When the food is placed in her mouth, she chews as slowly and deliberately as she speaks. She is most cheerful and intelligent, always making fun with the other children in the ward or amusing herself with reading a book. She tries also to write and draw, but her hand is still too unsteady to form a single letter. Her attempt to form an "o" results in a series of zig-zags, which never end where they began. On asking her to take my hand, she raises her arm with tolerable ease and steadiness, but invariably misses her aim, owing to the jerky movements which come on just as she attempts to seize it. Her left hand is then carried to the right elbow, and when thus steadied the object is gained. There is no loss of muscular power. She can squeeze firmly with either hand, the left being quite as steady and as strong as the right. If given a doll, and told to hold it up at arm's-length, she does so, but with some difficulty, owing to the rhythmic jerking movements. On attracting her attention, however, to some other object the hand is steadied, and remains so until she again looks at it; even placing the hands over the eyes has a tendency to steady the hand. Her legs can be raised high from the bed with a jerky kind of motion. On sitting up, her head droops on to the chest, and it, together with her whole trunk, commences a rhythmic to and fro nodding movement. She can raise her head, and it is steadied at once by placing the hand under the chin. If thoroughly supported with pillows, she can sit in a chair and does so daily; but on trying to stand or walk, her back is bowed forward with the characteristic oscillation, and her feet find no stay on the floor. She can, however, support herself now much better than she could a week or two ago. Her speech remains much as it was on admission, if anything slightly quicker. The pulse is natural; the heart sounds normal, and breathing good over the whole chest. The latest temperature observations show variations from 97.4 to 98 deg. Fahr. Her nervousness is excessive, and on this account she never makes a good exhibition of her powers in the presence of a stranger.

The nature of the case just described cannot for a moment be doubted by any one who has seen the symptoms and who is familiar with M. Charcot's very vivid description of insular sclerosis. It is a typical specimen, so far as it has gone. There are, however, one or two points to which attention may be directed.

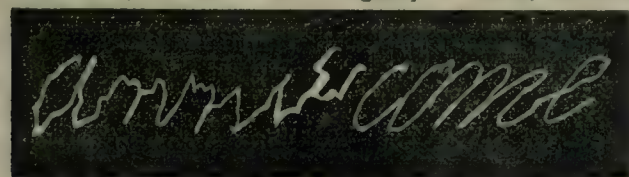
Many opportunities have occurred in France, and two under Dr. Moxon, for examining the pathological conditions of brain and spinal cord in advanced stages of insular sclerosis. The morbid changes have

been described with the greatest care, and they would seem identical in kind with those mentioned by Professor Trousseau as characteristic of progressive locomotor ataxy (Trousseau's *Clinical Medicine*, New Sydenham Society's Translation, vol. i, p. 169), with this distinction, that in the latter they are confined to certain portions of the posterior columns of the spinal cord, whereas in insular sclerosis they occur also in the white matter of the brain. The same intimate pathological changes have also been described under the name of miliary sclerosis in chronic mania, tetanus, leukæmia, and idiocy. (See *St. Bartholomew's Hospital Reports*, vol. viii, on the Morbid Histology of the Spinal Cord, by W. B. Kesteven.)

It would seem, therefore, that the disease we have been considering is at present to be distinguished more clearly by its symptoms than by any very special pathology; and perhaps, such terms as rhythmic or oscillating ataxy may hereafter prove to be more applicable than a designation derived from morbid changes, which may not prove to be distinctive.

Again, attempts have been made to explain the symptoms by the pathology—the rhythmic movements, for instance, by increased resistance to the nerve-current caused by actual loss of nerve-substance; but it is a fair question whether the disease, in its earlier stages, may not be fully developed without any permanent morbid change in the nerve-fibres; whether, in fact, it may not begin as a functional disorder, resulting in local congestion, and eventually in local changes of a more permanent kind. It seems certain that locomotor ataxy, which is most closely allied to it in symptoms and pathology, may exist without any recognisable lesion other than local congestion. Such a supposition would at all events give a more hopeful aspect to the disease in its earlier stages; and it is certainly supported by a case such as I have now described, for it is difficult, if not impossible, in the face of such marked improvement, to believe that those destructive changes of nerve-tissue have been present which are found in long-standing cases of insular sclerosis, and which M. Charcot appears to consider as the very essence of the disease.

The delay which has occurred in the publication of this paper enables me to carry the history of the case a stage further, and to give some particulars of the child's present condition. Since November in last year, when the paper was read, improvement has been steady and uninterrupted. No one who saw the child now would believe that she was the apparently hopeless invalid of even a year ago. About the middle of December, she suddenly called the nurse's attention to the fact that she could read certain small print across the ward, which she had before been unable to distinguish, and since then her eyesight has been very fairly good. In March, she began to stand alone, and to walk a step or two with the help of the nurse's finger, or to climb round the beds and forms: she also tried rougher work, but at the expense of many pricks. She is now plump, with firm flesh and a round face; expression still somewhat vacant, unless interested. The eyes have a slight cast, which the nurse assures me she had noticed before her present illness, but are otherwise perfectly normal—no nystagmus, even under excitement. There is no tremor or jerky movement of any kind. The hand is raised steadily, and grasps firmly even small objects. She feeds herself tidily with a spoon, uses her needle very fairly at worsted work, and is decidedly improved in her writing, although she dislikes practising very much. I give a specimen of one of her early attempts at her own name (Annie), and of her writing at the present time (the word "come"). Her left hand was originally most feeble, but she is



now inclined to be left-handed. When sitting, she is quite upright, with the head well up. She is not readily tired, and when with children in the garden and unobserved, she can walk or even run considerable distances without any support; yet when strangers are in the ward, she at once becomes nervous and unsteady in her gait, tottering, and glad to seek the support of the nearest bed or form. She is quick and intelligent, learns as readily by heart as the other children in the ward, and is gradually being taught to make herself generally useful.

Such is the history of this very interesting case up to the present date; and it seems impossible, looking to the improvement already made, to avoid anticipating, with something more than hope, a complete and well established recovery.

SMALL-POX.

By ROBERT BELL, M.D., F.F.P.S.G., etc.,
Physician to the Glasgow Ophthalmic Institution.

ALTHOUGH small-pox does not inspire us with the same dread that it did our forefathers before the days of the immortal Jenner, it is yet, with very good reason, a disease of which all stand in wholesome dread, for still it seems to rise as it were from its very ashes, and sweep in wild bursts of rage over whole tracts of country, attacking large numbers of the population and filling the community with alarm and dismay. It would be difficult to determine what secret causes are at work to render it capable of exerting such baneful influences, when the Vaccination Act has secured the universal introduction of cow-pox into the system of every subject of this realm. The most rational conclusion seems to be, that vaccinia produced in infancy completely resists the poison of variola for a certain period, but gradually the individual loses his insusceptibility, so that the disease, after the lapse of time, varying in different people, is not completely resisted, but regains more or less of its original power over the organism as the date of primary vaccination becomes more or less remote. Thus it becomes necessary to consider the propriety of insisting upon revaccination at intervals of eight or ten years. It is certainly a fact that, in upwards of two hundred individuals whom I vaccinated during the prevalence of small-pox in this city, and all of whom were to some extent exposed to the contagion, not one was smitten by the disease. The object of this paper, however, is not to descant upon the wonderful influence that vaccination exercises over the poison of variola, but to show how this disease, when it makes its appearance, may be rendered as harmless as possible.

About six years ago, when small-pox was epidemic in Glasgow, many of my patients were prostrated by it, all of whom, I am thankful to say, recovered; and I am inclined to the belief that this satisfactory result was attributable in a great measure to the plan which was adopted of treating the skin during the course of the disease.

It is only natural to conclude that the great exhaustion which ensues in small-pox is due to the fact that the highly nervous and important as well as extensive organ, as the skin most certainly is, is in a state not only of great and intense irritation, but of almost complete inactivity as well. Now, the greatest danger of a fatal issue is generally contemporaneous with the development of the suppurative or secondary fever; and, as my method of treating the disease does away with any secondary fever, the greatest, or at least one of the greatest, sources of danger is removed. By commencing this treatment at the very beginning of the attack, the comfort of the patient is secured at once; the skin is rendered less irritable; the fever, in consequence, is kept down; the strength of the patient remains unimpaired; he is able to sleep and take nourishment, and, in short, to pass through the whole course of the attack with the minimum of discomfort. At the period when suppuration commences in the vesicles, and when otherwise a new phase of the disease would present itself, no such unhappiness is encountered, and the patient sails pleasantly through a sea of troubles, quite unconscious that he is doing so. This excellent result is due, doubtless, to the sedative effects of the remedy employed.

The plan of treatment consists in painting every part of the skin where the eruption appears with one part of carbolic acid dissolved in from eleven to fifteen parts of glycerine, and repeating the application night and morning. The urine must be watched with great care, as it often happens that the carbolic acid becomes absorbed and makes its presence known in the urine by giving the fluid a dark smoky appearance. If this be observed, the application must be made less frequently, or a weaker solution of the acid employed, as it may act too severely as a depressing agent, though I never knew this actually to result from the use of even the more concentrated solution. The employment of carbolic acid in this way has other advantages besides those already mentioned. It acts as a disinfectant, and it prevents pitting to a very great extent. The latter effect is due to the fact that suppuration does not run the same lengthened course as it does when no carbolic acid is employed, and thus the skin is not destroyed to such a depth as it would otherwise be. I could enumerate many of my patients who have suffered from what might have been called very severe attacks of small-pox, and yet now they present not the slightest trace of having had the disease.

The following cases will give some idea of the results obtained while pursuing this plan of treating the malady.

CASE I.—Mrs. T., aged 60, a thin and delicate lady, took small-pox on November 21st, 1871, which was not only confluent, but in some parts of the body hæmorrhagic. I never expected that my patient

would recover, as, previously to this illness, she had been in a most critical state of health. Every portion of the body where the eruption made its appearance was painted over with a solution of one part of carbolic acid in twelve of glycerine. Immediately the great distress produced by the eruption was relieved, and was prevented from returning by the application being repeated night and morning. The rest of the treatment consisted in supplying plenty of fresh air and a simple yet nourishing diet. Chlorate of potash in solution was given as a drink, and the bowels were kept moving by a mild laxative given when required; and the patient passed through the whole course of the disease without an unfavourable symptom. There was no itching of the skin, and there was no secondary fever; indeed, there was no fever at all after the first application of the carbolic acid and glycerine. The patient slept well, and took her food with a relish. Within a year after her recovery, it was almost impossible to find any traces of the disease, so completely had the tendency to pitting been overcome.

CASE II.—Mrs. Y., aged 32, a strong and stoutly made lady, was confined of a healthy boy on December 7th, 1871, and on the day following was attacked by confluent small-pox. Under the circumstances, the greatest danger was, of course, to be apprehended, and I was, therefore, exceedingly anxious. The same treatment as in Case I was employed, and with the like satisfactory results, with the one exception that, at this date, very slight pitting can be perceived, if looked for. The baby was vaccinated before it was twenty-four hours old, and it did not take small-pox.

One more case will suffice to show that this treatment is deserving of a more extensive trial. On December 20th, 1872, I was asked to take charge of two ladies, mother and daughter, suffering from small-pox, their own medical man declining to attend. I found the mother prostrated by an attack of confluent small-pox, and her daughter suffering from the same disease, but of the discrete variety. The features in the elder patient were quite obliterated. The same treatment was adopted in both cases, with the effect of giving almost instant relief. As the disease held on in its course, the last named patient showed slight symptoms of prostration; and, although I was not apprehensive myself, I thought it better to have a consultation with the gentleman who then had charge of the Fever Hospital in this city. He took a very unfavourable view of the patient's condition, and gave it as his opinion that the case would probably terminate fatally when the secondary fever set in; but, as this symptom never showed itself, this danger was avoided, and my patient made a rapid recovery. It is now impossible to detect any disfigurement from pitting.

CASE OF POISONING BY BELLADONNA LINIMENT.*

By JOHN MEREDITH, M.D., Wellington, Somerset.

IN September 1875, I gave a patient, a lady aged between fifty and sixty years, four ounces of methylated belladonna liniment for the relief of some muscular pains from which she was suffering. I gave her also a bottle of medicine to be taken at intervals. The liniment was properly marked, and with directions for use.

In a few days afterwards (on October 1st), I was called to see her between seven and eight o'clock in the morning, the messenger saying she had taken a dose of the wrong medicine in mistake, and was very ill. A little before seven o'clock that morning, she went to her medicine-bottle, as she imagined, and took a tablespoonful of the mixture, walked out of her room and downstairs, and mentioned to some one there that her medicine had a curious taste: "In about five minutes", to use her own words, she "felt queer about her eyes, then stupid-like" in her head; felt she was losing the power of standing on her legs. She managed, however, to get back to her room, and there discovered what she had done, and told one of the servants of it. She took some pills she had by her "to carry the thing off", as she put it, then added she should soon die. She became helpless and quite unconscious.

Before she reached this state, some salt and water were given to her, with the view of inducing vomiting, but without the desired result. I cannot say precisely how soon after taking the poison the unconscious state was established, but it was in much less than an hour; for it was about this time when I reached the house and saw the patient. I tried to get her to swallow some mustard and water, but failed. She could swallow only a few drops of water, and very soon she became unable to do this. She could not speak; only mumbled incoherently some inarticulate words, which were only audible at times.

* Read before the West Somerset Branch.

She was put into bed, and there sat propped up by pillows, and had a vacant drunken look; moved her hands about, sorting and catching at imaginary things; being in this respect very much like a tailor who was poisoned by belladonna, and who, according to the report of his case, "sat for hours moving his hands and arms as if sewing and his lips as if talking, but without uttering a word". In short, she was in a state of somnambulism, barring the ambulation; for in this, as in similar cases recorded, there was no power over the lower extremities, while the upper ones moved about with comparative freedom.

The other characteristic features of the case at this stage were the widely dilated pupils, and a diffuse scarlet rash, which was out on the neck and upper part of the chest, and also on the hands and forearms. I did not examine other parts of the body; if I had, most likely I should have found it equally conspicuous all over, showing how general was the paralysis of the vaso-motor nerves throughout the cuticular system.

At this stage and very soon after my arrival, the all-important question, whether I thought the patient would recover, was put to me. To this, I replied at once that I believed she would. I felt justified in saying this, because fatal poisoning by belladonna is rare, but chiefly from my recollection of a case of atropia-poisoning which was reported some years ago, where the symptoms described were very similar to those of the case before me. I need hardly say how satisfactory it was to be able to give an assurance of this sort in a house where all were in consternation, and visions of "crown's quest", as the master of it put it, were looming in apparently close proximity.

The rash was not of long duration; it soon began to fade, and in four hours was hardly perceptible anywhere. The pulse was of fair strength all through: above 80, but not once up to 100. The respirations were normal, not markedly accelerated. Eight hours after taking the liniment, *i.e.*, at 3 P.M., slight signs of recovering were observed. The patient was able to swallow a little coffee. She had passed no urine up to this time. An enema of warm water with some spirits of turpentine was given, and was retained. The bowels appeared also to have been paralysed for the time. At 9 P.M., the improvement was decided. She was able to swallow and speak a little, and passed urine; but the bowels had not acted, nor was there any sickness or nausea. Next day, when I called to see her—that was about twenty-six hours after the accident—the patient expressed herself as "feeling all right"; that, however, was not strictly the case with her. She had passed the night in a similar way to which she had passed the preceding day: restless, looking and acting as if she would go off to sleep, but never really doing so.

She remembered nothing of what had happened to her from the time she took the salt and water on the morning of the 1st until about 5 o'clock of the 2nd. For about twenty-two hours, her life was a blank to her. Her condition on the morning of the 2nd was as follows. Her pupils were widely dilated, and she saw persons and things double, and at times saw imaginary persons and objects about her; her hands felt moist, as did also her feet, and she could not stand; but she was able to move her arms about all right. The bowels recovered their power and acted during the morning. On the third day, she was much better, only her sight was still dim and she felt very unsteady on her feet.

I should mention that all through there was a good deal of distress about the throat; it was one of the first things experienced, and the discomfort lasted, to a certain extent, for many days. The patient eventually recovered completely; but, for several days, she felt she was not her ordinary self: could not remember how to do the simplest thing; had forgotten the way; had to ponder over the way an article of clothing should be fastened on, etc.

Nothing was done in the way of special treatment beyond keeping close watch over the case, and placing the patient in as comfortable a position in bed as was practicable.

I judge that about four drachms of the liniment were swallowed, equivalent to about twelve grains of camphor, besides the macerated juice of about half an ounce of belladonna-root, in addition to the spirits forming the liniment. This manifestly is an effective way of taking belladonna, and a way that brings out its action speedily. How far this action of belladonna was affected by the camphor I cannot say. The physiological effects of camphor are not, as far as I have been able to learn, clearly known. There is something of caprice attributed to them. The truth, after all, lies, I take it, in the fact that the properties of the drug have not been sufficiently investigated.

One of the acknowledged actions of camphor in considerable doses is to depress the respiration, and the action of the heart; while atropia quickens respiration in an extraordinary manner. Such being the case, the two drugs taken at the same time would modify the

action of one another; and this, I infer, was the cause of there being nothing particular to note in regard to the character of the respiration in the case under notice. Recent investigators tell us that atropia—which, for my present purpose, I take as synonymous with belladonna—always produces paralysis of the posterior part of the body in animals. This observation applied well to my case, where loss of power over the lower limbs began early, soon became complete, and remained so for many hours; whereas the upper extremities were not so affected.

There is an observation I would like to make regarding the deduction which has been made by Hahnemann and his followers in reference to the scarlet rash and throat discomfort produced by belladonna. Conditions resembling these are among the great characteristics of scarlatina, and on the principle—if a mere semblance can be designated by such a name—then, on the principle of *similia similibus curantur*, they have claimed for this drug the virtues of a specific as well as a prophylactic in that complaint.

The controversy on this point has been carried on in an acrimonious spirit, one party declaring for the efficacy of the medicine in this respect with all the fervid enthusiasm of a faith, while another scouts the thing as a mere illusion; so that between them it has come to this: that the profession, as a body, knows hardly anything more of the properties of belladonna touching this matter than it did four score years ago, when Hahnemann first launched his plausible theory on the world.

If the doctrine of similars is to hold, why is copaiva not taken up as being a specific for measles, since it produces a rash not distinguishable from that of measles, except in there being no fever? and this applies just as well to belladonna.

The only other remark I would like to offer is, that I was aware that, in our literature regarding belladonna-poisoning, morphia is stated to be the antidote in such cases. Possibly, if I had given a dose of morphia in this case, recovery might have taken place sooner; it could not have been more complete, however, and I preferred acting according to what seemed to me at the time the safest course.

SURGICAL MEMORANDA.

LARGE SINUSES AND ABSCESS CAVITIES TREATED BY HYPERDISTENSION WITH DILUTED CARBOLIC ACID.

PREVIOUSLY to reading Mr. Callender's paper in the JOURNAL of November 4th, I had taken notes of—with the intention of publishing, as the results were very gratifying—a case of profuse suppuration following phlegmonous erysipelas, treated in a similar manner to that described by Mr. Callender; viz., by forcibly distending and washing out the affected tissues with warm carbolic solution, but without the use of the drainage-tube. The facts are as follows. J. M., a carter, aged 24, receiving good wages and certainly not temperate, in getting down from his cart, met with a deep abrasion of the skin on the inner side of the right knee, extending somewhat posteriorly towards the popliteal space. The wound took on an erysipelatous action, the erysipelas extending very rapidly, with very great general prostration, upwards towards the abdomen, over both the front and back of the thigh and buttock to the loin, and downward over and around the leg, ankle, and foot. The boggy condition of deep phlegmon was never marked; but two incisions were made over the outside of the thigh, but gave exit to no pus. After two days, however, the presence of pus became evident, and the original wound near the knee was enlarged; but the destruction of the subcutaneous tissues went on so rapidly, from ankle to buttock, that, to give exit sufficiently to the stinking pus, many and free incisions were the distinctive means of treatment. Such measures were impracticable, as the patient and friends resolutely refused to allow any further use of the knife. Under such adverse circumstances, poultices were ordered; and, with a discharge most profuse and offensive, after a week's interval the tissues were in the following condition. Over the right buttock was sound skin, but undermined tissues fluctuating distinctly; down the outside of the thigh, the skin was undermined and fluctuating; the popliteal space was in the same condition, and forming a purulent reservoir, but with two ulcerated openings at the sides, through which pus could by manipulation be pressed. The subcutaneous structures around the ankle and two-thirds up the leg were unsound, and discharging profusely. There was one ulcerated opening over the inner malleolus. The poultices were continued for about five days; but, as the discharge seemed in no way to decrease, it was determined to discontinue them, and make use of an injection of sulphate

of copper (two grains to the ounce); the pain, however, was so great that it was not repeated. Carbolic acid was substituted (about one to twenty), warmed by the addition of a little boiling-water, and injected to distension once a day for about a week. The discharge was almost at once arrested, and, with the use of a light wet bandage, the immense undermined cavities soon united to the deeper parts and became sound; and, the weakness and stiffness of the limb gradually subsiding, after about six months the man was in a condition to resume his work, not one of these immense sinuses having been opened.

SAMUEL PRALL, F.R.C.S., West Malling.

CASES OF HERNIA IN PRIVATE PRACTICE.

THE reports in the medical journals are for the most part those of hospital cases, but a short record of five consecutive cases of operation for strangulated hernia in private practice may be no less interesting.

CASE I.—J. R., male, aged 60, intemperate, had a right inguinal hernia of about two years' duration, about the size of a walnut. It had been reducible till two days before operation: it contained gut only. A truss had been worn. The operation was performed under chloroform with perfect result, enabling the patient eventually to do without any truss. The parts remained perfectly solid three years after operation.

CASE II.—M. S., female, married, aged 53, had a left femoral hernia of several years' duration, as a result of a severe confinement. It had been strangulated four days when I was sent for to operate by the surgeon in charge. The operation was performed as a last hope, with very little chance of success. She would not take an anæsthetic. The part became very dark and congested; the omentum was much congested. The patient died of tetanus three days after the operation. There was no necropsy.

CASE III.—L. H., female, married, aged 32, had a left femoral hernia, following confinement, about a year ago. She had worn no truss. Strangulation occurred after violent exercise. I operated with chloroform and ether on the third day. An obscure diagnosis of a small bit of gut behind an enlarged gland was confirmed by the operation. The seat of strangulation was at Gimbernat's ligament; the orifice was very small. The operation was completely successful. No truss was worn a few months after the operation.

CASE IV.—R. T., male, aged 72, had a right scrotal hernia of long duration, reducible till yesterday, the day before I saw him. He had stercoraceous vomiting and hiccough. The hernia was reduced under chloroform, which was given with the intention of operating.

CASE V.—W. W., male, aged 54, had a right femoral hernia of about seven years' duration, containing gut and mesentery. The gut had been reducible till four days before operation, but the mesentery was adherent. The operation was staved off for three days by the use of the pneumatic aspirator, which gave relief and promised success; but stercoraceous vomiting set in on the fourth day, and an operation was performed under ether and chloroform. The seat of stricture was at Gimbernat's ligament, very small and tight. The mesentery was not interfered with. He is obliged to wear a truss, as the parts are not very strong. He can walk several miles.

HERBERT M. MORGAN, Lichfield.

NOTES OF THREE CASES OF VESICAL CALCULUS.

THE following cases are brought forward not because there is anything remarkable in them, but with a view of encouraging my fellow country practitioners not to look upon stone as a disease which can only be treated by specialists.

CASE I was a boy, T. F., aged 5, who had suffered from great pain during and after micturition from his infancy, and subsequently from entire inability to retain his urine, which constantly drained away from him. On examination, a calculus was readily detected, and a few days afterwards the boy was placed under the influence of chloroform, and the lateral operation commenced. The knife was soon in the groove of the staff, and pressed onwards into what seemed to be the bladder. The forefinger easily reached the stone; the staff was withdrawn; but, on attempting to seize the stone with forceps, it suddenly receded beyond their reach, and what had seemed to be the bladder was a sacculated enlargement of the urethra. A probe-pointed bistoury was passed along the forefinger, and the neck of the bladder notched sufficiently to let the forceps pass, when the stone was easily removed. The patient made an excellent recovery, and was running about in the village where he lived within a week. The calculus, which consisted of uric acid, was of the shape of an hour glass, the extremity in the blad-

der being rather larger than that in the dilated urethra. It was an inch and three-quarters in length.

CASE II.—W. A., aged 7, had always been an exceedingly delicate boy, suffering from chronic bronchitis as well as from the symptoms of stone. A calculus of considerable size was at once recognised on sounding, and the usual lateral operation was performed a few days afterwards under chloroform. The patient made an uninterrupted recovery. The stone was uric acid, and was of the size of a large walnut.

CASE III.—T. S., aged 38, consulted me last November; and, on sounding, a small calculus was detected. This was crushed, and fragments of an uric acid stone, which must have been about the size of a filbert, were passed. The distressing symptoms immediately subsided, and the man returned to his work, declining to be sounded for fragments. Two months later, he came again worse than ever, and sounding showed the presence of a stone or stones. Then began a series of crushings—some completely ineffectual, others yielding fragments—until after eight or nine sittings the bladder was completely emptied. All the irritation disappeared with wonderful rapidity, and the man has now been at work for upwards of four months, and is as well as he ever was. Many small fragments and a great amount of sand was lost; but what the man succeeded in catching weighed five drachms.

Isolated cases like the foregoing do not help us in determining the relative merits of lithotomy and lithotripsy; but, as already mentioned, I have brought them forward to encourage my fellow-practitioners to look upon vesical calculus as not too difficult for them to grapple with.

A. C. WILSON, M.D., Doncaster.

OBSTETRIC MEMORANDA.

OCCLUSION OF OS UTERI AND CYSTOCELE: DIGITAL PERFORATION.

Mrs. H., aged 35, a very delicate woman, in the last stage of phthisis, in labour of her seventh child, called me in on the evening of November 27th. She stated that a woman was engaged to attend, but, after being with her about four hours, she declined the case, as she appeared so ill. She said she had always had a woman before in all her confinements; but the last was a very difficult and protracted labour, followed by a long and tedious illness. She had had pains of a slight character for several days, and she felt sure she was advancing, as there was something coming down. The pulse was high and the breathing hurried; and, on examining the chest, I found dulness of the upper third of the left side and lower third of the right, with coarse râles. On making a vaginal examination, I found a tumour protruding through the vulva, of the size of a large orange, of a rugose character. I could pass my finger beyond and round, but not in front. She said she had frequent calls to micturate, but passed very little urine for several days, and had to bear down a good deal at times to get any away. I passed a No. 8 gum-elastic male catheter into the extruded viscus, and drew off about three-quarters of a pint of urine. Pushing up the viscus, I next searched for the os, but found presenting a band of a triangular shape, about one inch at its base and one inch and a half long. I could pass my finger above the band and explored the sulcus well, as it was ununited on its anterior side and directed transversely across the pelvis, with its apex to the left; but I could not detect the least patency. The foetal head was well down in the pelvis, and I could easily examine the lower segment of the uterus, but failed to find any depression, not even in the sulcus above the band, this being the most likely situation. On inquiry, I found she had not felt the child for about five days; and she would not admit of any distinct motion being felt for a fortnight. On auscultating the abdomen, I could elicit no foetal sounds, neither could I discover any movement *per vaginam*. As it was late in the evening, and trusting there might be some dilatation by morning, I administered an opiate. The following morning, she was much the same. There were no pains of any consequence, the lower segment of the uterine walls was tightly pressed upon by the advancing head, being about the thickness of a halfpenny above the occluding band. Having thoroughly explored the whole presenting surface, and finding no apparent os or depression, I determined to break down the band and perforate above with my index finger, this being the most dependent and probable situation. My finger-nail being sharp, I had no difficulty in doing this, although possibly the vitality of the structures might have suffered to some extent from continued pressure. Having made an aperture, I dilated for a few moments, and found the parts readily give way. I then used Barnes's bags, continuing the dilatation rapidly. In two hours, I was able to apply the long forceps, and delivered a full-

grown foetus, some time deceased. After five minutes, I attempted extraction of the placenta; but found this attached throughout, and with some difficulty removed it by the peeling process. As she was extremely exhausted, with the pulse at 120, although there was no hæmorrhage nor any loss of importance, I ordered a stimulant, with a full dose of the liquor ergotæ, using also uterine compression. For several days, she remained in a most critical condition; but, by the assiduous administration of brandy and yolks of eggs, beef-tea, chlorate of potash, and hydrochloric acid and bark, with injections of chlorinated soda from the first, as well as the help of a good nurse, she rallied. The discharge, which was extremely offensive, was completely relieved, and the prolapsed bladder returned to its normal position, quite contracted, at the end of a fortnight, she not having had any difficulty in micturition since the labour was terminated. The main point of interest is the digital perforation, as I think it obviated the risk of any resultant hæmorrhage or rupture, which certainly was to be feared in the extremely prostrate condition of the patient. I was prepared to do the ordinary incisions; but felt sure this mode of perforation would be safer, and was an expedient worth a trial, and could be easily accomplished.

HARRY D'O. FOOTE, M.D., Rotherham.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

ST. THOMAS'S HOSPITAL.

In Dr. Murchison's wards, we have had an opportunity of noting the following cases.

Enteric Fever: Hamorrhage: Treatment.—In a case, on the seventeenth day, the temperature suddenly fell from 102 to normal, coincidently with hæmorrhage. For the latter symptom, an usual prescription is: Tincturæ opii, olei terebinthinæ, tinct. chloroformi, aa xx to xx ; acidi tannici gr. x ; mucilaginis et aquæ q. s. But this is not always retained by the stomach. In the present case, ten grains of tannic acid with tincture of ergot were given every two hours, and then every hour, for several doses; but the hæmorrhage still continued with every stool. Five grains of ergotine were then injected hypodermically, and the hæmorrhage ceased immediately, and has not recurred.* Cases in which hæmorrhage has happened are more liable to subsequent peritonitis.

Local Peritonitis.—A young married woman presented evidence of this in the region of the colon, and it was considered to have spread from the mucous membrane of the bowel. An ice-bag was ordered instead of poultices, and gave much greater relief. Opium was given in grain-doses, and no action of the bowels induced for fourteen days, complete rest being the main indication. The patient is convalescent.

Gall-Stone.—A somewhat aged woman has complained for three years of occasional violent attacks of pain connected with a tumour of the size of an orange, which may be felt below the right ribs in front; it descends, on inspiration, with the liver, being evidently connected with that organ. There is no jaundice. The tumour is considered to be the enlarged gall-bladder, due, probably, to a calculus in the cystic duct. "From the circumstance that there is no jaundice, we may consider that the common bile-duct is still free, and we need not trouble to look even for the external voiding of a stone until jaundice has taken place. A similar condition is common, but is not always suspected, because the jaundice is expected, and is not present."

Pneumonia v. Fever.—A girl, aged 15, was admitted with a history of rigors, restlessness, delirium, deafness, and is lying now in a listless typhoid state, with sordes on the teeth and herpes about the lips. Pulse 110; respirations 40; temperature 104. Dulness and tubular breathing at the lower part of the right lung reveal a pneumonia; and although the marked deafness is much more usual in fever, the absence of pyrexia after the tenth day shows the case to be, in fact, a primary pneumonia.

Leukæmia.—A spare man, a groom aged 25, comes from a part of Worcestershire where ague occurs. He has never had it distinctly, but has a doubtful history of rigors. His spleen occupies the whole of the left side of the abdomen, and the notch may be felt near the umbilicus. The malady is considered leukæmia, rather than an ordinary sequel of

* See Murchison on Continued Fevers, second edition, page 653.

ague, on account of the very large increase in number of the white corpuscles; and it is distinguished from lymphadenoma by the absence of enlargement of any of the superficial lymphatic glands. The malady has come on insidiously during about three years, without pain, but with languor, emaciation, epistaxis, and diarrhoea. In addition to astringents, he is now taking quinine and nuxvomica, and rubbing in ointment of biniodide of mercury, and is reported better.

Diabetes.—In a marked case of about six months' duration, occurring in a spare man who had been exposed to mental trouble, the following observations were made. The average urine of four days, under ordinary diet and without medicine, was one hundred and ninety-six ounces, of specific gravity 1036. During the next four days, a grain of opium was taken three, four, or more times daily; but the average of urine remained as nearly as possible the same. And, lastly, during another four days, opium was omitted, and only diabetic diet allowed; viz., milk, bran-bread, steak, eggs, greens; and to drink soda-water and gin (previously, the man had had four to eight ounces of brandy daily for months). The last four days gave an average of only one hundred and seven ounces, but the specific gravity remained the same.

Thoracic Aneurism.—A marked case in an adult man is improving with absolute rest, moderate doses (five to ten grains) of iodide of potassium, and lessened amount of liquid. It is not thought necessary to lessen the amount of solid food.

SALICYLATE OF SODA, SALICYLIC ACID, AND SALICIN.

A number of cases of acute rheumatism and some of pyæmia are being treated in St. Thomas's Hospital by salicylate of soda, which has been generally given in twenty-grain doses every two, four, or six hours. There is distinct evidence of its relieving rheumatic pain in many, though not in all instances, after a few doses, and equally distinct evidence of its power to reduce the temperature. In a case of tuberculosis following pneumonia, a defervescence could be always traced to the time of a dose, but was only temporary. In another case of rheumatic hyperpyrexia (107°), the medicine had no effect, whilst the tepid bath acted well; yet, deducting occasional failures, the salt will usually shorten the febrile state. It is, as a rule, well taken; but several observers have connected with its action symptoms of vomiting, giddiness, deafness, and even delirium* (though the latter symptom might be otherwise explained in pericardial cases), and a curious result has happened now in three patients treated by salicylate of soda, and it is certainly not a common result under other treatment; viz., abscess in the axillary glands.

We found the same remedy in use at the German Hospital, and Dr. Hermann Weber had reason to speak favourably of it. Fifteen grains every two to four hours was the average dose. After six such doses, in one case, the temperature fell from 101 deg. to 98 deg., with apparent convalescence; but, the remedy being omitted in favour of quinine and iron for three days, a relapse occurred, which quickly subsided again under the salicylate. In a few cases, there have been vomiting and difficulty in continuing the remedy; but delirium only occurred once in a case where the temperature fell from 103 deg. to 96 deg. very quickly, and with a tendency to collapse, so that it was doubtful whether the delirium was more than a part of the latter condition.

At St. Mary's Hospital, Dr. Sieveking has preferred to use salicylic acid, considering that the addition of soda complicates a judgment as to the efficacy of the acid. He generally prescribes fifteen grains every hour for six doses, and has had some striking results in the relief of pain and reduction of temperature. Dr. Broadbent has already published his very favourable opinion in the same direction; and we believe that similar results have been obtained by other physicians at St. Mary's, though it is the opinion of some observers that relapses are not unfrequent under this plan of treatment. There is said to be little difficulty in taking these doses, which are given in milk. Occasionally, there has been vomiting towards the fourth or fifth dose, and occasionally some giddiness, not delirium.

At Guy's Hospital, Dr. Pavy spoke of good results in a certain number of rheumatic cases from the use of salicin, which he prescribed in twenty-grain doses every two hours. One ounce of boiling water will just dissolve this amount, and syrup is added. Some years ago, he had had almost equally good results with the liquid extract of ergot in acute rheumatism.

We observed in the wards of the same physician an interesting illustration of the relation between lead-poisoning, gout, and albuminuria; and also a marked case of the coexistence of rheumatic and gouty symptoms.

* Since the above was written, cases with severe nerve-symptoms and delirium have been published by Dr. Tuckwell.

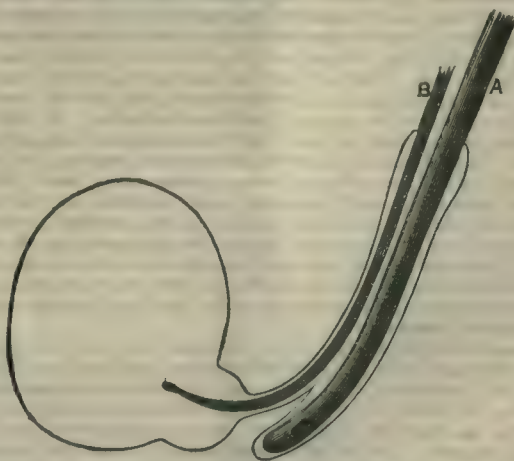
WEST LONDON HOSPITAL.

A CASE OF STRICTURE ILLUSTRATING THE ADVANTAGE OF OCCUPYING A FALSE PASSAGE WITH A CATHETER TO ENABLE A SECOND INSTRUMENT TO BE PASSED INTO THE BLADDER.

(Under the care of Mr. Teevan.)

JOHN B., a police-constable aged 43, came under Mr. Teevan's care for stricture of the urethra in the out-patients' department on December 29th, 1875. The patient, when examined, was found to have a tight stricture situated five inches from the orifice, which would only admit a No. 2 catheter. As there was considerable enlargement of the prostate, Mr. Teevan passed a well-curved metal instrument. On January 3rd, 1876, the same catheter was introduced as on the former occasion. On January 5th, Nos. 3 and 5 were passed; and on January 8th, No. 6. On January 12th, Mr. Teevan, whilst trying to introduce a catheter, opened up some false passage or pouch, and could not pass any instrument, soft or metal. On January 15th, Mr. Teevan could not attend at the hospital; and Mr. Alderton, the house-surgeon, tried without success to introduce different instruments. On January 19th, as Mr. Teevan could not pass any catheter, he put in practice the following manoeuvre. He first of all took a medium-sized elastic cylindrical catheter and tried to pass it into the bladder. It went, however, into the false passage, where it was left. He then introduced a fine olivary elastic bougie, which entered the bladder. A small elastic catheter was then screwed into the bougie and made to follow it into the bladder, the first catheter being withdrawn as soon as the urine began to flow through the second one. No further obstacle occurred in the treatment of the case, and by February 20th the patient was able to pass No. 16 elastic olivary catheter with ease for himself.

Mr. Teevan observed that the presence of a false passage, or a sac left by an abscess, was always a troublesome complication of stricture, and in this country often rendered catheterism impracticable and an operation imperative, as English surgical works recorded no means by which the difficulty could be overcome, beyond the suggestion that, as false passages were usually situated in the floor of the urethra, they were best avoided by the employment of a metal catheter kept well pressed against the roof of the canal during introduction. But, as false passages might be found in the roof of the urethra as well as in the floor, and an accurate diagnosis was not always possible, the suggestion was not of much value. Now, there were several resources open to the surgeon, the employment of any one of which would usually prove successful. In the present instance, he had practised the manoeuvre originated by Mercier, which was founded on the simple fact that two bodies could not occupy the same space at the same time. If a full-sized cylindrical elastic catheter, A (see woodcut), were



introduced into the urethra, it would either slip into the false passage or pass on into the bladder. If it went into the bladder, all was well; but, if it passed into the false passage, it could be retained there whilst a small elastic catheter, B, was introduced. If the first instrument, A, completely filled the false passage, the second one, B, would necessarily go into the bladder, as there was but one road open to it; follow.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 21ST, 1876.

G. D. POLLOCK, F.R.C.S., President, in the Chair.

The International Medical Congress in Philadelphia.—The PRESIDENT read the report of the delegates from the Society to the International Medical Congress held this autumn in Philadelphia. They avowed their great sense of the uniform kindness and hospitality which they received from their American confrères. They also expressed their admiration of the ability and thoroughness both of the reports and the discussions heard there, demonstrating the perfect acquaintance with the literature of the profession possessed by the American medical men.

Molluscum.—The PRESIDENT exhibited a man with molluscum, there being enormous folds over the nates and legs. These folds consisted of skin and connective tissue. Interference of a surgical character he thought contra-indicated, as though there were no immediate risk in operating in these cases, there was remoter danger from the great drain of serum which followed, and which was always serious.

Dermoid Ovarian Tumours.—Dr. GRIFFITHS of Swansea exhibited two dermoid ovarian tumours, removed respectively from females aged 12 and 21. They were both removed under the bichloride of methylene, the carbolic spray being also used, with carbolised catgut ligatures. The first was removed from a girl aged 12, of healthy parentage, who had suffered from attacks of pain in her bowels for some years. The tumour had first been detected when she was four years old. The suffering gradually increased, and the tumour became of the size of a large cricket-ball. It lay in the middle line, but was freely movable. When it was pushed up into the epigastrium, a pedicle could be felt; but it was thought that there was no attachment to any of the viscera. The tumour was globular and elastic, with one hard knuckle. Ultimately the real nature of the tumour was made out. It was neither cancer, tubercle, hydatid, nor fecal accumulation, but a dermoid cyst. An operation was performed, and a long pedicle was found attached to the left ovary. The case went on well without any suppuration, and on the fifteenth day the wound was healed. The second cyst was from a married woman, aged 21, a small spare woman. The tumour had been felt for four years. There was also pain in the left iliac region. It also was a globular tumour, readily movable, and easily pushed upwards. A similar operation was performed, the trocar being occluded by creamy-looking pus. This pedicle was also a very long one, so that the tumour could lie on the table beside the patient. The treatment was the same, and the case progressed satisfactorily in every way. In both cases, the pedicle was ligatured with the carbolised cat-gut, and then returned into the pelvis. Dr. Griffiths desired to raise the question whether this plan of treatment was preferable to the clamp or not. He also should like to ask whether the ovary should always be removed or not.—Mr. SPENCER WELLS said that the ovary might have been left in the first case. He had done this several times when the Fallopian tubes were uninjured. If these organs were not left intact, it was better to remove the ovary to avoid future troubles. In one case, the tumour was so movable that it had been diagnosed to be a floating kidney. The question of the antiseptic treatment was too long to be attempted there. Dermoid cysts were comparatively rare. He had only met with twenty out of a total of eight hundred and ten cases; curiously, of these, eight had occurred in the last hundred. Of these twenty cases, only two had died; an experience opposed to the views of some American writers, who held that operations in dermoid cysts were peculiarly fatal. Sections of dermoid cysts under the microscope were on the table.—The PRESIDENT ruled that the discussion on treatment was not in order.

Suppurative Inflammation of the Mediastinum.—Dr. GOODHART brought forward a case of diffuse suppurative inflammation of the mediastinum. It occurred in a male, aged 57, who was quite well till struck on the chest, after which he had some cough and great pain. There was no fracture of the ribs. It was thought to be a case of pleuropneumonia. The left side scarcely moved. The man soon died; and, on the *post mortem* examination, an old pleuritic adhesion was found. In the right pleura two pints of pus were found; while on the left side there was general pleurisy. Both lungs were healthy. There was pericarditis. A second case occurred in a man, aged 44. One day a piece of meat stuck in his throat; and, after that, all food returned until a drink of fluid brought up the mass. He continued well for a month, after which time pain was experienced at a certain spot. The dysphagia was followed by dyspnoea, but there was no distension

of the veins over the thorax. The symptoms, however, were chiefly negative. On the *post mortem* examination, double pleurisy was found, and the mediastinum was infiltrated with pus. In the sixteen hundred necropsies held at Guy's Hospital, during the last three years, only fourteen cases of mediastinal inflammation had been encountered. Of these, six were secondary extensions from some primary mischief. They were of the nature of phlegmonous cellulitis, and were quite distinct from mediastinal abscess. The chief symptom was dyspnoea. There was but little rise of temperature. The malady was of the nature of blood-poisoning.—Dr. MOXON inquired if the matter existed prior to the inflammation.—Dr. GOODHART replied that it was impossible to tell. In the second case, the lymphatics of the lungs were filled with pus.

Clot in the Left Auricle.—Dr. MOXON exhibited a fresh specimen of a large clot in the left auricle. It came from an elderly female, who died of obstructive heart-disease and dropsy. There was a presystolic murmur, a continuous diastolic murmur, resembling in character a *bruit de diable*. The murmur of mitral stenosis was apt to take on this form. Here there was a tight stenosis and a large *ante mortem* clot, so that the auricle might not contract. The murmur, therefore, was not caused by the contraction of the auricle. The cause here was the influx of the blood from the pulmonary vessels.—Dr. GOWERS said that, as to the cause of presystolic murmur, in one case a long and a short murmur were both heard, with a distinct interval of silence betwixt them. The long sound was caused by the influx of the blood; and then, when the pressure became equalised, the silence was caused, after which came the brief sound of the auricular contraction again, sending a current through the stenosed orifice.—Dr. GREENFIELD thought the long murmur due to the flow over the roughened surface of the clot.—Dr. MOXON said the presystolic murmur was not so short as was sometimes asserted. In this case, there was and could be no auricular contraction.

Primary Cancer of the Liver.—Dr. HILTON FAGGE showed a specimen of primary contracting scirrhus of the liver, the viscus weighing thirty-six ounces and a half. It came from a man of 53, who had ordinary ascites. He had not been an intemperate man. He was tapped, but gradually sank. On *post mortem* examination, an opaque peritoneum was found with a granular liver. The disease was well defined, and it looked like a cirrhotic liver. Some of the lobules contained cheesy-looking matter and were friable. There were but few of them, and they were not larger than a pea. There was a thrombus in the portal vein. Under the microscope, the cells were seen to be very large, with oval nuclei, and were really cancer-cells. He had met with a similar case of cirrhosis with patches of cancer and a thrombosis of the portal vein, when the liver weighed sixty-two ounces. In a third case, there was a layer of blood over the liver, and there were cancer-nodules. There was no cancer elsewhere in any of the three cases. He thought the hypothesis of primary cancer in the portal vein scarcely tenable. Was the cancer an accidental result of alcoholic irritation? It was now known that cancer might be induced by local irritation. Or was it a coincident cancer and cirrhosis?—Dr. C. J. HARE said that an increase in size of the liver along with cancer was quite frequent. In one case, however, cancer was found where the liver was only twenty-seven ounces in weight.

Epithelioma of the Bladder.—Dr. FAGGE exhibited an epithelioma of the bladder secondary to long-standing stricture. There was an old fistula of thirty years' standing. Pus and blood were found in the urine. On *post mortem* examination, the bladder was found contracted and hypertrophied. Behind the trigone was an ulcer with thickened edges, about the size of a crown-piece. It was an epithelioma. The urethra was completely obliterated for a quarter of an inch close to the bladder. The seat of the cancer was the point touched by the catheter when introduced into the bladder through the fistula.—Mr. NUNN said it was a question as to the point actually touched by the catheter.—Mr. T. SMITH asked as to the causation of cancer where no catheter was used.—The PRESIDENT said that cancer of the bladder usually occurred where there was no structure, and no catheterism was required.—Dr. FAGGE, in answer to a remark by Mr. GODLEE, said epithelioma might be secondary to pre-existing disease.—Dr. MOXON said the surgeons might well be critical about the cause of cancer. At least they would admit that much cancer of the lip was attributed to the irritation of the pipe.—Mr. T. HOLMES spoke on the surgical aspect of the case.—The PRESIDENT said he had known dysphagia followed by epithelioma. In the case of the late Dr. Marshall Hall, such was the fact. He had dysphagia for a long time, and died of cancer of the pharynx. There was an ulcer, but no contraction.

Concretion in the Vermiform Appendix.—Dr. THOROWGOOD related a case of a concretion in the vermiform appendix removed through an incision in the back. It occurred in a girl, aged 10, who had perityphlitis.

At first, there were attacks of vomiting, with pain in the right groin, increasing especially towards the back. The urine was loaded with crystals. The patient lay on the back with the right leg drawn up; the limb could not be extended. The temperature was high. Pus formed in the right lumbar region; the abscess was opened, and fetid gas escaped. There was a profuse discharge. In dressing the abscess one day, a concretion like a nutmeg came out, after which the abscess healed rapidly. Similar cases had occurred in older persons. Gallstones had been found in young persons.—Dr. THEODORE WILLIAMS asked as to the nature of the concretion.—Dr. THOROWGOOD replied that the family had kept it. He only got a small fragment, which burnt with a smoky flame. The entire mass floated in water.—A discussion then arose, in the course of which Mr. T. SMITH asked if anyone ever had seen a cherry-stone in the appendix vermiformis.—Mr. K. THORNTON testified to a damson-stone; and Dr. MURCHISON spoke of two concretions with a foreign body as a nucleus.—On the motion of Dr. HARE, the concretion was decided to be referred to a committee for examination, provided the family could be prevailed upon to part with it. The meeting then adjourned.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 1ST, 1876.

WILLIAM O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

Case of Casarean Section for Cicatricial Obliteration of Vagina.—Dr. GALABIN showed the uterus and adjoining parts from a case on which he had operated. The patient had been left for two days in labour three years ago, and had had incontinence of urine since. The vagina had contracted, so as scarcely to admit a No. 6 catheter. Casarean section was performed. Carbolicised catgut sutures were employed for the uterine wound. The uterus, however, could not be made to contract; and the patient expired before the abdominal wound was closed.—Dr. MEADOWS thought there could be no doubt as to the propriety of the treatment adopted by Dr. Galabin; but he took exception to one point in the operation, viz., the employment of catgut sutures in the uterus. They had most signally failed in his own and Dr. Routh's experience. The interrupted current would probably have been most useful in restraining hæmorrhage and securing firm contraction of the uterus.—Dr. ROGERS had seen two cases of Casarean section recover where no sutures had been employed for the uterine wound; the peritoneal cavity not being closed until firm contraction of the uterus had taken place. He had also seen two successful cases where silver-wire sutures had been employed.

Case of Extreme Hypospadias.—Dr. COOPER ROSE exhibited drawings of a case existing in a boy aged 15, who had been baptised, brought up, and educated at a public institution as a girl. He also showed some drawings lent by Dr. Westmacott of a somewhat similar malformation existing in a widower, aged 60.

Specimen of Extra-uterine Fœtation.—Dr. MEADOWS exhibited for Mr. MOORE of Moreton-in-Marsh a specimen of tubal pregnancy, which had burst between the fourth and fifth month, the patient dying in about fifty hours. The Fallopian tube of the side affected joined the uterus at some distance from the fundus, and seemed to have been the cause of the abnormal gestation by causing an obstruction to the passage of the ovum along the oviduct. He had observed the same thing in other cases.—The PRESIDENT thought the specimen nearer the fourth than the fifth month.—Dr. BRAXTON HICKS suggested that an extra-uterine fœtus was generally below the normal standard.—Dr. HAYES thought a Committee should be appointed to report upon it.

Case of Extra-uterine Gestation: Removal of Living Fœtus by Abdominal Section: Recovery of both Mother and Child.—Mr. JESSOP of Leeds narrated the particulars of this case. The placenta was left untouched, the lower angle of the wound being left patulous to allow of the *débris* being discharged. The child was as healthy, vigorous, and large, as an average child born in the natural way. It survived eleven months, when it died of crôup and inflammation of the lungs.—The PRESIDENT remarked that, so far as his knowledge went, this was the first recorded instance of extra-uterine fœtation in Great Britain where both mother and child had been saved by abdominal section. Notwithstanding the good result obtained, it must not be taken as furnishing a precedent and justification for abdominal section in other cases of extra-uterine fœtation. In many instances, the child died, became encysted, and was converted into an inert mass, which gradually diminished in size, and did not imperil the life, nor eventually seriously interfere with the comfort of the mother. The dangers of operating were greatly diminished by interfering at a late period, when the fœtus was dead and suppuration established.—Dr. MEADOWS reminded the Society that some years ago he had advocated the very

practice which this case now so triumphantly vindicated. He thought it our bounden duty to interfere and rescue the child from its perilous position. Statistics of operations hitherto seemed adverse to this, but the almost uniformly fatal character of the operation was traceable to the forcible removal of the placenta, which gave rise to most alarming and generally fatal hæmorrhage. He hoped Mr. Jessop's would be the starting-point of a new practice. Indeed, he would go further, and express a hope that it would some day be regarded as sound practice in all cases where tubular pregnancy existed, to open the abdomen and treat the case as we would an ordinary ovarian tumour, viz., by removal.—Dr. SNOW-BECK remarked that the Fallopian tube was perfectly open to the passage of a small probe in the specimen Dr. Meadows had brought forward this evening.—Dr. WYNN WILLIAMS observed that the tube passed through the muscular tissue obliquely.—Mr. SPENCER WELLS asked for further details as to the provision for the escape of fluid from the peritoneal cavity after the operation. As long as the opening in the abdominal wall was free, the patient did well; but, as soon as the funis came away, there were intervals of accumulating fluid, at times very fetid, with great pain and feverish attacks, followed by gushes of pent-up discharge and relief until a fresh decomposition took place. Perhaps this might have been avoided by the use of a drainage-tube of glass or vulcanite, and the injection of some disinfecting fluid, as carbolic acid or iodine. It was by attention to such details in after-treatment as well as to improved methods of operating, that we might hope for very much better results now and hereafter than had previously followed gastrotomy in cases of extra-uterine fœtation.—Dr. CLEVELAND inquired if he had understood correctly that the patient had been sustained for a month by nutrient enemata. He thought they might be more successfully resorted to than they have hitherto been.—Dr. BRAXTON HICKS thought we should distinguish between this, an exceptional case, and those where the sac was ruptured and the cyst entire. The treatment was totally different where there was an amniotic sac; this should be stitched to the peritoneum, and the abdominal wound left open. Had the funis in this instance been cut off and the wound closed, the placenta would probably have shrivelled up.—Dr. JAMES EDMUNDS mentioned a case of Casarean section, in which the placenta had been left in the uterus on account of a firm adhesion. The patient recovered.—Dr. EDIS called attention to the statistics collected by Dr. Parry in his recent valuable monograph on extra-uterine pregnancy. He showed that, in 500 cases, 248 women went to or beyond term. Of these, 122 lived and 125 died, giving a mortality of 50.4 per cent. Of 40 cases operated on, 34 lived and 26 died, giving a mortality of 43.33 per cent. Of 188 cases reaching and passing beyond term and left to nature, 88 lived and 99 died, giving a mortality of 52.65 per cent.; whilst, of 62 gastrotomies for the removal of extra-uterine children during or at the end of gestation, 30 lived and 32 died, a mortality of 51.61 per cent., only 1 per cent. in favour of gastrotomy. Dr. Edis thought the time had come when we should reconsider the subject, and not be wholly influenced by the mere statistics of preceding operations, more especially when we considered the great advancement that had taken place in the diagnosis of these obscure cases, and the improved method of dealing with the placenta and the after-treatment generally. In a certain number of cases, extraction *per vaginam* without opening the peritoneal cavity at all would be resorted to, and the risk to life thus materially lessened.—Dr. PALFREY thought we were tied down by the tradition of our old teachers. In his own experience, he had formerly been uniformly unsuccessful. The cases died from two causes; some were poisoned by opium, and others from too much stimulant. He considered it the duty of every man to operate for extra-uterine fœtation as soon as it had been clearly ascertained. The patient's life was in peril, and we were bound to rescue her from that peril if possible. He regarded the statistics of our forefathers as valueless in guiding us in the present day.—Dr. AVELING thought the position of the child in the abdominal cavity a subject of great interest. Floating freely as it did when alive without the retaining influence of the uterus, he expected to find the head carried by its greater weight towards the pelvis; the opposite, however, was the case; this might be accounted for by the recumbent position which the woman had been obliged to maintain, and by the altered shape of the abdominal cavity caused by the filling up of the pelvis by the enlarged uterus and the placenta. The case, being unusual, offered a good opportunity of testing the relative value of the gravitatory and reflex theories of fœtal position near the end of pregnancy.—Dr. WILTSHIRE thought Mr. Jessop ought to be congratulated on the success of his case; this being the first case in the literature of the English language where both mother and child had been saved. Keller of Strasburg had related nine cases, in which four of the mothers recovered and seven children, one being a case of twins. The diagnosis of these cases was very difficult, especially in the early months. In cases of Fallopian gestation,

rupture was liable to occur about the second month, when the cases were regarded as pelvic hæmatocele or cellulitis, there being a mass detected on one or other side of the pelvis, and the uterus enlarged. In the later months, even if foetal movements were very distinct, it was not necessarily one of extra-uterine gestation. A case occurred in Paris, where everyone who examined it thought it to be extra-uterine, but the head presented, and the child was delivered naturally. In peritoneal cases, we ought to operate, leaving the placenta untouched, and allowing a free passage for the *débris*.—Dr. WYNN WILLIAMS alluded to the case of Dr. Greenhalgh, where it was diagnosed very early, and the liquor amnii aspirated.—Mr. JESSOP, in reply, said he was highly gratified with the reception his communication had met with. Nutrient enemata were relied upon wholly for the first few days. As to the insertion of a drainage-tube by the side of the umbilical cord, not knowing what would become of the placenta, whether it would remain attached to the pelvic tissues and become one with them, or atrophy or dissolve and come away, the tube was not employed, lest it should serve as an additional foreign body, and, therefore, an additional element of danger.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, NOVEMBER 8TH, 1876.

J. N. RADCLIFFE, M.R.C.S.Eng., President, in the Chair.

President's Address.—The Session was opened by an address from the PRESIDENT. He took for his subject the present position of epidemiological science, treating it not as a question of results, but as a question of method by which results are obtained. According to Mr. Radcliffe, the event which had, perhaps, exercised the most important influence on the study of epidemiology in modern times was the discrimination of typhus and typhoid fevers, made commonly known to the profession by the writings of Sir William Jenner, whose researches on the subject confirmed and extended the previous investigations of Dr. A. P. Stewart and others, and were followed by the wider inquiries of Dr. Murchison. He described this event as a "revelation"; for it revealed a fundamental error in the medical teaching of that day as to continued fevers. This teaching deprecated attempts to distinguish particular kinds of these fevers, and regarded them as one and the same disease originating in a like cause. He described this event also as an "instauration of true method"; for it proved that a just discrimination of disease was the initial step of successful research into its etiology; and, when liable to epidemic extension, into the conditions of epidemic prevalence.

Starting from this position, Mr. Radcliffe briefly indicated how the method of investigation by which the discrimination of typhus and typhoid, clinically, pathologically, and etiologically, had governed all successful epidemiological work since the date of the discovery, and was the great characteristic of the epidemiology of the present day. This method, however, had not completely supplanted the older method, which treated rather of spasmodic diseases in groups—these groups including sometimes (as we now know of the continued fevers) very diverse diseases, and sought to deduce an explanation of epidemics from certain preconceived doctrines of telluric, atmospheric, and celestial agency. At least, we retain the phraseology of this older method, very hurtfully to epidemiological progress, Mr. Radcliffe maintained. Thus, the word *epidemic* has in medical use several distinct definitions, each inconsistent with the other, and all antagonistic to existing knowledge on the subject. For example, one definition restricts the term to certain contagious maladies; another wholly excludes contagious diseases; other definitions imply respectively a telluric, atmospheric, and cosmical origin of epidemics; and finally, perhaps, the most favoured definition assumes that the cause of an epidemic is something occult, respecting which it is vain to speculate. Against such uses of the word, and particularly against the retention of such uses in text-books of medicine, which also contain the results of the researches of the past quarter of a century as to the continued fevers, Mr. Radcliffe protested. He endeavoured to show also how the familiar terms *epidemic constitution* and *epidemic influence* had attached to those meanings, not less various, not less obscure, and not less fallacious than the various uses of the word *epidemic*; and he urged that it was high time that some common agreement should be come to as to the medical-use of that word. He indicated, however, the difficulty of bringing about such agreement in face of the strangely loose use of the word in the *Nomenclature of Diseases* issued by the Royal College of Physicians. Mr. Radcliffe would have the word used technically, as it is used in ordinary language, namely, in a literal sense, simply as a descriptive term. He, agreeing in effect in this respect with the learned professor of epidemiology at Val de Grâce, Dr. Léon Colin, submits that the term should

be used in the sense "common to, or affecting, a whole people, or a great number in a community, prevalent, general" (Webster). Quoting Dr. Léon Colin, he said: "It is the disease which constitutes the epidemic, not the epidemic the disease. The evil always remains the same, the number of the affected alone being increased." The first element, indeed, in the successful pursuit of epidemiological research, under this view of the question, Mr. Radcliffe proceeded to say, is the study of the several diseases which are liable to become epidemic, and of the conditions upon which their greater or less prevalence depends. In one sense, this may be said to be a truism; but it can hardly be regarded as such while our text-books are still defaced with usages of the word *epidemic*, which (again quoting Dr. Léon Colin) "signify implicitly a common cause apparently indecomposable, to which individuals are not exposed necessarily, but simultaneously.....a something isolated, impersonal, inaccessible to reason, detached from the disease.....a creative force of the different epidemic affections, compelling, directing, extinguishing".

Mr. Radcliffe next insisted that the event which he had described as an instauration of true method of epidemiological research, namely, the discrimination of typhus and typhoid, and the consequences which have followed from it, furnish the most striking illustration of the justness of the view he had advanced—to wit, that the pursuit of epidemiology to be successful must be based upon the study of the individual diseases liable to become epidemic. Mr. Radcliffe here observed that he was again conscious of uttering what was, no doubt, a truism to many, but which he was unable to avoid in view of the common teaching of our text-books as to epidemics.

Mr. Radcliffe then proceeded to illustrate in detail the "amazing fertility", as he termed it, of this method of epidemiological inquiry from the history of the epidemic small-pox of 1869-73. Accepting for his argument Dr. Léon Colin's views, founded upon a close study of the habits of small-pox, as to the local origin of this great epidemic in Brittany and its diffusion, he proceeded to show in considerable detail how singularly suggestive these views were as to the direction of research into other epidemic diseases, as well current as foreign.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 2ND, 1876.

E. SYMES THOMPSON, M.D., in the Chair.

Post Partum Pelvic Cellulitis.—Dr. WILTSHIRE described the nature of *post partum* pelvic cellulitis, which, he said, was one form of puerperal fever. It was a connective tissue phlegmon commonly caused by septic infection. It usually occurred three or four days after delivery. It frequently encroached upon the bladder and bowels. It was followed by loss of flesh, by a very dusky complexion, and the shedding of the hair; so that by these, together with the gait, a past cellulitis might often be diagnosed before a question was asked. A patient was shown. During the acute stage, it was well to give quinine in free doses in sulphuric acid internally, and to use injections of Condy's fluid, with poppyhead poultices. Gentle laxatives alone were indicated. Low forms of pneumonia were apt to occur. When the more chronic forms were found, it was well to paint the abdomen with iodine and belladonna. The seaside proved the best tonic.—Dr. DAVSON, the CHAIRMAN, Mr. OWEN, and Mr. CRIPPS LAWRENCE spoke; after which Dr. WILTSHIRE replied.

Psoas Abscess Treated by Forcible Distension.—Mr. EDMUND OWEN brought forward two cases of psoas abscess, treated after Mr. Callender's plan of forcible distension by carbolic acid and water. The first case was a boy, aged 6, who had an enormous abscess which was injected by an ordinary enema-syringe, after which a drainage-tube was inserted. The sac was washed out every alternate day. The second was a boy aged 7, where the vertebrae were affected. He was treated on the same plan. In practice, this formed the simplest of all treatments, and was very satisfactory.—Dr. WYNN WILLIAMS exhibited two patients who had suffered from psoas abscess, and who were quite cured. One occurred twenty-five years ago. He had treated them antiseptically by iodine years before Mr. Lister had evolved his plan.—Mr. KNOWSLEY THORNTON inquired as to the effect of rest upon the results.—The CHAIRMAN said iodine had not proved so satisfactory in his hands.—Mr. OWEN and Mr. KIALLMARK spoke; after which Mr. EDMUND OWEN replied.

Clot in the Ventricle.—Dr. SYMES THOMPSON related a case of large clot in the left ventricle of a man, who had cavities in each lung. He fell out of bed one day; he had paralysis of the left side, and subsequently died. The heart weighed sixteen ounces, together with the clot. An embolus was found in the carotid, blocking up the middle cerebral artery.—Dr. FARQUHARSON inquired as to the fate of these embolic masses

when the patients recovered.—Drs. MILNER FOTHERGILL, MAHOMED, DOW, and Mr. KJALLMARK spoke, after which Dr. SYMES THOMPSON replied; and the meeting adjourned.

MANCHESTER MEDICAL SOCIETY.

OCTOBER 4TH, 1876.

JOHN GALT, Esq., President, in the Chair.

Disease of Heart and Lungs.—Dr. WILKINSON showed a preparation obtained from a patient, who was admitted into the Infirmary suffering from mitral insufficiency, cardiac hypertrophy, bronchitis, general anasarca with albuminuria, and died soon afterwards. The *post mortem* examination showed that the cardiac trouble was not primary, but sequential to the lung-disease. There was very marked emphysema, and the pulmonary and costal pleurae were adherent over a large extent of both lungs. The upper lobe of the left lung was compressed by a tight lap of false membrane; the tissue itself was very much atrophied; the bronchi were dilated; a few calcareous nodules were present, and there was slight increased growth of fibrous tissue. The emphysematous middle lobe occupied, for the most part, the place of the upper lobe.

Aneurism of the Aorta: Natural Cure.—Mr. JONES exhibited a preparation of an aneurism of the arch of the aorta, which had undergone natural cure. T. W., aged 41, was admitted into the Manchester Royal Infirmary, under Mr. Lund's care, on July 24th, suffering from fracture of several ribs on the left side, with traumatic pleurisy and hæmorthorax. On the 27th, he died. At the *post mortem* examination, a tumour about the size of a walnut was found attached to the right side of the ascending portion of the arch of the aorta. When cut into, this tumour was discovered to be an aneurismal sac filled with laminated fibrine, and having a small cavity communicating with the arch. The left innominate vein was entirely obliterated, and in the form of a fibrous cord, crossed the lower part of the tumour. The arteries springing from the transverse portion of the arch were normal. No history could be obtained that this man had at any time suffered any inconvenience from the presence of the aneurism.

Meningocele: Defective Development of Brain.—Dr. ROSS showed the brain of a child, who lived three weeks. The child was small but well-developed, except about the head. The forehead was small and retracting, and a pedunculated tumour, about an inch and a half in length, containing fluid, projected from the posterior fontanelle. The walls of the tumour were composed of skin, fascia, dura mater, arachnoid, and pia mater. At the root of the tumour, there was a narrow canal, through which a portion of the brain protruded. The posterior lobes of the brain were deficient, and the posterior commissure of the corpus callosum was close to the surface of the brain. The portion of the brain which entered the tumour sprang from the junction of this commissure with the cerebral lobes. In the interior of the projecting portion of the brain there was a canal, through which a probe could be passed into the lateral ventricles.

Hepatisation of Lung.—Dr. ROSS showed a lung in which the whole of the superior lobe was in a state of grey hepatisation; also a kidney with a cyst about the size of a hen's egg.

Brain from a Case of Syphilitic Epilepsy.—Dr. DRESCHFELD showed the brain and dura mater from a case of syphilitic epilepsy of unusual interest, inasmuch as the symptoms during life and the lesions found after death were singularly in accordance with the results arrived at by Ferrier in his well-known experiments on the localisation of functions in the brain. The patient, aged 30, came under Dr. Dreschfeld's care in 1874, suffering from epileptic attacks which came on at irregular intervals. There was no swelling, but a good deal of headache. The patient gave a distinct syphilitic history, and his wife had had eight miscarriages. On subjecting the patient to an antisyphilitic treatment, the attacks themselves stopped, but the aura remained, consisting of clenching of the fist, flexion of the wrist, pronation of the forearm, and retraction of the angle of the mouth on the left side. On leaving off the treatment, the fits returned, and again disappeared on the administration of iodide of potassium; the peculiar contractions, however, above described remained, but came on less frequently. In the beginning of this year, the patient first showed signs of pulmonary phthisis, to which he succumbed on September 30th. The peculiar contractions described corresponding exactly to those obtained by Ferrier on stimulating the ascending parietal and supramarginal and angular convolutions of the opposite hemisphere in monkeys (*Proceedings of Royal Society*, vol. xxiii, p. 417), it was expected that the lesion in this case was a chronic inflammatory process of syphilitic origin, having its seat in the superficial part of the brain and in the region indicated. On *post mortem*

examination (the head only was allowed to be opened), this view was confirmed in every particular. The dura mater was found adherent to the pia mater, arachnoid, and cortical part of the brain-substance, over an area corresponding exactly to the ascending parietal, supramarginal, and part of the angular convolutions on the left side. The cortical portion in that region was found softened; the rest of the brain and its membranes were healthy.

The Relation between Rheumatic Fever and Particular States of the Weather, as bearing upon the Treatment of that Disease by Drugs.—Dr. HADDON stated that, with a view to trace the connection between acute rheumatism and states of the weather, he had applied to Mr. Mackereth, a neighbour and meteorologist, to give him a record of the meteorological conditions from day to day. Mr. Mackereth placed his books at Dr. Haddon's disposal, and, moreover, informed him that he had observed that rheumatism occurred in Salford when the barometer and hygrometer showed great changes; and that, by multiplying the morning barometer by the difference between the dry and wet bulbs in the morning, by doing the same with the evening records, and subtracting the one from the other, he would get a result which, when varying greatly from day to day, would indicate when rheumatism would prevail; and, when the numbers were nearly the same from day to day, rheumatism would disappear. Dr. Haddon had tested the truth of Mr. Mackereth's observation by comparing the curve obtained by the calculation mentioned with the average of morning and evening temperature in cases of acute rheumatism. He had so far made the comparison in four cases only, and all of them tended to show that the atmospheric state which Mr. Mackereth had observed to cause rheumatism in the community, intensified and prolonged an individual case; while, when that atmospheric state disappeared, the patient got better. The diagrams exhibited showed when drugs had been administered; and the conclusion arrived at, in so far as a conclusion could be drawn from such a small number of observations, was, that neither salicine nor the alkaline treatment properly carried out made any improvement in the case while the particular state of the atmosphere lasted; and that, so soon as that state ceased, the patient improved, even when having no treatment at all.

LIVERPOOL MEDICAL INSTITUTION.

OCTOBER 19TH, 1876.

JAMES TURNBULL, M.D., President, in the Chair.

Treatment of Rheumatism by Salicin and Salicylic Acid.—Mr. PAUL read a paper on the treatment of acute rheumatism by salicin and salicylic acid. He proposed to establish that, by the use of these remedies, the attack could be speedily cut short, complications prevented, and relapses avoided. His arguments in favour of these propositions were drawn from a tabulated series of thirty-two cases (twenty obtained from the BRITISH MEDICAL JOURNAL, vol. i, 1876, and from the *Lancet*, and twelve from the wards of the Liverpool Royal Infirmary). In these cases, he showed that the attack was cut short in an average period of 52.4 hours; the average temperature and pulse being 102.4 and 109 respectively; and, when the joint pain, etc., had disappeared, 99.4 and 87. The cases at the Infirmary had all been treated by salicylic acid; and in them the attack was cut short in an average period of 22.5 hours. In reference to complications, there were three cases in which a *bruit* occurred after the treatment had been commenced. Two of these cases were taking salicin, and the endocarditis commenced before they could be got under the influence of the drug; the other was treated by salicylic acid, and was probably the only exception to the second proposition. Of relapses, no fewer than six occurred; but it was shown that in these cases the drug had not been continued long enough, and that the so-called relapse was more a simple continuance of the symptoms when the action of the remedy was withdrawn. He preferred salicylic acid to salicin, but believed salicylate of soda to be a good form of the drug. He advocated small doses, frequently repeated (ten grains every hour), till the attack was cut short, and then at gradually increasing intervals; and laid great stress on the necessity for continuing the remedy for not less than ten days or a fortnight. Cases so treated were the most successful, and fully bore out the conclusions which had been published in the journals by previous advocates of these remedies. Notwithstanding the brilliant results that could be deduced from statistics, Mr. Paul would have but little faith in the remedy if they did not coincide with the opinion of those physicians who had a bedside experience of it; and he took it to be the strongest argument in favour of salicylic acid that he could give, that he was able to state that the President (Dr. Turnbull), under whom most of these cases were treated, was so impressed with the remarkable action of this drug that he had discarded the practice of his whole life

in favour of the new remedy.—Dr. W. CARTER read the notes of twenty cases of acute and subacute rheumatism, in which salicylic acid had been used in the Royal Southern Hospital. Excluding one case, concerning which there was some doubt as to the doses administered to the patient, the others might be briefly summarised as follows. In fifteen, there was early and marked benefit; in one, not much relief to pain; in one, no benefit, but recovery under the use of the cool bath; in one (a case of subacute alternating with acute rheumatism), its effects were variable, at one time seeming to give great relief, at another, to be of no value; in one, though there was general benefit, much pain remained in the right knee and calf, which was relieved by injection of morphia. In three out of the fifteen cases, stomach-symptoms, nausea, pyrosis, or vomiting compelled the temporary disuse of the medicine. In two of these cases, other remedies had been used unavailingly for many days before the acid was employed; the relief given was marked and speedy. In three cases, its use being suspended too soon, the pains returned, but were immediately relieved by recurring to the medicine. Many of the cases were severe; and the severer and more marked the case, the more pronounced, as a rule, was the benefit. At the same time, Dr. Carter thought that the cases were not as yet nearly numerous enough to admit of so wide an induction as had been drawn by some, viz., that the drug was as much a specific in acute rheumatism as quinine is for ague.—Dr. TURNBULL said that the treatment of rheumatic fever had hitherto been very unsatisfactory. Since he had tried salicylic acid, he had abandoned alkalies and opium, and now gave nothing but the acid. It appeared to be a remedy of great value, and to have a direct power over the disease, relieving the pain and lowering the temperature and pulse. Permanent heart-disease most frequently resulted from protracted rheumatic attacks; and we might expect that, by cutting short the latter, the risk of the former would be materially lessened. Further comparative trials would be needed to determine the relative value of salicin and salicylic acid.—Dr. GLYNN agreed in the main with Mr. Paul's statements and opinion regarding salicylic acid. He had, however, seen one case (which he related) of acute rheumatism, where high temperature and dangerous symptoms were developed under the use of this drug, and in which the use of quinine and immersion in the cool bath were followed by recovery.—Dr. WATERS had used salicylic acid in many cases of rheumatic fever (in doses of fifteen grains every two hours), and considered it most valuable. He proposed to continue its use, but would hesitate at present to say that he considered it a specific.—Dr. CAMERON objected to the custom of using large doses of so-called specifics without having theoretical reasons to guide us.—Dr. DICKINSON said his limited experience was in favour of the use of salicylic acid; and agreed that the remedy should not be ceased too soon. He had noticed salivation during its use in one case.—Dr. SHEARER had used salicin in twelve cases. He had found no benefit to result in chronic rheumatism, but had found it satisfactory in subacute cases. He mentioned one very satisfactory case in which the same remedy had been most successful in checking a similar attack on a previous occasion.—Dr. EWING WHITTLE and Dr. BARR made a few remarks on the subject.—Mr. PAUL, in reply, said that he had occasionally seen disturbance of the digestive organs occasioned by the use of the drug, but had never met with salivation arising from it. Lately, he had seen nothing of this disturbance, which circumstance was, in his opinion, due probably to the fact that improvements have taken place in the manufacture of the drug.

BORDER COUNTIES BRANCH.

FRIDAY, OCTOBER 20TH.

HENRY BARNES, M.D., in the Chair.

The Effect of the Hot Bath in the Treatment of a Case of Acute Mania.—Dr. ABLETT (Whitehaven) read notes of a case of acute mania, with well-marked symptoms, coming on in the usual manner. The general remedies of narcotics and depressants were used, viz., opium, morphia, antimony, conium, ergot, and others; but, as they seemed of little avail, the hot bath treatment was tried at the end of a fortnight. The temperature of the first bath was 100 deg. Fahr. gradually increased to 120 deg. Fahr. Cold water cloths were at the same time applied to the head of the patient. He was kept in this bath three-quarters of an hour; it produced great exhaustion and depression, almost amounting to syncope, together with profuse perspiration. This soon wore off, and the patient seemed much soothed, and remained quieter all the day. Milk was given during, and immediately after, the bath. This bath was given at about 11 A.M.; at about 9 P.M., it was repeated, but the heat was not so great, and the effect not quite so good. On the following morning, the bath was repeated at about 11 o'clock, at the

same temperature as the first. To this bath, he made great resistance, and it seemed to excite him considerably, so that he was kept in it only twenty minutes. The effect of this bath was even more depressing than the first; but, on recovering from that condition, he became very violent and unmanageable. This state continued for about an hour and a half, after which a period of calmness and rationality came on, which lasted for about two hours, when he relapsed into his former state, but without being violent at all, and remained so for twenty-four hours. After that, the symptoms of mania gradually disappeared, and in two days left no trace. After the baths, repeated half-drachm doses of bromide of potassium were administered and kept up for some time. There had been no return of the attack since, now some months ago.

Removal of Intra-uterine Polypi by the Écraseur.—Dr. MICHAEL TAYLOR (Penrith) gave an interesting paper on the removal of intra-uterine polypi with the *écraseur*, illustrated by cases from his practice, and with practical remarks on the procedure. He showed how often, and for how long a period, polypus uteri was apt to remain undetected; and that the rule in olden time referring to operative treatment for polypi which had descended through the os, had become tighter now; that, if the polypus was not readily discovered, it must be sought for, and when detected it was imperative to set about its removal. He insisted on time and trouble being taken in the preparation of the patient, and in the dilatation of the os; to educate the organ, and accustom it to manipulation and instruments. As a rule, he preferred sea-tangle tents to begin with, in bundles of two or three pegged round the tumour; he deprecated for intra-uterine use the tents of bad inferior sponge often sold, and recommended one of home manufacture for the last insertion. He had not experienced much difficulty nor impediments in dealing with these intra-uterine growths, at least, none such as had been dwelt upon by some writers on the subject. He conceived that, when the attachment of the tumour was broad, some trouble might arise in getting the wire rope on after it had passed beyond the guidance of the finger, and still more in keeping it on in the act of drawing and tightening the rope; but all the cases to which he had applied the *écraseur* were of the true polypoid form, round or oval, with a stalk. He described two or three manœuvres which facilitated the process of shaving. In using a vulsellum without the speculum, to guard against any awkward entanglements with its hooks, he was in the habit of moulding a dab of soft wax over the beak of the instrument, which covered the sharp points until the blades were opened. The cases related were those of that class in which the tumour was interior to the os, and which were removed from the cavity of the uterus with the *écraseur* with results perfect and satisfactory in every instance.

Clinical Surgery.—Dr. MACLAREN read an account of a year's clinical surgery in the Cumberland Infirmary, being a short account of the cases admitted under his care from September 1st, 1875, to September 1st, 1876.

Specimens.—Dr. HORAN exhibited a patient from whom he had removed the Radius.

Dr. ABLETT showed a Necrosed (Left) Body and Ramus of the Lower Jaw.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

OCTOBER 12TH, 1876.

G. F. BODINGTON, M.D., President, in the Chair.

Progressive Cario-Necrosis of the Os Calcis.—Mr. JOLLY showed a specimen of progressive cario-necrosis of the right os calcis, affecting deeply in places the body of the bone, denuding it of its periosteum, and beginning to involve the articular cartilages. The disease had slowly progressed for two years and a half, and had resisted all treatment. The bone was removed by an incision along the inner side of the foot, on a level with the junction between the astragalus and os calcis, beginning at the inner of the tendo Achillis, terminating midway between the tip of the outer malleolus and the projection of the fifth metatarsal bone. A second incision was carried vertically half-way across the outer border of the sole of the foot and the flaps dissected back. The ankle-joint and rest of the tarsus were quite sound. The case progresses favourably.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Mr. G. C. R. Bull, late of Epsom College, has obtained the vacant Exhibition in Natural Science.

DR. MACKELLAR, who has been attending the sick and wounded during the war, has returned to London, and resumed his duties at St. Thomas's Hospital.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 25TH, 1876.

A CRISIS IN MEDICAL EXAMINATION.

THERE exist very serious signs abroad that treason to the profession and the public is hatching in the Council of the College of Surgeons of England, and that next Friday a very serious, and, as some people anticipate, a successful effort will be made at the last moment finally to disorganise and overthrow the "Conjoint Scheme of Examination". It ought to be needless to say how deeply important it is to the interests of the profession and the public that the present chaos of medical degrees and diplomas should receive an element of order and certainty. The scandal to meet which the Government framed its Medical Reform Bill continues to flourish: there are now, as then, nineteen examining bodies, giving fifty diplomas, having every variety of significance, and ranging in cost, we believe, from ten shillings up to three or four times as many pounds. The Medical Reform Bill which passed the House of Lords, and would have passed the House of Commons but for differences as to the question of direct representation on the Council (which are not in any way connected with this particular subject), would have effectually cured this state of things; but the medical corporations would have fared badly, for the great bulk of practitioners would have obtained their licence to practise medicine and surgery from a State Board without being under the necessity of coming to any of them for a diploma. When this Bill was withdrawn, the advisability of anticipating a renewal of such compulsion by voluntary action presented itself strongly before them. Hence arose the activity in conjoint schemes. Undoubtedly a conjoint system of diploma for medical practice is a necessity for the State, as for the profession. It is nowhere more necessary than in England; it is nowhere so easy. The more enlightened minds at the College of Surgeons saw this clearly enough; and the College has had the credit through its President, Sir James Paget, of taking a very active and honourable part in promoting and carrying on the tedious negotiations to which all the corporations and universities have in turn pledged themselves. To attempt to follow the windings and turnings of these negotiations would be an endless and an useless task. As usual when corporations and universities are in council, jealousies, sentiments, and susceptibilities having little relation to broad public and professional interests have incessantly arisen, and have needed to be conciliated, satisfied, or assuaged.

In the shape in which the scheme now stands after several years of debate, and in which the delegates of the College of Surgeons at the Conference Committee have assented to it, it is one which affords every needful guarantee, which assures an excellent Board of Examiners, one which gives to the College a large share of examiners, indeed a lion's share; it is all that could be desired by anyone who really wishes the scheme to work for the public good. But it is the curse of corporations that there always hangs about them a hankering after influence; and that there are always active in their councils the jealous love of personal power, the doting taste for places, and the obstructive

wish to upset everything which alters—no matter how much for the better, no matter how much for the public good—that which has been a source of personal privilege. And so it seems that those who nearly made shipwreck of the Conjoint Scheme in January are now once more busy, and are hopeful of finally destroying it at this critical moment, on the ground that, although under it the College is amply endowed with examiners, although the surgical representatives of Durham, Cambridge, and the University of London are really Fellows of the College, the College has not also a lion's share of seats on the Executive Committee, or Committee of Reference, who superintend the list of nominations.

Now, we shall not stop to argue this petty point with those who hope to use it to upset the scheme. It is not worth arguing; the objection is trifling, unmeaning, and can only be used to cover a distinct and deplorable intention to sacrifice high public professional interests, of the greatest acknowledged cogency, to a covert preference for personal interests. We shall rather appeal to the nobler impulses and better feelings of the Council, to its sense of responsibility to the country and to the profession. The example of England is pregnant with large results throughout the three kingdoms. For, as we have said, the duty of joint action to remedy the scandal is here most plainly apparent and most easily fulfilled. More than this, the College of Surgeons is that body on whom the duty is most plainly obligatory, for it is in a peculiarly false position at this moment in its relations to the profession and to the country. It has a registrable diploma of midwifery which it cannot withhold, and which only lately has been separately demanded by a certain number of candidates. It would be a great misfortune if it were to grant it to them separately; for it would be the very smallest of doors on to the *Register*, and this would add one more and greater scandal to those already existing. At this moment, the Council are (wisely enough) standing with their backs to the door and barring admittance by pleading for time, and saying, "Wait till the conjoint scheme is in operation, and we will make new arrangements." But that would be a poor answer to a mandamus, and no answer at all if the conjoint scheme be overthrown. But, further than that, the interests of the College itself will be in a serious degree imperilled, if it fail on Friday next in its duty to the profession and the public. There are three great licensing corporations in London: the College, the Hall, and the Physicians. Of these, the Hall cannot refuse to place its licentiates on the *Register* with a single qualification, unless the Conjoint Scheme be produced; and in continuing to place mere apothecaries on the *Register* as qualified practitioners in Medicine, it will be able to plead "*Non possumus*". On the other hand, the College of Physicians has over the College of Surgeons the great advantage that it can do what the College of Surgeons cannot do. It can give by a single diploma a double qualification in surgery and in medicine, which the law allows and the public departments confirm; the College of Surgeons can require its diplomates to go through another costly examination at some medical corporation before sending them on the *Register*; but that is only an imposition of expense and a confession of weakness. The College of Physicians, by going into the Conjoint Scheme, makes a very serious sacrifice of its powers and of its probable future emoluments; for these new found powers of giving a double diploma have been but little developed, and are hardly known in the profession. The Universities also make very great sacrifices in giving up their individual powers to license. The only body which really makes no sacrifice is that which is now being urged to immolate all larger considerations, in favour of petty manifestations of an ignoble feeling and the shallow arguments of merely obstructive reactionists. We heartily hope that those who promote this course of action will not realise that success they seem to promise themselves, at the expense of the best interests of the College and the country.

PRODUCTION AND PREVENTION OF CHOLERA.

The *Indian Medical Gazette* of September 1st contains a report by Dr. Arthur J. Payne, Health Officer of Calcutta, addressed to the Chairman of the Justices of that city, on Cholera in Calcutta. The object of this report, in Dr. Payne's own words, "is to set forth and prove the close practical connection between filthy water and cholera, without entering on the controversial topic of germs".

Dr. Payne begins by a statement which must have startled the Calcutta justices, and presented their responsibilities to them in a new shape. The passage is so full of interest to us in Europe that we make no apology for presenting it to our readers. After giving statistical evidence of the fact that, "after some years of marked improvement, cholera is now becoming in Calcutta yearly more and more productive", he thus proceeds: "Every year, under increase of local production, the probability becomes greater of a wide-spread epidemic, which shall again draw the attention of the world to India as its birth-place. For it appears to me certain, from the present state of opinion in the West as to the origin of cholera, the manner of its spread, and the usefulness of quarantine and kindred processes against its advance, that, in the event of its again invading Europe, the attention of nations will be given no longer to points connected with its march, but will be directed with strong denunciation against those Eastern places where past inaction shall have enabled the disease to maintain itself. And unless previously there shall be in Calcutta some effective exercise of power, local or higher, there can be no escape from the prospect that this city will be foremost among those held up to the condemnation of the world as a place where, with full knowledge of having dispensed calamities in the past, and foresight of further calamities as like results of like causes unremoved, the people and the authorities have been content to maintain a breeding-place for mortal disease, and have complacently sanctioned its dissemination through Europe. Against such an indictment," Dr. Payne continues, "the Indian metropolis is as yet absolutely without defence. Good work has been done, and costly foundations laid for the machinery which public health demands. The results are demonstrable, and have been excellent as far as they have gone; but, so long as any means or powers remain unused, this partial success can only bring the greater discredit for the very much that remains undone. The city can point to great schemes of main drainage and water-supply, to large outlay on conservancy, to a stately market, to works of improvement on the river banks, to lighted thoroughfares, and some dirty *bustus* (quarters) replaced by wide streets and squares; but vast areas of solid filth, and numberless collections of liquid sewage remain untouched, except for baneful use by the people themselves. By clean drinking-water brought within reach of most of the inhabitants, the poison has indeed been deprived of one of its readiest means of access to the body, but the sources continue to exist. Not a week passes without proof in the death lists of their actual power of local origination; and the commonest perception cannot fail to discern in them the promise and potency of national disaster whenever the unknown contingencies which govern epidemics shall again present themselves." Again, "Though the chief thoroughfares are cleansed, the city in its inward parts—its greatest area, has its soil saturated with excrement. The habits of past generations, which have made it so, continue in their disgusting details as free from interruption as though no thought of public health had ever penetrated here. For a plot of unguarded land about his house the tenant sees no use but that of a latrine; and, when his fluid filth runs or sinks into a hollow, he calls it a tank and washes in it."

In reply to the probable objection, that the endemic area of cholera is a *province*, not a *city*, Dr. Payne justly says, "this may be so; but it will scarcely serve as a defence for the metropolis; that smaller, poorer, and remoter places may well claim consideration, on the ground that they are no worse than the metropolis". Dr. Payne concludes this vigorous appeal to the Justices of Calcutta in the following telling sentences. "Vested rights, indeterminate responsibilities, and the

hitherto powerlessness of the corporation, which have enabled these things to be, have been fully set forth, and found effectual for defence against local reformers. But it can scarcely be expected that such disabilities, or any obstacle not absolutely insuperable to the highest legitimate power, will be valid for defence hereafter, when the cause of action against Calcutta shall be that it consented to the devastation of distant lands. The responsibility may be shifted from tenant to landlord, from landlord to corporation, from corporation to legislature; but it will assuredly, I think, be fastened on us a grievous burden somewhere."

We trust the Justices of Calcutta will lay these words of wisdom and solemn warning to heart; we have reproduced them because we believe they may, in their spirit at least, be addressed to some public bodies nearer home, who need to be awakened to a due sense of their responsibilities, not only to their neighbours and fellow citizens, but to the nation at large.

It will be seen from the above statements, and from a table given by Dr. Payne, that, from the year 1872, "cholera production", which had fallen after the introduction of the new water-supply, from numbers ranging from 5,078, to 3,592, to 1,563 in 1870, the year of the opening of the hydrants, and to 800 in the following year, has again begun to increase, having risen from 800 in 1871 to 1,726 in 1875. The cause of this increase in the face of the improved water-supply and drainage works is discussed in the report before us in a very interesting and instructive way. Far from denying the immense importance to the public health of Calcutta from the improved water-supply, Dr. Payne shows that the diminution of cholera production above described can be traced to no other cause. "On the 1st of April, 1870, Calcutta found itself in possession of eight hundred hydrants erected at maximum intervals of three hundred yards along all its public roads and lanes, in every one of which there was constant and liberal supply of filtered water of a high degree of purity as compared, not with the water it superseded, but with the standard of absolute purity and the supplies of European cities." Now, without going into details, for which we must refer our readers to Dr. Payne's report, it must suffice to say here, that so long as this abundant supply of good water was continuous in the hydrants, the fall in the amount of cholera production "was remarkable in its magnitude", and was so sustained until the continuous supply was interrupted. It is a notable fact, that this fall was maintained even "during the months of greatest normal mortality"; thus showing that even the law of seasonal prevalence was affected.

It unfortunately happened that the supply of this pure water was not equal to the demand; it became necessary to stop the flow between 6 P.M. and 5 A.M., a very scanty supply being obtainable at the hydrants in certain quarters between these hours. The limitation at once worked unfavourably on the public health, driving the people to the use of the filthy "stagnant pools of sewage called tanks". Dr. Payne gives, from other reports submitted by him to the Justices, some striking evidence of the production of cholera by bad water, and adds: "I am not concerned to advocate or refute the doctrine known as the 'water theory' of cholera, under which, it is contended, that the spread of the disease is to be explained by especial contamination of drinking water with germs or other particles passed from the bodies of infected persons, but merely to claim for these ponds the power which no one denies to excremental filth in this form everywhere; to show on the evidence of chemical science, that the tanks are loaded with such potent filth; and, on the evidence of facts, that their effect on the public health is in strict accord with the forebodings of science concerning them, and with universal experience in other places. This, I think, has now been done; and, lest it be supposed that these fatal pools are few in number, and incapable of affecting the general population, I may mention here, that I have measurements of seven hundred and ninety-five of them now existing in the town, and that together they expose a surface of one hundred and forty-six acres." Chemical analysis has demonstrated that they are one and all of them

"sewage". "In physical magnitude", adds Dr. Payne, "these pools must rank among the first, as in virulence they seem to be the very first, of the town's instruments for the creation and spread of disease."

It is almost needless to add, that the able health-officer of Calcutta presses on the authorities that the first and most obvious measures for the removal of the stigma which, under the existence of such things as he has detailed, must attach to the administration of the city, is a large addition to the supply of pure water, the pushing of the system of drainage into the interior parts of the town as yet exempted on the plea of private property and vested rights, so as to carry off the vast filth accumulations of such undrained quarters, and the systematic filling in of those tanks which, wherever they exist, are a "constant menace of death".

We cannot conclude this notice of this most practical report without adverting to the fact, that owing to the scarcity of water shown above, the Calcutta Justices have passed a resolution to the effect, that the filtered water-supply shall not in future be supplied to the shipping in the port.

This "resolution" amounts to a sentence of death against a heavy percentage of the unfortunate seamen who have no resource in the future but to use the filthy and faecal-charged water along side. Dr. Norman Chevers long ago pointed out that this was the chief source of the great mortality from cholera, dysentery, and diarrhoea, that prevailed among seamen in the Hooghly. The sooner, therefore, this cruel "resolution" is rescinded the better. Shipowners are able to pay for pure water, and it appears have done so, so long as it was supplied. The well-informed writers on sanitary questions in the *Indian Medical Gazette*, maintain that, if the filtered water were not wasted, as it appears to be for want of proper supervision, there would be enough, not only to supply the town, but the shipping also.

We are all at this time particularly sensitive on the subject of "atrocities". It is to be wished we were all, Justices of the Peace in Calcutta included, a little more alive to the fact that, it is possible to consign a number of people to premature death by other means than the sword; as, for example, in the case before us, by a "resolution" to withhold from an important and useful part of the community what is necessary to life itself.

PROFESSOR JOHN MARSHALL, F.R.S., commenced his annual course of lectures on anatomy at the Royal Academy on Monday last, the 20th instant. These most interesting and valuable lectures (nine in number) are delivered on Monday, Wednesday, and Friday evenings at eight o'clock, and will be brought to a close on December 15th.

As is now pretty well known, all candidates for the diploma of membership of the Royal College of Surgeons are required, before being admitted members, either to produce a recognised medical licence, or to undergo, by a separate board at the College, an examination in medicine. In the list just published, it is interesting to see how large a number of the gentlemen had previously obtained medical diplomas. Amongst the candidates were thirty-seven from the Society of Apothecaries, nine licentiates of the Royal College of Physicians of Edinburgh, two with the double qualifications of these two institutions; M.B. Edinburgh, four; L.R.C.S. London, three; M.B. Aberdeen, two; M.B. Dublin, one; L.K.Q.C.P. Ireland, one; M.D. McGill University, one; M.D. Toronto, one; M.B. Melbourne, one; L.M. & S. Calcutta, two; L.M. Bombay, one; and M.D. Caracas, one. Rarely do so many qualified candidates offer themselves for examination for the diploma of membership of the Royal College of Surgeons.

IN connection with the fund for the extension of the Norfolk and Norwich Hospital, on behalf of which a meeting has been addressed by the Prince of Wales at Norwich, it may be noted that the Duke of Norfolk has promised £1,000; the Earl of Leicester, £5,000 (conditionally); and Mrs. Dashwood of Caistor, £1,000. Altogether, a sum of £40,000 is required.

DR. TIEGEL, assistant to Professor Goltz of Strasburg, has accepted an invitation to the Professorship of Physiology in Japan.

A SYSTEM of weekly returns of Public Health has been organised in Berlin. It is to embrace all German towns having a population of at least 15,000. The returns will also contain statistics from the larger foreign towns and cities, especially with regard to the spread of the more important epidemics in the East and in America. They will be published regularly in the *Reichs-Anzeiger*.

MR. IRWIN, who volunteered to be bled, and from whom twenty-five ounces of blood were taken, in a case of transfusion in the Manchester Infirmary, has been presented with a silver cup bearing an appropriate inscription by Baron Barreto, of Brandon Park, Suffolk.

A LEEDS magistrate has inflicted a fine of £10, including costs, and refused to grant a case for a higher court, in the prosecution against Mr. D. B. von Cavama for unlawfully pretending to be a "doctor of medicine".—Mr. James Styant of Leeds has also been fined a like amount for a similar offence.

ON Saturday, at the meeting of the Metropolitan Asylums Board, it was reported that upwards of one hundred and forty small-pox patients were in the Stockwell Hospital, and one hundred and fifty-seven in that at Homerton. The new Committee for Hampstead reported that, from fear of the institution suffering by proximity, they had suspended the works of the permanent building going on there. The managers, however, objected to this proceeding in the face of the epidemic, and declined to accept the report. The works will, therefore, be proceeded with.

LIVERPOOL NORTHERN HOSPITAL.

DR. HENRY LOWNDES has resigned the office of surgeon to this hospital, having held office for a term of fifteen years, which was the full period allowed by the rule of the hospital in force when he was appointed. Since then, it has been extended to twenty-one years; but Dr. Lowndes declined to avail himself of this extension. In accepting his resignation, the Committee passed a special vote of thanks, and elected him consulting surgeon.

IMPROVEMENTS AT THE BROMPTON HOSPITAL FOR CONSUMPTION.

SOME time ago, several cases of erysipelas occurred at this institution; and, on inquiry, some drainage fault was found, as well as some defect in the ventilation of the west wing; the Arnott pump was not acting, and the fresh air was admitted under the flooring, and was liable to contamination. The ventilation of the other wing, which was that devised by Mr. Haydon, had proved so successful that he was requested to furnish a plan for the west wing also. The necessary alterations are now in progress; and, by the courtesy of Dr. C. T. Williams, we have had an opportunity of inspecting them. Hot-water coils are placed in the passages, and these warm the air which is admitted direct to them from without; every ward has a permanent opening over its doorway into the passage, and also a large aperture of entrance for the air near the floor and two grated apertures of exit into a shaft; all the shafts converge to a large tower, which is warmed by hot-water pipes, and is open at the top. An important addition to the hospital is also in progress, thanks, we presume, in part at least, to the bequest of Miss Read—the "old lady of Stamford Street". Sixteen houses opposite have been bought by the Committee, and five of them have been already altered and occupied, providing for forty or fifty patients. These houses are connected with the main building by a well-warmed and lighted subway (under the road), so that communication is perfectly easy. We believe that, as the whole of the property comes under control, the houses will make way for a new and complete building, which will add at least one hundred beds to the resources of this valuable charity. At present, there is a fair day-room adapted from a shop; and the small rooms have been ventilated by a louver over the doorways, and two of Boyle's ventilators (with tale louveres) in the chimneys.

There is free communication between all the houses; and the general result, if not at present very imposing, is very comfortable, and seems to be rather preferred by the patients to the larger wards.

MR. GLADSTONE ON VACCINATION.

MR. GLADSTONE has, we are glad to see, explained to several medical correspondents that the full text of his letter relating to his keeping an open mind on vaccination was as follows.

"The question of vaccination is one to which I have never been able to give a special attention, nor have I even the opportunity of doing it; and my practice is to allow, in such matters, great weight on general and professional opinion. At the same time, I view with misgiving all new aggressions upon private liberty, unless upon a clear and certain proof of necessity; and I keep my mind open upon the question whether such proof has or has not been supplied in the matter of vaccination."

We are glad to see that Mr. Gladstone has authorised Dr. Russell Reynolds to state publicly "that he no more questions the use of vaccination, which is practised and repeated in his family, than he questions other well-established medical doctrines and practices". We do not know whether it would be hypercritical to suggest that this form of statement leaves a good deal open to the imagination, and that the simple statement would have been more publicly useful that Mr. Gladstone not only accepts the value of the legal form of vaccination, but intelligently and wisely adds to it the security of revaccination of the adult in his own family. Example is in such case extremely valuable, as showing how Mr. Gladstone interprets his own precept; and to add an equivocal reference to "other well-established medical doctrines and practices" may certainly be misinterpreted by ill-disposed persons. We shall be well content, however, if this announcement of Mr. Gladstone's practice be allowed to close the episode.

ALCOHOL AND SCURVY.

At a "welcome home" meeting given to the Good Templars of the Arctic expedition, Mr. William Malley, of the *Alert*, in relating his experiences, said that amongst the few men who escaped scurvy, and did any sledging worthy of notice, were four teetotallers, who enjoyed perfect immunity from all sickness, establishing beyond the shadow of doubt that the intense cold of the Polar regions could be well endured without stimulants.

MAIZE AS A FOOD.

At the last meeting of the Paris Academy of Medicine, November 14th, M. Fca of Padua enlarged on the merits of maize or Indian corn as an article of food. He gave comparative tables to shew that maize is superior to all other cereals in fatty matters, and that it may be considered as a perfect food. He also replied to objections that have been made to maize, accusing it of giving rise to certain diseases, notably pellagra; and demonstrated that the penicillum glaucum, which is supposed to originate this disease, never attacks maize unless it is damaged.

MIASMATIC ALGÆ.

MM. LANZI and G. Terrigi have published at Rome an account of observations on the microscopic fauna and flora of the marshes in the Campagna, and endeavour to show that there is a connection between the product of changes in the cells of certain algæ and the cause of malarial fever. Dark granules form in the cells, which at last they fill; and then the algæ rot. They cultivated the plants in an aquarium, and followed the process in all its stages. The algæ develop in the marshes which are formed in winter and spring. When the moisture disappears under the heat of summer, the surface of the ground is left covered by a layer of stinking algæ. The same conditions are found, although not to the same extent, even where there are no marshes, the uncultivated ground being covered more or less with putrefying vegetable matter. The authors believe that the dark granules act as a ferment. They are found in the atmospheric dust of the Campagna, from which they can be developed abundantly by cultivation. Lanzi be-

lieves that they are identical with the pigmented sphaerobacteria of Cohn and the bacteridium brunneum of Schroeter. The authors assert that the pigment-granules found in the liver and spleen of persons who have suffered from malarial cachexia are similar to the granules from the algæ-cells; and Lanzi affirms the identity of the malaria-melanin of pathological anatomists with the granules which result from the decomposition of these plants. The germs were found in the atmosphere of the Campagna to a height of fifty centimeters above the surface of the marshy soil. Lanzi found abundantly malaria-melanin in the liver and spleen of guinea-pigs which had breathed for a considerable time air of the marshes which contained these organisms.

STATISTICS OF SUICIDE IN FRANCE.

THE judicial return of suicides in France for 1874 shows the number or 5,617, the highest which has yet been recorded: 4,435 (79 per cent.) by men, and 1,182 (21 per cent.) by women. Of these, 29 were below sixteen years of age, and 1,599 were over sixty. As usual, they were more frequent in spring (31 per 100) and in summer (27 per 100) than in winter (23 per 100) and in autumn (19 per 100).

MICROGRAPHY IN HOSPITALS.

LAST year, the *Assistance Publique* in Paris, in accordance with the wishes of the hospital surgeons and physicians, established at the Charité Hospital a micrographic laboratory, where special apparatus for the study of the constituent elements of the morbid tissues were set up. Important improvements have also been introduced in the amphitheatre at Clamart to encourage the development of researches of this kind, which are at the present time recognised as indispensable to medical teaching. It is now announced that, at the request of Dr. Besnier of the Saint Louis Hospital, a building is to be specially constructed for a complete micrographic laboratory. This laboratory, which will be placed in the hospital-yard, will be well lighted and ventilated, and will be furnished with all recent appliances adapted for the microscopic study of affections of the skin.

COLOUR-BLINDNESS IN SAILORS.

ACCORDING to the investigations of Drs. Feris and Favre (*Du Daltonisme dans ses Rapports avec la Navigation*) of 2,408 collisions at sea from 1859 to 1866, 539 may be imputed to a wrong interpretation of colour-signals at night, from the colour-blindness of the captain or officer in charge. Among the shipwrecks so caused are specially mentioned those of the *Japhet*, the *Vesta*, and the English steamer *Maloma*. Of 502 sailors examined by M. Feris, 47, or 9.4 per cent., were colour-blind. Of this number, 24 could not distinguish between red and green, the colours chiefly employed for signals. Stokers and engineers are among those who suffer most from colour-blindness. At Lyons, M. Favre found 24 dyschromatic stokers out of 65 whom he examined in the works at Perrache.

"GREAT ST. BENEDICT'S."

UNDER this title, Messrs. J. F. Shaw and Co. have just published a story dealing with the abuses of out-patient relief, a subject which has often been referred to in these columns. The hero, Dr. Shirley, having been appointed house-physician to St. Benedict's Hospital, is brought into contact with a system of "speing" out-patients at the rate of one hundred per hour, which he finds unprofitable, dangerous, and altogether a shameful farce. He points out the evils of the system to one of the governors, and lays a remonstrance on the subject before the hospital board, upon which he is immediately dismissed from his post, with results to himself and others which we must leave those of our readers interested in the subject to gather from the story itself. That the writer has correctly appreciated the general bearings of this somewhat difficult subject, will be seen from the following extract. "Here is a sketch of the matter. Out-patients are, as you are perhaps aware, treated gratuitously. In consequence, the masses of the people are educated to dependent and mendicant habits; in consequence, also, such numbers attend the hospitals to receive this gra-

tuitous relief, that it is impossible to give the serious cases the attention they demand." One of the better dressed among the out-patients describes how she avoids waiting for hours in the out-patient room, and secures the best advice gratis, as follows. "All you want here is a little skill and management. It really lies in a nutshell. I have always tipped the porter—perhaps rather well—and have never been treated except by one of the cleverest physicians or surgeons. . . . I am comfortably off, and in a good position in society, but what with myself, my children and servants, my doctor's bill always came to a heavy item in my year's expenditure. I managed it of late this way. My husband became a governor for ten pounds a year, so, of course, he can give orders to any amount. I now always go myself and take the children, and what I save pays the governess's salary, and a great part of the cook's." We have no doubt this book will do good in opening the eyes of the religious public, for whom it is specially written, to the abuses prevalent at too many of our large hospitals.

COFFEE-LEAF TEA.

A RECENT writer in the *Society of Arts' Journal* mentions that, throughout the whole Eastern Archipelago, the natives prefer the infusion from the coffee-leaf to that from the berry. Various travellers, both in the West and in the East, have tried it and have spoken very favourably, not only of the flavour, but also of its strengthening qualities, and generally their opinion confirms that of the natives. The last number of the *Queenslander* (August 26th), in alluding to one of the many things which were displayed at the exhibition lately opened at Brisbane, says: "Mr. Alexander of Redbank showed some coffee-tea, prepared from the leaves of coffee trees growing at Redbank. Mr. Alexander says that the beverage prepared from this article is most delicious, and is preferable to the decoction from the berry." It appears a matter of importance to give it a fair trial, if only for the sake of having another agreeable beverage in addition to the very few we possess. At present, owing to the high price of good coffee-berries, adulteration with chicory, beans, burnt bread-crumbs, etc., is carried on to a large extent. The same writer states that *maté*, the national beverage in the southern part of South America, has lately been introduced at two of the cafés in Vienna with increasing favour. From personal experience of it, he believes it would also be appreciated here, and more especially if it were gathered and prepared in a better manner. The varieties which he used betray both a woody and an earthy substance. At present an expedition is made to the forests, and there, hurriedly, twigs and leaves are indiscriminately broken off, are dried, and thence pulverised by means of a most primitively constructed stamping-mill. But were the leaves only gathered, and care taken that no earth or dust was incorporated with the pulverised leaves, he believes it would become a great favourite with many persons here. In the Spanish South American Republics, the inhabitants are passionately fond of it, and, unlike tea, no nervous disorders arise from its inordinate use.

RECENT URBAN MORTALITY.

DURING last week, 5,786 births and 4,291 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 28 deaths annually in every 1,000 persons living. The annual death-rate was 23 per 1,000 in Edinburgh, 28 in Glasgow, and 30 in Dublin. The rates of mortality in the twenty English towns were as follow: Brighton, 18; Portsmouth and Hull, 23; Bristol, Newcastle-upon-Tyne, Nottingham, Birmingham, and Norwich, 24; Leeds and Plymouth, 25; Sunderland, 26; Liverpool and London, 28; Leicester, 30; Bradford and Sheffield, 31; Manchester and Wolverhampton, 33; Oldham and Salford, 37. No death was referred to any of the seven principal zymotic diseases in Brighton during the week. The annual death-rate from these diseases averaged 3.5 per 1,000 in the twenty towns, and ranged from 1.1 and 1.5 in Nottingham and Plymouth, to 9.2 and 10.9 in Sunderland and Salford. Scarlet fever caused 10 more deaths in Portsmouth. In London, 2,649 births and 1,886 deaths were registered. The births

exceeded by 262, and the deaths by 203, the average of the week. The annual death-rate from all causes, which in the four preceding weeks had steadily increased from 18.3 to 24.4 per 1,000, further rose last week to 28.2. This increase was mainly due to the greater fatality of diseases of the respiratory organs. The 1,886 deaths included 52 from small-pox, 16 from measles, 55 from scarlet fever, 6 from diphtheria, 27 from whooping-cough, 33 from different forms of fever, and 16 from diarrhoea; thus, to the seven principal diseases of the zymotic class, 205 deaths were referred, against 144 and 169 in the two preceding weeks. These 205 deaths were 71 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 3.1 per 1,000. The 55 fatal cases of scarlet fever showed an increase of 23 upon those returned in the previous week, and included 39 which occurred in East and South London, 8 occurred in Woolwich and Plumstead, and 4 in the Fever Hospital at Stockwell. The 33 deaths referred to fever were 11 below the corrected average; 29 were certified as enteric. The deaths referred to diseases of the respiratory organs, which in the seven preceding weeks had steadily increased from 191 to 452, further rose last week to 593, and exceeded the corrected average by 178; 377 resulted from bronchitis, and 153 from pneumonia. In greater London, 3,129 births and 2,180 deaths were registered, equal to annual rates of 38.1 and 26.5 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 19.2 and 1.6 per 1,000 respectively, against 28.2 and 3.1 in inner London. At Greenwich, the mean reading of the barometer last week was 24.43 inches. The mean temperature of the air was 50.0 degs., or 7.6 degs. above the average of the week. Rain fell on five days of the week to the aggregate amount of 1.46 inches.

ACTION BY THE SOCIETY OF APOTHECARIES.

AN action brought by the Society of Apothecaries against a person named Witherington, for having acted as an apothecary without a licence, was tried on Tuesday last before Mr. Baron Pollock and a special jury. The defendant resided in the Wandsworth Road, where he carried on the business of a chemist and druggist, and the action was brought against him for a contravention of the Apothecaries' Act of 1815. He had visited people at their own houses, prescribed for them, and supplied them with medicine for reward. Witnesses were called who proved that the defendant had attended upon and treated them for different complaints, and produced accounts of his charges. The defendant, having taken some technical objections to the action, which were overruled, addressed the jury, and asserted that he had only acted as assistant to a properly qualified surgeon, and that these proceedings had been instituted maliciously. Baron Pollock said it was for the jury to find whether the defendant had transgressed the law; if so, he was liable to the penalty sought to be recovered. The jury found a verdict for the plaintiffs, for a penalty of £20.

SMALL-POX.

DURING last week, in the twenty English towns, 81 deaths were referred to small-pox, against 46 and 61 in the two preceding weeks; 52 occurred in London, 14 in Manchester and Salford (including 3 in the Monsall Hospital, situate outside the city), and 18 in Liverpool. In London, the deaths, which had been 15, 21, and 48 in the three preceding weeks, further rose to 51 last week, the highest weekly number since May 1872; 27 were certified as unvaccinated cases, 16 as vaccinated, and in nine cases the medical certificates did not furnish any information as to vaccination. Of the 52 fatal cases, 24 occurred in the two Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell, and two in the Highgate Small-pox Hospital; the remaining 26, or 50 per cent., occurred in private dwellings, for the most part in tenement houses, where isolation of the patients is simply impossible. Not one of the 52 deaths from small-pox was of a person belonging to the middle or upper classes. Eleven of the small-pox patients had resided in Hackney, 5 in Islington, 5 in Bethnal-green, 9 in

Lambeth, 3 in Clapham, and 3 in Camberwell; in all, 4 belonging to the West, 20 to the North, 2 to the Central, 8 to the East, and 18 to the South group of districts. The fatal cases showed a considerable increase in North London, especially in Hackney. The two Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell contained 350 patients on Saturday last, against 185, 231, and 269 at the end of the three preceding weeks. Since the outbreak of the present epidemic, 687 completed cases of small-pox have been recorded in the two Metropolitan Asylum District Hospitals at Homerton and Stockwell, of which 165 resulted in death and 522 in recovery; the mortality was in the proportion of 24 per cent. of the completed cases, and exceeded that which prevailed among the cases treated in those hospitals during the epidemic of 1871-2. Among the vaccinated cases treated this year, the mortality had been 13 per cent., whereas among the unvaccinated cases it had been equal to 57 per cent.

SCOTLAND.

It is to be noticed that only two deaths occurred in Edinburgh last week from zymotic diseases, both being due to whooping-cough.

THE remains of the late Dr. Brunton, House-Surgeon of the Paisley Infirmary, whose melancholy death was reported last week, were interred on November 16th in the Paisley Cemetery. The funeral was attended, in addition to the relatives of the deceased, by the Director of the Paisley Infirmary, the Medical Board, and a number of students of the Glasgow University.

AT a special meeting of the Trustees of Anderson's University, the Bill which had been drafted for the purpose of altering the name of the institution from "University" to "College", and the qualification for trustees, was adopted. The Secretary stated that the principal object of the change in the name of the institution was to remove the jealousy that existed on the part of the University of Glasgow.

SCOTCH REGISTRARS.

IN his annual "charge" to the registrars throughout Scotland, the Registrar-General directs notice to the cases of inattention to duty which have occurred during the past year, and enjoins upon them close adherence to their instructions, and warns them that they must not calculate upon the usual intimation of examiners' visits. A new rule is laid down with regard to the registration of illegitimate children of married women and widows, which are henceforth not to be recorded as such without first communicating with the Registrar-General.

THE WATER-SUPPLY OF FORFAR.

THE Forfar Police Commission have come into direct collision with the Board of Supervision. After a water-scheme for the burgh had been prepared and a large expense incurred, the newly elected Police Commission decided by a majority not to go on with the scheme. Last Thursday, a telegram was sent them by the Board of Supervision, ordering the local authority to take the necessary preliminary steps for applying to Parliament for an Act to enable them to introduce a new water-supply. The meeting was of a very stormy character, and eventually a resolution was passed, by a majority of nine to four, to the following effect: "That the local authority or the Police Commission have taken up the position as recorded in their minute of the 10th instant, and that they deny any power of the Board of Supervision to call upon their clerk to take any action against the express decision of the majority of this Board." It remains to be seen whether the Board of Supervision have any power to compel the adoption of their demands.

TYPHOID FEVER AT LINLITHGOW BRIDGE.

THE epidemic of typhoid fever at Linlithgow Bridge shows no sign of abating. Since last report, several more deaths have taken place, and some new cases have occurred. There have been fully fifty cases in

all, many of them of an aggravated type. The local authority have been carrying out the suggestions of Dr. Littlejohn as far as possible. All middens, ashpits, etc., have been thoroughly cleansed and deodorised; and also the interiors of the houses, where it could be done without injury to the sick. Pure water has been carted daily from Linlithgow for dietetic purposes, and an experienced nurse has been employed by the local authority to go among the poorer families and assist them in looking after the sick.

VITAL STATISTICS OF SCOTLAND.

FROM the Registrar-General's Quarterly Report we gather that, while the birth-rate and marriage-rate have both been unusually high during the third quarter, the death-rate has been considerably below the average. The births registered were equivalent to an annual birth-rate for estimated population of 3.49 per cent., the average for ten preceding years being 3.42 per cent. Of these births, 8.72 per cent. were illegitimate, the rate of illegitimacy varying from the extraordinary figure of 20.4 per cent. in Kinross and 20.3 per cent. in Nairn to 2.9 in Shetland and 3.6 in Ross and Cromarty. Wigtown, which is usually high up on the list, reaches 19.7, and Elgin 19.5. The marriages were at the rate of 67 to every 10,000 of population. The proportion of males to females born was as 105.8 to 100. The deaths registered were at the rate of 187 per 10,000, or 1.87 per cent. of population, the average mortality for the quarter for ten years past being 199.5 per 10,000. As usual, the mortality was least in the month of September; and it is satisfactory to find that during each month of the quarter the deaths were unusually low. Zymotic diseases caused nearly 20 per cent. of all deaths ascribed to specified causes; this is considerably less than usual in our large towns. There was not a single death from small-pox. Diseases of the tubercular class and diseases of the respiratory organs claim by far the highest rate among the list of diseases.

IRELAND.

THE first meeting of the Surgical Society of Ireland for the present session takes place on Friday, the 24th instant (this day):

A BAZAAR will be held for the Belfast Royal Hospital in the Ulster Hall, Belfast, on the 7th, 8th, and 9th of December.

MR. PHILIP CRAMPTON SMYLY is a candidate for the Vice-Presidency of the Royal College of Surgeons of Ireland in June next. Mr. Smyly is a member of Council of the College of Surgeons, Surgeon to the Meath Hospital, Surgeon-in-Ordinary to the Lord-Lieutenant, and in every way worthy for the high position he seeks.

DR. BROWN-SÉQUARD.

DR. BROWN-SÉQUARD is giving a course of three lectures at the King and Queen's College of Physicians, commencing on Thursday, the 23rd, and terminating on Monday, the 25th instant; the subjects selected by the renowned physiologist being Anæsthesia, Amaurosis, and Aphasia, as Effects of Brain-Disease.

SANITARY CONDITION OF BRAY.

BRAY is a fashionable seaside locality, situated a dozen miles from Dublin; and, from the evidence given by Dr. Whistler, sanitary officer, and others, before the members of the Local Government Commission who are at present inquiring into the conduct of local affairs in the township, it would appear that its sanitary condition is most deplorable, and reflects great discredit on the local authorities. It seems that, in certain districts of the town, there exist no sanitary arrangements of an adequate character; in fact, in almost every district the dwellings of the working classes are entirely unfit for human beings, having no yards, no ventilation, very little light, no water, nor sewerage of any description whatever. The streets are extremely filthy; the water-supply is deficient; and fully one-half of the township

requires sewerage. It is remarkable that, with this almost-total absence of sanitary arrangements, no epidemic of any sort exists, and but a trifling amount of sickness prevails in the town.

DUBLIN OBSTETRICAL SOCIETY.

THE opening meeting of the thirty-ninth session of this Society was held on Saturday evening, the 18th instant, at the College of Physicians. Dr. Lombe Atthill, the retiring President, delivered the inaugural address, in which he alluded in feeling terms to the great loss the Society had met with in the demise of Dr. Ringland, who was a most valued member of their Society (of which he was an ex-President), and had taken a prominent part in their debates; and of Dr. Sibthorpe, who had been Treasurer of the Society. Dr. Atthill next referred to the various papers read during the previous session, and expressed his belief that the past year had not been a barren one in the matter of research; finally returning thanks to the members for the honour they had conferred upon him in having elected him President of the Society during the past two sessions. The result of the ballot was then declared, being as follows:—*President*: Thomas Darby, F.R.C.S.; *Vice-Presidents*: T. More Madden, L.C.P.; Stephen MacSwiney, M.D. *Treasurer*: William Roe, M.D. *Secretary*: J. Rutherford Kirkpatrick, M.B. *Committee*: Lombe Atthill, M.D.; John Denham, M.D.; George Johnston, M.D.; George H. Kidd, M.D.; A. H. McClintock, M.D. The chair being vacated, a vote of thanks was moved to the retiring President for his address and for his zeal in the promotion of the interests of the Society. Dr. Kidd next moved a resolution expressing sorrow at the loss which the Society had sustained in the death of Dr. Ringland, and sympathy with his family; and, after a vote of thanks to the visitors, the meeting separated.

THE INTERNATIONAL MEDICAL CONGRESS IN PHILADELPHIA.

THE members of the Congress assembled on Monday, September 4th, in the Hall of the University of Pennsylvania, Philadelphia; Professor SAMUEL D. GROSS occupying the Chair. There were present, including delegates and invited guests, about four hundred and fifty gentlemen.

After prayer by the Right Reverend Bishop Stevens of Pennsylvania, Professor Gross delivered the address of welcome. He spoke of the extraordinary circumstances under which the meeting was held, and of the gratification it afforded him, in the name of the entire medical profession of America, to extend a hearty welcome to the distinguished foreigners who had come from distant regions to do their share of work for the common good. He trusted that the forthcoming discourses would prove of interest by showing that satisfactory progress had been made in America in medical science.

The following officers were appointed on the recommendation of the Committee on nominations. *President*: Professor Samuel D. Gross. *Vice-Presidents*—twenty-five in number, including the following members from other countries: Mr. Joliffe Tufnell (Dublin); Dr. Lange (Copenhagen); Dr. Semeleder (Vienna); Dr. J. Hjort (Norway); Dr. Hingston (Canada); Dr. H. Miyake (Japan); Professor Rudneff (Russia); Professor Hüter (Greisswald); Dr. R. F. Hudson (Australia); Dr. P. Debasieux (Belgium); Mr. W. Adams (London); Professor A. R. Simpson (Edinburgh).—*SECTIONS. Medicine—Chairman*: Alfred Stillé, M.D. *Vice-Chairmen*: R. P. Howard, M.D. (Canada); J. J. Woodward, M.D., U.S.A. *Biology—Chairman*: John C. Dalton, M.D. *Vice-Chairmen*: Austin Flint, Jr., M.D.; F. W. Campbell, M.D. (Canada). *Surgery—Chairman*: Professor Joseph Lister (Edinburgh). *Vice-Chairmen*: J. A. Grant, M.D. (Canada); John Ashhurst, Jr. M.D. *Dermatology and Syphilology—Chairman*: James C. White, M.D. *Vice-Chairmen*: S. Engelsted, M.D. (Copenhagen); Edvard Shippen, M.D., U.S.N. *Obstetrics—Chairman*: Robert Barnes, M.D. (London). *Vice-Chairmen*: Professor A. R. Simpson (Edinburgh); W. H. Byford, M.D. *Ophthalmology—Chairman*: R. Brudenell Carter, F.R.C.S. (London). *Vice-Chairmen*: William Thomson, M.D.; Henry W. Williams, M.D. *Otology—Chairman*: C. J. Blake, M.D. *Vice-Chairman*: A. H. Buck, M.D. *Sanitary Science—Chairman*: Stephen Smith, M.D. *Vice-Chairman*: J. S. Billings, M.D., U.S.A. *Mental Diseases—*

Chairman: John P. Gray, M.D. *Vice-Chairmen*: E. Grissom, M.D.; I. Ray, M.D.

The following addresses were delivered: on Medicine, by Austin Flint, M.D.; on Hygiene, by H. J. Bowditch, M.D.; on Surgery, by Paul F. Eve, M.D.; on Medical Biography, by J. M. Toner, M.D.; on Obstetrics, by T. Parvin, M.D.; on Medical Jurisprudence, by S. C. Chaillé, M.D.; on Mental Hygiene, by J. P. Gray, M.D.; on Medical Literature, by L. P. Yandell, M.D.

SECTION OF MEDICINE.

Typho-Malarial Fever; is it a special Type of Fever?—After a general introduction, in which he referred to the duration of war as an element of mortality from sickness, and to the statistics of the Prussian army during the last great war, the Reporter, Dr. J. J. WOODWARD, Surgeon U.S.A., discussed the subject of camp fevers, especially when complicated with malarial influences. He sketched the history of typho-malarial fever, as reported by different surgeons, and argued that such hybrid combinations were not new in armies, illustrating this with historical facts. He contended that typho-malarial is not a special type of fever; it is no new disease, but a hybrid.—Dr. N. S. DAVIS said, that in Chicago malarial disease was the common form; typhus, when it did exist, was imported. In the progress of filling up the city, the malarious influence had gradually disappeared, and, for ten years, typhoid was gradually on the increase, owing to the peculiar water-arrangements. After a time typhus predominated.—Dr. SCOTT of Ohio had always lived in a malarious country, and recognised this complexity and union of disease. Early, it was true, this mingling was not so pronounced, but as civilisation advanced, it rapidly grew to be so. Quinine will not check the affection, although it can be used to check the malarious condition. He had seen scurvy, while in Nashville in 1864, in connection with this disease.—The Section adopted as its opinion the following conclusion. Typho-malarial fever is not a special or distinct type of disease, but the term may be conveniently supplied to the compound forms of fever which result from the combined influences of the causes of the malarial fevers and of typhoid fever.

The Identity of Croup and Diphtheria.—Dr. J. LEWIS SMITH, Physician to the New York Infant's Hospital, read a report on the question, Are Diphtheritic and Pseudo-Membranous Croup Identical or Distinct Affections? He said that the two theories which prevail are, first, that the two diseases are distinct; second, that the two are varieties and modifications of one and the same disease. He considered the various causes for believing croup a local malady. Its causes are the same as in other inflammations which are local; there is a single tract of exudative inflammation in all cases, whereas, in a constitutional disease, other mucous surfaces would be likely to be inflamed sometimes; and because depressing remedies are tolerated. He gave facts showing diphtheritic laryngitis to be the manifestation of a general malady; such as its long incubative stage in certain cases; its severe constitutional symptoms, in some cases, before appearance of the inflammation; speedy death in certain malignant cases, and important evidence from the state of the kidneys. He next examined into the histological similarity of the two diseases, and into the difference in the attendant laryngitis and pseudo-membrane, with an inquiry into the causes of such disease, the age of prevalence, results of treatment, etc.—After discussion, the Section adopted a resolution recommending Dr. Smith's paper for publication, but without a definite expression of opinion upon the points at issue.

Nervous Diseases and Modern Life.—Professor ROBERTS BARTHOLOW, of Cincinnati, read a paper on the question, Do the Conditions of Modern Life favour especially the Development of Nervous Diseases? He stated that insanity was frequently alluded to by ancient writers, of which he cited interesting examples: and that senile dementia was a subject of judicial inquiry. Numerous references were made in Hippocrates and Galen to insanity and nervous maladies. The social and political state of ancient times were mentioned as an exciting cause of nervous maladies. After alluding to the moral epidemics of mediæval times, the dancing mania, etc., and to the epidemics of cerebro-spinal meningitis, etc., he passed to the present state of neurological medicine, possible only after study of general and morbid anatomy and physiology had reached a certain development. Nervous diseases were now better distinguished, more carefully studied. Statistics of insanity showed apparent but not real increase, due to better census-returns and better provision for the insane. Improvement in well-being of society resulted in diminished sickness and mortality rates, greater longevity. It was incredible that nervous centres should exhibit more vulnerability, and other organs of the body greater vigour. Very probably the brain and nervous system had improved with improvement in other bodily functions.—Dr. GREEN said the ancients were, no doubt, well acquainted with these

diseases, and yet it was not said as now that they were overstrained. He thought the record afforded by insurance companies, announcing an increase, was due to the fact that more older men insured than formerly. He could not see that overstraining was a predominant cause.—Dr. GIBBONS said ancient history only recorded the fact of the disease, nor could the statistics from insurance companies be so considered, as these were picked cases. He thought that, if Dr. Bartholow had lived in California a few years, he would have been impressed with the fact that these cases were on the increase, owing to the excitement arising from dealing in mining stocks.—Dr. NEFFEL did not doubt an increase, for these affections were transmitted either in an aggravated or a modified form. The brain's intellectual sphere had been enlarged. The child of to-day knew more than did many of the ancients; and, as great mental activity produced nervous diseases, there ought to be more now than formerly. The present use of alcoholic drinks was one cause of nervous affections, both directly and indirectly. Syphilis was another cause of nervous diseases.—Dr. MADDIN thought our brains now were in a state of hyperæmia, and the stimulated condition of our minds rendered them more liable to disease.—Dr. DUFFY related two cases which, he thought, would show that apoplexy was not due to nervous affections.—Dr. ARNOLD believed that shocks in business were worse than hard study. The nervous system always accommodated itself to the strain put upon it. He thought medical men allowed themselves to be governed by the hue and cry of professional temperance orators, for it could not be proved that alcohol had much influence in the production of nervous diseases.—Dr. DAVIS had been led to think that very few brains killed themselves by overwork. It was not mental work that ever produced these affections; but rather troubled digestion, or the system was worn out by other means.—Dr. HOWARD (Canada) thought hereditary tendencies wore themselves out, and that if we kept our general system in good form, common nervous affections would not occur.—Dr. BOWDITCH said that climate had much to do with the capacity for bearing stimulants. English people could not drink as much in America as in their own country.—After remarks from Dr. GREEN, Dr. BARTHOLOW, and Dr. SCOTT, the paper was referred to the Committee for publication, without an expression of opinion on the part of the Section.

Etiology of Epilepsy.—Dr. W. B. NEFFEL, of New York, read a paper on this subject. After referring to the phenomena of epilepsy artificially produced in the guinea-pig, depending on traumatic reflex paralysis of the cerebral blood-vessels after cerebral commotion, and arguing from this to human epilepsy, the speaker thus summed up his conclusions. 1. It is evident that, in a perfectly healthy person, free from hereditary predisposition, epilepsy can be brought on by traumatic influences on the head, causing cerebral commotion, without structural lesion. 2. Further investigations will have to prove that traumatic influences during childhood constitute a most frequent etiological moment in its development.

Phthisis and High Altitudes.—Dr. CHARLES DENNISON of Denver, Colorado, read a paper on the influence of high altitudes on the progress of phthisis. Deductions were drawn from the analysis of sixty-nine years spent by sixty-six consumptives in Colorado, and from corroborative evidence of others, as follows. 1. Cool dry climates are best. 2. Favourable climatic attributes, such as diathermancy and dryness, are increasingly found with increasing elevation. 3. High altitudes are favourable in incipency of chronic, inflammatory, and hæmorrhagic cases of phthisis; in others, the more acute the inflammatory process, or more active the pulmonary hæmorrhage, the more tentative should be the rise in elevation. 4. Partial recovery necessitates permanent residence. 5. High altitudes become unfavourable or negative in proportion as phthisis is complicated with certain forms of cardiac disease, or the stage of "softening" in acute cases, with extensive deposit, or nervous irritability and lack of desirable will-power. 6. Early change of climate and mode of life are more positively favourable to cure in a resort to high altitudes. 7. Stimulating effect of high altitudes on the respiratory organs is a most important agent in arresting chronic phthisis. 8. High altitude is palliative or curative with or without change of occupation and out-door life. 9. In incipient cases, the patient should receive benefit of the doubt, in view of the possibility of error in declaring the non-existence of phthisis. 10. Resort to a well chosen elevated climate should form part of a physician's advice to every consumptive, unless specially contraindicated.—The paper was, after discussion, referred to the Committee for publication, without an expression of opinion as to the author's conclusions.

Ulcers of the Stomach.—Dr. CHARLES W. DULLES (Philadelphia) read a paper translated by him from the French of Dr. Lebert, on the Treatment of Simple Ulcer of the Stomach.

Progressive Pernicious Anæmia.—Dr. HOWARD (Montreal) read a paper on this subject, with observations upon the conditions observed.

Having reported four cases of the disease observed by himself, he analysed the circumstances under which sixty-two examples of the affection occurred, arranging them under the heads of pregnancy, parturition, chlorosis, chronic diarrhoea, blood-waste, dyspepsia, extreme poverty or poor diet, jaundice, and "failing health". The *post mortem* appearances in fifty-one cases were reviewed, with observations on microscopic characters of the blood regarded by Eichhorst as diagnostic, and the paper terminated with the following conclusions. 1. The various forms of anæmia may occasionally take on progressive and pernicious characters. 2. Such is frequently the case with anæmia of pregnancy and parturition; the converse is true of chlorosis. 3. A distinct variety of anæmia, having an etiology and pathogeny peculiar to itself, "progressive pernicious", is not proven. 4. Neither the spleen nor the lymphatic glands usually present any, much less any special, lesion in pernicious anæmia. 5. It remains to be proved that hyperplasia or other change of the bone-marrow is a cause of anæmia. 6. If it be a cause, it has yet to be shown whether it is the cause of a variety that should be especially styled pernicious and progressive, the weight of evidence appearing to be opposed to it. 7. It is premature to regard pernicious anæmia as a myelogenous pseudo-leukæmia. 8. Pernicious anæmia is perhaps rather more frequent in females than in males, but the difference is not very great.—Dr. DAVIS (Chicago) would feel disposed to hold in entire abeyance the view that there is an especial disease called "progressive pernicious anæmia".

Alcohol as Food and Medicine.—Dr. EZRA M. HUNT read a paper on alcohol in its therapeutic relations as a food and a medicine. The following propositions of Dr. Hunt were affirmed by the Section, and ordered to be reported to the Congress in general meeting. 1. Alcohol is not shown to have a definite food value by any of the methods of chemical analysis or physiological investigation. 2. Its use as a medicine is chiefly that of a cardiac stimulant, and often admits of substitution. 3. As a medicine, it is not well fitted for self-prescription by the laity, and the medical profession is not accountable for such administration or for the enormous evils resulting therefrom. 4. The purity of alcoholic liquors is not as well assured as that of articles used for medicine should be. The various mixtures used as medicine should have definite and known composition, and should not be interchanged promiscuously.

Sclerosis of the Lung.—Dr. RUDNEFF (St. Petersburg) read a paper on sclerosis of the vessels of the lung by Dr. Beresnewitsch, of the Institution of Pathological Anatomy at St. Petersburg. The atheromatous process has been described by some writers as affecting branches of the pulmonary arteries, with heart-complications, or, when the lungs are themselves affected, with atrophy or emphysema. The author argued that emphysema was the sequence rather than the cause. He described the changes which take place in the blood-vessels, and ascribed much of the destructive action to syphilitic infection in the capillaries, and afterwards in the larger arteries. Sclerosis is due to development of connective tissue, between the layers of which the coating consists.

SECTION OF SURGERY.

Professor LISTER, on taking the Chair, after acknowledging the honour, and paying a compliment to American surgeons and to Philadelphia, stated that he had been influenced in his decision to visit America by seeing on the programme of the Congress mention of a proposed discussion on antiseptic surgery.

Antiseptic Surgery.—Professor JOHN T. HODGEN (St. Louis) read a paper on this subject. The propositions discussed by him were the following. 1. Putrefaction may and does occur in the solids and liquids of the body, both with and without the direct contact of germs borne in the air or water. 2. Putrefaction of the solids and liquids of an open wound may in many cases be prevented if the contact of living germs with the surface be not permitted, or by destroying their vitality after contact with it. 3. It is possible that the living solids and liquids of the body may be so altered that they shall not furnish the conditions necessary to putrefaction. 4. Practically, the conditions to be met in preventing putrefaction are so difficult, that in many cases it is impossible to comply with them. Yet, even partial success is eminently worthy of our best efforts.—Dr. A. HEWSON (Philadelphia) had tried all forms of antiseptics, but relied now chiefly upon earth or salicylic acid. He believed that dryness was the essential element. He never used a ligature, but employed acupressure or torsion. He always used gauze and collodion instead of adhesive plaster, and never allowed water to be used upon a wound. Perfect quietude of the part in frequent dressings, and the exclusion of any but the actinic rays of light by a covering of blue paper, all assisted greatly in rapid healing.—Dr. J. H. POOLEY was very fond of carbolic acid, in the proportion of one to seven of olive-oil, freely

brushed into a portion of the wound.—Dr. WM. CANNIFF (Toronto) thought it was a question whether putrefaction was due to the action of these organic germs. If germs could reach the part through the lungs, etc., it was of no use to exclude them from the wound. He believed that putrefaction could occur without the action of these organisms. He used antiseptics, not to destroy air-germs, but to arrest putrefactive decomposition due to chemical changes. Cleanliness, rest, and pressure, he considered the essential elements in the treatment of wounds.—Professor F. H. HAMILTON referred to the method of treating wounds by leaving them open and exposed, claiming for it an excellent success both as regards rapidity and freedom from supuration. At St. Francis Hospital, the warm-water treatment had been largely adopted, the part being submerged in the liquid at a temperature of about 95 degs. To arrest gangrene, a heat of 110 degs. was required.—Dr. J. A. GRANT (Ottawa) expressed his satisfaction with the antiseptic treatment.—Dr. R. A. KINLOCH thought that much of the credit claimed by a particular system might be attributed to rest.—Dr. F. H. HYDE thought that sufficient importance had not been given to the constitutional condition of the patient.—Dr. J. L. ATLEE had lately used with success chloral-hydrate, five grains to the ounce of water, upon several old ulcers.—Dr. J. T. CARPENTER, of Pottsville, said that in the late war he had treated one hundred cases of hospital gangrene with creasote, and with but two deaths. This was before the germ-theory was recognised.—Dr. J. ASHHURST thought Dr. Hyde had struck an important point when he emphasised the importance of the constitutional condition of the patient. He was surgeon at two hospitals, the one general, the other for children. In the latter, he never lost a case from operation, although the inmates were drawn from the lowest, half-starved class. He attributed this to their freedom from liver, kidney, and other diseases. He believed in constitutional treatment and in good hygiene.—Professor LISTER replied at some length to the objections raised, and gave a description of the process followed by him.—At the end of the discussion, which occupied a great part of two days of the meeting, the Section decided by vote that it was unable, in the present state of the subject, to come to any distinct conclusion regarding the antiseptic method.

Treatment of Aneurism.—Dr. VAN BUREN (New York) read a paper on the medical and surgical treatment of aneurism. This paper was discussed by Mr. JOLIFFE TURNELL (Dublin), Dr. J. H. POOLEY, Dr. A. C. POST, Dr. G. A. OTIS, Dr. ASHHURST, Dr. S. F. SPIER, and Mr. LISTER; and the following conclusions, offered by the author, were adopted by the Section: 1. Turnell's treatment of aneurism, by rest, position, and restricted diet, offers a valuable resource in thoracic and abdominal aneurisms. 2. It should always be tried in innominate, subclavian, subclavio-axillary, and iliac aneurisms, before resorting to measures attended by risk to life. 3. For aneurisms of the subclavian and iliac arteries, the Hunterian operation, with our present means of preventing secondary hæmorrhage, is not justifiable. 4. For reasons formally set forth by Holmes and Henry Lee, the "old operation" cannot properly be substituted for the Hunterian operation in these cases, but should be held in reserve for special cases. 5. It is the most safe and surgical resource in gluteal aneurism, if the circulation can be commanded by the hand *in recto*. 6. The mode of cure by embolism, aimed at in the method of manipulation, is a not unfrequent explanation of what is called spontaneous cure of aneurism. 7. The value of Esmarch's bandage in the treatment of aneurism is probably not fully estimated. 8. In view of the promising features presented by the cases of Levis and Bryant, in which horse-hair was introduced into an aneurismal tumour, the repetition of this operation, or the substitution for horsehair of Lister's prepared catgut of other animal substances, may be properly tried.

Treatment of Coxalgia.—Professor LEWIS A. SAYRE read a paper on this subject. The following were the conclusions deduced by the author from it: 1. Morbus coxarius is a disease most frequently met with in early childhood, or the age of reckless indifference. 2. It is almost always of traumatic origin, and not necessarily connected with a vitiated constitution. 3. Rest and freedom from pressure of the parts involved, while at the same time the rest of the body is allowed free exercise in the open air, and a nutritious diet, is the best treatment yet devised for the disease. 4. If this plan of treatment be adopted in the early stages, the majority of cases will recover, with nearly if not quite perfect motion, and without deformity. 5. In the advanced second stage of the disease, and when absorption of the effused fluid cannot be produced, then it is better to puncture or aspirate the joint and to remove its contents, than to leave it to rupture by ulceration. 6. In the third stage, and when the treatment recommended in this paper has been properly applied without satisfactory improvement, but progressive caries continues, excision of the diseased bones is not only justifiable, but in many cases absolutely necessary. 7. The operation

of excision of the hip is easily performed, and in itself attended with little or no danger. 8. After excision of the hip-joint in cases of caries, the recovery is much more rapid and certain, and infinitely more perfect as to form, motion, and the usefulness of the joint and limb, than when left to the slow process of nature.—Considerable discussion followed the reading of this paper, and the reporter's conclusions were referred to the Committee for publication, with indorsement of the Section upon all the conclusions except the second, on which the body could not unanimously agree.

Excision of the Inferior Maxilla.—Dr. J. W. S. GOULEY (New York) presented a report of a case of subperiosteal excision of the entire inferior maxillary bone. The patient was a female, nineteen years old, with phosphorus-necrosis of four years' standing, involving the entire lower jaw. She was greatly disfigured by a very large under jaw, made up of an enormous involucrum, rendering mastication impossible. On March 19th, 1864, the patient having been etherised, the entire jaw was removed by external incision, and she made an excellent recovery. When last seen, seven years and a half after the operation, the reproduction of bone extended from the body to the rami of the jaw.

Causes, etc., of Calculus.—A paper of Dr. CLAUDIUS H. MASTIN (Mobile) on the causes and geographical distribution of calculous disease was read but not discussed. In summing up the probable causes of calculous affections, he considered hereditary influences, digestive trouble, sedentary life, indulgence in stimulating food, climatic changes, deficiency of clothing for proper protection of the body, an arrest of the healthy function of the dermoid tissue, want of harmony between the secreting and excreting organs, catarrhal affections of the uropoietic viscera, injuries of the spinal cord, foreign bodies in the bladder producing cystitis, and the geographical distribution of calculous affections in North America.

Subcutaneous Division of the Neck of the Femur.—Mr. WILLIAM ADAMS (London) read a paper on this subject. In it he had collected all the published cases in which the operation had been performed—twenty-three in number (five by himself) and from the good results already attained, he should be prompted to do it in well selected cases when the deformity is inconvenient, as there had been but one death, in an unfavourable case. His conclusions were the following: 1. Bones can be divided subcutaneously, the same as tendons. The operation is a well established one, and the cases almost always do well. 2. Long bones can be divided subcutaneously at any point with little risk. 3. In a large number of cases the operation is followed by but little irritation, and there is seldom pain or suppuration. 4. In some there is slight suppuration, but not serious, and in one case there was death from pyæmia. 5. The operation usually corrects the deformity, though ankylosis in the more favourable position may occur. In some cases motion has remained for a time, and in one case as long as three years.—After discussion, the author's conclusions were adopted by the Section.—Professor SAYRE was decidedly in favour of Mr. Adams's plan, and should hereafter adopt it when feasible. He suggested that extension be made after the operation at once.—Mr. ADAMS said it was his intention in the future to apply extension immediately, and to enforce passive motion under chloroform every week.

Wounds of the Abdomen.—Professor L. A. DUGAS read a paper on penetrating wounds of the abdomen. He said that penetrating wounds have hitherto been considered very fatal, and peritonitis assigned as the cause, and all treatment directed to it. Fatal termination usually takes place in twenty-four to forty-eight or sixty hours at most, but no process of inflammation with which we are acquainted proves fatal in that short time. He thought the fatal result is due to septicæmia, and not to inflammation, and treatment should be directed to prevent that, by laying open the abdomen, cleaning surfaces, stitching wounds of intestines if any, ligating vessels, etc. By laying open the abdomen early, we can examine and detect lesions of the intestines or vessels; the wound cleansed can thus be reduced to its simplest expression.

Opening the Sac in Herniotomy.—Dr. F. HYDE read a paper on this subject. After giving a résumé of the usual methods of herniotomy, he said that division of the sac is often necessary. Experience in Petit's, or the minor operation, proves that the cases which are most successful are those which furnish most favourable results with division of the sac. The objection that it exposes to peritonitis is refuted in the greater danger of returning the contents of the sac, with their average morbid state, into the abdomen. The objection that opening the sac exposes to air, light, temperature, etc., is no weightier than in ovariectomy and other abdominal operations. Other reasons were cited by the writer as to its safety, etc.

Anæsthesia.—Dr. ADDINELL HEWSON read a paper on anæsthesia, as produced by nitrous oxide and rapid breathing. He stated that the method had been suggested to him by W. G. Bonwill, a dentist of Philadelphia, and he had tried it in a number of cases, in public and

private practice, with varying but satisfactory results. The method pursued was to cause the patient to breathe from forty to fifty times in the minute, the effect of which in from three to five minutes was a tingling of the surface, with flushed face. Consciousness remained unimpaired, and the patient would perform any act desired, but was rendered totally devoid of sensibility. This method would be advantageous for short minor operations, especially those about the nose, throat, etc. The process occupied a longer time in young people and in cold weather. He explained its action by the retention in the blood of carbonic acid.

[To be continued.]

ASSOCIATION INTELLIGENCE.

STAFFORDSHIRE BRANCH.

THE first ordinary meeting of the Session will be held at the North Staffordshire Hotel, Stoke, on Thursday, November 30th, at 4.30 P.M.

VINCENT JACKSON, Wolverhampton. } *Honorary Secretaries.*
RALPH GOODALL, Silverdale. }

Wolverhampton, November 13th, 1876.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICT MEETINGS.

A CONJOINT meeting of the above Districts will be held on Thursday, November 30th, at the Marine Mansion Hotel, 13, Marine Parade, near the Old Chain Pier, Brighton, at 3.15 P.M.; Dr. E. F. FUSSELL in the Chair.

Dinner at 5.30 P.M.; charge, six shillings, exclusive of wine. It is imperative that gentlemen intending to dine should communicate with the Chairman (23, Clifton Terrace, Brighton), or one of the Secretaries, on or before Monday, the 27th instant.

The following communications are promised.

1. Dr. Fussell: On some Outbreaks of Diphtheria.
2. Mr. N. P. Blaker: On a Successful Case of Ovariectomy.
3. Mr. Banner: On his System of Sanitation, illustrated by models, as applied to the drainage of Guy's Hospital.
4. Mr. W. J. Harris: On the Rational Treatment of Scarlatina.
5. Mr. Hawken: Case of Removal of Condyles of the Humerus after Compound Comminuted Fracture of the Elbow-Joint. Patient to be exhibited.

Other communications are invited.

W. J. HARRIS, 13, Marine Parade, Worthing, Hon. Sec. for the West Sussex District.

THOS. TROLLOPE, M.D., 35, Marina, St. Leonard's-on-Sea, Hon. Sec. for the East Sussex District.

Brighton, November 21st, 1876.

MIDLAND BRANCH.

THE second monthly meeting of this Branch will be held on Friday, December 1st, at the house of Mr. White, Oxford Street, Nottingham. Coffee at 7.30. Papers and cases for discussion at eight o'clock.

L. W. MARSHALL, M.D., *Hon. Local Secretary.*

Nottingham, November 20th, 1876.

BATH AND BRISTOL BRANCH.

THE next ordinary meeting of the Session will be held at the York House, Bath, on Thursday, December 7th, 1876: H. F. A. GOODRIDGE, M.D., President.

R. S. FOWLER, Bath. } *Honorary Secretaries.*
E. C. BOARD, Clifton. }

Bath, November 9th, 1876.

THAMES VALLEY BRANCH.

A MEETING of the above Branch will be held at the Griffin Hotel, Kingston-on-Thames, on December 14th, at 5 o'clock.

Members who may be willing to read papers, are requested to communicate with the Honorary Secretary as soon as possible.

Dinner at 7 o'clock. Charge, 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary.*

Surbiton Road, Kingston-on-Thames, Nov. 22nd, 1876.

STAFFORDSHIRE BRANCH: ANNUAL MEETING.

THE third annual meeting of the above Branch was held on Thursday, October 26th, at the Star and Garter Royal Hotel, Victoria Street, Wolverhampton. Present: Dr. DAY, President, and thirty-six members.

THE PRESIDENT introduced his successor, Dr. MILLINGTON of Wolverhampton, who then took the chair.

Vote of Thanks.—Dr. ARLIDGE proposed that the best thanks of this meeting be given to the retiring President for his services during the past year. This was seconded by Mr. J. MANLEY, and carried unanimously. Dr. DAY acknowledged the compliment.

New Member.—The following gentleman, being a member of the Association, was elected a member of the Branch: Mr. John Anstruther Mulville Thomson, Newport.

President's Address.—The PRESIDENT delivered an address upon The Real Origin of Species and the True Descent of Man.

Dr. FRASER proposed that a cordial vote of thanks to Dr. Millington for the lucid abstract which he had given of Mr. Darwin's and his own views. Mr. R. GARNER seconded the motion; and it was carried with acclamation.

Report of Council.—Mr. VINCENT JACKSON read the annual report, which was as follows.

"Your Council has the gratification of again reporting most favourably on the position, usefulness, and numerical strength of the Staffordshire Branch. At the present time, there are ninety-seven members; of which number twenty-two are new; two, on account of removal, have left the Society; and one, Mr. Samuel Goddard of Burslem, is deceased. The increase of members during the last year is encouraging, and the fact may be taken as an assurance that the formation of a Branch for this county, two years since, supplied a medical want.

"During the past session, three ordinary meetings in the months of November, February, and May have been held; in addition, with the sanction of the President, Dr. Day, a special meeting was convened last July, for the purpose of considering and discussing Lord Carnarvon's 'Cruelty to Animals Bill'. The meeting, which was largely and influentially attended, unanimously agreed that, upon general and scientific grounds, the Bill ought to be strenuously opposed. Three resolutions, which recorded the views of those present, were, after being approved, directed to be sent to as many members of Parliament as the time before the second reading of the Bill in the House of Commons allowed. The agitation against this Bill, which the British Medical Association commenced, and which its weekly JOURNAL promoted and most ably encouraged, and which was powerfully aided by the many denunciations and outspoken incontrovertible arguments which the able speakers of the representative medical deputation who waited upon the Government so fearlessly uttered, and who so convincingly proved that, if the measure was not materially modified in many of its clauses, not only would it arrest scientific research, but would strike a blow at the endeavour which is now being made to make the medical art more precise as well as more rational, was at last so far successful that a compromise was agreed to; and the Bill was allowed to become law, with the understanding that its baneful portion should be annulled.

"Your Council offers its thanks to the members who, during the last session, have read papers and the records of cases, and exhibited instruments and pathological specimens. Many of these have been not only of scientific interest, but have been valuable as offering material for profitable discussion. At the Stafford meeting, Dr. B. W. Richardson, F.R.S., of London, added much to its utility by the delivery of a most erudite and practical address On Artificial Respiration in combination with Tracheotomy. The other contributions have been by Mr. Greaves, Mr. R. Garner, Mr. Orton, Dr. J. H. Tylecote, Dr. H. Day, Mr. John Hartill, Mr. H. L. Brown, Mr. Folker, Mr. Newnham, Dr. Totherick, and Dr. Millington.

"Finally, your Council desires to bring prominently before the medical profession of Staffordshire the benefit of membership of the British Medical Association; for, in their view, the Association must not be satisfied until every English county is connected with a Branch, the members of which should comprehend every medical practitioner resident within its area; and, that in the future this Branch may obtain so desirable a realisation, it has been decided to recanvass for membership the profession of this county."

The adoption of the report was moved by Mr. J. J. BUNCH, seconded by Mr. WESTON, and carried.

Next Annual Meeting.—Dr. HARRISON proposed: "That the next annual meeting be held at Stoke." This was seconded by Dr. TOTHERICK, and unanimously agreed upon.

Election of Officers for 1876-77.—The following gentlemen were

elected:—*President-elect*: J. T. Arlidge, M.D. *Vice-Presidents*: R. Garner, Esq.; H. Day, Esq. *Secretaries*: Vincent Jackson, Esq.; Ralph Goodall, Esq. *Treasurer*: E. F. Weston, Esq. *Council*: F. Boldero, Esq., Penkridge; C. H. Crawford, M.D., Stafford; E. Fernie, M.D., Stone; W. H. Folker, Esq., Hanley; John H. Freer, Esq., Rugeley; P. M. Kely, Esq., Walsall; H. M. Morgan, Esq., Lichfield; C. Orton, Esq., Newcastle; J. J. Ritchie, Esq., Leek; J. Y. Totherick, M.D., Wolverhampton; J. H. Tylecote, M.D., Sandon; J. K. Wynne, Esq., Eccleshall. *Representatives in the Council of the Association*: J. T. Arlidge, M.D.; Henry Day, M.D.; W. H. Folker, Esq.; W. D. Spanton, Esq.; J. Y. Totherick, M.D.

Votes of Thanks were passed to the Treasurer and Honorary Secretaries.

Alteration of Rules.—Additions to Rules I and II were agreed upon. *Dinner*.—The members and their friends dined together at the close of the meeting.

CORRESPONDENCE.

THE ROTUNDA HOSPITAL.

SIR,—In the number of the JOURNAL for the 18th instant, you publish an article on this hospital, written in a friendly, and, towards me personally, in a kind and complimentary spirit; but it contains some statements which are incorrect, and others which need explanation, as they tend to convey an erroneous impression.

1. Instead of "there not being a pair of forceps belonging to the institution", there are four pairs in the keeping of the head nurse; of these, three pairs (two short and one long straight) have been in use for years; the fourth (a pair of Barnes' long double-curved) was added about two months ago, previously to which I used my own; and, "while thermometers, wineglasses, test-tubes, etc., are not to be found in the wards", they are always at hand ready for use in the head nurse's room, or in the apartments of the resident medical officers; there are also "microscopes in the building", though these, doubtless, are the property of the assistant-physicians.

2. That "pathology is steadily discouraged" is quite true, so far as that the staff and pupils are prohibited from making *post mortem* examinations. This is essential for the safety of the patients; but, in every case where it is possible, the necropsy is performed by a competent pathologist, and to it, except in cases where the disease was of a highly infectious nature, pupils not actually on duty on that day are admitted, and the "interns" summoned. Indeed, the case referred to by you merely shows that the clinical clerk neglected to record the result.

3. I have no intention of trespassing on your space by discussing whether chloroform should be more frequently used in cases requiring intra-uterine medication; but it should be borne in mind that, while chloroform is absolutely harmless in midwifery, no anæsthetic yet discovered is so under other conditions, and that death has occurred where it has been administered for trifling operations; but it is right, in vindication of my practice, to point out that a strange mistake has been made in stating that, "for acute antelexion of the uterus", I had "applied nitric acid fourteen times to the fundus". I never treated antelexion by the intrauterine applications, nor have I ever applied nitric acid fourteen times to the fundus in the same case. I am forced to the conclusion that the case referred to is one of "endometritis and antelexion", in which the endometritis was treated by repeated applications of carbolic acid. This is the only case recorded in the case-book which bears any resemblance to the one alluded to.

4. I fully admit the advantage to be gained by students and teachers by the former being called on to record cases as in other hospitals. I have introduced bed-cards into all the wards; but the difficulty of having cases properly taken is in this hospital very great; the class is changing almost daily; many pupils remain for but a month, and others, while diligently attending midwifery cases, do not care for those in the chronic wards. I trust, as the importance of gynaecology becomes more generally acknowledged, this may alter; but at present it is very uphill work for the teacher.

5. I should much regret that the number of cases admitted annually to the labour wards should fall below a thousand; but that the "tendency to reduce" these does not exist is, I think, proved by the fact that, whereas only 275 extern cases were attended during the year ending November 5th, 1875, against 638 attended during that just closed, there were 1065 and 1051 delivered in the house during the corresponding periods.

I am, yours, etc.,

LOMBE ATTHILL, M.D.,

Master of the Hospital.

Rotunda Hospital, Dublin, November 20th, 1876.

SIR,—I have read with much interest the leading article in the BRITISH MEDICAL JOURNAL of November 18th on the Rotunda Lying-in Hospital, Dublin. I had the pleasure of visiting that institution last autumn, and concur in most of the observations you have recorded; but there is one remark which I think ought not to be passed over in silence. It is this: "Dr. Johnston has in these reports conclusively proved to the satisfaction of himself and the members of the Dublin Obstetrical Society, that the death-rate at the Rotunda Hospital is as low as in private practice." A reference to Dr. Johnston's Report for 1875 will show that the maternal death-rate in the Rotunda during that year was 1 in 39½ cases. I need not observe that in private practice this mortality cannot be received as a low one.

—I am, sir, yours obediently,

GEORGE ROPER,

Physician to the Eastern Division of the Royal Maternity, London.
November 20th, 1876.

SIR,—Your leading article on the Rotunda Lying-in Hospital, in last week's issue, contains the following:—"Pathology is steadily discouraged", and "*post mortem* examinations, when held, are not open to students". Having made numerous *post mortem* examinations at the request of both the present and former master, I am in a position to say that these statements are not correct.

Before my appointment to the House of Industry Hospital, a notice was sent to me of each death, together with a request that I would conduct the necropsy. This, in all cases, was done in the presence of the assistant-masters and the pupils. The latter, with the exception of those on duty that day in the labour-ward, were always sent for and invited to be present. The notes were generally taken on the spot from my dictation.

I did not make the *post mortem* examination in the case of K. P. referred to, nor do I know anything about it; but, as the Rotunda Hospital is the only institution in this country, so far as I know, where what seems to me to be a very important principle has been adopted, namely, that a necropsy should be conducted by one not clinically connected with the case in presence of the clinical teacher and his class, I think it but right to the heads of that institution that the truth should be known.—I am, sir, yours, etc.,

REUBEN J. HARVEY.

7, Upper Merriem Street, Dublin, November 21st, 1876.

UNIVERSITY COLLEGE.

SIR,—As an old University College man, allow me to point out to the gentlemen who have lately been writing certain letters respecting the medical teachers and teaching that the College, as a school of medicine, still more than holds its own. For instance, of the twenty-three gentlemen who have just passed the second M.B. examination of the University of London, ten are from University College, five from Guy's Hospital, two from King's College, and one from each of six other medical schools.

The above, with the letter of the dean of the medical faculty, which shows that University College men have taken during the last ten years four times their share of honours at the University of London, might satisfy anybody.

I am, sir, your obedient servant,

JOHN GABB, M.R.C.S.

Bewdley, November 20th, 1876.

THE DEATH OF DR. BRUNTON OF PAISLEY.

SIR,—Will you kindly favour me with a small portion of your valuable space for a few remarks on the sad death by drowning of Dr. M. Brunton, late House-Surgeon of the Paisley Infirmary and Dispensary?

That death should have occurred in such a way in the case of a person nursed in a private house by private friends, is conceivable; but that it should have been possible in the person of a young surgeon treated in a public hospital, served by physicians and surgeons of position and skilled nurses, fills me with amazement. And my amazement is not a little increased by the quiet way in which the London medical journals mention the fact. Not one of these appears to think that, in recording such an event, there is anything unusual or reprehensible. The occurrence is apparently accepted as something inevitable, however painful, and about which there is nothing more to be said than about any other unavoidable evil.

Believing, on the contrary, that such melancholy events are always the result of carelessness somewhere; that they may, in all cases, be easily prevented; and knowing, as matter of personal experience, that in similar cases which it has been my duty to investigate culpable carelessness has existed—I take leave to say that this young man's death by drowning ought not to be allowed to pass unnoticed, and to express

my hope that his brethren in the profession will demand a full and impartial investigation into the circumstances attending it.

I am quite unable to imagine, without assuming great carelessness on the part of some one, that a young surgeon, a resident in a public hospital, sick of a disease which placed his life in peril, should have been suffered to leave his bedroom, to walk over hospital ground, to climb a high wall, and, finally, to drown himself.

The risks to which those of us are exposed who undertake the treatment of contagious fevers, diseases from which nearly all of us, sooner or later, suffer, and to which many of us fall victims, are, one would think, of themselves sufficiently grave without the addition thereto of a treatment which permits drowning in the nearest watercourse.

My experience supplies me with information of the way in which events of the kind in question occur, and I can readily imagine how this shocking death took place. I forbear, however, in the meantime, further remark, and confine myself to stating that, in my opinion, the profession ought to ask the managers of the Paisley Infirmary and Dispensary the following question, to wit, Who was responsible for the treatment under which Dr. M. Brunton was drowned in the river Cart?

Your faithful and obedient servant, ALEX. COLLIE.

Homerton Fever Asylum, London, November 20th, 1876.

OBITUARY.

DUNCAN MACNAUGHTON BRUNTON, M.A., M.B., M.C.

It is seldom that so painful a circumstance falls to be recorded as the death of this gentleman. In the execution of their duty, others have died prematurely, whose lives were as full of faithful performance and fair promises as his; but not many such have fallen victims to so unfortunate a concurrence of evitable accidents.

Duncan Macnaughton Brunton was born in 1852, the son of William Brunton, LL.D., for many years Rector of King James's Royal Grammar School, Paisley, and was a brother of Dr. John Brunton of London. He was educated under his father's care; and, having passed through the various forms, he became dux of the school, and finally Barrie medallist. Hence he passed to the University of Glasgow, where he matriculated, and obtained the Duncan Wright bursary, in 1867. In 1868, he gained the Patrick bursary of £100 a year; in addition to which, the successive periods of his education in the arts were marked by various college prizes. Having in 1872 graduated M.A., he turned his attention to the special branch of science which he had selected for his profession. Before entering the medical classes, he obtained the Brisbane bursary of £50 a year; in the session 1873-4, he was awarded the Hunterian Medal in Anatomy, and in that of 1874-5 the Cullen Medal in Materia Medica. In the present year, he graduated M.B. and M.C. Having completed this part of his professional education, he sought some post in which he could advantageously pursue the clinical study of disease. So distinguished a student was not allowed to remain long unemployed; and, six weeks ago, he was elected House-Surgeon of the Paisley Infirmary. Thus a student-life, marked by unusual diligence and rewarded by unusual and well-deserved success, was crowned by a public acknowledgment of the confidence with which his conduct had inspired his fellow-townsmen.

Here it seemed that he was about to enter on a professional career which should be no less profitable to others than creditable to himself. Yet, he had discharged the duties of the post no more than a fortnight, when he was attacked with typhus fever. Every hope of his recovery was entertained from the first; and on the tenth day it was believed that a crisis was at hand, through which there is no doubt he would have passed to convalescence. But he was still delirious and restless; and, at half-past two of the morning of the eleventh day, he escaped from his room while his nurse slept, and then, through an unfastened door, from the Infirmary itself. The night was cold and stormy. An hour later, his body was found stretched on the bank of the river Cart, which runs close by the building. It showed no signs of immersion; but the face was buried in the mud on which he had fallen, overtaken, no doubt, by exhaustion.

He was interred in Paisley Cemetery on November 16th. Notwithstanding the exceeding inclemency of the weather, above four hundred persons joined in the procession which followed him to his grave. Marks of mourning were displayed throughout the town; and large crowds assembled along the route which the sad procession followed. The latter was composed of deputations representing the University, the Town Council, the Free High Church, the local Ministry, the Royal Grammar School, and the Regiment of Volunteers of which the de-

ceased had been an active member; as well as of a number of persons more or less remotely connected with him.

So sad an end must in any case raise a profound feeling of commiseration; but, in his native town, to this was added a general sentiment of regret and grief. Few men of Dr. Duncan Brunton's age have, in as short a life, become so widely known or so universally esteemed as he. Full of thorough and earnest work as his life had been, he was no mere student. His genial, kindly face met welcome wherever it appeared. First in the study, he was first also in the field. The same ardour which characterised his work lent colour to his amusements; and in him the West of Scotland loses one of her best cricketers and football players. Nor was he wanting in the thoughtful kindness which is most highly appreciated in the sick-room. His carriage betrayed his self-reliant and decisive character; while his face showed that he possessed that happy combination of geniality and firmness which qualify him who is a good doctor to be a good friend too. Numbers who, during his lifetime, had appreciated his sympathetic disposition, and benefited by his watchful care, acknowledged the debt by paying the last tribute of respect to his memory.

Dr. Duncan Brunton's death, indeed, entails a loss upon a far wider circle than that which holds his friends. He was possessed of an unusual character. Endowed with an unlimited capacity for work and an intelligence which was far above the average, to these gifts he added an extraordinary amount of energy and perseverance. The singleness of purpose, which enabled him to excel as well in athletic sports as in the acquirement of scientific knowledge, is a virtue which, in conjunction with such talents as his, profits the world no less than its possessor. As he died in the execution of his duty, so, had it been permitted, he would doubtless have lived in its performance.

ELLIS JONES, M.R.C.S.ENG., LIVERPOOL.

MR. ELLIS JONES of Liverpool died at Menai Bridge on November 9th, after a short illness, in the seventy-fifth year of his age. He was one of the oldest members of the British Medical Association, and took a warm, and for many years an active, interest in all its proceedings. He was local Secretary of the Lancashire and Cheshire Branch for a considerable time, and was President of the Branch in the year 1858. For many years, he was a Member of the Committee of Council, and was a very frequent attendant at its meetings. On the occasion of the annual meeting of the Association in Liverpool in 1859, he took a prominent part in making the arrangements for the gathering, and in offering hospitality to the visitors. He was for some time Surgeon to the Northern Hospital; and, having completed the full term of service (at that time fifteen years), was appointed Consulting-Surgeon on his retirement, and this office he held at the time of his death. He retired from the active practice of his profession about twelve years ago.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

A GOOD EXAMPLE AND A BAD EXAMPLE.

FOR three years, Newmarket has formed one of the family of districts happily combined under the medical officership of Dr. Armistead. Quite recently, all these districts, viz., Newmarket (rural), Linton, Bisbridge, Saffron Walden, Dunmow, all decided to continue their union for sanitary purposes, and reappointed Dr. Armistead. Newmarket Urban Authority, however, declined to continue in combination, and, strange to say, the Local Government Board seems to have allowed this secession. We say strange; for, a few weeks before, Solihull, in the Warwickshire combination, tried the same attempt at secession and was promptly stayed by the Local Government Board, who issued an order, compelling this authority to rejoin its old partners and to accept Dr. Wilson as their medical officer of health. Had Solomon lived in our days, he would have proverbialised the mysteriousness of the ways of the Local Government Board. It must be remembered that the Local Government Board has ample power to compel Newmarket to act wisely; but, through not exercising this power, a mischievous anomaly is perpetrated and a bad example set. In the midst of a compact area of united districts, the flag of secession has been successfully hoisted to the utter confusion of all systematic sanitary work. Of course, there are two sides to every question; but a careful examination of this Newmarket business has convinced us that the secessionists are utterly in the wrong. It is alleged that the determination to secede is intimately connected with the Government in-

quity held some time ago regarding the workhouse and its then medical officer. Dr. Mead, the late medical officer to the workhouse, is a pronounced secessionist. With all kindness, we suggest to this gentleman that he should let bygones be bygones. When we find that the whole of the medical men of the town, himself excepted, are unanimous in condemning the policy of secession, and have also unanimously declined to accept the post of medical officer of health, we cannot be wrong in recommending the sanitary authority to reconsider and withdraw their opposition to union. At all events, leaving the question of medical officer of health out of consideration, it has surely been most unfair and unmanly to oust the inspector of nuisances because he was also inspector to the rural authority. At all events, the medical men of Newmarket have set an example for which every medical officer of health to combined districts will thank them heartily.

THE MEDICAL OFFICER OF HEALTH AT BOURNEMOUTH.

AT a meeting of the Bournemouth Sanitary Authority, one of the members proposed that the salary of the medical officer of health should be increased from £75 to £100. All were unanimous in praising the manner in which the present occupant, Mr. Nunn, had fulfilled his duties; but the increase was opposed on rather curious grounds—viz., that, if the sum were raised to £100, this would be a sum worth the attention of the medical profession, in justice to whom the appointment should be thrown open to competition. Eventually, by a rather close division, the increase was carried. We think, with one of the speakers, that it would be unfair to subject an officer to a new competition each time his salary was raised; and feel quite sure that the medical profession, as represented at Bournemouth, will endorse these views. But, as the opposition was raised apparently in good faith, we cannot help thanking both majority and minority for airing a rather new point in official medical ethics.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

SHEFFIELD.—This is an unusually long and able Report, with sufficient tables to enable the reader to compare the mortality of the borough with that of other places. The population is estimated at 267,881 persons. The births registered in 1875 were 11,026, which would give a birth-rate of 41.2 per 1,000 inhabitants; and the deaths 6,641, or 24.8 per 1,000, which, although 2.0 higher than for all England, was less than in any year since 1870. The mortality amongst illegitimate children was very high, having been double that of children born in wedlock; indeed, in one district the number of illegitimate children who died during the first year of life was as high as 50 per cent. of these births. The deaths under five years of age were as high as 91.7 in 1874, and 79.6 in 1875, which is very high; and there were 17.6 deaths during the first year of life out of every 100 births, which is considerably more than for London. The mortality from zymotic diseases was 5.67; from constitutional diseases, 3.50; from local diseases, 11.41; and from developmental, 3.57, per 1,000 population; so that the deaths from zymotic and local diseases are much above the average, although the mortality from pulmonary affections, excluding phthisis, was about a mean number. No less than 6.8 per cent. of all the deaths were uncertified; but these would doubtless be much reduced if a careful investigation were made into the causes of these deaths. Dr. Griffiths carefully discusses the mortality from zymotic diseases, and shows the great want of care among the poor as regards the custody of those who have suffered from them; and considers that information should be given to the medical officer of health immediately that a case occurs. The system of street-sewerage is described as being very incomplete, and must cost a large sum to render it even moderately perfect. The house-drains are also very defective. The sanitary work done during the year includes 528 house-drains which were repaired, and 1,639 houses which were whitewashed, cleansed, and repaired. The arrangements for the removal of dust seem to be very indifferent, as there were no less than 12,920 complaints. The inspection of markets, on the other hand, was efficient, as 5,387 visits were paid, and a large quantity of unsound provisions was condemned.

NORTH MEOLS.—The deaths registered in this district during 1875 were 141, being at the rate of 30.59 per 1,000 population; and the average from zymotic diseases was 3.6. There were 37 deaths under one year of age, and 33 from one to five, making a total of 70, or 50 per cent. of the total mortality under five years, which is very high. There were 223 births, so that the deaths under one year amounted to 16.6 per cent. The water-supply was very impure in the early part of the year, when a deputation waited upon the Southport Waterworks

Company, requesting that mains should be laid to Crossens, where an outbreak of typhoid had occurred; which was agreed to. As regards the dwellings of the working classes, Mr. Woods says that many are built on the ground without flooring and without proper means of drainage, so that the soil is saturated with decomposing organic matter. As the demand for house-accommodation is great, the poor have no alternative than to live in these horrible places; and it is, therefore, no wonder that the death-rate is 30.59 per 1,000. Scarletina was very prevalent, and many deaths occurred which might, in Mr. Woods' opinion, have been prevented by proper treatment and isolation of the infected. The opinion generally entertained by the labouring classes, that children must have zymotic diseases, leads to much carelessness and needless exposure to infection.

GOOLE.—Dr. H. F. Parsons commences his first Annual Report by giving a description of the district, which, it appears consists of seventeen townships, fifteen of which are in Yorkshire, and two in Lincolnshire; and has an area of 43,443 acres, with a population of 17,270 persons, who are chiefly employed, except in the town, in agriculture and flax-scalding. The population of the town of Goole is about 8,600. The new houses have mostly been built in a satisfactory manner; but the old buildings contain, almost without exception, cellar-dwellings, which are used as living-rooms, and in cases of sickness as the hospital. The sewerage of old Goole is also sadly inefficient, the sewers being old and faulty, without proper outfall; and about nineteen-twentieths of the whole sewage drains into the river. There are very few water-closets, so that filthy middens are the general rule. In one of the poorest neighbourhoods, many people drink the canal-water, which receives all the excreta of the large floating population, and is also fouled by the loading and discharge of cargoes of manure. Rain-water is, therefore, used to a very considerable extent. Dr. Parsons recommends the use among the poor of the following filter. Get two large flower-pots, one a little larger than the other. Place a piece of sponge in the hole at the bottom of the smallest; then cover the bottom with two inches of coarse gravel; over this, two inches of coarsely powdered charcoal; and then two inches of fine sand. Plug the hole in the bottom of the largest pot with a cork, and bore in the side of the pot near the bottom a hole sufficiently large for a wooden tap; place the small pot inside the larger, so as to allow a fair space between the bottom of each; fill the upper one with water, and the filter is complete. He complains of the roads, slaughter-houses, and the common lodging-houses; and considers that the rural sanitary authority has not sufficient powers for the sanitary regulation of the district. Dr. Parsons states that as many as 265 cases of, and 46 deaths from, scarlet fever came to his knowledge in old Goole; that the disease occurred to a considerable extent through the children attending the schools, and, he believes, also through persons taking in mangling. He expresses his thanks to many of his medical brethren for notices of the occurrence of cases; but believes, unless medical men are paid for supplying the information, and are compelled to give it, that medical officers of health must, as hitherto, find out cases for themselves. He advised, in his first Report, that the hospital for infectious cases belonging to the guardians should be used for non-paupers, which, we learn from the second Report, has been agreed to by the Local Government Board. He also recommended a disinfecting apparatus to be procured, and a mortuary provided; but we do not learn from the second Report that either had been furnished by the local sanitary authority. In 1874, there were 683 births in Goole Union, and 492 deaths, being at the rate of 22.2 per 1,000 population. The death-rate was above the average, owing to the scarlet-fever epidemic. The death-rate for the rural part of the district was 18.1 per 1,000, and of children under one year no less than 30 per cent. of the whole. In the town of Goole, the deaths of children under one year amounted to no less than 21.3 per cent. of the total number of births; whilst in the rural districts it was 17.8 per cent. The percentages for both are much higher than the average for other districts. The deaths from the seven principal epidemic diseases were also very large, amounting to 5 per 1,000 population, against 3.6 per cent. for all England. In 1875, the death-rate for Goole town was 21.1 per 1,000—being, therefore, lower than in 1874; whilst in the rural district it was much higher, in consequence of the scarlet-fever epidemic, as it was 20.8 per cent., against 17.8 in 1874; or, if deaths in the workhouse be added, it would be 22.2 per cent. The rate from the seven chief epidemic diseases was 5.5 per 1,000, against 3.3 for all England. There were 26 per cent. of deaths of children under one year to total deaths, and 18.6 per cent. of the births; a large proportion of these deaths being of children fed by hand. The deaths of illegitimate children were 33.3 per cent. of their total births. The amount of sanitary work carried out was but small, as in 1875 only 131 nui-

sances were abated, out of 292 notices served. Dr. Parsons accounts for this by the local sanitary authority having deputed its powers to a series of parochial committees, instead of carrying out the works themselves.

SUNDERLAND.—The public health of Sunderland was reported by Dr. Yeld as being very satisfactory in 1875, as there were 4,509 births and 2,385 deaths, making the birth-rate as high as 42.5, and the death-rate 22.4, per 1,000 population. We scarcely agree with him that 22.4 was very satisfactory, although it was not high, when the average mortality for the year is taken into consideration; but the rate amongst children was large, as 1,163 died under five years of age, or nearly 50 per cent. of the total deaths; and the mortality of children under one year was 16.9 per cent. of the total births, which was higher than the rate for all London. In the Sunderland district, the death-rate was much lower than it was some years ago, having been only 24.6, against 30.0; and Dr. Yeld attributes this reduction to improvements which have been carried out under the Town Improvement Act, "by which all the old fever-dens, close lanes and alleys, have been swept away". In North Bishopwearmouth district, an outbreak of typhoid occurred; but the disease was stamped out by removal of the infected and proper sanitary measures. There were 21 deaths from typhoid, 61 from scarlet fever, 133 from whooping-cough, 141 from diarrhoea, 8 from diphtheria, and 5 from measles, making a total of 390 deaths from epidemic diseases, being 3.6 per 1,000 population, and 16.3 per cent. of the total deaths, which was considerably less than in 1874. Dr. Yeld is of opinion that it should be made obligatory on every householder to give immediate information to the medical officer of health of the existence of any infectious disease in his house, and also upon every medical man in attendance upon a person so suffering; the medical attendant to be paid a fee for filling up and transmitting the official form. Dr. Yeld, like many other medical officers of health, complains of the carelessness of women in regard to infection, and relates an anecdote respecting his inspector which may be useful to others. The inspector found, the day after the funeral of a person who had died from an infectious fever, a number of women sitting drinking in the room in which the patient had died. He remonstrated, but ineffectually, and thereupon set fire to some sulphur, and thus compelled them to leave, carrying their bottles with them. The mortality from diseases of the respiratory organs was high, and was, in Dr. Yeld's opinion, partly caused by improper clothing and want of care of the young children; but the deaths from phthisis were only about one-fourteenth of the total deaths, against about one-seventh in London. The number of notices served for the abatement of nuisances was very large—viz., 9,405; and there were no fewer than 269 persons summoned for not abating nuisances, for selling unsound meat and fruit, etc.; and 169 convictions were obtained, the other offenders having completed the necessary works before the hearing of the summonses.

ROTHERHAM.—This district suffered from zymotic diseases during 1875 to an unusual extent, especially from diarrhoea, fever, and scarlet fever; the deaths from these causes having reached the large number of 149, out of a total of 800. Tubercular disease, including phthisis, also caused a mortality of 124, and diseases of the respiratory organs of 161. The death-rate from all causes was as high as 27.44, and from zymotic diseases 5.69, per 1,000 population. There were 267 deaths of infants under one year old, or 9.15 per 1,000 inhabitants. There were 405 nuisances recorded, and 353 abated, during the year. Dr. Hardwicke dwells at some length on the injury to health which is caused by intemperance. The statistical tables do not admit of comparison with those of other districts, the forms of the Association of Health-Officers not having been adopted.

REVACCINATION.

SIR,—Will you kindly inform me, through the medium of your JOURNAL, whether it is generally considered necessary for revaccination to be performed more than once upon the same individual, the original vaccination and the first revaccination having both taken?—I am, sir, yours obediently. W. B. W.

. If the revaccination have been performed about or after puberty, it is not necessary to repeat it; but if it have been done before that age, it should be repeated.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

CRESWELL, W. George, L.S.A., appointed Medical Officer of Health to the Saltley Local Board.
MCDONALD, James, L.F.P.S., appointed Parochial Medical Officer for Barvis, Island of Lewis, *vice* D. Macaulay, M.B., resigned.
WOOD, William Dyson, L.R.C.P., appointed Medical Officer of Health for the Doncaster Union, *vice* Francis C. Fairbank, M.R.C.S. Eng., deceased.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on November 16th.

Benthall, Albert, L.R.C.S. Edin., Twickenham
Calcott, Lewis B., Oundle, Northampton
Capon, Herbert J., L.S.A., Bunhill Row
George, C. Aldridge, Romsey, Hants
Goodsall, Frederick W. W., L.S.A., Highbury New Park
Hallsworth, Francis A., L.S.A., Atherstone, Warwickshire
Jaquet, John L., L.S.A., Vincent Square
Livesey, Ernest H., L.S.A., Victoria Street, S.W.
Masani, Hormasji Dadabhai, L.M., Bombay
Masters, John A., Greenwich
Norris, Edward S., B.A. Cantab., Kennington Park Road
Pedley, Thomas F., L.S.A., Camberwell
Porter, Charles F., Fleetwood, Lancashire
Vasey, James A., Cavendish Place
Vipan, Charles, Lansdown Place
Willows, Robert G. E., Newcastle-under-Lyme

Nine candidates were approved in Surgery, and, when qualified in Medicine, will be admitted members of the College; and twenty-two candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. The examinations for the diploma of membership of the College were brought to a close for the present year at the above date.

The following members of the College passed the primary examination for the Fellowship on November 21st; and, when eligible, will be admitted to the final or pass-examination.

Clarke, Julius S. F., M.B., L.R.C.P. Lond., Leicester, diploma of membership dated May 20th, 1862
Lamiman, Cleland, L.R.C.P. Lond., Cannon Street Road, E., July 25th, 1871
Paley, Wm. E., L.R.C.P. Lond., Southwark Bridge Road, Jan. 20th, 1874
Pratt, Wm., M.D. Liege, Newtown, Montgomeryshire, July 25th, 1876

The following gentlemen, not members of the College, also passed this examination.

Andrews, William S., University College Hospital
Ashe, William P., St. Thomas's Hospital
Lowdell, Charles G. W., Guy's Hospital
Lynington, Johnson, Edinburgh School
Poland, John, Guy's Hospital
Wright, George A., Guy's Hospital

Fifteen candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 9th, 1876.

Gillard, Clarence Richard, Clapham Road
Hammersley, Joseph, Bedford
Pedley, Thomas Franklin, The Terrace, Camberwell
Snowball, William, Canton, Melbourne
Thurston, Edgar, Eton

The following gentlemen also on the same day passed their primary professional examination.

Floyd, John, London Hospital
Llewellyn, Walter, London Hospital
Reynolds, Lewis William, Guy's Hospital
Smith, Ernest Sutton, University College

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 16th, 1876.

Butler, Samuel, Bridge Street, Wednesbury
Bowen, Owen, Llandilo
Mills, Robert James, Norwich

The following gentlemen also on the same day passed their primary professional examination.

Campbell, John Melvin, St. Bartholomew's Hospital
Christian, John, St. Thomas's Hospital
Jago, William Pearce, London Hospital

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examinations during the recent sittings of the examiners.

Henry Wylie, Kincardine-on-Forth; John Richard Cullimore, Wexford; Alfred Edward Fitzpatrick, Liverpool; Isaiah George Butters, Devonport; John Brearton Langfear Bastable, Kanturk; Robert Wilson Smart, Aberdeen; Samuel Edwin Evans, Limerick; Wm. Hall Stowell, City of Wells; Francis Dixon, Nottinghamshire; Mattheus Quinn O'Callaghan, County Limerick; William Dalziel, South Shields; James Alexander Gordon, Belfast; Valbert Larcher, Mauritius; Samuel Hampson, Dukinfield; Peter Anderson, Perth; Ernest Houston Forjett, Bombay; Frederick Dunbar Sutherland M'Mahon, St. Vincent; and Edward Dorset Farnar, Plymouth.

The following gentlemen passed their final examination, and were admitted L.R.C.P. Ed. and L.R.C.S. Ed.

John Richard Oliver, Woolwich; Joseph William Christie, Stirling; James Graham Jefferson, Lisburn; Alfred William Pearson, Brierley Hill; Edward Bass Reckitt, Wainfleet; George Holloway, Wednesbury; Frederick Henry Worswick, Manchester; Henry Godfrey James, Newport, Tipperary; Charles Fenwick, Stoke, Devonport; Arthur White, Barnsley; James Henry Cotton, Canada; Robert John Trimble, Canada; John Condell Carden, Tipperary; William Ellis, Gascoigne, Nottinghamshire; James Watson, Lanarkshire; Richard Crossit, County Derry; John Coxhead, Maddan, Jamaica; Arthur Littlewood Tate, Rochdale; Alfred Edwin Harris, Cork; James White, County Clare; Ernest Aylward, Brede, Sussex; Thomas Thompson Middleton, Teesdale; James Carroll Daly, County Limerick; John M. Studert, County Clare; William Ellis Mumford, St. Kitts, West Indies; Alfred Beaver Brown, Manchester; Charles Erskine Wyer, Peebles; Sydney Freme Clement, Shrewsbury; and Raymond Bartholomew Chaundy, Oxford.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their first professional examinations during the October sittings of the examiners.

William John Stewart, America; William Bacon Hodgson, Middlesex; John William Sellers, Rochdale; and Hartley James Noad, Surrey.

The following gentlemen passed their final examinations, and were admitted Licentates of the College.

William Bond Taylor, Bury, Lancashire; William Duncan, Aberdeen; Charles Wilson, Irvine; Charles Henry Thatcher, Edinburgh; Thomas Gray, Liverpool; Alfred Goodwyn Kay, Landown, India; George Owen Willis, Monmouth; Thos. Drummond, Edinburgh; and Alexander Graham, Tobermory.

QUEEN'S UNIVERSITY IN IRELAND.—At the annual meeting of the Senate, held for the purpose of conferring degrees, on Friday, October 13th, in St. Patrick's Hall, Dublin Castle, the following degrees in Medicine and Surgery were conferred by His Grace the Duke of Leinster, Chancellor of the University.

Doctor in Medicine.—First Honour Class—Wm. McGeagh, Belfast; John Jagoe Welply, Cork. Second Honour Class—Jeremiah Mullane, Galway; Arthur A. Woods, Belfast. Upper Pass Division—Robert John Canac, Belfast; George Lewis Latour, Cork. Lower Pass Division—Alfred Allen, Belfast; Thomas Archer, Belfast; Samuel Bateman, Belfast; Robert Beattie, Galway; Robert Allen Brannigan, Belfast; James Fitzgerald Brodie, Galway; Richard John Burke, Cork; Michael Collins, Cork; Arthur Derham, Cork; Robert Eccles, M.A., Belfast and Cork; John Baldwin Isaac, Cork; James Martin Kennedy, Belfast; Gilbert Kirker, Belfast; Robert M'Ivor, Belfast; Robert Blake M'Vittie, Galway; James Magill, Belfast; Henry Molony, B.A., Galway; John Mulrenan, Cork; Channing Neill, Belfast; Maurice Joseph O'Sullivan, Cork; Thomas Francis Rierlan, Cork; Chas. K. Deane Tanner, B.A., Cork; Charles Henry Bennett, Cork; David Bradley, Belfast; Wm. Coates, Galway; Frederick H. Collins, Belfast; Jephth J. Connell, Cork; Patrick J. Dempsey, Belfast; J. Dunbar Dickson, Galway; John S. Dillon, Cork; Justin F. Donovan, Galway; Michael Dundon, Cork; F. Meagher Geoghegan, Galway; Charles Good, Cork; Thomas Greer, M.A., Belfast; Henry Hunter, Belfast; George Laffan, Cork; Wm. M'Afee, Galway; Michael J. M'Carthy, Cork; Mark A. MacDonnell, Galway; R. Dickie M'Master, Cork; Edward G. K. Marks, Galway; Francis H. S. Murphy, Cork; Jas. Pedlow, Belfast; John F. Wales, B.A., Belfast; Archibald Wallace, Belfast; William Cotter Williamson, Cork.

Master in Surgery.—Thomas W. Kyle, M.D., Belfast; David Robinson, M.D., Belfast; Alfred Allen, Belfast; Thomas Archer, Belfast; Samuel Bateman, Belfast; Robert Beattie, Galway; Robert A. Brannigan, Belfast; James F. Brodie, Cork; Richard John Canac, Belfast; Michael Collins, Galway; Robert Eccles, M.A., Belfast; George L. Latour, B.A., Galway; William M'Geagh, Belfast; Robert M'Ivor, Belfast; Henry Molony, B.A., Galway; Jeremiah Mullane, Galway; Channing Neill, Belfast; Maurice J. O'Sullivan, Cork; Thomas Francis Riordan, Cork; Chas. K. Deane Tanner, B.A., Cork; John J. Wagon, Cork; A. A. Woods, Belfast; Turner J. Fisher, M.D., Belfast; Samuel Fergus, M.D., Belfast; James R. S. M.D., Belfast; Chas. Henry Bennett, Cork; William Coates, Galway; Frederick H. Collins, Belfast; Jephth J. Connell, Cork; Patrick J. Dempsey, Belfast; J. Dunbar Dickson, Galway; John T. Dillon, Cork; Justin F. Donovan, Cork; Michael Dundon, Cork; F. Meagher Geoghegan, Galway; Chas. Good, Cork; Thos. Greer, M.A., Belfast; George Laffan, Cork; Wm. M'Afee, Galway; James J. M'Carthy, Cork; Mark A. M'Donnell, Galway; Edward G. K. Marks, Galway; Francis H. S. Murphy, Cork; James Pedlow, Belfast; John F. Wales, B.A., Belfast; Wm. Cotter Williamson, Cork.

The degree of M.D., *honoris causa*, was at the same time conferred upon Richard Eustace, Fleet Surgeon, Royal Navy, as a recognition of his distinguished services, especially during the Ashanti campaign of 1874-75.

MEDICAL VACANCIES.

The following vacancies are announced:—

BATH UNION—Medical Officer and Public Vaccinator for the South District. Salary, £40 per annum, with vaccination and extra fees. Applications on or before the 28th instant.

BELPER UNION—Medical Officer for the Union and Workhouse. Salary, £38 per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer. Salary, £80 per annum, with board, lodging, and washing. Applications on or before December 8th.

BOURNEMOUTH GENERAL DISPENSARY—Resident Surgeon. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Testimonials, diplomas, etc., to be sent in on or before December 31st.

CHESTER GENERAL INFIRMARY—House-Surgeon. Salary, £80 per annum, with board and residence. Applications on or before December 4th.

CONSUMPTION HOSPITAL, Brompton—Resident Clinical Assistants. Applications, with testimonials, on or before December 4th.

COSFORD UNION—Medical Officer for the Lavenham District. Salary, £49:4 per annum.

DERBY COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum for first year, increasing £70 annually to £130, with board, washing, and attendance. Applications, with testimonials, on or before the 30th instant.

DEKBYSIRE GENERAL INFIRMARY—Assistant House-Surgeon. Applications on or before November 25th.

DRAYTON UNION—Medical Officer for the Fifth District. Salary, £21 per annum.

HAILSHAM UNION—Medical Officer for the Third A. District.

LEEDS FEVER HOSPITAL—Resident Medical Officer. Salary, £150 per annum, with board and lodging. Applications on or before November 29th.

LETTERKENNY UNION—Medical Officer for Church Hill Dispensary. Salary, £100 per annum, with £58 from other sources. Applications on or before the 26th instant.

LINCOLN UNITED FRIENDLY SOCIETIES' DISPENSARY—Medical Officer. Salary, £170 per annum, with house-rent free, and midwifery fees. Applications on or before the 30th instant.

LONGFORD UNION—Medical Officer. Salary, £120 per annum. Applications on or before December 5th.

NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.

PETERBOROUGH UNION—Medical Officer for the Caistor District.

PRESTON UNION—Medical Officer for the Fourth District. Salary, £70 per annum.

QUEEN'S HOSPITAL, Birmingham—Honorary Physician. Applications, with testimonials, on or before December 2nd.

ROYAL ALBERT EDWARD INFIRMARY, Wigan—Assistant House-Surgeon. Salary, £60 per annum and rations. Applications on or before November 27th.

ROYAL SOUTH LONDON DISPENSARY—Honorary District Surgeon. Applications on or before the 30th instant.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY—Surgeon. Candidates to attend with diplomas and testimonials at 60, King Street, Regent Street, on the 30th instant, at 4 P.M.

WEST SUSSEX, EAST HANTS, and CHICHESTER INFIRMARY and DISPENSARY—Assistant House-Surgeon. Salary, £20 per annum, with board, lodging, and washing. Applications on or before November 27th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CHURTON, T., M.B., appointed Honorary Physician to the Leeds Public Dispensary.

GUNN, E. M., B.A., M.B., appointed House-Surgeon to the Royal London Ophthalmic Hospital, vice A. S. Morton, M.B., resigned.

LEFTWICH, Ralph W., M.D., appointed Assistant-Physician to the East London Hospital for Children.

*LOWNDES, Henry, L.K.Q.C.P.I., appointed Consulting Surgeon to the Liverpool Northern Hospital, on resigning office as Honorary Surgeon.

MANSTER, Robert, M.R.C.S.Eng., appointed Resident Medical Officer to the Western Dispensary, Westminster, vice R. Tidbury, M.D., resigned.

PARKER, Robert W., M.R.C.S.Eng., appointed Assistant-Surgeon to the East London Hospital for Children.

*SKERRITT, E. Markham, B.A., B.S., M.D.Lond., M.R.C.P., appointed Joint Lecturer on Medicine and on Pathological Anatomy at the Bristol Medical School, vice S. Martyn, M.D., deceased.

*TUCK, Buckmaster Joseph, M.R.C.S., J.P., appointed Visiting Medical Officer to the Seaford Convalescent Hospital.

VENN, Albert, M.D., appointed Assistant-Physician to the Victoria Hospital for Sick Children, Chelsea.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

DEATH.

FARRAGE.—On November 17th, at Burley House, Chippenham, William Farrage, L.R.C.P., etc., late of Melbourne, Australia.

THE LATE DR. SIBSON.—The will, dated July 27th, 1861, of Francis Sibson, M.D., F.R.S., formerly of Brook Street, who died suddenly in September last at Geneva, was proved on the 8th instant by his executors, the personal estate being sworn under £6,000. By it he bequeaths all his real and personal estate to his wife, Mrs. Sarah Mary Sibson.

The herbalist Cornelius Asher, who last May was convicted of the wilful murder of Ann Gee, and whose sentence was commuted to penal servitude for life, died on Monday last, in Milbank Prison, from bronchitis.

A METHOD OF PREVENTING CLOUDINESS ON EXPLORING MIRRORS.—According to *L'Union Médicale* of September 23rd, this means consists of passing lightly over the laryngeal mirror a linen cloth steeped in glycerine. The watery vapour contained in the expired air is dissolved completely in the glycerine, and the cloud does not form. This method is really more practical than to immerse the mirror in warm water, or to warm it at the flame of a lamp. M. Samindès, the medical student who communicates the new process of preventing the laryngeal mirror from being obscured, proposes its extension to astronomical observations, and recommends its use to the persons who wear spectacles and are obliged to go out in foggy weather.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 2 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY	Medical Society of London, 8.30 P.M. Dr. Lichtenberg will exhibit a Lad on whom Excision of the Ankle-joint has been performed, with removal of the greater part of the Os Calcis; Dr. Edmunds, "A Second Case of Caesarean Section, in which Mother and Child survived".
TUESDAY	Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Hulke, "Case of complete absence of both the Upper Limbs"; Mr. Morratt Baker, "On the employment of Flexible Tubes in Tracheotomy"; Mr. Hulke, "Lodgment of a Tracheotomy-Tube in the Right Bronchus, and its extraction".

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

THE ELECTION OF EXAMINERS AT THE LONDON COLLEGE OF SURGEONS.

WE are asked from more than one source to refer to some very strange canvassing by a senior member of the Council for a place on the Board of Examiners on behalf of a very junior candidate from his own hospital, whom he desires to see promoted over the head of a senior colleague. One at least of our correspondents expresses serious, although perhaps not altogether uninterested, indignation; but those who have held high office in the College are expected to set a good example in such matters; and canvassing of the kind complained of is certainly a bad example.

T. H. J.—Apply to the Secretary of the Royal Victoria Dispensary, Northampton; or to the Secretary of the Provident Dispensary, Coventry.

STATISTICS OF HUMAN LIFE.

SIR.—Will you please inform me if statistics (and what statistics) prove that human life is longer now than in the last or in the two preceding generations?—Your obedient servant,

INQUIRENS.

* Dr. William Farr, F.R.S., in his letter to the Registrar-General on the mortality in England and Wales during the ten years 1861-70 (see Supplement to the Registrar-General's thirty-fifth Annual Report), states that the annual mortality in the city of London was at the rate of 80 per 1,000 in the latter half of the seventeenth century, and 50 in the eighteenth century, against 24 in the present day. This implies that the mean duration of life in London was little more than twelve years in the seventeenth century, was about twenty years in the eighteenth century, whereas it is now about forty years. The mean duration of life depends upon the death-rate at various ages, which show the widest range in different parts of the country, dependent upon their sanitary condition.

SPEERO.—Application should be made by letter (which may be in English) to the Dean of the Faculty of Medicine of the University.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

MORPHIA-CRAVING.

SIR,—Can any of your readers assist me in the treatment of the following case? A lady, aged 42, was recommended by her medical adviser to take morphia, subcutaneously injected, for nervous restlessness and want of sleep, accompanied with neuralgia. She is much better, and the neuralgic pains have entirely left her, but not so the craving for morphia. I have tried the usual remedies, but I find that she gets so depressed that if I do not give it her she takes it from her maid. I shall be glad to hear of any book published on the subject of opium, and the best mode of breaking off the habit of taking it.—I remain, yours truly,

Birmingham, Nov. 9th, 1876.

AN ASSOCIATE.

* We are not aware that any book on the subject has been published. Our correspondent will find a translation of an instructive paper read before the Berlin Medical Society by Dr. Levinstein, in the February number of the *London Medical Record*; and also an account of a discussion on the subject in the Vienna Medical Society, in the same journal for the present month.

RESPIRATOR-VEILS.

IN reply to various inquiries, we have to say that the address of Messrs. Marshall and Snelgrove who furnish the pattern of respirator-veils, mentioned in the JOURNAL by Mr. L. Browne last week, is Vere Street, Oxford Street, W.

MR. P. Q. KARKEEK (Torquay).—Dr. Braxton Hicks exhibited the uterus in the Wainwright case before the Obstetrical Society last February, and gave the results of some experiments he had made. A committee, consisting of Dr. Hicks as chairman, Dr. Savage, Dr. Meadows, Dr. John Williams, Dr. Snow Beck, and Mr. Randall were appointed to investigate the subject further, and to report. Their report has not yet been received.

PHOSPHORUS PILLS

SIR,—For the information of those members of the profession who may wish to prescribe phosphorus in the free state, I beg to say that, after having used several preparations, I find none so satisfactory as the pills made for me by Richardson of Leicester. I have for some time been prescribing them, and find them efficient in action. In them the metalloïd exists in an uncombined state. They are perfectly soluble even in cold water, and, being covered by what he calls pearl coating, are altogether tasteless.—Yours truly,

Geo. Gray, M.D.

THE USE AND ABUSE OF THE BOTTLE IN INFANT-FEEDING.

SIR,—From the numerous communications I have received upon the subject of my paper under the above heading, and kindly published in the JOURNAL of October 14th last, I am impressed with the conviction that my views, although partly are not fully understood, and as the use of the bottle with India-rubber tube has now become so general, I perhaps may be allowed to amplify by stating that the abuse of the bottle consists in its being made the excuse for idleness in the nurse. An infant must be superintended in feeding, whether by the bottle or even from the breast. In feeding from the breast, the mother almost intuitively regulates the supply. Nature is never so exact in her adaptations that the size and vigour of a child is necessarily in direct correspondence with the size, vigour, and sucking powers of the mother. The breast is not at all times equally full, nor the milk equally flowing. When the milk is running out of the breast so fast that the greedy little infant is almost choking, the ducts are at once intuitively pressed in the nipple between the fore and middle fingers of the mother's hand, and the supply is accordingly gently restrained; and, on the contrary, when the supply falls off, a like pressure on the gland restores the tardy flow till the process is complete. And so with the bottle: the superintendence of the nurse is even more necessary, as the artificial means are, after all, but a clumsy substitute. Let the child, then, be taken in the arms to be fed, and, if a bottle with a tube be used, the pressure of the fingers on the tube, as required, will as accurately, as is possible under the circumstances, regulate the supply to the powers of the child. To lay an infant down with a bottle, is expecting too much of both ever to hope for anything but disappointment; and to make the bottle and teat the ever ready resource to quiet a child, is an excuse for idleness of the most unrighteous description; the decaying food irritating instead of nourishing, and exhibiting its pernicious effects in the miserable appearance of the poor little mortals thus inhumanly treated.—Your obedient servant,

SAMUEL PRALL, M.D., F.R.C.S.

West Malling, November 1876.

GOUTY PSORIASIS.

SIR,—Would you kindly insert the following in this week's JOURNAL? A patient of mine, a very delicate lady, aged 72, who is gouty, has suffered dreadfully for the last six months from psoriasis. I have tried almost everything, both internally and externally, but nothing does any good. I have not tried tar internally. If I do, in what form would it be most advisable to administer it? I shall be glad of any suggestions.—Yours, etc.,

A MEMBER.

HEMORRHAGE FROM THE STUMP OF THE FUNIS.

SIR.—Mr. H. Cripps Lawrence having pointed out that the subject under consideration differs from true umbilical hemorrhage, I affirm my assent in an altered title. I have been unfortunate in not having opportunities for putting my suggestions to a practical test, having attended but three cases lately. The first, complicated with unavoidable hemorrhage, was still-born; the second was to have been attended by another practitioner, who happened to be out, and I was called in to remove the placenta. Upon asking to see the infant in order to examine the ligature, I was informed that the cord had been round the neck, and had broken during the birth. I found several inches of the funis attached to the infant, and, although no ligature had been applied, only one or two spots of blood had escaped. The division of the funis so near the infant's body gave me the impression of its having been cut, as the strait during birth (the cord being round the neck) would have been nearer the placenta. The last case was a primipara child, born at 3.30 A.M. yesterday (November 19th). The cord, which was not very thick, was over a shoulder, and pulsation ceased during birth. I applied the ligature, as suggested by Dr. Bruce, by a succession of pulls at a threefold thread; and this morning, at eleven o'clock, I cut off the portion which I enclose for your inspection, in which I beg you to observe the small calibre of the ring of the ligature itself, and the considerable space between it and the structure it surrounds.—I am, yours truly,

WALTER LATTEY.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

THE MEDICAL INSPECTION OF SHIPS AND EMIGRANTS.

SIR.—Mr. Cochrane, in his letter in the **BRITISH MEDICAL JOURNAL** of the 11th instant, states that in the cursory examination which emigrants are subject to, it is impossible to "detect a person suffering from such diseases as scarlatina, small-pox, typhoid fever, etc., in their stage of incubation". Granting that these persons were subject to strict medical examination, by what means does Mr. Cochrane detect the incubative stage? What are the symptoms, if any, say in small-pox or measles? the stage of incubation of the former (Tanner) being twelve days, and ten to fourteen days for the latter.—I am, sir, your obedient servant,

INQUIRER.

Plymouth, November 14th, 1876.

BIRMINGHAM.—There was an index of the first thirty-three volumes of the *Medico-Chirurgical Transactions*, published in 1851.

VACCINATION.

SIR.—Vaccination being a godsend to humanity, one feels anxious to see it practised generally in all its efficiency; and had I not, by very simple means, which I have been in the habit of using for some time, attained much more satisfactory results than I formerly did, I should not have attempted to trespass on your valuable space with a communication on a subject so trite. I fear vaccination is too often looked upon as a matter requiring little or no care, notwithstanding the strict injunctions given us by Jenner himself, also in the exhaustive treatise by Dr. Seaton, and many valuable monographs recently issued by Husband, Purvis, and others: still, I am disposed to think due weight is not given by many even in the present day to the responsibilities attaching to the due performance of this interesting little operation. Without further comment, I will state the instruments I use, and the mode I find most efficient. The instruments are: 1. A long needle, somewhat blunt and bent, wrapped with silk cord within half an inch of the point; with this he'd like a pen, the infant's arm to be vaccinated is scratched in five different places: should there be an excess of bleeding, that is removed by means of clean white blotting paper. 2. A hook, much resembling a lady's crochet-hook, is used for puncturing the cells of the vesicle of the vaccinator, and will be found a great convenience, especially in the case of restless children, as with common care there is no danger of drawing blood, so that you only get clear dewdrops of lymph oozing from the vesicle. 3. These dewdrops are taken up by means of a small instrument, much like the oval eye of a common needle, by capillary attraction, through which you can at once see whether the lymph is perfectly clear and free from blood tint, or the slightest opacity. The operator being satisfied of this, the eye of the instrument so charged is rubbed freely on the scratched arm of the infant to be vaccinated; and this operation is repeated as often as may be thought requisite, care being taken each time to wash and wipe the instrument, so as to free it entirely from blood.

I feel quite certain that, if this plan be properly carried out, you will not have more than one unsuccessful case in two hundred; but, what is much more important, you will be able to show typical Jennerian vesicles in almost every case; and if the nurse do her duty, you will not have to dread inflamed arms, erysipelas, or other annoyances.

Perhaps I may be allowed to observe, notwithstanding the very doubtful views recently expressed by the ex-Prime Minister on the Compulsory Vaccination Act, that the long omission of it seemed to prove that neither the Government nor the people were sufficiently alive to the great boon which vaccination, efficiently performed, is to the community at large; and now that it has become law, great would be the responsibility of the minister who should by legislation render it inoperative. The only addition required by the Act is, that the penalty should be as severe on unqualified persons vaccinating as it is on any one inoculating for small-pox.—I am, etc.,

FRANCIS WHITWELL, P.V., etc.

Shrewsbury, November 13th, 1876.

F.R.S. (Manchester).—We renew the wish that the gentleman you mention would be elected a member of the Board of Examiners of the Royal College of Surgeons; but he would find the duty sorely to tax his valuable time.

A QUESTION OF TREATMENT.

SIR.—Allow me to supplement M.B.'s already somewhat numerous but well selected list of remedies by suggesting two others, an old and a new drug—chloride of ammonium and croton chloral. Of these, I should give the latter the preference. I had a somewhat similar case in India, where the patient was a doctor's servant, and had taken unsuccessfully numbers of different drugs. The first dose of four grains of croton chloral relieved him, and the second, an hour afterwards, cured him. A few weeks later, the pain returning, the same treatment was successfully employed. Croton chloral does not dissolve well in water, but a solution can be made with glycerine. If this treatment should prove unsuccessful, M.B. might give ten-grain or fifteen-grain doses of chloride of ammonium, and if that should also fail, he might try the constant galvanic current.—I am, sir, yours, etc.,

THEODORE MAXWELL, M.D. Camb., B.Sc. Lond.

Harwell, November 11th, 1876.

P.S.—I shall be very glad to learn the result.

MR. C. M. FOSTER.—A Calendar of the Royal College of Surgeons of England is published at the office of the College in Lincoln's Inn Fields. Application should be made to the Secretary.

A READY SOLVENT FOR SALICYLIC ACID.

SIR.—In reference to the above, which appeared in the **BRITISH MEDICAL JOURNAL** for last week, I beg to state that I have tried to dissolve salicylic acid by means of liquor ammoniac acetatis, *B. P.* (named, and as having been successfully tried by Dr. G. F. Duffey), but with no result anywhere near that which he (Dr. Duffey) states as a clear solution. The only means I know whereby to dissolve it is by the addition of twenty minims of liquor ammoniac fortior to every scruple of salicylic acid; but it is an absurd solvent, as no patient could take it.—I am, yours truly,

November 9th, 1876.

PARTIAL BLINDNESS IN TELEGRAPH CLERKS.

SIR.—I will feel obliged for information respecting the occurrence, after a time, of partial blindness in telegraph clerks. This is a subject which I believe is not generally understood.—Yours faithfully,

D. KENT JONES.

A. C. R.—Kus's manual, translated by Amory (Baillière), is very concise.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the last pass-examination for the diploma of Membership of the Royal College of Surgeons of England on the 10th instant. 1. Name, in their respective relations, all the structures which are divided in amputation through the wrist-joint. 2. Give the relations of the posterior tibial artery, from its commencement to its bifurcation; and describe the operation of tying it in the middle third of its course. 3. What is enchondroma? Describe its characters, and mention the structures in which it is developed. 4. What effects are likely to follow the lodgment of a foreign body in the iris? Describe the treatment you would adopt for such an injury, and its consequences. 5. Mention the various complications of acute gonorrhoea, and describe the more prominent symptoms of each. 6. How is fracture of the base of the skull usually caused? State and explain the symptoms which are regarded as characteristic of the injury.

The following were the questions on the Principles and Practice of Medicine submitted to the candidates for the diploma of Member on November 11th. 1. What are the consequences, local and general, and what the diagnostic signs, of the following varieties of heart disease: *a.* Obstruction at aortic orifice; *b.* Incompetence of aortic valve; *c.* Obstruction at mitral orifice; *d.* Incompetence of mitral valve? 2. How would you treat, medicinally, a case of phthisis; *a.* With the object of improving the general health; *b.* With the object of relieving cough; *c.* With the object of arresting hæmoptysis; *d.* With the object of checking diarrhoea? Give the doses, for an adult, of the various drugs you would employ in each case. 3. What are the various causes of obstruction of the œsophagus? How would you distinguish them clinically from one another?

At the half-yearly examination for the Fellowship, on November 17th, the following questions were proposed, all of which were required to be answered. 1. Describe the minute structure of the spleen: state the current views respecting its office, and the grounds on which these are based. 2. What are the essential parts of an organ of respiration? Describe the chief forms of respiratory apparatus met with in the animal kingdom. 3. Describe the dissection required to expose the left superior intercostal artery and vein; and contrast the arrangement of these vessels on the two sides of the neck. 4. Give the dissection required to expose from behind the adductor magnus muscle: and mention in order from above downwards the parts seen on its removal.

At the pass examination for the Fellowship on the 23rd instant, the following questions were submitted, all of which were required to be answered; viz.: 1. Describe from the commencement, and in its several stages, the anatomical characters of the affection commonly known as disease of the hip joint in childhood; and discuss the pathological changes that occur. 2. Mention the principal cases in which the condition known as hæmophilia becomes of surgical interest. Discuss the pathology of that affection; and describe the treatment, local and general, which you would adopt in particular instances. 3. Discuss fully the question, In what cases is it justifiable to perform the operation of castration? Describe the operation, its accidents and complications. 4. Describe the various forms of internal acute intestinal obstruction, and the surgical treatment that you would adopt in each case.

DR. FRODHAM.—Descriptions of Banner's system of ventilation will be found in the *Sanitary Record* for May 15th and June 5th, 1875 (Smith, Elder, and Co., 15, Waterloo Place).

CAUTION.

SIR.—I wish to put my fellow-practitioners on their guard in reference to a visitor whose object may be very well understood from the following. On Saturday evening last (a most bitterly cold night), about seven o'clock, my servant told me a gentleman wished to see me in the hall; and, according to my regular habit, I immediately attended to his request. He wished to know if I would call to see his wife in this neighbourhood that evening: she was very ill, and he did not know what could be the matter with her. They had just come from Jersey, and he did not know whether or not she was pregnant (they had been married three months); but before I went he wished to go and fetch her sister, who lived in London, so that if I would call in about an hour's time he would then have returned. I said that really I could not come, as it was such a cold night, and that I had only recently recovered from a serious attack of inflammation of the lungs and hæmoptysis. He begged very hard again, and when I assented, he went away with a most imploring request, "You won't disappoint me?" Suffice it to say, that when I went I found an empty house, and I have not seen my "gentleman" since, but shall be very pleased to make his acquaintance in a police court; not that I lost anything by his visit, excepting the vexation at being called out on such a fearfully cold night for nothing at all. He is about five feet five inches in height, I presume about eleven stone in weight, about thirty years of age, fair complexion, and whiskers and moustache, of which he has a good quantity, nicely and evenly trimmed, and about an inch in length. A detective informed me that such a person should be detained till the arrival of a police-constable, and be given in charge on suspicion.

Trusting that he may soon fall into the hands of the police, I am, sir, yours truly,
44, Trinity Square, S.E., Nov. 13th, 1876.

F. G. LARKIN.

ASSOCIATE.—The College of Surgeons was erected from the plans of Sir Charles Barry. The old building was entirely removed, with the exception of the portico.

RÖTHELN.

SIR.—In your issue of the 11th instant is a notice of volume one of the *Archives of Dermatology*, etc., by Dr. Bulkley, in which is a quotation referring to German measles, and a statement "that rôtheln is a disease *per se*". Allow me a small space to confirm this opinion; as from my observation of four epidemics of measles, scarlatina, rôtheln, and scarlatina, in one family, I am able to assert that it is in no way identical with either of the disorders it so closely resembles, whilst it is quite as contagious and infectious, if not more so. Rôtheln is not followed by desquamation; and I have not seen any of the dangerous sequences we find so frequently after scarlatina, and in a less degree after measles. But that Sir T. Watson (*Principles and Practice of Physic*) is so decidedly against me, I should assert rôtheln to be nothing more than the roseola of years ago in an aggravated form. Though people denied the contagiousness of roseola, yet without doubt it sometimes attacked whole families. Questions upon this point were asked through the *JOURNAL* in 1874, the year of the last great epidemic of rôtheln.—Yours obediently,

Victoria Street, November 30th, 1876.

FREDK. SIMMS.

THE ACTION OF ALCOHOL.

SIR.—When a person comes forward to championship a cause, the least he can do is to argue philosophically. I contend that your correspondent W. M. J. entirely fails to do so in his letter "On the Abuse of Temperance". In the first place, he confounds a potent drug with a number of elixirs, prepared with a view to captivate the palate and to excite the brain. He tells us that "medical men allow their common sense to be carried away by the excited feelings of a few bigoted enthusiasts, and, by assenting to their views, virtually lay down as an absolute law that there is no medicinal use in alcohol". As far as my experience goes, I find that intelligent teetotallers generally do not decry alcohol as a medicine, but they do protest vehemently against medical men ordering brandies, wines, beer, porter, etc., as a food, luxury, or even medicine. Opium is a most valuable medicine; but would it not be deemed quackery to order a patient to take patent medicines containing that drug whenever they were "excited or in pain, or even because the practitioner might know he would thus please his patient? And would a person who denounced such practice be a bigoted enthusiast, aiming to carry away the common sense of such practitioners? Alcohol is a most virulent poison, and in skilled hands, in some diseases, a most potent medicine. I prescribe it occasionally with very tangible effects; but does that justify me forcing my patients to drink as medicine, food, or luxury, or, because they like it, elixirs of unknown strength, and *ad libitum*, simply on the ground that they contain alcohol? A man to say that alcohol is not a medicine, must know nothing about it; a man to order elixirs of varying and unknown compounds, must show a want of thought and looseness in prescribing, or must sadly pander to his patients for the sake of *écarté*. Secondly, I never yet heard of pressure being brought to bear upon a medical man holding an union appointment seeking to interfere with his prescribing alcohol. I imagine if an union medical officer were to order his pauper-patients one pound of figs or half-a-dozen oranges daily, the authorities and rate-payers would soon complain, and rightly, too. If, on the same principle, he order elixirs, the only thing in their favour being that they are luxuries, is it not within the jurisdiction of the ratepayers and guardians to complain? Let him allow milk, beef-tea, and similar nourishment to the weak, and he ought to be supported; but to put the parish to needless expense for no material benefit, and often otherwise to the paupers themselves, is another matter. If in disease he wished to prescribe alcohol, I do not doubt that the guardians would provide the same. Thirdly, W. M. J. fails to support his *reductio ad absurdum*. He imagines prohibition, by engendering and fostering syphilis, to do more in one year to undermine the health and vigour of our population than alcohol in all ages has done. What a sweep! Sixty thousand a year directly, and as many indirectly, die yearly through strong drink, to say nothing of the myriads impoverished in health and vigour. Therefore, following up the argument, all our population must be suffering from syphilis. We all agree that syphilis is a terrible evil, and prostitution a most degrading vice and demoralising to the nation; but what keeps it up? alcoholic elixirs. Why do prostitutes drink? How is it that in my practice I am continually coming across men, and often married, almost broken-hearted, afflicted with venereal diseases? Because they got a drop too much, and were led off, like Lot, without their knowledge, simply captivated by the eye, reason and the will being dethroned. But to the point; it is argued for the *reductio ad absurdum*, "because some vicious people encourage prostitution, the virtuous majority ought to become total abstinents—that is, ought not to marry, so as to set a good example to the vicious". This logic is terribly defective. Would a man's abstaining from marriage encourage the vicious to abjure vice? Would they not rather suspect the motives and actions of the so-called abstainers? Again, does marriage favour vice? does marriage lead to harmful results? is marriage contrary to the laws of God and man? and does it demoralise the community? If so, then let us all abstain. But such is not the case. Marriage cements social and family ties, and tends to consolidate and build up a nation. Marriage is the great bulwark and rebuke against prostitution; marriage is honourable in all men.

I maintain, sir, that your correspondent has failed to prove any of his points; and while not for a moment allowing the public the right to dictate to the profession on strictly professional points, I must contend that they have a right to defend themselves, if we so far forget our position as to unscientifically force them to partake of damaging elixirs.—I am, etc.,

Oct. 22nd, 1876. THOS. P. LUCAS, M.R.C.S.E., L.R.C.P.Ed., etc.

VERY full information concerning the treatment of diabetes at Nervenahr will be found in papers by Dr. Leonard Sedgwick and Dr. Richard Schmidt in the *Transactions of the St. Andrew's Graduates' Association* n, 1873.

PELLAGRA.

SIR.—I would be greatly obliged if any of your readers could inform me where I could get an exhaustive or extensive account of "pellagra".—Yours truly,
November 19th, 1876. RUSTICUS.

PRIORITY IN THE USE OF THE BROMIDES.

SIR.—In 1863, just after my return from India, and through the excellent recommendation of my great Dublin teacher Dr. Churchill, I was appointed house-surgeon at the London Surgical Home, where I had most ample opportunities for studying minutely diseases of women and children. During my pupillage at that institution, I learned that the bromides (chiefly that of ammonium) were used for the absorption of uterine fibroids, and also for epileptiform fits dependent on sexual irritation. The bromide was given in three-grain doses, and I remember it used to come from the chemist's in a green glass-stoppered bottle, which bore a label having printed on it "Dose, three grains, as prescribed by Dr. Duncan Gibb". I soon found the inutility of giving such small quantities, and commenced to prescribe it in ten-grain doses, with most marked good effect in those cases in which I deemed its use advisable: soon, however, I learned that the dose might be made much larger.

There was a lady suffering with intense irritability of the bladder. I ordered her ten-grain doses, prescribing a drachm to be divided into six parts. By some oversight, the entire drachm was given at once, and with such almost immediate relief, that I resolved to utilise the experience I thus accidentally gained. I was called to the daughter of a medical man, who was in most intense menstrual agony; she could hardly speak to me, her pain was so great. With no little confidence I assured her I should soon give her ease. I wrote the prescription, ordering half a drachm to a drachm every half hour or hour, till quite eased, combining it with nitrate of potash, in order to hurry it into the bladder, and using barley-water as the vehicle. The druggist to whom the prescription was taken sent it back to me, asking if I had not made a slip of the pen. I assured him no. He then called on me, and showed me one of the green glass bottles with the printed label of instructions, and inquired if I knew of these precautions. I explained that such a dose was of no use. The worthy man immediately made up the prescription, and when I called on my patient in the evening she was over-

joyed with the good done her by the drug. "Why, the very first dose gave me ease, and after a few doses all my pains had gone; it was never so before, but for days and nights I suffered agony, and nothing I had given me used to do me any good, till at last even my father despaired of medicine being of any avail." I then continued using the bromides, which I found of such value in certain cases that I employed the term "utero-ovarian specific" in connection with it, when I wrote on the subject. I also termed it a "hæmæstatic", from its effect in checking the hæmorrhages incidental to fibroids of the womb, and have pointed out the immense benefits accruing from its administration in certain kinds of stricture of the urethra.

Other uses of the drug in large doses I have likewise set forth, but I shall not now occupy any more of your space, or weary your readers with further details.—I am, etc.,
G. DE GORREQUER GRIFFITH.
London, October 1876.

A. MEDWIN (Manchester).—The result of the pass-examination for the Fellowship of the College of Surgeons cannot be published until submitted to, and confirmed by, the Council.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; The Redditch Indicator; The Dundee Evening News; The Hampshire Post; The Hull News; The Penrith Observer; The Buxton Advertiser; The Border Advertiser; The Edinburgh Courant; The Bournemouth Visitors' Directory; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Hampshire Telegraph; The Falkirk Saturday Herald; The Craven Herald; The Broad Arrow; The Fife Times; The Shield; The British Press and Jersey Times; The Elgin Courier; The Hull and Lincolnshire Times; The Derby Mercury; The Hull Criterion; The Whitby Times; etc.

. We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Robert Barnes, London; Dr. Macleod, Glasgow; Dr. George Johnson, London; Dr. MacGrigor, Fiji; E. M. F.; Mr. W. H. Jones, Welshpool; Dr. Symes Thompson, London; Dr. Shewen, London; Dr. Mushet, New Brighton; Mr. R. M. Partridge, Banstead; Dr. Goldie, Leeds; Dr. Matthew Corner, London; Dr. Michael Foster, Thetford; Dr. Alfred Hall, Brighton; Dr. P. A. Young, Edinburgh; Dr. J. Milner Fothergill, London; Dr. Thomas Churton, Leeds; Mr. W. H. A. Jacobson, London; Dr. J. Urquhart, Aberdeen; Mr. Hugh Robinson, Preston; A True Liberal; Mr. Wm. Stewart, Barnsley; The Registrar-General of England; W. B. W.; Dr. Roper, London; Dr. Meredith, Wellington; Duns Scotus; Dr. W. L. White, Southport; The Secretary of Apothecaries' Hall; A Southport Member of the B. M. A.; Mr. P. Q. Karkeek, Torquay; The Registrar-General of Ireland; Dr. Syson, Huntingdon; Mr. Simeon Snell, Sheffield; Mr. Horne, Barnsley; Dr. Strachan, Dollar; M.B.; A "Fanatic" Liberal; A.B.; Mr. McCaskie, Huddersfield; Mr. Walter Lathey, Rugby; Mr. W. S. Tuke, London; Mr. F. A. Statham, Manchester; Our Edinburgh Correspondent; Mr. William Smith, Chippenham; Dr. Lombe Athill, Dublin; Dr. Frederick Simms, London; Mr. John Gabb, Bewdley; Dr. A. B. Steele, Liverpool; Dr. Mackey, London; Mr. P. H. Holland, London; The Secretary of the Pathological Society; Mr. Richard Davy, London; Dr. Jukes Styrax, Shrewsbury; Dr. A. Leared, London; The Secretary of the Obstetrical Society; Dr. James Russell, Birmingham; Dr. Lauder Brunton, London; Dr. C. B. Fox, Chelmsford; Dr. Collie, Homerton; Dr. Broadbent, London; Mr. Teevan, London; I. H. I.; An Intern Pupil; Dr. Reuben Harvey, Dublin; Iota; Dr. Ward Cousins, Southsea; Mr. Henry Brown, Northallerton; Mr. William Thomas, Birmingham; Dr. Arthur Ransome, Bowdon; Mr. W. Hay, London; Dr. Douglas Powell, London; Dr. Atkinson, Kingston-on-Thames; The Secretary of the Royal Medical and Chirurgical Society; Dr. S. Brown, Newcastle-upon-Tyne; Mr. Charles Orton, Newcastle-under-Lyne; Dr. Shepherd, London; Dr. J. L. Thomas, Southampton; Dr. Buchanan, Glasgow; Dr. Farquharson, Coatbridge; Mr. Wm. Marriott, London; Dr. Wood, Camborne; Our Dublin Correspondent; Dr. Gore, Dublin; Dr. Trollope, St. Leonard's; Mr. C. Palmer, Burton-on-Trent; Dr. L. M. Marshall, Nottingham; Dr. Jas. Sawyer, Birmingham; Mr. Lennox Browne, London; Mr. Banner, Brighton; Mr. M. J. Symons, Hartlepool; Mr. Noble Smith, Paddockhurst; etc.

BOOKS, ETC., RECEIVED.

The Anatomy of the Head. By Thomas Dwight, M.D. Boston: H. O. Houghton and Co. 1876.
Medical Statistics of the Provost Marshal General's Bureau. Vols. 1 and 11. By J. H. Baxter, A.M., M.D. Washington Government Printing Office. 1875.
Illustrations of Clinical Surgery. By Jonathan Hutchinson, F.R.C.S. Fasciculus v. London: J. and A. Churchill. 1876.
Healthy Skin. By Erasmus Wilson, F.R.S., F.R.C.S. Eighth Edition. London: J. and A. Churchill. 1876.
Dental Anatomy. By Charles S. Tomes, M.A. London: J. and A. Churchill. 1876.
The Races of Man. From the German of Oscar Peschel. London: H. S. King and Co. 1876.

REMARKS

ON

INTESTINAL OBSTRUCTION: WITH SPECIAL
REFERENCE TO DIAGNOSIS.

By GEORGE H. B. MACLEOD, F.R.S.E.,

Regius Professor of Surgery in the University of Glasgow; Surgeon to and
Lecturer on Clinical Surgery at the Western Infirmary; etc.

III.

9. As regards *growths within the bowel* causing obstruction, I had in my possession a malignant one, about the size of a small orange, which, growing from the walls of the duodenum in a well-known medical man of this city, finally occasioned closure of the bowel and death. Violent and persistent retching was for long a symptom from which he suffered; but the true cause of his symptoms was not discovered till after death, though it was suspected that he had malignant disease of the pylorus. He had for years suffered violent pain at times, which he referred to the exact seat of the growth; but, large as the mass was, its existence had not been clearly made out. Another practitioner, known to many of my audience, also suffered from serious, though not complete, obstruction before death, from what I believed to be a malignant growth in the ascending colon, but its exact nature was not verified by *post mortem* examination.

10. *Paralysis of the bowel after operation for strangulated hernia*, either by the taxis or knife, is by no means uncommon; and constitutes one important source of danger from that affection. The bowel, after being long strangulated, does not recover its function, even though restored to its place in the abdomen. Passive obstruction occurs, and, unless means are used to arouse the dormant action, the patient dies. Quite recently, I had such a case under my charge in the hospital, and I understand that one of my colleagues had another.

11. Cases of obstruction from *malignant disease of the lower portion of the bowel* are so common as hardly to require illustration. On the table are many specimens of this very terrible and fatal disease. Many of those patients who are thought to suffer from cancer are really affected with syphilis. When obstruction is established from such cancers, opening the gut higher up is undoubtedly a legitimate, though a very miserable, procedure. The history, the broken-down look of the patient, the discharge, and the tactile examination, make the diagnosis usually clear. *Syphilitic stricture* is vastly more common in females than in males. A large number of such cases came under my observation during my period of service in the Lock Hospital.

12. The following case of *malignant tumour springing from the anterior parietes of the abdomen*, gave rise to complete and fatal obstruction. I saw the patient with Dr. Taylor of Nelson Street, who had recognised the nature of the ailment. The patient was sixty-six years of age, and had suffered from complete constipation for six weeks before my visit. She had only put herself under medical treatment a short time before I saw her. For several weeks after the outset of her complaint, she was very little alarmed about her condition, as she suffered but little uneasiness and had all her life been of a very costive habit. She had used various strong purgative remedies, and Dr. Taylor had tried enemata freely. Her stomach became very irritable, and would retain nothing, though, when empty, there was no retching. She never suffered from feculent vomiting. When I saw her, she was much exhausted, and complained of pain all over the belly, which was much distended, and was sonorous on percussion, except at a spot as large as the hand on the lower and left side, between the umbilicus and anterior superior spinous process of the ilium, where it was especially tender, and where dulness existed. A hard flat fixed mass could be detected at the place referred to. She had never suffered from rupture; but there was a small soft body in the right femoral ring, which was found to be a thrombus of the vein, but which I was inclined at first to suppose to be connected with the bowel. The distension of the bowel was relieved by puncture; and then the outline of the growth, and its attachment to the abdominal parietes, were very perceptible. She died the day after I first saw her; and it was then found that a cancerous mass, growing from the omentum, had formed adhesions to the parietal peritoneum, and had enclosed a portion of the descending colon in its embrace. Above this spot, the bowel was greatly distended and in part gangrenous. Below the constricted point, the intestine was empty. Extravasation had taken place at various places, and abundant traces of inflammation, both old and somewhat recent, were found.

13. Of *volvulus* I will relate one well marked example, as its nature was shown by *post mortem* examination. I saw the patient with the late Dr. David Miller. A boy, aged fourteen, healthy and strong, had been thrown down violently by a companion and trampled on. He was at once seized with violent pain below the umbilicus, and vomiting soon set in. Neither pain nor retching were ever relieved till his death, which took place on the night after the third day. I only visited him once, shortly before his death. I was informed that he had complained much of a desire to go to stool, without any result following the effort. Constipation had been complete from the outset, and he had rejected everything he swallowed. His belly did not swell much, but it could not be touched on account of the diffused pain [present]. It was hard and resonant. At the time of my visit, he was markedly typhoid, sunk, with mottled face, cold, and evidently dying. He had been treated as for peritonitis; and calomel and opium, with poultices and enemata, had been freely employed. Fluid could be easily pumped into his bowel in large quantity. The urine was all along scanty and high coloured, and a catheter had been required. After death, the bowels were found much matted together by lymph, and a distinct sharp twist, which wholly occluded the lesser bowel (the exact part I find I have failed to note), and almost occasioning perforation by its action, was present.

14. Many years ago, Professor Cowan and myself carefully watched a case of what we believed to have been *volvulus*, which lasted for six days, in a man—the porter to the Western Dispensary—aged 26. The seizure was sudden and violent after exertion, and the pain at first confined to a spot. Stercoraceous vomiting set in on the third day, and he was extremely prostrate, when, on the sixth day, the constipation, which had been complete, gave way and he recovered and lived for seven years. For two years after the attack, he suffered much from obstinate constipation. He was treated during the attack by opium and scanty light diet.

15. Dr. McCall Anderson had a case in the Royal Infirmary in August 1874, in which complete constipation had existed for eleven days, accompanied by bilious vomiting and much distension. There was pain in the abdomen, especially in the right iliac region and also in the lumbar region, which was dull on percussion. After death, the small gut was found to be greatly distended, and, at the lower end of the ileum, near the valve, two twists were found in the bowel. The folds of the gut were so adherent at one of these points, that the bowel gave way in trying to undo the twist.

16. Last summer, I saw with Dr. Kirk of Partick a case which appeared to be one either of *volvulus* or internal strangulation; but, as it went right, when almost hopeless, after a large dose of calomel, it is impossible to say what the exact pathological condition was. When I visited the patient (a lad aged 20), he had suffered from complete "stoppage" for ten days. The seizure was sudden after running, and was accompanied with much pain and, very shortly after its onset, by vomiting. The pain was at first located, but soon became diffused. No remedies had been of any use, and the patient appeared to be dying. He was restless, sunk down in the bed, with feverish skin, dry tongue, swelled belly, and was constantly retching. I could discover no explanation of his state by an examination of his belly, and twenty grains of calomel were given, in the faint hope of removing the obstruction. He rejected the first dose, but retained a second, and, within a few hours, his bowels acted freely and he quickly recovered. I saw him lately in perfect health.

17. A patient, aged 45, whom I saw about the same time as the last with Drs. Cassells and Cumming, was probably an example of *bands or adhesions* causing embarrassment to the passage of alimentary matters. For many months before the seizure, on account of which I was asked to visit him, he had suffered at intervals from attacks of prolonged constipation and pain. His bowel had been entirely closed for eight days before my visit, and he was worse in all respects than he had ever been before. The pain was seated below and to the left of the umbilicus, and there was tenderness to the touch and some distension. He had vomited a good deal, but it was never stercoraceous. All the usual means of relieving him had failed. Nothing more than a suspicion of the cause of the obstruction could be got, and we risked twenty grains of calomel in one dose. He rejected one powder and retained another. A copious stool, followed by relief to his symptoms, soon occurred. Several times since, he has had less severe attacks of a similar nature, though in none has his life been in danger.

18. In December 1873, I saw along with Professor Gairdner, in the Royal Infirmary, a man, named Murphy, aged 30, who was suffering from complete constipation of seven days' duration, accompanied by stercoraceous vomiting during the latter part of that period. He came into the hospital only the day before he died. His abdomen was curiously distended, as it was enlarged across the lower portion and

up the ascending colon, but much less so elsewhere. He was too prostrate to allow of any operation being performed, except puncturing the enlarged bowel, and this was repeatedly done. After death, the important point found was that, from a yard below the duodenum to the same distance from the cæcal valve, the bowel was distended and gorged; and, where this ceased, there were several old adhesions by bands between the gut and the parietes, but the channel of the intestine was free. Various loops of bowel which intervened between the adhesions were not obstructed. One band connected the jejunum and parietes. Water flowed freely through the whole length of the bowel, yet the effect of the bands during life had come to be such as entirely to arrest the passage of the contents of the canal. No previous history of the patient could be obtained.

In this preparation, taken from a patient I saw some years ago, you will see how very tiny a band may occlude the bowel; and, in this other, which I received from the late Dr. Lyon, the same fact is illustrated; and, in this one from the Hunterian Museum, the transverse arch of the colon is adherent to the lower end of the ilium by a very narrow band, which was found "twisted like twined cord" and constricted the bowel, and finally killed the patient.

19. In a patient, aged 62, admitted with strangulated femoral hernia, and on whom I operated in the Royal Infirmary in 1871, a double source of constriction was found: one in the femoral canal, which was relieved by the operation, and another on the opposite side and within the belly (found after death), produced by "appendices epiploicæ", which had wrapped up a coil of small intestine and completely occluded it. The patient was very weak on admission, and no very distinct account was got of her previous condition. We learned, however, that the attack of obstruction had come on slowly and had been complete for about a week. Finding a hernia present, no other source of obstruction was suspected.

This specimen from the Hunterian collection shows "valvula connivens making a circle, and thence occasioning stricture in a portion of jejunum". There are also on the table other preparations of Hunter showing tumours of the duodenum and ileum—"introsusceptio of the jejunum from an adult"—and the same of the lower end of the ileum and cæcum into the colon, and several cases of stricture of the sigmoid flexure and rectum from various causes.

20. Three years ago, I saw with Dr. John McLaren of Canning Place, a blacksmith, about thirty years of age, suffering from complete obstruction for nine days. When in perfect health, he was suddenly seized, when at laborious work, with violent pain in his right groin. Vomiting soon followed. For several days, he sought no medical aid, but had taken a very liberal amount of strong purgatives. During the first forty-eight hours, he had two very scanty motions, but none afterwards. The pain in his groin never ceased, but it had radiated latterly over his whole abdomen. I saw him the night on which he died. He was then partially collapsed; had stercoraceous vomiting, distended tympanitic belly, and hiccough. His pulse was very rapid and weak, and his extremities cold. Over the appendix vermiformis, there was marked dullness, and a firm mass was found on deep pressure. Pressure so increased his torture, that a careful examination could not be made. Enemata passed freely, but were of no service. His urine was very scanty and frequently passed. He would not allow of any operation, and, in his then condition, I did not press it upon him. He died a few hours afterwards. There was much local inflammation and effusion found in the right iliac region, extending over towards the left side. The appendix was in a state of suppuration and had been perforated. It was turned over a portion of the bowel, and was adherent to the parietes and to the mesentery. The channel of the gut near the valve was occluded and the bowel above very much distended with flatus and thin fluid. Five small bodies, like cherry-stones, were found within the appendix.

21. The late Dr. Steven had a case under his charge in the Royal Infirmary in which the bowel was entirely obstructed by an adhesion it had formed with the uterus. The nature of the obstruction was not recognised during life, and no history was got beyond the fact that she had suffered several months before from some uterine inflammation.

22. Three years ago, I saw with Dr. James McLaren of Newton Terrace (to whom I am indebted for a record of the case) a widow lady, aged 65, who was in the enjoyment of good health up to 1870, when she suffered from polypus of the womb and frequent hæmorrhages. This was set right by operation. In the autumn of 1872, she first began to suffer from difficulty in defecation in a marked degree. This gradually increased, notwithstanding treatment, and it was found that a large very hard tumour connected with the posterior wall of the uterus was firmly wedged into the pelvis, and so compressed the bowel as to render its action almost impossible, and finally led to complete and perfect obstruction so far as feces were concerned, but allowed flatus to

pass. She lived for five weeks after the obstruction had become complete, and, towards the end of that period, I visited her. Her abdomen was distended, but not extremely so. It was also tympanitic. She vomited any food she took, but had no retching when she abstained. She was very weak and emaciated, and complained of no pain. The pelvis seemed to be filled by a large fibroid, which, from its pressure, obstructed to some extent the iliac vessels. I cannot recall the circumstances which prevented colotomy from being performed, but it was rejected from some consideration which was thought at the time sufficient. The nature of the obstruction made it a very favourable case for its performance. She died of inanition, the margin of the cornea having begun to ulcerate before death.

In another almost parallel case which I saw with Dr. Lyon, no persuasion could prevail on the patient's friends to allow an operation, and she, too, died unrelieved.

23. *Cæcal abscess* causing obstruction is illustrated in these two morbid specimens. One of these cases was attended by me along with Dr. Miller of Castle Street. The case was a very curious one. She was a strong healthy married woman of 37. Two years before her death, she had observed a certain degree of swelling on the right side of her abdomen; but, as it caused her no pain or annoyance, she took no heed. Her alvine and other functions had been quite regular up to five weeks before her fatal illness. About that time, she began to suffer pain in her abdomen, and that chiefly in the right groin and lumbar region. She became very constive, and used a variety of purgatives. She sought no medical advice for two weeks, and was able to go about and do her household work. Her bowels remaining inactive, notwithstanding all the medicine she took, she placed herself under the care of Dr. William Miller, and I visited her with him shortly afterwards. When I first saw her, her expression was by no means bad, and she was able to take concentrated food in small quantities. She had occasional vomiting, but only of food up to within three days of her death, when it became stercoraceous. The abdomen generally was never much distended; but, all up the right side from the brim of the pelvis to the false ribs, and across the abdomen to within a short distance of the middle line, there was a marked fulness, which was firm and obscurely fluctuant, or rather highly elastic, to the hand, dull on percussion, and did not alter its place by position. The dullness extended to the right lumbar region, and pressure over it, if made steadily, occasioned very little pain. The rest of the abdomen was resonant. The bowels were closed except to flatus. The uterus was retroflected. The pulse was of fair strength, and she had no complaint of thirst. She had not suffered from shivering or violent pain at any time. There was no swelling of the leg nor pain down it. Enemata passed freely and returned almost unchanged. Opium was given and poultices applied, and her food was carefully regulated. From this time up to her death, she had repeated evacuations—suddenly and, at one period, six times in close succession—of small quantities of thin pea-soup-like feculent fluid, which always gave a delusive hope that the obstacle was about to be removed. After these evacuations, the tumour appeared softer, and we thought a shade smaller. We believed we had to do with perityphilitis, but the symptoms did not altogether conform to that idea, and we were in doubt whether it was not rather a soft cancerous tumour. After death, the contents of the abdomen were found firmly matted together by old (not recent) effusion, and many bands crossed the bowel, which, however, was pervious throughout. Below the ascending colon, the gut was almost completely empty, while that part was (as you may see in the preparation) pressed so firmly against the posterior wall of the cavity by an enormous tumour, which filled the whole right side of the abdomen and pelvis, that, though its canal was open, nothing from above could pass through it till the tumour was pressed aside, which it could be. The tumour was found to be (as is here seen) a very thick leathery cyst attached below to the right ovary and above to the kidney and liver, while it was so firmly adherent to all the surrounding parts, that it could not be detached without tearing them. It had evidently been formed in the connective tissue which surrounds the caput cæcum, and was beneath the peritoneum. It was lined by a smooth fully organised membrane, and contained the pea-soup-like fluid which had escaped by the anus, together with pus and masses of lymph. A communication existed between its cavity and the ascending colon. The aperture admitted the point of the little finger, and was round and slightly ragged. It appeared to be of some standing. How this communication had formed could only be a matter of conjecture. Doubtless, the fluid from the cyst at times escaped (probably during certain postures) into the bowel and was so expelled, and it seems reasonable to suppose that the communication was established when the evacuations first appeared; viz., about a fortnight before her death. An operation here would not have been successful; but what chiefly

caused such an idea not to be dwelt on, was the fear that malignant disease was present. It was remarkable how little disturbance there was to the general health while this great collection was forming, and how it continued to augment the strength of its walls and fill the abdomen, and not come in the least to work towards the surface. The history of this other, somewhat similar tumour, I have not got.

24. A middle-aged thin weak woman came under my charge in the hospital in 1872, with a deep fluctuant tumour over the caput cæcum. She had suffered pain in the part for some months, and had not been laid up till a few days before her admission, when the size of the swelling, the pain, and a feeling as if it would burst, caused her for the first time to keep her bed. She could bear no pressure over the swelling, and she kept her thigh bent on the pelvis to relieve it. There was some pain down the front and inner side of the thigh, but no swelling of the limb. Her bowels were very sluggish, but never wholly closed. Pus was clearly recognised and its evacuation determined on; but I had to leave town for a day, and the operation was delayed. The nurse had given her, at her own request, a dose of castor-oil, and, when she got up to stool during the night, she passed, without effort or pain, about a quart of ill-smelling pus and a little blood. The swelling at once disappeared and the normal action of the bowel was restored. Pus continued to come with each motion during all her residence in the house; but, as the swelling did not reappear, and the pain and discomfort had ceased, she insisted on going home.

25. A female past middle age sought advice at the dispensary of the Royal Infirmary during my service there, on account of a fistulous orifice in her right groin, from which pus escaped freely. She said it had resulted from the bursting of a large abscess which had formed (she believed following a kick) within her belly, deep in the right iliac fossa a year before, and which for sixteen days had caused her much suffering, and, as she alleged, entire constipation for nearly a week of that time. She stated that fæces had at first come away through the fistula, but that for several months she had not observed any mixed with the discharge. Her bowels, which had been regular before the illness, had given her much annoyance since from their tendency to costiveness.

26. This preparation was taken from a poor fellow who was in the Western Infirmary lately, suffering from a vesico-intestinal fistula, resulting, as you see, from *gelatiniform cancer of the sigmoid flexure*. For many days before his death, complete obstruction was present and materially contributed to the rapid termination of his life. His case is worth recording. His age was 44. He was a butler by occupation, and there was no family tendency, so far as is known, to cancer. Twenty-one months before he came under my observation, he began to suffer from frequent micturition followed by pain all along the urethra. Blood early appeared in his urine. He was then treated for "gravel". Pain came on in the hypogastric region and deep in his perinæum, and he suffered greatly. The right testis swelled. A few weeks after the outset of his complaint, he was pressing at stool, when suddenly "a twist" seemed to occur low in his belly and fæces came through his penis. In a fortnight, this ceased to occur; but flatus, accompanied by much pain, continued to pass by the urethra. He slowly recovered, and the rectum and urethra resumed their respective functions. For four months, he remained well, and then, after exertion, retention of urine set in, and, as he was straining to relieve himself, a lump appeared below his penis, near its "root". This became very painful, and, during a sudden effort, he ejected a damson-stone, and the stream of urine was re-established, but accompanied by fæces. He was now confined to bed for six weeks and put on very restricted diet, and that, was chiefly administered by the rectum. When he came under my care in February 1876, he was pale, weak, and cachectic. The urine was almost wholly flowing by the rectum (this had only begun about two months before), and most of the fæces (which, however, were scanty) came by the urethra, and their passage occasioned much uneasiness. The whole urethra was much inflamed, and a profuse purulent discharge was present. His abdomen was somewhat full and pressure over the sigmoid flexure caused pain. There was a decided swelling filling the iliac fossa, and giving to the hand a soft doughy sensation. There was dulness markedly elicited by percussion all along the colon from side to side, and at no part was the abdomen resonant. Only a limited quantity of water could be introduced into the bowel, and its presence caused much discomfort. Nothing could be done for him, except to relieve his pain, as he was very weak and emaciated. Complete absence of alvine evacuation and a great decrease of the urine existed for eight days before death. The bowels were very remarkably soldered together by old firm lymph, which hardly allowed them to be separated. There was no trace of recent inflammation. In the left iliac region, there was a mass of soft

jelly-like cancer, which involved the sigmoid flexure and the bladder in one lump. On separating this (as is shown in the preparation before you), the bowel was found to open freely into the upper part of the bladder, and within that viscus, masses of fæces and colloid cancer were mingled together. The continuity of the gut was wholly severed, though the open ends of both upper and lower portions communicated with the bladder. The rectum was empty. The whole contents of the intestine appeared to be discharged into the bladder, and, when the patient lay on his back (as he usually did), the urine flowed away by the lower portion of the bowel, which opened from the bladder. The walls of the bladder were extensively invaded by the cancer. In the ascending and transverse colons, there were many old hard masses of fæces, by which considerable distension had been produced.

27. I shall refer only to one further cause of obstruction, and that because it is a very unusual one. I had this session in my clinical ward a man, aged 62, who was suffering from violent constipation, retention of urine, and severe oedema of the right leg. These symptoms were due to an enormously enlarged prostate gland—the largest I ever encountered. It was stony hard, and seemed to fill the hollow of the sacrum. This had formed slowly during several months, according to his account. He required a very long catheter, and it was only by the use of a strong enema-pipe and a long tube that his bowels could be relieved. By attention to his bladder and bowels, he improved in every way during his residence in the hospital, and returned home to Ayrshire, with instructions to continue the same treatment. I have since learned that, a few weeks after reaching home, his bowels became entirely obstructed, and that he died in consequence.

I shall not further multiply examples of the affection considered in this paper, but present the foregoing as illustrating several of the sources from which obstruction of the bowel may arise.

REPLY TO DR. C. J. B. WILLIAMS'S REMARKS ON THE MECHANISM OF THE SOUNDS OF THE HEART.

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IN a communication to the JOURNAL of September 30th, Dr. C. J. B. Williams has undertaken to refute my explanation of the causes of the sounds of the heart; and, with regard to his own researches, he says: "I reassert that those observations, made in February 1835, supplied the first complete knowledge of the sounds of the heart, which has given to the profession the means of distinguishing the physical signs in health and in disease." Dr. Williams's researches have undoubtedly been of great value to pathology. His theory of the sounds of the heart stands in the same relation to pathology that certain astronomical theories stand in to the science of astronomy. Although a given theory may not itself be true, certain deductions founded upon it may be true. But, even in the abstract, accurate knowledge is always desirable. Moreover, I have shown that the theory of Dr. Williams does not explain some leading pathological facts, which my theory explains.

Dr. Williams's paper consists of two parts: an attack upon my position and a defence of his own. As the attack comes first, it shall be met in the same order.

A single paragraph from my thesis, *On the Sounds caused by the Circulation of the Blood* (London, 1861), will place before the reader what is essential to be borne in mind in order to understand the controversy. It is this:

"All sounds formed in connection with the circulation are produced by and in the blood itself, and their mechanism is virtually the same. If this statement be true, it would be found, in practice, that a sound of one species would be liable to be changed into a sound of another species. And this is the case; for the normal first sound of the heart is, under certain pathological conditions, converted into a murmur; and, on the other hand, a murmur thus produced may again give place to the natural sound. In short, all the sounds may be regarded as modifications of a typical sound, because, under varying circumstances, they are convertible into each other."

"I would object", writes Dr. Williams, "that of all bodies, liquids are the least adapted to produce sound; in contact with air, they become sonorous, and all sorts of noises, rushing, splashing, etc., result, from the trickling of a brook to the roar of the sea or of a cataract; and, in collision with solids, they cause the noises of wave-dash and rainfall, also musical and other murmurs in the circulation, and the loud notes of the siren and other water-instruments. But, without

air or without a solid, it is difficult to make a sonorous vibration in a liquid."

In order to test this matter, and also the effect of viscosity upon any sound produced by the friction of fluid against fluid, I devised a simple experiment, by which it was shown that sounds are produced in this way, and that they are modified by the consistency of the fluid. An intermittent column of fluid was forced, by an India-rubber bottle having a tube fitted to it, into a body of the same fluid. By this means, a current sound (murmur) was produced in water, and in a viscid fluid a shock-sound resembling the first sound of the heart. But these sounds are attributed by Dr. Williams to the "vibrating resistance" of the discharging orifice; and he says "the whole idea of noisy collision of fluids, without air or solids, is a mistake". He winds up as follows: "I conclude, then, that the sounds of the heart are *not* produced by any motions or collisions of the blood, because I find that no such sounds can be produced by fluids alone."

Although fully convinced by my own experiments that sounds are caused by the movements of fluids *per se*, it was desirable that this point should be further supported. I, therefore, placed the matter before Dr. Stone, who deservedly stands in the foremost rank of physicists in this country. Here is an extract from his reply: "Any person, whatever his scientific position, who declares the impossibility of sounds being produced in fluid alone, states a fallacy. By fluid, I understand incompressible fluid to be intended, though for accuracy it should have been so stated."*

But it would be easy to find further support. Let one extract from a recently published work suffice, as it has a direct bearing upon Dr. Williams's objection—that the sound in my experiment was really due to the vibration of the discharging tube. Speaking of the action of the siren in water, the author says: "The sound which follows proves that liquids enter into direct vibration, like gases, without sound being communicated to them by the vibration of a solid."†

In the case of sounds caused by the circulating blood, I do not deny that they may be variously modified by contact with the tissues containing the blood. What I contend is, that they are essentially blood-sounds, and are not caused by contracting muscle, nor by vibration of valves, nor of tubes. As regards vibration, will any one maintain that, when the wind whistles through a keyhole, or when one whistles by blowing into a key, or with his mouth alone, the sound is due in the respective cases to the vibration of the door, or of the key, or of the lips, and not to the motion of the air itself?

Having shown the fallacy of Dr. Williams's objection, I shall again, but more fully, explain my own views. Many of the facts and arguments which support them must necessarily be omitted.

The normal first sound of the heart is caused by the propulsion of blood out of the ventricles against the opposing blood in the great outlet vessels, provided that three conditions are fulfilled; namely, that the blood is of requisite consistency, that it is of requisite volume, and that it is propelled with sufficient force.

If water instead of blood circulated in the body, the normal shock-like first sound would never be heard. The mobile particles of the fluid would admit of so much friction that a murmur would be the invariable result. But in the case of sufficiently viscid blood, interference with the rapid and intimate intermixture of its previously separated portions modifies the sound. In the so-called anæmic condition of the blood, the first sound of the heart is, for this reason, very frequently found to have degenerated from the normal shock-sound into an abnormal current-sound. But, if the first sound essentially consisted in noises formed by muscular contraction or valvular tension, then in no case would the normal sound be completely absorbed or drowned by a murmur, as it so often is; unless, possibly, in certain rare instances of extremely loud murmur. I maintain that this position is incontrovertible.

The proofs that the two remaining conditions are requisite, must be briefly touched upon. As regards volume, it is well established that, in case of excessive hæmorrhage, by which the pressure in the vessels is greatly diminished, the first sound of the heart becomes changed to a murmur. In this case, diminished pressure seems to produce effects equivalent to those produced by insufficient viscosity with normal pressure; that is to say, the blood-particles intermingle so rapidly that a current or friction-sound is produced, instead of a shock-sound. The third condition—sufficient force—virtually applies to every theory of the sounds, and need not detain us.‡

* For mathematical calculations relating to the flow of liquids through tubes, etc., see Dr. Stone's instructive lectures on "The Physical Basis of Auscultation" (*Medical Examiner*, February 24th and May 4th, 1876).

† *The Forces of Nature*, by Amédée Guillemin. Translated from the French by Mrs. Norman Lockyer. London: 1872. Page 155.

‡ I omit from consideration alterations in the normal sounds caused by leakage or obstruction.

But, says Dr. Williams: "I have already shown that no sound results from the impaction of one portion of fluid against another; when no air intervenes, the whole movement is one of quiet displacement." . . . "The case is one of striking through a space at a tight barrier, but of a soft, rather sluggish fluid in close contact." It is implied, in the first of these statements, that the presence of air at the outlets of the heart would contribute to sound. But, as will be shown further on, the very contrary is the fact; for air, in these positions, would annul any sounds formed in the blood. With regard to the second rather curious statement about a soft sluggish fluid in close contact, striking through a space against a tight barrier, has Dr. Williams forgotten the force with which blood issued from the punctured aorta in his vivisection experiments? The force of the adult left ventricle was estimated by Valentin as sufficient to overcome a pressure of four pounds.

The second sound of the heart is caused by the recoil of the blood in the great vessels during diastole. It is not caused, as held by Dr. Williams and others, by mere vibration of valves; but by a sudden shutting off of the descending blood by valves, surrounded and supported by blood in the ventricles, and by the tissues of the heart itself.

In the production of the normal second sound, the consistency of the blood has no place. Hence, even in the most marked cases of anæmia, in which the first sound is replaced by a murmur, the second sound never undergoes the same change from this cause. Force and pressure in the circulation are requisites, only as affecting the loudness of the sound. No variation of these conditions causes degeneration of the second sound into a murmur. But, as obstruction in any part of the arterial system causes an increase of pressure behind the obstruction, increased loudness of the second sound—accentuation, as it is termed—is taken as an indication of a contracted condition of the minute arteries. In case of mitral valve incompetency, the second sound is changed from a shock to a current sound, on the same principle as when the first sound is changed into a murmur, because of an insufficient volume of blood, as occurs in excessive hæmorrhage.

I have introduced, in my thesis, the case of the noise made in a force-pump by the action of the moving water against the water at rest in the discharge-pipe, as an analogy for the first sound of the heart. And I was also the first to point out the close analogy between its second sound and the sound caused by turning a cock at the end of a pipe of some length, through which water is flowing from a cistern. Nothing, indeed, can be clearer than this analogy. For the pressure on the blood, in vessels sufficiently rigid for the purpose, supplies the place of the perpendicular pressure in case of the tube and cock. If a loud sound be produced in one case, owing to the contact of water with metal, a low and comparatively obscure sound might be expected to be formed under fairly similar conditions in the other. But, if it can be conclusively shown that the second sound cannot be caused by mere valvular tension, then there is no reasonable alternative but to accept the tube and cock analogy, as explaining the second sound.

Dr. Williams writes: "The case of the water-pipe and stop-cock deserves a little further consideration, because its true nature has not been fully explained; and it was supposed, even by Dr. Arnott, to bear on how the heart sounds are produced.* If a water-cistern have a stop-cock at its bottom, or connected by only a short tube, no particular sound attends the closing of the cock; but if there be a long descending pipe of several feet in length, the sudden closing of the tap by turning the cock is accompanied by a shock and noise, more marked in proportion to the length and descent of the tube. The cause is obviously as explained by Dr. Arnott—the momentum of the fluid in the long descending tube being suddenly stopped by the solid of the closed cock. This noise is another instance resulting from fluid motion resisted by a solid, and, so far, has a resemblance to the second sound of the heart; but it supplies no proof of the production of sound by a liquid alone, and is quite different from any of the processes of the circulation." The promise implied at the beginning of this paragraph has not been fulfilled. Nothing has been more fully explained. But, with regard to the objection raised, it is impossible to say what exact share the water has and what the cock in forming the sound. The noise

* Dr. Williams has here fallen into an error, which is traceable to Dr. Shapter's work, *Notes and Observations on Diseases of the Heart*. Misquotations in the same book, from his own work on the *Pathology and Diagnosis of Diseases of the Heart*, are spoken of by Dr. Williams. Dr. Shapter has, at page 12 of his book, reprinted a letter of mine from the *BRITISH MEDICAL JOURNAL* (1866), and also an extract from Dr. Arnott's book, in parallel columns. The matter discussed in both instances is the formation of sound by the sudden arrest of water flowing through a tube; and in addition, in the case of my letter, the analogy between this sound and the heart's second sound. But Dr. Shapter has added to the extract from Dr. Arnott a paragraph marked like the previous portion, with inverted commas, which is not to be found in Dr. Arnott's work. The effect is to make it appear that I had been anticipated in this explanation of the second sound. No mention of the analogy in question is anywhere made by Dr. Arnott.

is undoubtedly made louder by metallic contact; but if it be admitted that the noise is partly due to the water and partly to the cock, and the analogy be applied to the second sound of the heart, it does not shake my position as to the mechanism of the sound.

By causing a flow of liquid through the heart and aorta removed from the body, I have succeeded in closely imitating the second sound of the organ. But if great precaution be not used in excluding air, so as to prevent it from reaching the aortic valve, even in very small quantity, no sound will be produced. This is because the elasticity of the air breaks the force of contact between the fluid and the valve.* But supposing, with Dr. Williams and others, the sound to be caused by the vibration of membranes in fluid, the presence of air would tend to increase the sound instead of destroying it altogether.

Now, Dr. Williams says that he had in his garden, at Cannes, "a water-pipe exhibiting remarkably this phenomenon" of noise on turning its tap. "The noise," he says, "on stopping the tap was not single, but was followed by two or three diminishing repetitions, which I ascribe to the rebound and successive vibrations of the column of water.† This implies a slight tendency to a vacuum and momentary separation of the surfaces by gas or vapour, which could take place only in a rigid tube, and never in blood-vessels which are everywhere exposed to atmospheric pressure."

I have shown that the separation of the surfaces by gas or vapour, instead of multiplying the sound, would destroy it altogether. If the aorta were a metallic tube, the heart-sounds would undoubtedly be very loud sounds; but I deny that the elasticity of vessels or atmospheric pressure are sufficient to prevent the formation of low sounds by the heart in the bodies of animals.

A simple device, which has a direct bearing on what I have just stated, is sometimes employed by plumbers to prevent the noise made by water turned off by a tap. It is to insert one end of a small tube into the pipe, just above the cock, while the other end of the tube is connected with an air-chamber. The concussion between the water and the cock is thus prevented as effectually as it would be by the intervention of a layer of "gas or vapour" between them.

I have devised an experiment, founded on this practice, which circumstances have not allowed me to put into execution. It is this: Having rendered a large animal insensible, to fix in the aorta, close to the valve, a tube fitted at one end with a properly adapted screw-flange, and at the other with an air-chamber. If the result were (what I expect) that both sounds of the heart were extinguished, my explanation of their cause might be regarded as demonstrated.

Dr. Williams recapitulates the observations made in his vivisection experiments; but most of the conclusions drawn from them are not antagonistic to my theory. One only calls for special remark; namely, that whether the heart was empty or full, whether it was moving feebly or forcibly, some (so-called) muscular sound was always present. My explanation of this circumstance, deduced practically from my own experiments, is as follows. When a stethoscope is applied directly to a contracting heart, it is *absolutely impossible* to distinguish the sound caused by the friction of the heart's surface against the stethoscope from any allied sound. The first sound of the heart may, indeed, be closely imitated by movements of the palm of the hand applied to the bell end of a stethoscope, when the other end is applied to the ear.

Instead of attributing the various sounds of the circulation to widely different causes—such as muscular contraction, valvular vibration, and flowing blood (murmurs)—all the sounds, according to my views, are closely related. Under certain conditions, one sound changes into the other; and, therefore, all are formed essentially by the same mechanism.

It results from this, that pathology gives to my theory an amount of support which no other theory can claim. Many phenomena could be adduced in support of this statement, if my limits allowed. I will, therefore, conclude with a question, because, when put on a former occasion, it remained unanswered.

Why is it that, in anæmia, the first sound of the heart only, and the second sound never, becomes replaced by a murmur, unless it be that, according to the views stated, the blood loses in this disease one of the conditions necessary for the formation of the normal sound, namely, sufficient viscosity?

If Dr. Williams, or any one else, will explain this one point, in accordance with any muscular or valvular theory of the first sound, I shall begin to feel doubtful about the conclusions herein set forth.

* See my thesis, page 15, in which I have pointed this out as the reason why Sir D. Corrigan was unsuccessful in imitating the second sound of the heart. I beg here to say that I shall be glad to forward a copy of the thesis, on application, to any one specially interested in the subject of the heart sounds.

† I have elsewhere sought in this phenomenon for an explanation of reduplication of the second sound of the heart (*Lancet*, October 17th, 1859).

A CASE OF CARCINOMATOUS TUMOUR OCCUPYING THE RIGHT POSTERO-PARIETAL LOBULE OF THE CEREBRUM: BLINDNESS FROM DOUBLE OPTIC NEURITIS.

By JAMES RUSSELL, M.D.,

Physician to the General Hospital, Birmingham.

REFERRING to the recent observations by Dr. Ferrier on the Functions of the Cortex of the Cerebrum, it appears (*Proceedings of the Royal Society*, 1875, No. 161) that, after stimulating the postero-parietal lobule or the superior extremity of the ascending parietal convolution in monkeys, he obtained results which led him to regard this particular region as a centre for the movements of the hind leg, and apparently for those concerned in walking. Further, in two experiments, iv and v (*Philosophical Transactions*, 1875), after destruction of the postero-parietal lobule (foot-centre), the ascending parietal convolution (hand and wrist) with a portion of the ascending frontal (arm and leg centre)—the latter convolution to a different extent in the two experiments—in the one case, hemiplegia of the opposite side was produced; in the other, paralysis of the muscles governing the ankle and wrist. In the case I have to narrate, the only distinct symptoms referring to the condition of the motor function, which could be eliminated from the general depression of all the nervous functions which prevailed, were occasional dropping of the arm from brief temporary paralysis, and unquestionably a state of permanent weakness of that member, appreciable by comparison with the opposite limb. Muscular energy was generally in so low a condition that it was difficult to say to what extent the very feeble power of locomotion as regards the lower extremities was to be assigned to each of the several elements—general hebetude, awkwardness from recent loss of vision, and local muscular weakness. Brief attacks of loss of speech must also be noted, together with abnormal sensation in the lips and tongue; these attacks, together with the passing arm-paralysis, were doubtless to be referred to irritation (vascular contraction?) and not to destruction of tissue. Had the disease been of an irritative rather than of a destructive character, a syphiloma rather than a carcinoma, we should probably have to note more characteristic phenomena.

POST MORTEM EXAMINATION.—The sinuses of the upper part of the dura mater were empty, the surface of the brain was pale, the convolutions were much compressed, and the sulci were narrowed to mere lines. There was no ventricular effusion. A tumour, having the microscope characters of carcinoma (Dr. Saundby) of oval shape, two inches in its antero-posterior diameter, was buried in the superficial part of the right cerebral hemisphere, occupying nearly exactly the site of the postero-parietal lobule. It was clear of the ascending parietal convolution in front; and behind, it did not quite touch the external parieto-occipital fissure; below, it extended just short of the intraparietal fissure; and, on the inner face of the hemisphere, reached downwards in the quadrilateral lobe for half an inch. It extended into the cerebral substance for the depth of one inch. On its surface, it presented some traces of the convolutions it had supplanted; below, and especially towards the ventricle, the whole substance of the hemisphere was extensively softened, shreddy, and of a yellow colour. The opposite hemisphere was quite healthy throughout, and so were the pons Varolii and medulla oblongata. The cord was typically healthy till we reached the lower three inches of the dorsal region, where it was very soft, though white and without any vascularity or intermixture with blood-material; nor could Dr. Saundby or myself detect any foreign matter in its composition. As this part of the nervous centres was not examined till four days after death, we should unhesitatingly have referred the softening to *post mortem* changes, but for the contrast afforded by the other portions of the cord. The lumbar enlargement was quite healthy. All the other organs of the body were quite healthy. The cerebral tumour was primary.

The patient was forty-nine years of age, and was kindly sent to me, as an in-patient of the Birmingham General Hospital, by Mr. Eales, Surgeon to the Eye Hospital, on September 28th. He was then almost completely blind, and exhibited the typical characters of double optic neuritis, as indeed had been previously determined by Mr. Eales. His symptoms dated entirely from June of the present year. First, his left hand dropped for a short time, and the dropping recurred several times, but loss of power was always regained in an hour's time or less. He had also had brief attacks of loss of speech, and had felt numbness in his lips and tongue; but asserted very clearly, in reply to questions, that the peculiar sensation affected *both sides* of the mouth and tongue. He had had numbness in the tips of his fingers and the left hand. It was found quite impracticable to ascertain how often these attacks had occurred, or what was the relation of the different attacks to each other;

all he could be got to say was that "they were pretty much together". None of them occurred under our observation, though he had two or three slight paroxysms of general rigidity whilst residing in the hospital. He was sure that the right hand never dropped. Frontal headache had been present throughout, often so severely that "he did not know where he was". He had never vomited. Vision began to fail in July; lately (an indeterminate period), he had been quite blind, hardly distinguishing light from darkness. He spoke of having passed a large amount of urine at one period of his illness; in the hospital, the urine was chiefly passed in bed; specimens examined were found free from albumen, sugar, and phosphates. He was much emaciated, but had been living badly. He was in a state of perfect hebétude. It appeared a matter of great difficulty to him to exert his intellectual functions; though, when he replied, which was only after an interval from the question, the reply was quite pertinent and probably correct. He kept his bed entirely, noticing nothing, often being found with his hand to his forehead. The left upper extremity was manifestly more feeble than the right, though he retained the power of grasping. When placed erect, he could only creep along for a few paces, but he was quite able to stand. Sensation was perfect, so were hearing, and probably taste; some doubt existed as to smell. He became more and more dull, and finally imbecile; rambled at times; passed everything under him. He died on October 25th, sinking rapidly after a rather severe fit of general convulsions, no fresh symptom having presented itself.

ABSTRACT OF LECTURES ON ELECTROTHERAPEUTICS.

Delivered at the Westminster Hospital.

By THOMAS BUZZARD, M.D., F.R.C.P.,
Physician to the National Hospital for Epilepsy and Paralysis.

[DR. BUZZARD has recently delivered a short but very interesting course of lectures on the above subject, at the Westminster Hospital, at the request of the staff. It was much appreciated, and we have pleasure in giving an abstract of the main points that were illustrated.]

He commenced by showing, as an elementary fact, and by effects upon the compass needle, that single plates of metal in diluted acid gave rise to a current; and explained that this simple form was not very available, because of the hydrogen, which soon coated the copper-plate; hence the arrangement of cells, like those of Bunsen and Leclanché, was adopted, in order to secure a more constant current.

Certain terms and formulæ were then defined. *Intensity* was taken as practically synonymous with the *quantity* of electricity, and it equalled the electro-motive force (E), divided by the battery resistance (R), and the body resistance (r). The former being practically nil, the accepted formula to express the intensity was $I = \frac{E}{r}$ (Ohm). Now, intensity was increased in proportion to the *number* of elements. Thus, if six pairs were used, it would be $I = \frac{6E}{r}$; but increase in the *size* of the elements added nothing to the intensity. The resistance of the body, on the other hand, much diminished the intensity at every point; by a sort of backward pressure, it prevented the current from being freely given off, even at its source.

The term *tension* expressed a *quality* of electricity, a kind of expansive force, which varied in degree in different parts of the currents. The explosion of thunder illustrated the result of tension. Faraday calculated that the chemical action of one grain of water on four grains of zinc would represent as much electricity as, in a state of very high tension, would make a thunderstorm.

"*Voltaism*", not "*Galvanism*", was the proper term for the constant current, as "*Faradism*" was applied to the induced.

The making of a coil was then illustrated; and the fact that a current passed through the thick primary wire generated a secondary current in the outer thin wire, at the moment of joining and breaking contact, was very clearly demonstrated by the galvanometer. This secondary current was the "*induced current*" of electro-therapeutics.

Stohrer's batteries and Dr. Tibbits's combined battery were then shown, and the characters of induced and continuous currents contrasted. The continuous current: 1. Produced continuous chemical action, as shown by decomposition of water, hydrogen being given off at the cathode or negative electrode, oxygen at the anode or positive. 2. It had considerable diffusibility when applied to the body, so that, e.g., a flash would sometimes be produced in the retina during applications to the legs. 3. It produced a sensation of warmth, and in palsied limbs really increased the temperature. 4. It became increasingly felt

with the continuance of the application, owing to some delay in penetrating the skin. 5. It relieved muscular fatigue (Dr. Poore).

The induced current, on the other hand: 1. Gave rise to no perceptible chemical action, but to marked muscular contraction. 2. It diffused itself but little; passed in the most direct manner between any two points of the body to which it was applied. 3. It did not produce warmth, so much as numbed and jarring sensations. 4. It was felt in its full force at first application, as it readily penetrated the skin.

It was noted that the power of the induced current depended less upon the absolute amount of its tension, than it did upon the modification of such tension from one moment to another.

The *modus operandi* of the constant current was still obscure; it was supposed to modify, in some way, the natural electricity of the body. At present, we could only speak empirically of some of the effects. The ordinary nerve-irritability is modified by the constant current, so that it is markedly *increased* at the *cathode* (negative pole), and *lessened* at the *anode*. The former is felt to cause more burning and smarting. This was illustrated upon the arm of a student, the anode being placed over the olecranon and the cathode over the median nerve. At the latter, marked burning was felt, and strong contraction took place on closing the circuit. The poles being then reversed, only moderate pain was felt, and no contraction occurred on closing the circuit, but a slight contraction on opening it. Irritability may be increased in the early stage of rheumatic affections, of hemiplegia, etc., or it may be diminished or lost in later stages, or as in facial palsy. Malingerers believe that no paralysed muscles ought to contract with any current, and do their best to control such contraction.

As to choice of currents, in palsy cases, it is well to use the one with which the muscles best contract—if with the induced current, to use that only. Two illustrative cases were shown—one of hemiplegia and one of ordinary facial palsy. The former was of ten months' duration, connected probably with cerebral embolism, and the patient had very little power over the left limbs, and considerable palsy of the left side of the face; yet the reaction of the muscles to the induced current was as good as that of the sound limb. In the second case, the same current produced no effect at all upon the right (the affected) side of the face, whilst the sound side reacted perfectly. The Voltaic current, however, from only four cells, when slowly interrupted, acted decidedly upon the right facial muscles.

It is evident from these examples that, if a lesion occur in a higher (cerebral) centre, there is impairment of voluntary power over muscles supplied from that centre, but electro-contraction remains. But, if a lesion, whether from injury or cold, etc., occur in the trunk of a nerve, contractility to both currents is much diminished or lost; only the muscles themselves sometimes retain contractile power, when stimulated by the constant current slowly interrupted. Such muscles tend to pass into fatty degeneration, or to assume the condition of unstriated tissue, and their special reaction is known as "*degenerative reaction*".

Slow interruptions of a constant current are liable to induce severe and continued spasm, as has happened to the urethral muscles, when a sound had been passed into the bladder for Voltaic applications.

Other cases illustrative of treatment were then shown or described.

In a case of wrist-drop from lead, the extensor communis gave no response to induced current, whilst the supinators preserved their irritability; the former, however, contracted with the constant current slowly interrupted. A patient found himself unable to write properly. When the reaction was tested, there was no contraction in the muscles supplied by the ulnar nerve; but the constant current slowly interrupted caused contraction. On inquiry, the man had written for several hours in a very tight coat, which had pressed on the ulnar nerve. He recovered under treatment with the constant current. In another, the muscles of the thumb would not contract to either current; and, on inquiry, lead was found in the drinking-water. In another, with difficulty of writing and spasm of the hand, the irritability of the median nerve was found to be heightened; a clear history of gout was obtained, and the patient recovered under alkalies and iodide of potassium.

A case of protopathic muscular atrophy was shown; and the condition of electro-contraction was contrasted with that of a patient with muscular atrophy secondary to lateral sclerosis, as well as with that occurring in lead-paralysis.

Dr. Buzzard was unable to speak strongly of the benefit to be expected from the application of the constant current to the brain; he thought there was more evidence of its benefit when applied to the spinal cord. In *neuralgia*, on the other hand, it was frequently enough of such signal service that its use should not be omitted; but his experience had not taught him what were the special indications for its employment. It was, perhaps, most beneficial in sciatica.

In *infantile paralysis*, where contraction to interrupted voltaism was preserved, there was considerable advantage from using this form of

electrisation; but none was to be expected from electricity when there was no response to either current.

In the way of *general suggestions*, he advised the employment of mild currents, tested first upon the operator, well wetted rheophores, short sittings, a comfortable temperature, and perseverance in applications when the muscles were evidently, although slowly, gaining volume. Fatigue should be avoided, and an endeavour should never be made to impress the patient by the strength of the current. Results should be distrusted, as there were many sources of fallacy.

A SPECIFIC FOR PTYALISM.*

By JUKES STYRAP, L.K.Q.C.P., etc.,

Physician Extraordinary to the Salop Infirmary.

I.

I HAVE ever, as you are aware, been averse to the reading of elaborate scientific papers at these our annual reunions, believing as I do that a majority of the members, escaped for a brief period from the harassing daily anxieties incident to professional life, would rather look upon such meetings in a social than a scientific point of view, and prefer availing themselves of the opportunity for friendly communion, the renewal of old acquaintance, and a cheery recital of the varied reminiscences of bygone days. Nevertheless, I cannot but think that, if each thoughtful practitioner (especially our rural brethren, who are thrown so much more upon their own individual resources than are practitioners in populous towns) were to jot down, as briefly as may be, any successful deviation from the ordinary treatment of disease which may occur in his practice, and favour us with the result at the annual meetings, we should ere long be furnished with a mass of valuable practical hints, which, at present, are simply stored up in the brain of the busy practitioner, and, on his decease, too often lost to suffering humanity.

In the hope of inducing others to follow in the suggested path of observation and record, I have jotted down a few stray notes, to which I venture to solicit your kind but non-critical attention.

It may be that several practitioners are present, who, in the discharge of their professional duties having deemed it essential to prescribe what was familiarly known in my younger days as "a course of mercury", are, like myself, unable satisfactorily to account for the prevailing unreasonable dread of it. The feeling, indeed, is not confined to the public, but members of our profession have not only written against it, but would altogether erase it from the *British Pharmacopæia*. The various evil results which followed its excessive and indiscriminate administration in bygone times, and an over-estimation of its curative powers, have doubtless tended to the existing dread and scepticism of its use. Utilised, however, as it is in the present day, mercury, in my opinion, deserves no such proscription; indeed, I unhesitatingly venture to affirm that, for various inflammatory diseases, and especially for the removal of certain well-known forms of syphilitic infection, it is the best and only efficient remedy.

If, however, from constitutional diathesis or other cause, ptyalism be unfortunately the result of its administration, it may be effectually controlled by the remedy which the test of experience during a period of twenty-five years and more, I believe I am fully justified in designating a "specific" for mercurialism. [A brief allusion was then made to iodide of potassium having long been reputed to act as a resolvent and eliminator of mercury from the system by their assumed combination, in the form of an insoluble iodide of mercury, or in the state of a soluble double iodide of mercury and potassium.]

I need not trouble you with a recital of the circumstances that first drew my attention to, or the process of reasoning by which I arrived at the conclusion that much benefit would probably arise in cases of mercurial ptyalism from the administration of the assumed "specific"; suffice it to say that in a very annoying case some twenty-six years ago, after vainly trying all the well-known remedies, I decided on giving sulphur,† it having occurred to my mind that "Plummer's pill" (then so called, and oft prescribed), containing one grain in five of calomel, was seldom known to produce salivation; which fact I also remembered to have heard an old medical teacher attribute to the sulphur in the sulphurated antimony, then known as the oxy-sulphuret. Success, however, did not crown my efforts until, by careful observation, I learnt the proper mode of administering it, which is in *small and repeated*

doses, *special care being taken to diminish the quantity if relaxation of the bowels supervene*; for its peculiar action in controlling ptyalism depends upon its being retained in the system, and not allowed to pass off by the bowels—which, if necessary, should be prevented by the addition of a few minims of liquor morphiae or tinctura opii. The bowels should not be moved more than once or twice in twenty-four hours. If persevered in regularly every three or four hours, the secretion of saliva and soreness of the gums become very sensibly diminished in the course of thirty-six hours or less; and I have invariably found that its antidotal action is ushered in (or "out", correctly speaking) by the exit of a most offensive gas *per anum*—a fact which you may readily ascertain by inquiring whether, when the bowels have been moved, the evacuations are particularly offensive. The reply I have commonly received has been, "Very".

I do not attempt to explain its *modus operandi*—whether by chemical combination or otherwise. All I can say is that, in the several instances in which I have prescribed it (once in the case of an old military officer aged 70, and formerly an M.D. of Cambridge, who, relying on his whilom medical education, prescribed for and salivated himself), the controlling action was indisputable.

I have generally found that patients suffering from salivation are loth to admit, even when very evident to the medical attendant, that the flow of saliva or soreness of the gums has abated; indeed, they never appear to recognise the relative degrees of soreness, etc., until their attention is pointedly called to the fact, that they speak with greater facility; and then, on inquiry, I have usually found that a successful attempt has been made to swallow a little "soaked" bread, and that fewer handkerchiefs are required for the reception of the saliva. In soliciting your attention to the form in which I have been accustomed to prescribe it—

R Sulphur. præcip. ℞ij ad ℞iv; potassæ chlorat. ℞ij ad ℞j; liq. morphiae ℞j ad ℞iss; mist. amygdalæ ℞viii. Misce bene et fiat mist., cujus sumantur cochlearia magna ij quâqua tertiâ vel quartâ horâ, phialâ agitâ, —

I venture to express my belief that the antidotal action of the sulphur is entirely independent of, though possibly assisted by, the other remedies. With regard to the potass, I at first prescribed the nitrate; subsequently the bicarbonate, and lastly the chlorate, which, being a neutral salt, does not produce the painful smarting of the gums which the two former preparations do. The mistura amygdalæ, in addition to somewhat disguising the nature of the remedy, offers a bland vehicle for its administration.

With the sincere wish that the assumed "specific", should the necessity for its use arise, may prove equally efficacious in your hands as it certainly has been in my own, and that suffering humanity may thus be relieved from one of the distressing effects of a remedy so essential to the treatment of many of "the ills which flesh is heir to" as mercury, I pass on to the consideration of "a cold and its cure".

NOTES OF CASES OF GONORRHOEA AND PYÆMIA.

By M. CHARTERIS, M.D.,

Physician and Lecturer on Clinical Medicine in the Glasgow Royal Infirmary, and Lecturer on Practice of Medicine in Anderson's University.

THE following account of cases of gonorrhoea, followed by pyæmia, is intended to supplement the interesting discussion in the Clinical Society of London on the same subject, and, as will be observed, materially strengthens the views advanced by Mr. Prescott Hewett and others.

CASE I.—A young lad, aged 17, was admitted into the surgical ward of the Royal Infirmary, on the 20th October, 1875, suffering from gonorrhoea and retention of urine. A catheter was passed by Dr. H. C. Cameron, and the patient remained in the ward for sixteen days, and had the catheter introduced on one or two occasions. There were no cases of pyæmia in the wards; and the patient's health was good, with the exception of a slight gonorrhoeal discharge, until November 4th, when he was attacked with a violent shivering, followed by increase of temperature, and pain, as he expressed it, "in all his bones". In this state he was transferred to my wards, and on the following morning his condition was as follows. The patient's body was covered with a profuse sour acrid perspiration; his appetite was lost; thirst intense; tongue moist and coated; and his whole expression betokening great restlessness. His temperature was 100 deg. Locally, pain was experienced in, and redness and swelling observed on, the right ankle and knee. There was also pain in the left shoulder, but no redness or swelling. The gonorrhoeal discharge was slight. Although only seventeen years of age, the patient had already had two attacks of gonorrhoea,

* Abstract of a paper read before the late Shropshire Ethical Branch.

† The late Dr. J. Hughes Bennett of Edinburgh kindly undertook a few years ago to investigate the assumed "specific" action of sulphur in mercurialism, when ill health unfortunately intervened, and death put an end to his investigation.

his first being contracted at the age of fourteen and lasting for many months.

November 7th. The pain in the left shoulder was more intense, and increased on pressure. The ankle and knee of the right side were more swollen; but the pain was not so severe as in the shoulder. Perspiration was increasing; temperature 102 deg.; pulse 120; tongue white and furred.

November 8th. His condition was much the same, with the exception of the fact that the gonorrhoeal discharge had entirely ceased.

November 9th. The pain in the left shoulder was greatly increased; even the weight of the bedclothes could not be borne. Pulse 115, full and bounding; cheeks flushed; slight headache; temperature 102.6 deg. The patient had now been three days under my observation, and the case had been considered simply as one of acute rheumatism, occurring in a patient who had gonorrhoea. Other symptoms, however, had attracted attention. The pupils were widely dilated. There was a sweet hay-like odour of the breath, and the sweating was much more profuse than in any case of rheumatic fever I had ever observed. The pain also was more intense in the left shoulder, and there were obscure signs of fluctuation. The opinion was now expressed that we had to do with pyæmia, if by that term was meant, as Mr. Spencer Wells says, "a disease which is known by recurrent chills, by high temperature, by profuse sweating, followed by deposits of pus in some joint, or in cellular tissue, or some organ".

November 10th. The left shoulder was now greatly swollen; the pain was excruciating; and fluctuation was more evident. Pain of a sharp character was felt at the base of the right lung, where also friction was detected by the stethoscope. In the evening, after intense headache, delirium set in; which was, however, not continuous. At times, questions were answered correctly, and the general expression was tranquil. Temperature 104 deg.

November 11th. Delirium was now violent. The patient could with difficulty be retained in bed. Temperature 105 deg. The large soft fluctuating swelling of the left shoulder was very evident. On the afternoon of the same day, a comatose state succeeded the acute delirium. Pulse 140, small and weak; tongue brown; pupils widely dilated. The sweet odour of the breath was very marked. Urine was passed involuntarily. In the evening of the same day, six days after admission, the patient died.

POST MORTEM EXAMINATION.—The most prominent local symptom was connected with the left shoulder and clavicle. On opening the swelling which was marked during life with such intense pain, a quantity of greyish yellow pus escaped, and the periosteum was found to be separated along the whole length of the clavicle, except at its extreme ends. The pus at one point had opened a way through the periosteal membrane, and had effused itself into the cellular tissue of the neck. The joints at each end of the clavicle were not opened into, and were healthy. The right shoulder-joint contained some similar grey pus, the interior of the joint being otherwise healthy in appearance. On the lower part of the right pleura there was intense congestion, with a thin layer of soft recent lymph, glueing the layers of pleura together. The heart, lungs, kidney, spleen, and stomach presented no abnormal appearance. The brain was oedematous on the surface, and its tissue was moist. The bladder was contracted. There was no stricture of the urethra. The interior of the anterior part of the urethra was congested, with a small longitudinal thickened red patch, a quarter of an inch long, on the floor of the urethra, three inches from the anterior orifice. The prostate gland was quite normal.

CASE II.—Three years ago, I was asked to see a gentleman, aged 30, living in a healthy village five miles from Glasgow. He had had a gonorrhoeal discharge for two years, which at times stopped, but, on his taking even the smallest quantity of stimulants in any form, it at once returned. With the exception of the discharge and the annoyance connected with it, he enjoyed the most perfect health. Anxious, however, to get rid of it entirely, he resolved to abandon all stimulants, and had done so for two months previous to my seeing him. I found him in a low nervous state, much thinner than when I had seen him last, and presenting on his left forearm a well marked attack of erysipelas. An abscess followed this, which was opened. Two days afterwards, he complained of a severe excruciating pain in the left hip-joint, which he compared to its being slowly opened with "a red-hot wire". The pain continued upwards of a fortnight, when obscure fluctuation was evident; and this, at the end of another week, was so marked that there could be no doubt of a large abscess having been formed.

Dr. Patterson, one of the surgeons of the Royal Infirmary, now saw the case with me. The fever, the emaciation, the profuse night-sweats, and high temperature, left little doubt on our minds that he was suffering from pyæmia. The abscess was opened antiseptically, and fully two pints of thin grey pus evacuated. Subsequently to this, there was

great pain in the region of the liver, of a throbbing nature, and increased on pressure. It was evident that this organ was now the seat of a pyæmic abscess. The patient was now greatly emaciated. He gradually sank. He never was delirious. About the last two days of his life, he saw nothing, being unable to distinguish light from darkness. His breath had the same hay-like odour as in the former case, and the pupils were widely dilated.

REMARKS.—Without entering into any controversy as to how gonorrhoea can originate pyæmia, it seems clear that it is able to do so; and the records of these two cases, and others mentioned at the Clinical Society, indicate that, in some mysterious way, the poison operates first on the joints and subsequently on the internal organs. In the first case, the virulence of the attack exhausted the patient, while the disease was confined to its primary seat. In the second case, the patient had a very vigorous constitution, and the attack was of a more chronic kind. From the joints, the internal organs had been implicated; and, if a *post mortem* examination had been granted, abscesses would doubtless have been found in the lungs, and certainly in the liver.

CLINICAL MEMORANDA.

SMALL-POX.

I READ with interest the remarks of Dr. Robert Bell of Glasgow on the above subject, in the JOURNAL of November 25th. During the recent epidemic of small-pox in Manchester, I had considerable opportunities of watching the good effects of a similar treatment in allaying the irritation of the skin, in modifying the feverish state, and, most markedly, in the prevention of pitting. Instead of carbolic acid and glycerine, I used carbolic acid and olive-oil in the proportions of one to eight respectively, which is certainly exceedingly efficacious and possesses the advantage of cheapness. I may mention that I never noticed any ill-effects arising from its use.

A. EMRYS JONES, M.B. Ed., Manchester.

RE VaccINATION.

UNDER the head of "Revaccination", in the JOURNAL of November 25th, it is stated that, if vaccination have been performed at or after puberty, it is not necessary to repeat it. I may, perhaps, be permitted to record a personal experience which seems to favour the idea that, under some circumstances and in some constitutions, the aptitude to receive the vaccine virus, and for the vesicle to go through all its stages, is again manifested.

As an infant, I believe I was vaccinated. In 1840, at twelve or thirteen, I was successfully revaccinated. In 1855 or 1856, during the prevalence of small-pox in India, I was again revaccinated, and the disease ran its course normally. In 1870, as an experiment, I again vaccinated myself, and the vesicle and accompanying redness and feverishness were quite normal. The mark left was small, but characteristic. This would imply that vaccination wears itself out after each fifteen years, even up to a late period of life.

T. M. LOWNDS, M.D., Egham.

SIMULTANEOUS DISLOCATION OF BOTH HUMERI.

J. T., AGED 59, on November 20th, whilst walking from one part of the works where he was employed towards another, stepped into a trap which had been left open, by which the stoke-hole communicates with the surface, and fell a distance of six feet. He was seen by me about two hours afterwards, when he complained of much pain and stiffness in the right shoulder. On examining and comparing the two, it was found that both humeri were dislocated; the head of the right bone lying to the inner side and somewhat beneath the coracoid process, and that of the left a little more internal, so as to be fairly subclavicular. The patient was tall, thin, and bony; and the eversion of the elbows from the sides, the marked projection of the acromion processes, the deep depressions beneath, the increased depth of the supraclavicular hollows, and the prominences formed by the heads of the bones beneath the pectorales muscles, formed such a vivid picture that it seemed unfortunate that the darkness prevented any attempt at a photograph.

The dislocations were easily and speedily reduced by simple extension with the heel in the axilla. The mechanism of the injury is sufficiently simple; the trap through which he fell was about two feet in diameter, and the sudden impact of the weight of the body on the outstretched arms readily accounts for the simultaneous dislocation.

WILLIAM THOMAS, F.R.C.S., Birmingham.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.

HOSPITAL NOTES.

ST. BARTHOLOMEW'S HOSPITAL.

Enteric Fever.—Dr. ANDREW advocates treatment by rest and diet only, giving beef-tea and milk, no bread. A little hydrochloric acid may be given to aid digestion; for the main point is to preserve the power of taking nourishment. Spongings may be used, and, exceptionally, baths; opium for purging. One case was suffering with secondary pneumonia; but the same principles were applicable to its treatment: no special medicines.

Gastric Ulcer: Ziemssen's Treatment.—Several cases of gastric ulcer are at present under treatment, according to the mode recommended by Professor Ziemssen, of which Dr. Andrew has had very favourable experience. In his lecture on the subject (in the last published volume of the new Sydenham Society), the German professor points out that the indications for treatment are—1. To neutralise acidity; 2. To prevent for a time acid fermentation; 3. To provide for regular daily emptying of the stomach. And these indications are all fulfilled by Carlsbad water, or rather by the following ingredients of it:—sulphate of soda (Glauber's salts), carbonate of soda, and chloride of sodium. Carlsbad water has long had a reputation in gastric complaints; but Ziemssen rather prefers the artificial salt, which is somewhat more purgative, and he orders from two to four drachms to be dissolved in a pint of boiling water; a quarter of a pint, when cooled, to be taken every ten minutes. This is given early in the morning on an empty stomach. Dr. Andrew generally ordered one drachm of Carlsbad salt as above, and often no other medicinal treatment. In a case where contraction had taken place at the pylorus, and dilatation of the stomach had occurred, he had used injections containing salicylate of soda, but had no special benefit to record from it. Washing out of the stomach with water seemed equally effective. Dr. Tosswill's syphon-tube had been used; but, unless the diet were absolutely restricted to liquid, this instrument was not available; for any portions of solid choked up the aperture at the stomach end. The ordinary stomach-pump, with reversed action, gave better results.

Control of Night-Sweats.—Zinc sulphate was found more efficacious than the oxide commonly used. A pill was given containing one grain and a half, with three of extract of conium (the form adopted at the Victoria Park Hospital).

Diphtheria.—In a case of this malady, it was observed that, as the membrane formed on the tonsils, the urine became albuminous. It has been said that the albuminuria is connected with obstructed respiration, but, in the present case, there was no such obstruction. The ordinary treatment was adopted; viz., internally, perchloride of iron, and, locally, solutions of carbolic acid. The child was going on well.

Diabetes.—Watercress is often considered an useful addition to a diabetic dietary; but, in a patient in the wards, it had produced severe diarrhoea. Dr. Andrew remarked that, as digestive power was much impaired in this malady, unpleasant results often followed the attempt to give certain foods, or even much food of any kind. Bouchardat had recorded that several confirmed diabetics of his acquaintance had got rid of their malady during the siege of Paris, when they were half-starved. It is just possible that there may be several kinds of diabetes, but a difference in kind is not proved by some cases being curable. The prognosis of diabetes is always better in later life than it is in youth.

Scleroderma.—There is an interesting case now under observation, being the second within a short period. The patient is a woman, aged 60, who noticed, about four years ago, that the tops of her feet became hard and stiff, and then the hands were affected, and, later, the face. There was no definite cause; but she had had rheumatic fever shortly before, and suffered from exposure and from mental trouble. Latterly, she had got thinner and weaker. Now the dorsum of the feet and the ankles, the backs of the hands and of the forearms, and both temples, are symmetrically affected; they are quite hard and leathery, and the skin is tense. She has the "main en griffe", and the fingers cannot be straightened. Sensation in the parts is impaired; but

there is no morphea; their colour is yellowish, but, when cold, they become dark purple. The neighbourhood of the mouth is becoming affected, and the tongue is very dry and caked. Cod-liver oil is used as a constant local application.

Hydatid (?) Cysts: Rupture.—A woman, aged 49, childless, had noticed herself getting stout in the body for about six months. Ten weeks ago, after a violent cough, she observed a lump on her right side. On admission, this was roundish, elastic, as large as an orange, just above the level of, and to the right of, the umbilicus. A second somewhat similar growth was to be felt below that level and to the left. She suffered from nausea; the secretion of urine was scanty and the feet swollen. The left pupil was noted to be smaller than the right, and pressure on the abdominal sympathetic was suggested as an explanation. Dr. Greenhalgh was satisfied that the tumours were not ovarian. On the 12th instant, after a violent attack of pain and vomiting, the tumour on the right side was found to have become indistinct, some peritonitis set in, and there was evidence of fluid in the peritoneum. The patient is still suffering from peritonitis, but is going on favourably. We trust that this very interesting case will be published *in extenso*.

BROMPTON HOSPITAL FOR CONSUMPTION.

At the special courses of lectures which are occasionally given by the staff of this institution, everything is exceedingly well arranged. The large board-room is placed at the service of the lecturers, diagrams and morbid specimens are made free use of, and selected cases are presented for examination. On Monday, we had the pleasure of hearing Dr. Douglas Powell. He referred first to three cases of phthisis, previously seen, and treated with salicylate of soda, in scruple doses every six hours. The temperature had been reduced markedly in all three cases. In the first, it had risen again when the dose was reduced to fifteen grains; in a second, where extensive cavities existed, head-symptoms and marked depression came on, so that the medicine was omitted; in a third, the temperature had continued lower for many days after omission of the remedy. The cases would be further reported. Dr. Powell then continued his lecture concerning cavities in the lungs, and their contraction. Laennec taught that phthisis was only curable by a progress towards its third stage, when softened tubercle might be got rid of as elimination occurs through glands; but the actual results were not so favourable as he thought. The lining and limiting membrane, formed within cavities, was described and demonstrated: it was formed probably from the connective tissue, was smooth within, closely united to lung-substance externally, and served to shut off the softening part; it was sometimes found also round caseous masses. The results of contraction of cavity were demonstrated upon a convalescent patient—a man aged 24, an engineer, of healthy parentage. About two years ago, he began to have hectic, cough, and hæmoptysis, mucoid expectoration, and pain in his right side. Nine months ago, the ordinary signs of a cavity were found at the right apex; latterly, he had gradually improved in health. Over the right lung there is dulness on percussion, and impaired breath. The measurement of that side is less than that of its fellow, and the respiration is less. The heart is drawn up, and to the right. The scapula approaches the spine. The right lung is in a state of fibrosis, and its margin is withdrawn or everted by contraction, thus uncovering the heart and the liver, and allowing the intestines to rise higher than normal. The left lung, on the other hand, is hypertrophied, its resonance extends over the median line, and its respiratory movement is exaggerated; it is not amply dilated, or there would be much more dyspnoea. Evidence was given of the curious circumstance that old apex cavities tend to change their place; and the interesting lecture was concluded by the examination of several other cases.

In the wards, we saw, with Dr. C. T. Williams, a severe case of lymphadenoma in a young woman. She had rheumatic fever two and a half years ago; and, some months ago, lumps were noticed near the right elbow, then all the cervical glands became affected, and now there are enlarged glands also in the left arm, and several joints contain fluid. There are patches of dulness, with crepitus, at the bases of the lungs. The case seems to be approaching a fatal end with vomiting and purging, and it is presumed that the abdominal glands are becoming affected. On examination of blood, the white corpuscles have not been found in excess, five or six only being seen in the field. Phosphorus was tried for a few weeks.

We observed no water-beds in use in certain severe cases, and were informed that the down-pillows on spring mattresses are found much better.

In the pathological museum, which is now being formed at this hospital, there are some remarkable examples of aneurisms of the pulmonary artery. This museum is likely to become a very good one.

INGHAM INFIRMARY, SOUTH SHIELDS.

COMPOUND COMMUNED FRACTURE OF THE LOWER END OF THE HUMERUS, EXTENDING INTO THE ELBOW-JOINT: RAPID RECOVERY.

(By SAMUEL WILSON, House Surgeon.)

T. G., a labourer, whilst engaged in lowering timber into a quarry, was thrown, on June 26th, over the edge by a blow on the leg from the end of a falling plank. He was precipitated a distance of fifteen feet, alighting on his left elbow. On examining that joint about half an hour after the accident, a clean incised wound, an inch long, was found situated on the posterior surface of the arm, about half an inch above the olecranon fossa and running transversely to the axis of the limb. The condyles of the humerus were both separated and freely movable; indeed, the lower end of that bone was broken into several small fragments, so that the joint itself felt very like a bag of bones. On exploration with the finger, a portion was found lying just within the wound, and, by enlarging the external opening to an inch and a half in length, it was caught and removed by means of a pair of strong dissection-forceps. It proved to be from the posterior surface of the shaft of the humerus, immediately above the olecranon fossa, the upper margin of which, doubtless, it had assisted in forming. It was an inch and a quarter long by one inch broad, and it had a thickness of about four lines. The finger could now be passed within the joint; but it was not deemed advisable to attempt the removal of any other fragments. There was apparently no escape of synovia, and great care was taken to express from the wound as much of the effused blood as possible. The external opening was then closed by means of a pad of lint, soaked in carbolised oil, and angular splints were applied to the internal and external surfaces of the arm. Besides the injury to the elbow, the patient had sustained a severe contusion of the left knee, and a slight scalp-wound on the forehead. The constitution, however, did not appear to have suffered materially, his pulse being 80, full, and his temperature normal. The scalp-wound was drawn together with plaister, and an opium-pill administered.

On the 27th, the arm was quite easy; but the left knee-joint was distended with synovia, giving rise to intense pain. Hot fomentations were ordered, and in twenty-four hours the swelling and pain had greatly subsided.

On the 29th, the arm was still free from pain, and the knee much better; the temperature and pulse were also normal. At 10 P.M., however, he sent the nurse to say that he had not passed urine for twenty-four hours, and was unable to do so. On examination, he was found to be suffering from spasmodic stricture; and, his bladder being greatly distended, a large catheter was introduced and two pints of urine withdrawn, after which he slept well.

On the 30th, the catheter was again passed, as the stricture continued; the temperature and pulse were normal, and the arm easy.

On July 1st, the patient passed urine himself in a good stream, and declared he had never had any difficulty in passing it before the accident. The arm was easy, the temperature and pulse normal, and the tongue clean.

On July 5th, the bandage was removed from the arm, and the joint carefully examined. The lint was found hardened with effused blood, and closely adherent to the wound; the joint was discoloured, and slightly distended with fluid. As there was no pain on pressure, or constitutional disturbance, the limb was left untouched and the bandage reapplied.

On July 9th, the splints and dressing were removed, when the wound was found nearly closed. After washing the limb, the wound was dressed with ointment, the splints again applied, and the patient told to get up and move about.

On July 22nd, the splints were finally removed, when the external wound was seen to be quite healed and the fracture united. The arm could be flexed, reducing the angle at the bend of the elbow to 80 deg. and easily extended to an angle of 135 deg. Pronation of the fore-arm was little interfered with, but supination was impossible. He was ordered to leave hospital on July 26th, with a useful limb and little or no deformity.

REMARKS.—The points of interest in connection with this case seem to be: 1. The almost total absence of constitutional disturbance, the pulse never having been over 84, nor the temperature over 99.4 deg., which it occasionally was in the evening—invariably, however, returning to normal in the morning; 2. The occurrence of the spasmodic stricture; 3. The fact that the first dressing was not removed until the fourteenth day; 4. The complete recovery in a month.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 28TH, 1876.

Sir JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

CASE OF COMPLETE ABSENCE OF BOTH THE UPPER LIMBS AND OF FAULTY DEVELOPMENT OF THE RIGHT LOWER LIMB.

BY JOHN WHITAKER HULKE, F.R.S.

THE child described in this paper, Mary B., was four years and a half old, and, excepting its deformity, viz., absence of both upper limbs, and faulty development of the right lower limb, was a well-grown, healthy, pretty, and intelligent blonde, the youngest of four children, none of whom, except herself, had any bodily peculiarity, and her father and mother were both well-formed and healthy. The clavicles and scapulæ appeared well-formed, and the muscles attached to them acted vigorously. There was no external mark, except a minute congenital scar and a little dimple below the outer end of the right collar-bone. When she was placed upright on her left foot, the right foot did not reach the ground by several inches, but the thigh was plump and the leg well-shaped, though smaller than the left. The foot had slight talipes equino-varus; the femur was short and misshapen, but its mobility upon the pelvis was great in abduction and circumduction; the knee-joint was loosely knit, the axis of the tibia rotating upon the lower end of the femur, both in its flexion and its extension. The left lower limb was perfect, and dexterously performed offices usually devolving on the hands. She readily grasped and held even small objects with the foot; could pick up a comb, arrange her hair, feed herself with a spoon, and even use a needle with it. The author thought that, passing by the vexed question of the influence of maternal emotion, the case supported the theory of absence, arrest, or misdirection of development rather than amputation of already formed limbs by constriction; the small scars and appendages which were often present being the only evidence in favour of the latter hypothesis. The total absence of scar in this case from the child's left shoulder excluded absolutely the notion of amputation; and the scar and dimple on the right shoulder implied that here a limb-bud had begun to grow out, but was blighted in its inception. The defects in the right lower limb signified a still later disturbance of development; and the talipes equino-varus might be regarded as an exaggerated continuance of the normal condition of the foot at birth, which has the sole turned slightly inwards.

Mr. B. T. LOWNE had described several cases of deformity some years ago. He had found every variety of atrophy in the limbs, especially of the distal parts. In no case, as far as he could remember, was the shoulder-girdle absent. In a specimen at the College of Surgeons, all the four limbs were wanting, except that there was a trace of the femur. It was a noteworthy fact that the muscles which should move the more distal parts of the limbs, e.g., the tibia, were present in cases of imperfect development, but were attached somewhere high up in the limb. There was a specimen in the College of Surgeons of a hip of a wild boar, represented by a mere nipple-shaped projection, without any attempt at differentiation. Two conditions might be met with: 1. Continuance of growth without differentiation; 2. Arrest of growth with continuance of differentiation. He could not remember any case of absence of limbs in which there was not a small papilla present—at least, this was so in the greater number of cases. The idea that the absence of limbs was caused by amputation by the umbilical cord was erroneous; the cord was often found twisted round the neck of the foetus, and yet this part was not amputated. With regard to mental emotion, he recalled a case which had occurred in his own practice in which two pregnant women had been frightened by seeing the husband of one brought home with a smashed arm. They were convinced that their children would have defective arms when born; but nothing of the kind occurred.—Mr. JOHN WOOD thought that in these cases the deformity referred to was due to some pathological change in the ovum, such as that which gave rise to the anencephalous foetus or to ectopia vesicæ or ectopia cordis. A gentleman engaged with Mr. Buckland in the breeding of salmon had told him that deformities could be produced at pleasure; by placing a piece of dust on the head part of the ovum, an anencephalous fish could be produced; and by treating the tail part in the same way, a tailless fish would be the result. Growing together could be also produced. Ectopia vesicæ and hypospadias arose, he believed, from adhesion of the foetus to its membranes, probably of inflammatory origin.—Mr. H. MORRIS alluded to cases in which the ulna or humerus was absent, as forming an argument against the theory of intra-uterine amputation. He would ask Mr. Hulke whether any ob-

servation had been made on the condition of the pectoralis or latissimus dorsi muscles.—Mr. W. D. NAPIER had seen some years ago a case of arrest of development of the upper limb, in which the hand was fully formed.—Mr. THOMAS SMITH thought it scarcely possible that the umbilical cord could constrict a limb so tightly as to amputate it without having its circulation interfered with. Limbs, however, were amputated *in utero* by bands of lymph; and cases were met with in which limbs had undergone all degrees of constriction.—The PRESIDENT said that he thought it ought not to be inferred that Mr. Hulke entirely denied the occurrence of intra-uterine amputation. It was impossible to put aside the evidence brought forward by Sir James Simpson and others, in which children were born with all parts perfect, except the limb which was entirely or very nearly amputated. He had dissected a specimen in St. Bartholomew's Hospital, in which the stump exactly resembled such an one as would be produced by operation after birth. It was not supposed that the amputation was produced by the umbilical cord, but by bands or cords of inflammatory origin.—Mr. HOWARD MARSH referred to a case of partial amputation by constriction, which he had seen with Mr. T. Smith.—Mr. HULKE did not intend to say that amputation *in utero* was never the cause of absence of limbs. As far as could be ascertained, the pectoralis and latissimus muscles were present in his case.

ON THE USE OF FLEXIBLE TRACHEOTOMY-TUBES.

BY W. MORRANT BAKER, F.R.C.S.

Mr. BAKER remarked that the evils which frequently result from the use of silver or other rigid tracheotomy-tubes are well-known. Pain and difficulty in their introduction and withdrawal, and more or less bleeding, are common; while ulceration of the trachea from pressure is frequently found after death, and in many instances have been the cause of the fatal result. Cases in illustration of these facts were quoted from various authors; and the endeavours which have been made to remedy the evil by altering the construction of the tubes were referred to. The author then described a tracheotomy-tube, which was made at his suggestion by Mr. Millikin, under the superintendence of Mr. Paley, House-Surgeon to the Evelina Hospital for Sick Children, and which, he believed, would be found to possess all the advantages of the silver-tube, without its disadvantages. It was constructed of vulcanised red India-rubber, and in shape and size resembled the ordinary tubes. Only one tube was used at a time, as it had been found quite easy of introduction and withdrawal; more so, indeed, than the innermost of the tubes in the usual double-tube arrangement. Hitherto, the elastic tubes had been employed at periods varying from one or two days to as many weeks after the operation; and they had been used continuously in different cases for periods varying from a week to six months. They should not, as a rule, be introduced until about three days after operation. In no case had there been any sign of obstruction on account of the tube yielding to the pressure of the edges of the wound in the trachea. It was necessary, however, to have always at hand for an emergency a simple trachea-dilator or silver tube, especially during convalescence; inasmuch as, when the tube had been left out for a few hours, there might be temporary difficulty in replacing it, on account of contraction of the wound. The elastic tubes had been found very durable; and, while in use, became less clogged with mucus than silver ones. They could be also cleaned as easily as the silver ones, or more so. Cases were quoted in which the flexible tubes had been employed at the Evelina Hospital, at St. Bartholomew's Hospital, at the Children's Hospital, Great Ormond Street, and at St. Thomas's Hospital.

A CASE OF LODGMENT OF A TRACHEOTOMY TUBE IN THE RIGHT BRONCHUS, AND ITS EXTRACTION.

BY JOHN WHITAKER HULKE, F.R.S.

The tube in this case was not an old one which, by chemical action or friction, had broken from its shield, but a nearly new one, not previously used. The patient, H. D., aged 37, was a tall thin woman, admitted on July 29th last into Northumberland ward, Middlesex Hospital, with laryngitis. Her symptoms were so urgent that, with Dr. Greenhow's concurrence (in whose charge the patient was), immediate tracheotomy was performed. She at once breathed freely, passed a quiet night, and for a week her relief, interrupted occasionally by cough, seemed nearly complete. On August 10th, whilst the inner tube was being replaced after cleaning, the outer tube slipped through the collar and shield, and she felt it slide from the wound deeply into her chest. Several attempts were made to seize the tube with slender long forceps, and other measures were adopted, but unsuccessfully. Direct interference was for a time deferred. Trousseau's largest tube was inserted, which was more comfortable, she said, than Durham's, and she breathed tranquilly, but felt pain at the right of the lower part of the sternum. Her cough grew more troublesome during the next few days,

with pain on the left side; and by August 13th, her temperature being 103 deg. and her pulse 120, the tube was evidently provoking inflammation. Its immediate removal seemed the only prospect of rescuing her. Chloroform was given, Trousseau's tube withdrawn, and a long piece of German silver wire (one end of which was bent into a blunt hook about one-eighth of an inch long, and the wire again bent at about one half inch above this at an angle roughly estimated as that which the right bronchus and trachea include) was passed through the wound down the trachea. The other end of the wire was bent in a large loop, the plane of which coincided with that of the tracheal end of the wire beyond the angle, and thus allowed it to be guided into the right bronchus. The tube was distinctly felt, and, on the hook being slid onwards to the known length of the tube, it was slowly withdrawn; and, from the resistance, it was found that the tube was hooked, and was moving upwards. When near the tracheal wound, the hook became disengaged; but the tube was here easily seized with a forceps and taken out, and Trousseau's tube reinserted. The patient's temperature soon fell to 99 deg. and her pulse to 96; and on the 14th she felt, she said, very well; her cough was less troublesome, she breathed with ease, and had lost all pain and tightness in the chest. All threatening symptoms gradually disappeared, and on September 15th she was discharged convalescent. She continued to use the tube till October 26th, when she returned to the hospital for a couple of days; the tube was taken out, and in forty-eight hours the wound had contracted so as scarcely to admit of a small probe. She has continued free from tracheal embarrassment. Some critical remarks followed as to the cause of the screw in Durham's tube becoming loosened, and on the defect of the outer tube in having no flange, to prevent it slipping through the collar and being drawn into the trachea. Other defects of Durham's tube noticed, were the jointed composite structure of its inner cylinder, necessitating a great thickness of metal, and reducing thus its efficient lumen, and allowing it to be more easily clogged by the mucus lodging on the ridges of its joints. Reference was then made to the necessity of forceps, for extracting foreign bodies from the air-passages, being light enough to serve as a sound, and flexible enough to be bent in any desired curve. Such forceps were figured by Gross, in his treatise on *Foreign Bodies in the Air-Passages*, published in 1854, but appeared to be unknown to London instrument-makers. The benefits of the German silver-wire used, were its flexibility combined with sufficient stiffness, and its angulated sectional figure, which made it superior to cylindrical wire, previously tried. The author finished with some remarks on the circumstances which enabled him to conclude that the tube had lodged in the right bronchus, and with a description of a plan of operation mentioned in a German treatise on tracheotomy, by which the bleeding, usually of an embarrassing amount, was rendered comparatively insignificant.

Mr. DURHAM repudiated the tube in Mr. Hulke's case as a very bad specimen of that which he had designed. He had found that tubes were sold as his which were very far from carrying out his principles. He thought that Mr. Baker's tubes would be very useful; but they should not be employed in the first stage after operation.—Mr. MARSH said that Mr. Baker's tubes had been used in four cases, at the Children's Hospital, with much success. They were comfortable to the patient, and easy of introduction. They should be introduced not sooner than forty-eight hours after operation, a silver cannula having been first used.—Mr. HOWSE thought Mr. Durham's tubes a great improvement on former ones; but very much depended on the material of which the tube was made, as to its durability. Some tubes lasted but a very short time; others, for several years. A patient, on whom tracheotomy had been performed by Mr. Bryant ten years ago, lately came to Guy's Hospital in a state of impending suffocation from contraction of the opening. An elastic tube was introduced with great relief. It was found that the man had been in the habit of pawing his silver tube; but on the present occasion had been unable to redeem it, and hence the contraction of the tracheal opening and his dangerous state.—Mr. BAKER and Mr. HULKE replied.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 16TH.

FREDERICK COCK, M.D., President, in the Chair.

Herpes Zoster.—Dr. MILNER FOTHERGILL gave details of a case of herpes zoster in an elderly woman, of the neurosal diathesis, who was the subject of chronic renal changes. The case was of interest, as showing how far the manifestations of this chronic condition were determined by the diathesis of the individual. The malady was a cutaneous neurosis, the outcome of degenerative change, and directly due to imperfect blood-depuration.—Mr. WILSON asked as to the treatment.—Dr.

DOWSE inquired if a solution of chloral applied locally had been tried. —Dr. GILBART SMITH referred to the symptom of getting up to pass urine during the night, commonly found in chronic Bright's disease. The inclination to micturate was not in direct proportion to the quantity of urine secreted, at least in the later stages of the malady. —Dr. FOTHERGILL replied.

Jaborandi and Gelsemium Sempervirens as Therapeutic Agents. —Dr. DOWSE read a paper on this subject. He exhibited some jaborandi leaves, and then described the preparations in common use. An ounce of the infusion (one ounce and a half to the pint) every three or four hours, and from an eighth to a fourth of a grain of the nitrate of pilocarpine, formed sufficient doses. In many respects, jaborandi possessed an action the direct opposite to that of belladonna. It caused profuse salivation, lacrymation, and diaphoresis, and even increased the secretion of the mammary glands. In full doses, it produced tetanic movements. Its effect upon the body temperature was to reduce it to some extent, but only to several tenths of a degree Fahr. It acted through the circulation, and probably upon the terminal branches of the vasomotor division of the sympathetic. Its action upon the heart was sedative. In a case of osteo-arthritis with muscular pains, it had given relief for the time. It produced sweating and salivation in thirty-five minutes, and lowered the temperature six-tenths of a degree. The effects were more pronounced when given with full doses of the bicarbonate of potash. It failed to give relief in the dry skin of diabetes, but was more efficient in the similar condition of chronic Bright's disease. The pyrexia of phthisis was not relieved by it. —In answer to Mr. SEWILL, Drs. GILBART SMITH and FOTHERGILL, Dr. DOWSE said that in one case, if the man spat out the saliva, no sweating ensued; but, when he swallowed it, diaphoresis rapidly followed. It did not affect the gums like mercury. The gelsemium produced both a paralyzing and a tetanising action. The marked effect upon the respiratory centres of animals did not extend to man. It was a nerve-sedative of some value, but of little use in diseases of the respiratory organs. —Drs. FITZPATRICK and WESTMACOTT asked as to its action. —Dr. GILBART SMITH said he had found it useful in chorea and in the hacking cough of phthisis, but its effects were not constant. —Dr. DOWSE replied; and the meeting adjourned.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 24TH, 1876.

Sir WILLIAM JENNER, Bart., M.D., D.C.L., F.R.S., President, in the Chair.

Case of Lymphatic Leucocythemia, treated with Phosphorus. —Dr. GOWERS read notes of this case; the patient being a lad, aged 16, who had been under the care of Dr. Wilson Fox in University College Hospital. He presented extensive glandular enlargements in the neck, axilla, and groins, and evidence of a large mass in the mediastinum. The spleen was slightly enlarged, and the temperature was uniformly raised several degrees. The blood presented a large excess of white corpuscles. Their proportion to the red was as one to four. One hundred and four were counted in one field. The glandular enlargements had been noticed only three months. During a fortnight of expectant treatment, little change was observed. Phosphorus was then commenced, one-thirtieth of a grain being administered three times a day. A week's slight improvement was followed by an increase in all the symptoms, due apparently to some unwise exposure; but, during the second fortnight of the phosphorus treatment, there was a marked diminution in the number of white corpuscles. At the end of the fifth week, they were reduced to a third of the original number, and the external glands were smaller and harder. A trace of albumen appeared in the urine; and, on account of obstinate diarrhoea, the phosphorus was omitted. The improvement in the special symptoms continued; and, a week later, only twenty-four white corpuscles could be counted in the field of the microscope, and the dulness produced by the mediastinal mass had sensibly diminished. The albumen in the urine, however, increased, fatty casts were found in it, and general oedema came on. The temperature fell, the patient became weaker, and finally died from asthenia—the number of white corpuscles showing to the last a progressive diminution. At the *post mortem* examination, besides the external glands which could be felt, masses of agglomerated glands occupied both the anterior and the posterior mediastinum. In front, the mass occupied above the position of the thymus, and was adherent to the rib cartilages and to the left lung. A still larger mass in the posterior mediastinum lay around the trachea and aorta, and had perforated the pericardium. The abdominal glands were also enlarged. Most of the glands were hard and fibrous, or else caseating. Under the microscope, all showed lymphatic overgrowth and abundant leuco-

cytes. In some, the overgrowth was undergoing fibroid, in others fatty, degeneration. The spleen weighed thirteen ounces and a half; the Malpighian bodies had undergone lardaceous degeneration; it contained some caseous infarctions. Its tissue was infiltrated with leucocytes. The liver was slightly enlarged, and contained abundant minute growths, most of which were undergoing fatty degeneration. The kidneys were large and pale, and their tissue presented general granular and fatty degeneration, with a few leukæmic growths. The marrow of a tibia was abundant, and consisted of leucocyte-like cells massed together. Dr. Gowers drew special attention to the degeneration in the glands and in the liver, which seemed to be indicated during life by the diminution in their size, and this coincided with the improvement in the state of the blood. The spleen presented no degeneration which could be associated with the diminution in the white corpuscles, since the Malpighian follicles are believed not to be specially concerned in the leucocythæmic process. Hence, it was probable that the leucocythæmia which existed was due to the glandular overgrowth and not to the spleen. Renal disease was a rare complication of leucocythæmia, and it was further remarkable in this case from the acuteness of the process and the early evidence of fatty degeneration. What effect could be ascribed to the phosphorus? The known influence of phosphorus was to cause fatty degeneration, the condition found abundantly in this case. But such degenerations had occurred in cases in which no phosphorus had been given, and with so acute a course and elevation of temperature degenerations were likely to occur. The process might have been hastened by the phosphorus; but, if so, the drug must be suspected of an influence on the kidney-degeneration. In conclusion, Dr. Gowers said he had brought forward the case rather as suggesting points for future observation than as itself settling the questions it raised.

A Case of Hodgkin's Disease, with Increase in the White Corpuscles of the Blood: Treated with Phosphorus. —Dr. W. S. GREENFIELD detailed this case. The patient, a woman twenty-six years of age, had never been strong, though suffering from no special ailment, until about two years before, when she had attended as an out-patient at St. Bartholomew's Hospital, under Dr. Duckworth, for amenorrhœa. She stated that she had, at the same time, some glandular enlargement in the neck; but this appeared doubtful. Some enlargement of the glands in the neck was noticed about January 1876; and from that time there was complete amenorrhœa and gradually increasing debility, which at last led her to seek advice. She was first seen by Dr. Greenfield at the beginning of May; and from that time till her death was under the care of Dr. Rogers of Old Street, Dr. Greenfield seeing her in consultation with him. When first seen, she was greatly emaciated. There was a mass of enlarged glands in the right side of the neck, at the upper part, with some enlargement behind the sterno-mastoid; on the left side was corresponding, though less, enlargement, and there were also enlarged glands in the right axilla and in both groins. The patient suffered from hectic fever, with frequent profuse perspirations. There were also curious attacks of dyspnoea, lasting a few minutes, which came on suddenly, often preceded by pulsation of the right carotid artery; then she became suddenly pale, half unconscious, the respiration becoming very laboured, and almost entirely abdominal. The right pupil was sometimes contracted during or after the attacks, and profuse perspiration frequently followed them. The spleen appeared to be slightly but not notably enlarged. The blood was not examined until later. Having in view the important results gained by Dr. Broadbent and Dr. Wilson Fox in leucocythæmia by the employment of phosphorus, Dr. Greenfield thought it would be desirable to try its effect in a disease which presented some analogies with it; and one-thirtieth of a grain of phosphorus was, therefore, given three times daily in pill, and was continued for six weeks. Ten days later, the blood, examined with a high power, showed a decided increase in the number of white corpuscles, which appeared to be in the proportion of one white to fifteen red. There was also other white corpuscles, smaller than usual, and a number of microcytes. The glandular swellings increased somewhat rapidly, and in the middle of June there was a large mass in the right axilla; and the swellings in the neck had greatly increased, and there were masses of enlarged glands in the groins. The febrile attacks and perspirations continued unabated, and the patient became extremely emaciated and prostrate. The temperature, taken pretty regularly three or four times in the twenty-four hours, presented remarkable variations, the daily range extending over from 4 to 6 degrees Fahrenheit, and the elevation occurring very rapidly. On one occasion, a rise from 98 deg. to 103 deg. was observed in four hours and from 97 deg. to 103 deg. in five hours. The highest temperature observed was 105.5 deg.; but temperatures of 104 deg. and 105 deg. were frequent, the highest usually occurring towards evening or at night, but with no great regularity. The patient lived for about four months, dying early in August. During the greater part of that time, the glandular enlarge-

ments increased, emaciation was progressive, and, after a temporary improvement, the dyspnoea became a more or less permanent symptom. Towards the end of life, the glandular swellings decreased in size and some of them entirely disappeared. The temperature continued high; but during the last week of life it became lower, rarely rising above 101 deg. On *post mortem* examination, there was found a mass of enlarged and indurated glands in the upper part of the right side of the neck; enlargement and induration of the bronchial and mediastinal glands; and the mesenteric and lumbar glands were greatly hypertrophied. There were two smallish nodules of new growth, resembling indurated lymphatic glands in structure, in the liver. The spleen was but slightly enlarged and apparently free from patches of new growth, but was too much decomposed to permit of certainty on the point. There were scarcely any other marked visceral changes. Dr. Greenfield observed that the case was clinically a typical example of Trousseau's "adénie", "anæmia lymphatica", or "Hodgkin's disease". He thought that the increase in the proportion of white blood-corpuscles was not sufficiently large to allow it to be designated as a case of leucocythæmia, nor were there any of the usual symptoms of that disease, such as epistaxis or other hæmorrhage. At the same time, the condition of the spleen was different from that which was observed in many cases, and regarded by Dr. Wilks as one of the essential anatomical lesions of Hodgkin's disease. The clinical features, however, were most typical—glandular enlargement, great and progressive, a peculiar anæmia, progressive emaciation, with irregular and high temperature. The condition of the spleen in five other cases which had fallen under his observation presented considerable variation; in only two did it present the typical characters of containing masses of new growth, aptly likened by Dr. Wilks to lumps of suet. At the same time, the condition of spleen observed was equally inconsistent with typical leucocythæmia. Probably the case must be considered an intermediate one, and "anæmia lymphatica" would be the most appropriate name, rather than Virchow's "leukæmia lymphatica". In commenting more particularly on the symptoms observed, the author remarked that the earlier attacks of dyspnoea were probably due to pressure on nerves, the later to direct pressure on the trachea and bronchi of enlarged glands, a condition discovered *post mortem*. The phosphorus was observed to have had but little influence on the progress of the disease; the glandular enlargement continuing and increasing during its use, and the subsequent apparent atrophy of the glands being accounted for, in all probability, by their induration—a similar occurrence having been observed in other cases. Nor did quinine, which was given throughout a great part of the course of the case, appear in any way to prevent the febrile attacks. The other treatment adopted consisted merely in palliative measures.

A Case of Leukæmia.—Dr. GOODHART read notes of the following case. A married woman, aged 45, at present under the care of Dr. Pavy in Guy's Hospital, came under notice first early in June of this year. She had never been pregnant and menstruation ceased two years ago. Her family history showed no weak strain, neither cancer, rheumatism, gout, or bleeding being known. When about seventeen years old, she had three attacks of rheumatic fever, and since then had been troubled with rheumatic pains and weakness at her heart. Of late, she had been weakly, and, six years ago, inflammation of the kidneys without dropsy. Her habits appeared to have been strictly temperate. Twenty months before admission, she had a boil on her thigh, which bled freely on being opened, and she had lost much blood; and ever since then she had been weakly and pale. After that, she had fistula *in ano*, was operated upon, and recovered. Then the glands in the neck and axillæ enlarged, and then she had a long attack of "dropsy", which had never quite subsided. The glands had since then gone down again. When admitted, she had general anasarca, great pallor, and a distended abdomen; the latter due in great part to a large liver, possibly to some enlargement of the spleen, which, however, did not come below the ribs; and some indefinite lumps in the abdomen, probably due to glandular enlargement in other parts. At first, there was no definite glandular enlargement elsewhere. The urine was normal. Temperature normal, and pulse 128. A loud mitral *bruit* was heard at the apex of the heart. The blood was watery-looking, and contained a large excess of colourless corpuscles—sixty colourless to one hundred red. The latter were quite normal, but the colourless very small; most of them one-half to one-third smaller than the red corpuscles, and granular. She was ordered one-thirtieth of a grain of phosphorus, in the form of a pill, three times a day within a day or two of admission, and she continued this for about three months. During this time, the condition of the blood varied much; sometimes the colourless corpuscles were not out of proportion to the red; at others, they were ten, twenty, thirty per cent. and more, of all the corpuscles in the microscopic field. The colourless corpuscles were

sometimes of normal size; at others, and much more frequently, very small. The blood always remained watery and poor. Notwithstanding the want of improvement in the blood, the patient's general health improved, and this, too, even as the glands in the neck and axillæ enlarged. But the glandular enlargement, though evident on palpation, had never been a marked feature in the case and was not so now. Latterly, the patient had had pericarditis, pneumonia, and epistaxis, but recovered from all these attacks, and still remained in better general health than she was. The abdominal enlargement remained much as it was; the liver being very large, the spleen by no means so evident. Dr. Goodhart remarked that, inasmuch as the case was fortunately still incomplete, the patient being still alive, the exact state of affairs must yet be doubtful—whether Hodgkin's disease alone existed, or splenic leukæmia alone, or both together. The amount of visible glandular enlargement was not great, and the spleen might ultimately prove to be larger than could be diagnosed from the present conditions. But, on the whole, the case seemed more probably one of lymphatic leukæmia, and particularly so from the state of the blood, which showed an excess of very small colourless corpuscles, such as had been described by Virchow as occurring in the lymphatic variety of leukæmia. It differed from the typical Hodgkin's disease in the large number of these corpuscles. He had said that the patient had been treated by phosphorus for four months, and without any apparent influence on the course of the disease; but he did not bring it forward so much to pit it against other cases treated in like manner as to lay stress upon the variations in the blood found in leukæmia, and to raise the question what clinical significance had white-celled blood. The cases before the Society showed how variable was the condition of the blood, and, if one took a still wider range, it would be found that, in some cases, large white cells were in excess. In some, small white cells; in others, the red corpuscles were also of variable shape, and free nuclei were to be found; in others, again, the serum was crowded with granules, and leucocytes were not to be found in excess at all. The importance of this variation in the constituents of the blood was likely to be lost sight of, because the blood was a fluid-tissue; but, if the whole blood were imagined as crowded into the space of a single organ, such as the liver, then we might recognise that there was enough difference in the changes classed under a common term (leukæmia) to constitute several separate diseases; and it seemed that, till we were quite sure that leukæmia was only one disease, the discussion of the treatment of leukæmic cases by any given remedy might be an attempt to compare likenesses when we should be contrasting differences. It was in special reference to leukæmia in general, not to this or that variety, that these remarks were made, and they bore upon a class of cases with which those who saw much of the diseases of children were, doubtless, familiar; viz., leukæmia in association with splenic enlargement in children, which, under any treatment, got well. He had seen in the last two years six such cases. The average extent of leukæmia was from forty to sixty leucocytes in a field where there should be but four or five: all in children under two years old; and they had all improved under treatment; some with phosphorus, some with iodide of iron, etc. Then, as if to show the close relationship between a curable and an incurable leukæmia, another child, ten months old, was seen in an apparently similar state to the others, as to its spleen, but without any leukæmia; nothing, in fact, to indicate that it would not do as well as the others had done. The leukæmia subsequently became developed, and it died with purpura and the usual characteristic changes in the liver, spleen, kidneys, etc. From cases such as these, it was concluded that leukæmia is either a disease of several stages, of which, perhaps, anæmia of some kind, rather than leukæmia, is the first, and then curable; and such cases as had been narrated in the course of the evening were the more advanced, and, in many cases, incurable, or else, as had been suggested, several distinct conditions had become mixed under a common symptom.

Splenic Leucocythæmia.—Sir WILLIAM JENNER read short notes of three cases of this disease treated with phosphorus. The first case was that of a lady, a patient of Mr. Fielden of Shildon, who was first seen by Sir W. Jenner early in June last; she had well marked splenic leucocythæmia. Her morning temperature was natural; the evening temperature was about 100 degs. Fahr. There was frequent epistaxis, and once there was bleeding from the gums. For two years previously there had been chronic follicular ulceration of the pharynx, which frequently had almost disappeared, and then recurred. On July 15th, phosphorus in capsules, containing one-thirtieth of a grain of the drug, began to be administered regularly twice or three times a day, the patient having taken phosphorus pills for about six weeks previously. On November 8th, Mr. Fielden reported that the phosphorus capsules had been taken regularly for four months, but that the benefit to the

patient was inappreciable. The spleen continued to enlarge; the epistaxis still occurred, though at rarer intervals; the night perspirations, though for a time apparently checked, had returned, and the patient had complained of extreme giddiness on movement. The temperature did not vary much, and had never been above 101 degs. During Sir William's absence from town in the autumn, the patient had consulted Dr. Broadbent, who could not speak hopefully of the issue of the case, but had advised steady perseverance in the treatment with phosphorus. Dr. Broadbent had estimated the proportion of the white to the red corpuscles as one to five; but Mr. Fielden had frequently examined the blood and thought the white as numerous as the red cells. The patient had suffered from bilious disorder from time to time, and symptoms of this kind, Dr. Broadbent had remarked, had "ushered in improvement in his case". For this reason, the phosphorus had sometimes to be temporarily discontinued. More than two doses daily could not usually be tolerated, the patient complaining much of the disagreeable eructation produced by the remedy. The second patient was a barrister, aged 71; he also had splenic leucocythæmia. On July 1st, 1875, the spleen reached two fingers' breadth below the umbilicus; the notch was at the level of the umbilicus, and the extreme anterior border of the spleen was one finger's breadth to the right of the umbilicus. The white corpuscles in his blood were extremely numerous. His temperature was 100 deg. On November 2nd (1876?), the spleen was four fingers' breadth below the umbilicus, and two inside the level of the umbilicus. The white corpuscles were as numerous as the red; his breathlessness was extreme; his temperature 100 deg. He had been taking pil. phosphori, gr. iij, three times a day, except for the last week, during which he had taken it only twice daily. He was decidedly worse as to his spleen, number of his white corpuscles, and breathlessness; was losing flesh, looked and was worse. The third case was that of a single lady, aged 38, whom Sir William Jenner had seen with Mr. John Croft, on May 8th, 1876. This was a well-marked case of splenic leucocythæmia; the enlargement of the spleen having been first observed in the beginning of this year. The symptoms were those usually present in the disease: epistaxis, loss of flesh, sense of breathlessness, languor, weakness, and night perspirations. Her temperature was 99 deg. The blood showed a great excess of white corpuscles. A three-grain phosphorus pill was ordered to be taken three times a day. The patient, however, continued to grow weaker. Her temperature ranged from 97½ to 101 deg. Having taken the phosphorus pills steadily for more than two months, she died on July 26th, 1876.

Dr. A. S. DONKIN, Dr. J. G. GLOVER, Sir WILLIAM JENNER, Dr. GREENHOW, and Mr. B. CARTER made a few remarks.—Sir WILLIAM JENNER said that, if fatty degeneration of the kidney followed the administration of phosphorus in this dose (which he himself doubted), who would give it?—Finally, the debate upon these cases was adjourned to the next meeting, the PRESIDENT remarking that he hoped a statement of facts, not a discussion of theories, would form the business of the evening.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 27TH, 1876.

WILLIAM ADAMS, F.R.C.S., President, in the Chair.

Cæsarean Section.—A paper was read by Dr. EDMUNDS upon his recent case of successful Cæsarean section. It was the second case of this kind which Dr. Edmunds had performed; and the details of the operative procedure in each case were practically identical, and in each of them both the mother and child recovered perfectly and rapidly. Stress was laid on a method of manipulating the uterus before final closure of the abdomen, with a view to the prevention of subsequent hæmorrhage. Care had been taken to exclude all sources of septic infection during the operation; and oleum terebinthinæ as a hæmostatic was spoken highly of. No sutures had been placed in the uterus; and, with regard to their use, Dr. Edmunds argued that, *à priori*, on the physiological properties of uterine muscles, the *onus justificandi* was cast upon those who inserted sutures into an irritable mass of muscle such as the uterus. Referring to the past history of Cæsarean section, Dr. Edmunds considered that a majority of deaths were to be attributed to causes not inseparable from the operation itself; and he described the patients on whom it had been done as many of them moribund from exhaustion or fatal injury caused by misdirected interference, and argued that others died in consequence of septic poisoning in the course of the operation, or of the influence of opium, of alcohol, or of other drugs in the course of the after-treatment. After urging that the operation was of much more general interest than ovariectomy and other great operations for which time, place, and special experience could always

be commanded, Dr. Edmunds argued that Cæsarean section, apart from the danger of internal hæmorrhage after closure of the abdomen, need not be more than half as fatal as ovariectomy, inasmuch as in the latter operation adhesions often had to be combated, extensive interference with the peritoneum was necessitated, and often the complications of malignant disease were discovered after the operation had been begun.—The discussion on the subject was adjourned till Monday, December 4th.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, MARCH 22ND, 1876.

S. CARTWRIGHT, F.R.C.S., President, in the Chair.

Teething and its Complications.—The PRESIDENT read a paper on this subject. He pointed out the great importance of the subject to those practising any branch of medicine, alluding to the extensive sympathetic connections of the nerves supplying the teeth with the system generally. He then spoke of the effect that the "habits of the age" exercise on healthy dentition; mothers being careless of their responsibilities, not only after but before the birth of their offspring. He next considered the difficulties of the first dentition, and the constitutional affections synchronous with that period—cerebral, cerebro-spinal, cutaneous, and other diseases—treating them in their two relations of dependence on, and independence of, eruptive complications. After giving the results of his experience in hospital and private practice, he remarked that he did not believe in the somewhat indiscriminate crusade against lancing, and quoted many instances of its proved efficacy when resorted to on rational principles. Finally, he considered the second dentition, pointing out how nearly every organ of the body might be more or less affected sympathetically by dental lesion; and concluded with several illustrative cases, and a *résumé* of those points which he considered to be especially worthy of discussion.—Mr. T. EDGELOW was pleased that Mr. Cartwright did not condemn the practice of lancing. He alluded to several sympathetic disorders connected with dentition, and said that many of these might be relieved by the judicious use of the lancet.—Mr. GAINE (Bath) mentioned a case in which he was interested; and remarked that, in his experience, lancing was often resorted to very indiscriminately. He was much opposed to the performance of the operation on expectant principles.—Mr. NAPIER was inclined to attribute a large proportion of cases of infantile convulsions to too rapid or retarded development of the teeth. Half a century ago, infantile convulsions were ascribed almost unconditionally to teething; now, some were inclined to almost entirely ignore its influence on the brain; but the relief sometimes afforded by the lancet, when applied at the right time and with judgment, was sufficient proof that there are cases in which the child suffered from a mere mechanical obstruction. The subject of dentition was one opening a wide field of interest to the physiologist. He called attention to the fact that the teeth must have a more delicate and complex organisation than those structures whose constituent parts are less compact, and were, therefore, more liable to get out of order.—Dr. LITTLE regarded the evils of dentition as the product of unfavourable influence, either before or at birth, or about the teething period. Infants born with an excess of vitality, from want of breast-milk, pure air, etc., become the subjects of "difficult dentition", rickets, infantile paralysis, bowel and brain diseases. He thought that the accumulated hindrances to development, during the early months of life, produced effects during dentition which were often attributed to it, instead of to disorder of more important organs, consequent upon errors of management or hereditary influence. At the same time, he agreed that difficult dentition reacted mischievously upon the sensitive nervous structures of the infant. He thought that the benefits due to lancing of the gum were due to the relief of pain and tension, and to its counterirritant effect; and he asked for information as to the nature of the force which propels the tooth through the gum. He regarded it as the result of progressive addition of material to the body and the fang.—Mr. CATTLIN agreed with Dr. Little that errors in diet and constitutional weakness might and did add to the danger of teething; but he had no doubt that convulsions and other serious nervous lesions often arose solely from irritation connected with teething. Infants in country districts suffered less than those living in large towns, showing that the weakly and scrofulous were more predisposed, and that the use of the lancet ought to depend upon a correct diagnosis, and should never be resorted to empirically. He quoted several cases proving its efficacy.—Mr. HAMILTON CARTWRIGHT said that instances of sympathetic lesion connected with the teeth were innumerable. The occurrence of otalgia and otorrhœa, during the eruptive stage of dentition, was particularly interesting. Mere pain was explicable by the

connection of the fifth with the auriculo-temporal and Vidian nerves; but the occurrence of suppuration was still more important, probably having its origin in long-continued irritation of Jacobson's plexus, which, supplying the tympanic structures, is in connection with the otic and Meckel's ganglia, as also with the facial nerve and the carotid branch of the sympathetic. He then alluded to the frequent occurrence of skin diseases during dentition, and mentioned a case of neuralgia connected with the fifth nerve, which was always preceded by a rash. In considering the pathology of cutaneous diseases occurring at this period, the development of the teeth from dermal structures, as well as their nervous connections, should be remembered, as probably a more than chance connection existed between the nerves, skin, and teeth in such lesions.—Dr. LITTLE mentioned a case in which a lady was attacked, whilst cutting her wisdom-teeth, by a severe impetiginous eruption, covering her head, ears, and face. Her mother said that she suffered from crusta lactea when cutting her first teeth.—Dr. R. LEE was inclined to ascribe most of the constitutional derangements occurring during dentition to a primary constitutional cause; as, for instance, the various forms of cutaneous eruption, diarrhoea, and such like. Though some of the disturbances in the nervous system of the young child were to be ascribed to the local irritation of teething, still it must be allowed that a constitutional condition might favour such irritation.—Mr. RISSON thought that the importance of the eruptive period in the child could not be overrated; and although he would not say that all ills connected with that epoch were owing to dentition, he thought that very many were.—Dr. WEST said the subject now discussed would show how closely dental surgery, practised by those qualified to practise it rationally, was allied to general medicine; and how necessary it was that the practitioner should distinguish between those diseases which were dependent upon, and those which were distinct from, dental irritation. He mentioned the great predominance of the spinal over the cerebral system in early infancy, and showed how any eccentric source of irritation was thus liable to be the origin of serious mischief. He himself believed that to dentition directly might be ascribed many diseases, especially those connected with the nervous centres. Lancing had been mentioned as a method of treatment, and he thought that no one who had seen its results could doubt its great efficacy. He concluded by calling attention to the many interesting questions that Mr. Cartwright's suggestive paper had called forth.—The PRESIDENT briefly replied.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, NOVEMBER 1ST, 1876.

A. J. MANSON, M.D., President, in the Chair.

Intracranial Abscess causing Atrophy of the Optic Nerve: Relieved by Trephining.—Dr. DYCE DAVIDSON read a paper on this case. The patient (a ship-carpenter, aged 39) was admitted into the Royal Infirmary on November 29th, 1875, complaining of gradual loss of vision. He stated that he had enjoyed good health until four years before admission, but had slight deafness on the right side, with slight discharge when suffering from cold. Four years ago, in the East Indies, working on the deck of a ship exposed to the sun, he suddenly became sick and giddy, and gradually became unconscious. He was in this state removed to the Madras General Hospital, where he remained twelve weeks; and, being then considered well, was dismissed, and sailed for home. During a four months' voyage, he had several attacks of insensibility, preceded by pallor, gradual loss of power and sensation, sickness, vomiting, and giddiness. On this voyage, he noticed a small swelling at the upper posterior angle of the right parietal bone, which was increased to the size of a pigeon's egg on arrival in London. Here (in London) he became unconscious; and, being taken to one of the hospitals, had the swelling opened, with the escape of much pus, which continued to flow to the extent of about half a wineglassful daily from the wound. After that time, attacks of insensibility came on every two months, preceded frequently by profuse discharge from the right ear, and always by diminished discharge from the wound. During 1875, the attacks came on every five weeks, his sight became weaker, and he had difficulty in walking about. On admission into the Royal Infirmary, he appeared well-built, tall, sluggish, and dreamy. Both pupils were dilated, the right being wholly insensible to light, and the left acting sluggishly. He could move his eyelids very slowly. He said he could not look at an object steadily, and saw "glimmers" of light before his eyes, especially before his attacks, and that sensation, motion, and mental power were gradually becoming impaired. On examination, both optic discs were found very pale and slightly diminished in size; margins perfectly distinct; retinal arteries small, and veins tortuous and swollen; pulse full, 62, regular. At the seat

of the tumour abovementioned, there was a depressed cicatrix covered by a scab of dried pus; and around this, for two inches in every direction, the scalp felt swollen, and cedematous; and, on pressure there, pus escaped in drops from the ear. Bare bone was discovered, and foetid pus was discharged from the seat of the depressed cicatrix on examining by a probe; and this probe passed into the skull, causing an increased flow from the ear. The sight was 9-50 in the right eye; 9-100 in the left eye. The left drum was perfect; the right drum had a large perforation, and red fungous granulations were protruding into the meatus. On December 1st, 1875, the patient had excruciating paroxysmal pains in the head, and great nausea. He vomited freely without effort. Pulse 60, full and soft; temperature 97.2 deg.; respirations 16; cedema of the scalp was greatly increased. A free incision was made, when much pus was discharged, and the nausea and vomiting ceased. On December 20th, another fit threatened; and a large crucial incision was made over the old cicatrix, and two and a half ounces of foetid pus were discharged. Sight 1-10 in the left eye. He could scarcely count the fingers. The ophthalmoscopic appearances were as before. About the end of January, another incision was made in the same place; and, on passing a probe into the opening through the skull, a free discharge of pus in jets synchronous with the pulse-beats took place. Great relief was experienced from this, but the relief was only temporary; and it was resolved to give a more free channel for the exit of the pus within the skull by trephining. This operation was performed by Dr. Alexander Ogston on February 24th, when about nine ounces of stinking yellow pus escaped, and a large cavity was discovered between the skull and the dura mater. A sponge filled with carbolic acid solution and covered with gutta-percha was used as a dressing; and, on recovery from the effects of the chloroform, he felt relieved. He left his bed four days after the operation for a short time, and convalescence was steady and rapid. The discharge was very profuse for eight days, when a drainage-tube was inserted. The discharge then gradually became less; and he was dismissed on May 12th, 1876, still retaining the tube, and this he was directed to do for some time. After the operation, the fungous granulations in the middle ear gradually grew smaller, and the discharge had almost entirely disappeared on dismissal.—*Progress in Sight.* March 7th. With the right eye, he could distinguish fingers and tell the movements of the hand at six feet. The vision of the left eye was 6-40, or 1-6½. March 21st. The sight was the same for both eyes. April 7th. The sight in the right eye remained the same; in the left, it was 1-5. On May 5th, the sight was 1-3½ in the left eye. On October 18th, he presented himself at the Infirmary for inspection, and was found free from pain or weight in the head, and free also from nausea or vomiting. The tube was still in the wound, from which there was very little discharge; but there was heard a whistle synchronous with the pulse. His sight was; right eye, 1-12; left eye, 1-2½. The right disc was white and contracted; the retinal arteries were small, and the veins large and tortuous.—*Remarks.* a. The only complaint on admission was "weak sight"; but, on close questioning, otorrhoea on the right side was disclosed, at first supposed to be unconnected with the condition of vision, but afterwards discovered to arise from the same cause as the loss of sight. b. The brain-symptoms were slight compared with what might have been expected from the large quantity of pus in the cavity; and, when urgent symptoms did appear, they were those of compression, *i.e.*, slow pulse, diminished temperature and respirations, vomiting, pain, and semi-consciousness. c. The success of the operation of trephining was greater than could have been anticipated, the patient being able to work, the sight having improved in the right eye to 1-12, and in the left to 1-2½, and there being no pain or discomfort in the head. The only things to be observed at the present time are the largely dilated pupil of the right eye, and the atrophied optic nerve of the same side.—Dr. MANSON mentioned the case of a girl, who, from injury, lost a large quantity of brain-matter, and yet survived; also a case where dilated frontal sinuses caused absorption of the brain. He referred also to the case of a boy, who lost a large amount of brain-substance from the anterior lobes without any fatuity or alteration of disposition supervening.—Dr. ANGUS FRASER mentioned the case of a boy, whose brain was sawed through to a considerable extent by a circular saw, and who was afterwards peculiar in disposition.—Dr. F. MOIR wished to know whether the brain enlarged again or not in these cases, but could not obtain any information on that point. He mentioned an operation on meningocele in private practice, which had had fatal results.

Discussion on Non-instrumental Aids to Labour.—Dr. STEPHENSON, in beginning a series of discussions on non-instrumental aids to labour, commenced by opening a debate on the question of rupturing the membranes before full dilatation of the os. He mentioned the ancient practice of making the patients rise from bed and assume the erect

posture early in labour. He adverted to the incomplete way in which this subject is discussed in treatises on midwifery. After discriminating between full dilatation of the os and obliteration of the cervix, and objecting to such a term as irritation of the cervix from the pressure of the head, he discussed at great length the mechanism of normal labour before the end of the first stage. He stated that he believed rupture of the membranes was of advantage, when they hindered the action of the foetal head in the axial direction of the uterus. He directed attention to the value of the drawing up of the vaginal cul-de-sac as indicating full dilatation of the internal os, and hence indicating the propriety of rupture of the membrane; and also the proportionate excess of liquor amnii indicated by tension of the membranes between the pains; and the distance from the head and the occurrence of something like *ballotement* as also indicating rupture.—Dr. JACKSON found a difficulty in believing that the proportionate bulk of the foetus and liquor amnii could be correctly estimated.—Dr. OGSTON believed that the membranes were of use only to dilate the cervix and internal os, and of no use in dilating the external os.—Dr. ANGUS FRASER disbelieved in rules, but believed in experience. He objected to the tension of the membranes between the pains being considered a sign of excessive liquor amnii. He mentioned the head as acting after the manner of a bullet-valve.—Dr. DYCE BROWN pointed out that the membranes could generally be ruptured with prudence in multiparæ in cases where it would be imprudent in primiparæ.

Genu Valgum.—Dr. ALEXANDER OGSTON read a paper on a case of genu valgum cured by operation.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

OCTOBER 27TH, 1876.

T. H. BARTLEET, M.B., President, in the Chair.

MR. BARTLEET, in opening the Session, thanked the members for the proof of their confidence evinced by electing him to the honourable and important post of Chairman of the Section. He remarked that, to gentlemen interested in pathology and clinical medicine and surgery, as their presence proved them to be, it was unnecessary to urge the importance of the work of the Section and the study of pathology. Without pathology, surgery and medicine could not exist for a day, nay, never would have existed; and, although it must be owned that the advance in pathology and clinical investigation had not as yet been followed by a corresponding advance in therapeutics, yet it was in the nature of things that the former should come first, inasmuch as we must have investigation, then diagnosis, then treatment. Mr. Bartleet concluded by proposing that the three remaining meetings of the Section should have the last hour devoted to the discussion of some special clinical subject, to be notified to the members beforehand. This, he thought, by methodising work and inducing members to bring specimens illustrative of the subject for discussion, would add to the usefulness and interest of the Section.

Excision of Tarsal Bones.—Mr. FURNEAUX JORDAN showed a young girl, in whom he had excised the os calcis and astragalus for caries, with excellent results.

Splenic Leucocythemia treated by Phosphorus.—Dr. WADE showed a patient with splenic leucocythæmia, under treatment by phosphorus. The number of leucocytes had much diminished. A further report is promised when the result is known.

Atheroma of the Aortic Valves.—Dr. RICKARDS showed a patient with atheromatous disease of the aortic valves. There were aortic obstructive and aortic and mitral regurgitant murmurs, and great hypertrophy, with dilatation of the left side of the heart. The lungs and the right side of the heart were beginning to suffer. The man was a caster, aged 44; his only complaint was that, for the last nine months, he had been somewhat short of breath on exertion. The sphygmographic tracing of his radial pulse showed the preponderance of the obstruction over the regurgitation in his aortic valves.

Aneurism of Arch of Aorta.—Dr. PHILIP BINDLEY showed for Dr. BELL FLETCHER an aneurism of the arch of the aorta. The case was of interest, chiefly on account of the difficulties with which the diagnosis was surrounded. On auscultating the interscapular region, both inspiration and expiration were found to be rhythmically uneven in force—that is to say, the air in passing through the trachea was periodically checked—less passing at one time than at another—and this unevenness was observed to be synchronous with the pulse. There was also dysphagia. A fortnight before death, characteristic laryngeal symptoms were developed, and the laryngoscope showed paralysis of the left vocal cord. The specimen proved that there had been pressure on the trachea, the œsophagus, and the left recurrent laryngeal nerve.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 2ND, 1876.

THE ARCTIC EXPEDITION.

THERE are a few plain questions concerning the story of the exploring parties of the Arctic Expedition which have not yet been answered; but as to which the country has a right to claim, and will certainly expect, that they shall be answered very explicitly, and without much further delay.

Who was responsible for the furnishing of the sledge parties? What were the instructions given from head-quarters, before the expedition started, for the maintenance of the health of the men? What were the orders and what was the provision for dietary? Were these instructions carried out? If not, who is responsible for failing to act upon them?

Ample materials, of course, exist at the Admiralty for answering these questions. We have endeavoured to obtain the necessary data by formal application to the Secretary of the Admiralty for "copies of the diet-lists of the Arctic Expedition, including those of the sledging parties; and copies of any instructions issued from the Medical Department of the Navy regarding the maintenance of the health of the crews; and for any papers recently issued regarding the Expedition". Considering the freedom and promptitude with which various reports of Captain Nares and his officers were, in the first instance, publicly distributed, and considering that these reports are barren of information concerning these vital questions, it might have been expected that no objection would have been made to furnish information of so much public interest, and so immediately bearing upon the subjects most anxiously debated in relation to the history and significance of the Expedition. A sudden shyness and reticence have, however, seized the Lords of the Admiralty; and we have been informed, in reply, that my Lords are unwilling to furnish this information "until after the meeting of Parliament". We venture to think that this idea of withholding from public knowledge, for some months, documents essentially necessary for completing the information relating to the vital history of the Expedition is not wisely or justly conceived.

This is not the case of a pending negotiation in a secret service which can be injured by frankness and publicity. It is the case of a public exploit, undertaken to meet a public impulse, and at the instance of various learned societies, as well as of a strong public opinion. A fairly complete outline of the geographical details has been at once issued, but the character of the results is plainly largely affected by the vital history of the sledging parties; and on this point, while enough is apparent to show that serious disaster of a kind usually considered preventable has occurred, no means are afforded officially of judging how these disasters should be regarded, and what was their real nature and causation.

The sledging journals of the expedition are printed, and have even been circulated amongst a very limited circle. Why should they not be frankly placed in the hands of all who are interested, as Captain Nares's narrative has been? They are records of a most deeply and, we regret to add, of a most tragically painful interest, but they contain no private matter. They are of precisely the same character, but, of course, a good deal more detailed, and in some sense more instructive therefore, than that narrative. We find in them passages of the most

channel previously made by its point free for the reception of the expelled liquid." Feeling that the value of his results would be impaired if the investigation extended only to the local effects produced by inoculation, Dr. Klein inoculated a sheep at ten points in the usual way, and simultaneously injected into its external mammary vein a mixture of lymph and solution of chloride of sodium. He was thus enabled to compare the anatomical characters of the primary and secondary eruption in the same animal. "The injection and inoculation were performed on the 1st of April; the primary papules made their first appearance on the 4th. On the 7th, several small secondary papules appeared on the lips and around the mouth, and increased rapidly in number during the succeeding three days. At the same time, the eruption extended to other parts of the body; but the papules were most numerous in the axilla and on the belly." In this case, as in others noted by this observer, the primary pustules were from half an inch to an inch and a half in diameter, and most of the secondary ones did not exceed a quarter of an inch. Having described his method of investigation, Dr. Klein next enters upon an elaborate description, accompanied by illustrations, of the morphological characters of sheep-pox virus preserved for several days in a sealed capillary tube, and the same after it had been kept at the temperature of incubation for twenty-four hours.

He also examined fresh lymph obtained from a pustule on an animal inoculated fourteen days before. The latter "was found to contain, in addition to granular pus-corpuscles and coloured blood-corpuscles, numerous small highly refractive granules, either isolated or in couples, which exhibited molecular movement. After having been kept at 32 deg. C. for twenty-seven hours, it exhibited the following structures, in addition to those already mentioned: (1) Pus-corpuscles, of which the substance has become swollen and transparent, each containing from two to six homogeneous slightly refractive spheroids. These bodies, of which the diameter is less than half that of a coloured blood-corpuscle, are also seen in considerable numbers in the free state; they possess a slightly greenish colour, and are perfectly homogeneous, differing in both these respects from nuclei of pus-corpuscles. When not enclosed in pus-corpuscles, they occur either isolated or in couples; in form they are usually spheroidal, but are occasionally oblong, showing a more or less marked constriction in the middle. Along with these, other forms exist, in which it can be made out that the body, if a spheroid, consists of a highly refractive smaller granule (micrococcus) contained in a transparent envelope; or, if oval or rod-like, of two such granules held together in a similar manner. Between these and the free micrococci to be immediately described, it is easy to observe the transition. (2) By the repeated division of the spheroids above described, dumbbells and necklaces are formed; the constituent micrococci of the necklaces are held together by a connecting transparent substance. Sometimes they are all of the same size; but more frequently one is larger than the rest, and presents the appearance of a greenish transparent pear-shaped body, which may or may not contain a highly refractive granule. The necklaces, which have grown to a great length and have become much convoluted, are apt to break up into shorter chains, forming (3) groups from which the free ends of the filaments project. By the coalescence of these groups of convoluted chains, colonies, consisting of micrococci closely packed together, are produced, which correspond in appearance to the zooglœa of Cohn; these colonies are often connected together by (4) long filaments, some of which still show a necklace-like structure, while others are apparently smooth and homogeneous. Twenty-four hours later, the colonies were found to have increased in number and size; some of the individual micrococci had also undergone changes." From the appearances thus expressed, it was concluded that the highly refractive spheroid is the only form that can be regarded as characteristic of the lymph of sheep-pox in its active condition. Dr. Klein then describes the changes which occur at the seat of inoculation. He divides the development of the primary pock into three stages. The first is characterised by progressive thickening of the integument over a rapidly increasing but well-defined area; the second, by the formation in the rete Malpighii of vesicular cavities containing clear liquid, in which, sooner or later, vegetable forms are developed; the third, by the impletion of these cavities with pus-corpuscles. "The process commences in the rete Malpighii and in the subjacent papillary layer of the corium; in the former, by the enlargement and increased distinctness of outline of the cells, and by corresponding germinative changes in their nuclei; in the latter, by the increase of size of the papillæ, and by germination of the endothelial elements of the capillary blood vessels. It is next seen that the interfascicular channels (lymphatic canaliculi) of the corium are dilated and more distinct; that the lining cells of these channels are enlarged, and more easily recognised than in the natural state; and that, in the more vascular parts of the corium, the channels are more or less filled with migratory or lymph-corpuscles. At the same time, the lymphatic vessels, of which the canaliculi are tributaries, can be readily traced, in consequence of their being distended with a material which resembles coagulated plasma. About the third day after the appearance of the pock, the contents of the dilated lymphatics begin to exhibit characters which are not met with in ordinary exudative processes. These consist in the appearance in the granular material already mentioned of organised bodies, which neither belong to the tissue nor are referable to any anatomical type; viz., of spheroidal or ovoid bodies having the characters of micrococci, and of branched filaments." Then follow a figure of a lymphatic vessel of the corium, as seen in section, filled with micrococci; another, the contents of which have the characters of a mycelium; and a third, containing a mycelium-like structure, the filaments of which interlace so as to form a felt mass. "After one or two days, the greater number of the lymphatics of the affected part of the corium become filled with the vegetation above described", from which "necklace-like terminal filaments spring, each of which breaks off at its free end into conidia". Then follow figures representing the necklace-like filaments in a lymphatic of the corium, and separated conidia in a state of germination. While these appearances present themselves in the corium, changes, preparatory to the formation of the vesicular cavities in the rete Malpighii, are beginning. By a process designated horny transformation, having its seat in the epithelial cells of the middle layer of the rete Malpighii, a horny stratum appears, by which the rete Malpighii is divided into two parts, one more superficial, the other deeper than the horny layer. "Simultaneously with the formation of the horny layer, the cells of the rete nearest the surface of the corium undergo very active germination, in consequence of which the inter-papillary processes not only enlarge, but intrude in an irregular manner into the subjacent corium. At the same time, the cells immediately below the horny stratum begin to take part in the formation of the vesicular cavities, some of them enlarging into vesicles, while others become flattened and scaly, so as to form the septa by which the vesicular cavities are separated from each other." The newly developed horny layer "is seen to be formed by the transformation of the cells which lie next to it on its superficial aspect". The whole process is shown in a diagrammatic representation of a vertical section through a primary pock on the eighth day. The vesicular cavities soon increase in size and number. "Originally separate, and containing only clear liquid, they coalesce, as they get larger, into irregular sinuses, and are then seen to contain masses of vegetation similar to those which have been already described in the lymphatic system of the corium—with this difference, that the filaments of which the masses are composed are of such extreme tenuity, and the conidia are so small and numerous, that the whole possesses the characters of zooglœa rather than of mycelium." The characters of the vegetation contained in the vesicular cavities form the subject of two cuts. Sooner or later, the portion of the rete Malpighii lying beneath the horny stratum becomes infiltrated with migratory lymph-

corpuscles. "At a time corresponding to the commencement of the development of the vesicles in the rete Malpighii, the cutis (particularly towards the periphery of the pock) is infiltrated with these bodies. No sooner has the coalescence of the vesicles made such progress as to give rise to the formation of a system of intercommunicating sinuses, than it is seen that the whole of the deep layers of the rete Malpighii become inundated, so to speak, with migratory cells, which soon find their way towards the cavities, and convert them into microscopical collections of pus-corpuscles, the formation of which is proved to be due to migration from the corium." The anatomical characters of the secondary pocks were found to be substantially the same as those of the primary; but in general the stage of pustulation is reached more rapidly in the secondary pocks. It was also noticed that "the peculiar transformation which in the primary pustule goes on to such an extent as to result in the formation of a horny layer, which is of such thickness and so well marked, that it can be distinguished in the section by the naked eye, is represented in the secondary pustules by a change of the same kind; which, however, is very partial in its extent and distribution, and affects only a few cells of the middle layer of the rete. Connected with this, there is a considerable difference in the mode of the formation and the arrangement of the vesicular cavities. They appear in great number simultaneously in the middle layers of the rete Malpighii, and are generally found much nearer the corium than in the primary pocks."

We have made our notice of Dr. Klein's paper particularly full, giving the details of the changes he observed in the skin at the site of inoculation, and his own description of the characters of the vegetations he discovered in the lymphatic vessels of the corium and the vesicular cavities of the rete Malpighii, as the research may be of great pathological importance. Our own investigations into the contagium of cow-pox, detailed in this Report, were planned and almost completed before Dr. Klein's Report reached us.

Life-History of Contagium.

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TABLE I.—Effect of Lymph acted on by various Germicides.

	Indicative Number.	Subjects operated on.	Total No. of Inoc. Points.	Total No. of Vesicles obtained.	Process employed.	Source or Age of Lymph: Strength of Mixture; etc.	Remarks.
CARBOLISED VACCINE.	a. I, II, III, IV, V, VI, VII	Infants	16	6	Vaccine mixed with an equal portion of an aqueous solution of carbolic acid (1 to 20 aq.)	Vaccine obtained direct from an infant was mixed with the germicide, and applied at once	Among these seven children, three failed completely. These three had been vaccinated simultaneously on the opposite arms by the arm-to-arm method. Of the three failures, one was due to relapsing fever, another failed without cause, and in the third child the arm-to-arm method succeeded.
	b. VIII	Infant	2	None	Ditto	Vaccine obtained direct from an infant was mixed with the germicide, and kept in a capillary tube for seventeen days before being used	Was subsequently vaccinated successfully
	IX	Infant	2	None	Ditto	The mixture, obtained as above, was kept in a capillary tube for four weeks before being used.	Subsequent vaccination succeeded
	X & XI	Infants	6	None	Ditto	The mixture, obtained as above, was kept in a capillary tube three weeks before being used	" " "
	XII	Infant	2	None	Ditto	The mixture, obtained as before, was kept in a capillary tube for six weeks before being used	" " "
	1873	Heifer	12	2 or 3	Ditto	Lymph kept for some days in tubes was mixed with the germicide, and mixture used at once	Subsequent vaccination of this animal seemed also to succeed
	c. 1875	"	12	None	Vaccine mixed with an aqueous solution of carbolic acid (1 to 4 aq.)	This mixture consisted of six tubes of vaccine and four drops of the germicide solution	Subsequent vaccination by V and then by B failed. Animal insusceptible to vaccination
	d. 1875	"	12	None	Vaccine mixed with carbolate of glycerine, containing 20 per cent. of carbolic acid	The mixture consisted of six tubes of vaccine and four drops of the germicide	Subsequent vaccination succeeded
SULPHURISED VACCINE.	a. I to XII	Infants	27	3	Vaccine mixed with a saturated aqueous solution of sulphurous acid	Equal portions of vaccine and the germicide solution were used	The only success in this group was exhibited by the child first experimented on; and no doubt this was owing to the lancet not being perfectly clean. All the others were subsequently vaccinated successfully
	1873	Heifer	11	2 (doubtful)	A similar mixture to the above was used	Ditto ditto	Subsequent vaccination succeeded
	1875	"	12	None	Vaccine mixed with sol. acid sulphurosi (B. P.)	The mixture consisted of six tubes of vaccine and four drops of the germicide solution	Was subsequently vaccinated with perfect success
	b. XV & XVI	Infants	4	None	Vaccine exposed all night under a glass shade to sulphur fumes	Two tubes of vaccine thus treated were applied to each child	Vaccinated successfully at a later date
QUININISED VACCINE.	I	Heifer	12	7	Vaccine mixed with an aqueous saturated solution of muriate of quinine	Mixture consisted of six tubes of lymph and four drops of the solution	Subsequent vaccination failed
	II, III, IV	Infants	6	5	Mixture as above	Equal portions of lymph and the germicide solution used (one tube and two drops of the solution)	II showed one good vesicle; III and IV each showed two perfect vesicles. Vaccination at a later date succeeded
OZONISED VACCINE.	I to VII	Infants	21	None	Vaccine exposed for many hours to ozone in a closed vessel, generated by the action of a heated glass tube on ether vapour, and some exposed for a short time to ozone, generated by the slow action of air on phosphorus		
	1875	Heifer	12	2 or 3 crusts and some papules	Vaccine exposed for five to ten minutes to ozone, in a strong current, generated by electricity		Subsequent vaccination failed
	1875	"	12	None	Vaccine exposed for many hours to ozone, generated by electricity		Vaccination by V failed; by B succeeded partially
PERMANGANATED VACCINE.	1873	"	12	None	Vaccine mixed with liq. pot. permangan. (B. P.)	Equal portions of lymph and of the antiseptic were used	Subsequent vaccination failed; animal probably insusceptible
	1875	"	12	One crust and six probable vesicles	Mixture as above	Six tubes of lymph with four drops of liq. pot. perman. were used	Vaccinated successfully at a later date
	1875	"	12	None	Mixture as above	Quantities same as in the last instance	Subsequent vaccination partially successful
CHLORALUM VACCINE.	1875	"	12	Six good and six doubtful vesicles	Vaccine with chloralum, as ordinarily sold	Mixtures consisted of six tubes of lymph with four drops of chloralum	Subsequent vaccination failed
CHLORINISED VACCINE.	1875	"	12	None	Vaccine mixed with liq. chlori (B. P.)	Equal portions of lymph and the germicide were used	Vaccinated successfully at a later date
	I & II	Infants	6	None	Vaccine exposed all night under a glass shade to fumes generated by strong hydrochloric acid and black oxide of manganese	Three tubes of lymph thus treated, used in each instance	Subsequent vaccination was successful

TABLE II.—*Inoculations with Diffusates made from Vaccine Lymph.*

No.	Initials of Subject.	Sex.	Age.	No. of Points inoculated with Diffusate.	Age of Lymph at time it was brought in contact with water.	Relative proportion of water and lymph in contact.	Duration of contact.	Result.	No. of Points Vaccinated.	Age of Lymph used.	Result.	Remarks.
1	M. S.	M.	1 yr. 2 m.	4	7 days	2 w. to 1 l.	22 hrs.	Failure	4	18 days	3 succd.	
2	E. R.	F.	7 m.	4	7 "	2 w. to 1 l.	22 "	"	3	Fresh	3 "	
3	H. O.	M.	5 yrs.	4	7 "	2 w. to 1 l.	22 "	"	4	18 days	4 "	
4	W. R.	M.	4½ m.	4	7 "	2 w. to 1 l.	22 "	"	4	18 "	4 "	
5	M. B.	F.	1 yr.	4	7 "	1 w. to 1 l.	22 "	"	4	18 "	4 "	
6	G. F.	M.	10 m.	4	Fresh	1 w. to 1 l.	48 "	"	4	9 "	Failure	
7	L. B.	F.	1 yr. 2 m.	4	"	1 w. to 1 l.	68 "	"	4	9 "	2 succd.	Measles appeared coterminously.
8	T. R.	M.	1½ m.	4	1 day	1 w. to 3 l.	23 "	"	4	8 "	Failure	Vaccination was performed with residuum in diffusing glass exposed 7 days. Child took small-pox 14 days after vaccination.
9	J. G.	M.	2 m.	4	1 "	1 w. to 1 l.	45 "	"	3	10 "	1 succd.	Vac. performed with contents of 1 tube only.
10	W. P.	M.	1 yr. 4 m.	4	1 "	1 w. to 1 l.	45 "	"	3	10 "	2 "	
11	M. H.	F.	3 yr. 4 m.	4	1 "	1 w. to 1 l.	45 "	"	4	10 "	Failure	Vaccination was performed with residuum in diffusing glass exposed 7 days.
12	D. C.	M.	7 m.	4	1 "	1 w. to 1 l.	45 "	"	4	10 "	1 succd.	
13	E. M.	M.	1 yr. 11 m.	4	1 "	1 w. to 1 l.	45 "	"	4	5 "	3 "	
14	J. M.	M.	3 yr. 10 m.	4	1 "	1 w. to 1 l.	45 "	"	4	5 "	1 "	Vaccinated when an infant unsuccessfully.
15	J. W.	M.	3 yrs.	4	1 "	1 w. to 1 l.	45 "	1 succd.	—	—	—	
16	A. L.	M.	9 m.	4	Fresh	1 w. to 3 l.	44 "	Failure	3	9 "	3 succd.	Vac. performed with contents of 1 tube only.
17	R. D.	F.	3 yr. 1 m.	4	"	1 w. to 3 l.	44 "	"	3	9 "	3 "	" " " "
18	J. M.	M.	5 yrs.	4	"	1 w. to 3 l.	44 "	"	3	9 "	2 "	" " " "

TABLE III.—*Effects of Lymph preserved for various lengths of time by different methods.*

	No. of Children operated on.	No. of Successes.	Total No. of Inoculated Points.	Total No. of Vesicles obtained.	Remarks.
Arm-to-arm vaccination.....	200	199	800	758	
Lymph kept in tubes for 1 week	24	19	82	60	
" " " 2 weeks.....	10	10	40	35	
" " " 3 "	6	6	24	20	
" " " 4 "	8	6	32	21	
" " " 6 "	10	10	40	27	
" " " 8 "	6	6	24	18	
" " " 10 "	10	9	40	26	
" " " 12 "	10	9	40	25	
" " " 5 months	8	5	32	16	
" " " various weeks and months	11	8	33	23	
" " " several months...	2	None	...	...	This was "animal vaccination lymph" from a heifer, brought from St. Petersburg.
" " " one year	1	None	4	...	Brought from Berlin.
" " " "	1	None	4	...	Brought from Berlin: a mixture of vaccine & glycerine.
" " " four years	4	None	8	...	This was retrovaccine lymph from the cow.
" " " on points for ten days ...	1	...	3	...	Retrovaccine lymph from a heifer.
" " " between square flat glasses for one year.....	1	None	2	...	
A crust removed some days previously from a corpse	2	None	4	...	The subjects of all these failures underwent successful vaccination by the arm-to-arm method at a later date.

TABLE IV.—*Animal Vaccination.—Statement of Experiments.*

Total No. Experimented on.	No. of Successes.	Total No. of Inoculated Points.	Total No. of Vesicles obtained.	Remarks.
1 heifer	Successful	25	23	For this purpose, four tubes of vaccine from M. Lanoix of Paris were used.
3 adults	1 adult	29	29	The adults had previously suffered from small-pox.
15 children	14 children successful			Result not known in one case. Six of these children were stated to have been previously vaccinated successfully, and yet their revaccination with this lymph succeeded.

startling kind. From beginning to end, they read, in respect to the history of the members of the sledging parties, like hospital note-books. It is true that they show a very dark side of the expedition. But, surely, that affords no adequate reason why they should be withdrawn from public notice. The credit of the medical department of the navy is at stake; the feelings of the public, and even the honour of the nation, are trifled with by any suppression of the whole truth concerning this expedition. At present, the Admiralty are laying themselves open to the charge of pursuing something like a policy of suppression.

The sufferings of the men on these expeditions was frightful. "Without exaggeration," says one of the authors of the journals, "they may have been said to have suffered agonies." Before they were out a week or a fortnight, they were ravaged by scurvy; their limbs swelled; their teeth fell loose; the blood was effused in patches; one-half of them became prostrate fetid miserable beings, whose existence was intolerable to themselves and those around them. Every sledge-party without exception broke down prematurely from scurvy. Not only so, but the disease seems to have taken all the commanders of sledge-parties by surprise; each in turn expresses his astonishment, horror, and terror of this affliction when, its full force being felt, he can no longer shut his eyes to its nature; and each bewails pathetically his want of lime-juice. "Oh that I had a ton of it!" writes Lieutenant Rawson; and Commander Markham groans over his pitiful modicum of two small bottles for each sledge; does not venture to begin to use it till, defeated by the prostration of his party from the fearful ravages of scurvy, he has resolved to turn back; and then finds it necessary to issue only a small quantity, to the sick alone, every other day, and even this exhausts his store in about ten days.

Some of the parties utterly, rapidly, and completely broke down with scurvy; all were baffled and beaten by it, and all suffered fearfully from its horrible inflictions. Since the days of our earlier navigators, no such sad story has come home as that of the disablement and break-down from sickness of this splendidly manned and lavishly found expedition. Surely, the documents, which can alone throw a clear light upon the facts, and determine the responsibility attaching to those who planned and conducted the expedition, ought not now to be withheld. In the published letter of the Secretary of the Admiralty, he expressly refers to a report by Dr. Colan on the outbreak of scurvy and to a minute of the Naval Medical Director upon Dr. Colan's report. The latter at least might be produced without delay; and we have once more specifically asked for it. It remains to be seen with what success.

Meantime, Captain Nares, who has many opportunities afforded to him of publicly throwing light upon the facts of the expedition, and who, in some respects, avails himself of them very freely, will perhaps feel for his medical officers, whose mouths are sealed, and will not refuse to make some statement which will relieve the present painful public suspense in respect to a matter which is, we imagine, not altogether foreign to the responsibility of the head of the expedition.

THE CHOLERA EPIDEMIC OF 1873 IN THE UNITED STATES.

We often hear financial reformers in this country holding up the Government of the United States as an example to ourselves in economy. It is certain that our own Government may take a lesson from that of the United States in liberality as regards the publication of documents bearing on the public health, and that of the army and navy. Witness the splendid volumes on the *Medical and Surgical History of the War of the Rebellion*, prepared in accordance with Acts of Congress, under the direction of Surgeon-General Barnes of the United States Army, and the copiously illustrated Catalogue of the United States Army Medical Museum, a veritable *article de luxe*; witness the yearly magnificent donation of five thousand dollars to the Library of the Medical Department of the Army, and the handsome volumes in which the Sanitary and Medical and Surgical Reports of the United States Navy

are given to the public; witness also the volume before us,* giving the history of the cholera epidemic in the United States in the year 1873.

How is cholera introduced into the United States of America, and how is it propagated after its introduction? The answer which Dr. Woodworth, Supervising Surgeon, United States Merchant Marine Hospital Service, author of the report under notice, has given to this question is, "that in every instance the disease has been introduced through the agency of the mercantile marine"; and that, as in Asia, Africa, and Europe, so on the Continent of America, it has spread by the agency of human intercourse. From the first to the last page of this voluminous report, by no means confined to a history of one epidemic, there is not, so far as we have been able to see, a single fact to bear out the disheartening view advocated by the present Sanitary Commissioner of India, Dr. Cunningham, and his able statistical assistant, Dr. Bryden, that moist air in motion is the chief agent in the spread of cholera. We say disheartening, because, if their theory be true, we do not see what man can do to stop its progress and prevent its dreadful ravages. At the very outset of this report, the question, How is the *materies morbi*, the cholera-poison, carried? is discussed. Under this head, it has not been demonstrated that merchandise, in contradistinction to passengers' luggage, is ever the medium of conveying the cholera-poison across the Atlantic. Even upon infected vessels, the cargo is so protected from any chance contact with cholera-ejections, that the risk of importation from this source is of little practical moment. No instance of this kind has come under Dr. Woodworth's observation.

The subjects of supervision and inspection are thus limited to (a) human beings, and (b) personal effects, whether in use on the voyage, or packed before embarking and not opened until after arrival—the wardrobes of officers and the kits of the crew. Even if passengers and crew were both included in such inspections, it would, in the opinion of the author, be quite inadequate as a measure of precaution in the case of cholera. There is the strongest reason to believe that cholera-poison, *i.e.*, the dried evacuations of cholera-patients, has been carried on board ship and liberated with fatal effects after ships have been sixteen and even twenty-five days at sea. It was thus that cholera was carried into New York and New Orleans respectively by the ships *New York* and *Swanston*. What is remarkable is that, when these vessels left Havre on October 31st and November 9th, 1848, there was no cholera in that port or in any part of France, but it prevailed in Germany, whence the emigrants who sailed in the abovenamed ships came. Similar cases occurred in 1854 and in 1866. "In 1873," says Dr. Woodworth, "three distinct outbreaks of the disease occurred at widely remote points in the United States, from poisons packed and transported in the effects of emigrants from Holland, Sweden, and Russia. These people, and the vessels in which they were carried, had been perfectly healthy, and the people remained so until their goods were unpacked at Carthage (Ohio), at Crow River (Minnesota), and at Yankton (Dakota) respectively. Within twenty-four hours after the poison-particles were liberated (by the unpacking of the personal effects of the emigrants), the first cases of the disease appeared, and the unfortunates were almost literally swept from the face of the earth." The above instances are thought to remove any difficulty in the way of accounting for the introduction of the disease into the United States during the winter of 1872-73; for, between the months of December 1872 and January 1873, a total of nearly two thousand emigrants from cholera-infected parts of Europe arrived at New Orleans.

In this volume, the history of the epidemic is compiled from the narratives of two hundred and sixty medical men in the infected districts, in response to circular letters of inquiry addressed to them by the Supervising Surgeons' Office, Treasury Department. One fact comes out with striking clearness, which we commend to the consideration of those who maintain that moist air in motion is the chief agent in spreading the disease. It is this: "In no instance did the disease appear in the interior of the Continent until a sufficient time had elapsed

* Washington: Government Printing Office. 1875.

or the conveyance of the infection from the foci established upon the sea-board in the persons of individuals."

Another lesson, we think, can also be drawn from the history of the various invasions of the Continent of America, viz., that, without the vexatious and, in the present day, impracticable quarantine of the old system, it is quite within the power of capable sanitary inspecting officers to prevent the introduction and spread of cholera, if only they are furnished with accurate information as to the presence of the disease in the localities whence passengers and immigrants come—a fact sufficiently established by similar agency in our own ports on more than one occasion.

There is in this volume some interesting evidence on the prophylactic use of acids in guarding against the spread of the disease among bodies of men and women congregated together, which is well worth the attention of military and naval surgeons and of those in charge of prisons and emigrant-vessels. At the end of the work, there is a very complete bibliography of cholera, and a capital index, which, in a book of this kind, is worthy of praise. Altogether, this voluminous report is a valuable addition to cholera literature, at a time when the laws of its propagation are of so much importance to mankind.

IRISH LUNATIC ASYLUMS.

FROM the Twenty-fifth Report of the Inspectors on the District Criminal and Private Lunatic Asylums in Ireland, we gather that the total number of lunatics under supervision on December 31st was 11,777, or 194 more than at a like date in the preceding year. In addition, however, to these, there were 6,848 returned by the police of the various districts as being of unsound mind, idiotic, imbecile, or epileptic, but unregistered, and not, therefore, under supervision. These returns show a grand total of 18,625 individuals who are the subjects of some form of mental disease, forming a proportion of 32 per 10,000 of the whole population.

The recoveries amongst the numbers under treatment in the various institutions under the supervision of the inspectors have been 43.70 on admissions, and 11.70 on the average number resident. The mortality-rate was 7.60, being an increase of 1 per cent. upon that of the previous year. This increase in the mortality is attributed to the number of hopeless, almost moribund, cases which have been sent into the asylums, upon magistrates' warrants, as being dangerous lunatics, and not to any sanitary defects in the institutions where the deaths occurred.

Although the inspectors express themselves satisfied as to the condition of the district asylums generally, yet, from the internal evidence of their Report, it is quite apparent that they are not blind to the very great deficiencies of the system they have to administer. Speaking of the improvements which have taken place in the various asylums, they remark that, although measures of obvious utility are promptly carried out, yet the Government rate in aid, instead of inducing a more liberal treatment of the patients, seems to have only tended to foster a spirit of parsimony, as shown by a disposition to reduce current expenditure so as to bring the cost of maintenance in asylums to a nearer level with that of the support of paupers in union workhouses; and a clearer view of what this means is to be found in such remarks as the following: "The most obvious requirements and deficiencies which we would now venture to notice are, a better supply of furniture, more facilities for amusement, and a simple homely form of ornamentation, which, indicative in itself of domestic comfort, would obviate the depressing influence arising from the monotonous appearance of day-rooms with bare whitewashed walls, and of blank cheerless corridors". Truly the Irish asylums have many strides to make in the march of progress before they arrive at the same degree of efficiency as is maintained in the most fossilised of our English county asylums. The inspectors congratulate the authorities that the death-rate is so small, and the recovery-rate so large, in the Irish asylums; and we can concur in this, knowing under what tremendous obstacles these results are attained. The medical superintendent of an Irish lunatic asylum

is a man greatly to be pitied; he has to perform the duties of two or three officials, and at the same time to maintain a constant fight with the governors for everything beyond the barest necessities of life which his poor patients receive. And yet he is at the head of what the inspectors term "a suitable receptacle for scientific treatment". We feel sure that, if the many and urgently needed reforms in the internal economy and system of management of the district asylums were carried out in a liberal spirit and with an earnest desire for the benefit of patients resident therein, the proportion of lunatics to the population would not be, as it is now, 6 per 10,000 more than in English asylums; and the Irish lunatic asylums would then not be under the ban of contributing little to the improved treatment of mental disease except "what to avoid".

MALTESE telegrams announce the safe confinement of H.R.H. the Duchess of Edinburgh, under the care of Dr. William Playfair.

WE understand that the Treasury have undertaken the prosecution of "Dr." Slade at the Sessions. The case will probably not be tried till next January.

SMALL-POX has broken out amongst the convicts undergoing penal servitude at St. Mary's Prison, Chatham. One death has already occurred.

THE Trustees of the Stockport Infirmary have, upon the recommendation of the medical staff, decided not to admit small-pox patients after the end of this year.

MR. CHRISTOPHER HEATH has been elected Consulting Surgeon to the Dental Hospital of London, in the room of the late Mr. Campbell De Morgan.

MR. FRANCIS MASON has been promoted to be Surgeon of St. Thomas's Hospital, to fill the vacancy occasioned by the much regretted loss of Mr. Simon, whose period of office, as we lately mentioned, had expired.

AT a general meeting of the Governors of the Bristol Dispensary, specially convened for the purpose, various alterations have been made in the rules, by which it has been altered from a purely charitable to a partially provident institution.

THE cautionary letter of Mr. Larkin, which we last week published, giving a description of a man who had called upon him and sent him to a false address for an imaginary patient, has procured the arrest of the individual in question; and we would refer any other of our readers who may have been victimised to our small-type columns for further particulars concerning him.

A TRAVELLING chiropodist named Wolff was on Wednesday, by the Cambridge magistrates, committed for trial for obtaining money by false pretences from an undergraduate of Trinity College. The defendant pretended to have extracted something like fifty corns from the prosecutor's feet; but it was shown that no corns had been extracted, and that what Wolff had exhibited as the result of the operation were "dummy corns".

WE hear with pleasure of Dr. Claye Shaw's election at the new Banstead Asylum. Dr. Shaw has already high qualities as a physician, an investigator, and an administrator; and no doubt the new asylum will take a high place under his management, both as a place of treatment and a centre of progress in scientific investigation. We hope he may secure a sufficient staff to obtain adequate clinical records, and to utilise the pathological resources of such an institution. It is lamentable to see how little use is made of the vast material in our great asylums, and how imperfectly the example of the West Riding Asylum is followed in other asylums of this country.

A CASE of baby-farming at Chesterton, Cambridgeshire, resulting in the death of an infant by starvation, was heard last week before the coroner for the county, when the jury returned a verdict of manslaughter against Mrs. Larkins, who had charge of the child. It was stated that the child, although six months old, weighed only six pounds. The mother is a young woman who gets her living by teaching music.

THE Italian Medical Association, which recently met in Turin, has offered a prize of 1,000 francs (£40) for an essay on the ideal of an University or Medical School, with special reference to clinical and laboratory instruction.

ROYAL COLLEGE OF SURGEONS.

AT the half-yearly examination for the Fellowship of the College, which was brought to a close on Saturday last, fifteen gentlemen, all members (their diplomas as such ranging from November 1864 to August last) had been examined, of which number only four were rejected. At the clinical examination, which for the first time since the establishment of the Fellowship was held in the theatre of the College instead of the Hospitals, eighteen very interesting cases, selected by a committee appointed for that purpose, were submitted to the candidates; each of whom had two cases, and was allowed half an hour to write a report on each of the cases submitted to him, after which he was examined orally on four additional cases. The following were the cases obtained from St. Bartholomew's, St. Thomas's, Guy's, University College, St. George's, and St. Mary's Hospitals—viz., syphilitic eruption (lupus), hernia and varicocele, double hydrocele, tumour on the leg, chronic abscess on the thigh, encysted hydrocele, syphilitic diseases of bones of the foot, epithelioma of palate, tumour of the tibia, ulcer of the tongue, papilloma of the tongue, enlarged testes and hydrocele, syphilitic eruption and periostitis, disease of the knee and fracture, node on the arm, syphilitic testes, nasopharyngeal tumour, and hernia. Another great improvement over the old plan was, that no candidate was examined a second time by the same section of examiners: this extended also to the reading of the papers; and of course the candidates were known only by numbers, and not by their names.

OBSTETRICAL SOCIETY.

A DEMONSTRATION of transfusion of blood from the living subject will, we are told, be made by Dr. Roussel of Geneva at the next meeting of the Obstetrical Society (Wednesday, the 6th instant). Dr. Langdon Down will at the same meeting read a paper on the Obstetrical Aspects of Idiocy.

LEUCOCYTHÆMIA AND ALLIED DISEASES.

THE papers read at the last meeting of the Clinical Society of London were of unusual interest, and attracted a large meeting of the members. They all described cases of leucocythæmia, with lymphatic or splenic enlargement; and the treatment in all the cases, which were six, had been principally confined to the administration of phosphorus. Dr. Gowers read the first paper, which detailed the history of a lad aged 16, with general enlargement of the cervical, axillary, mediastinal, and inguinal glands, and with slight overgrowth of the spleen. The white corpuscles in the blood were to the red as one to four. Phosphorus being given in doses of the thirtieth of a grain, a diminution of the glandular enlargements and decrease of the white corpuscles at first occurred; but albumen first, and subsequently fatty casts, appeared in the urine, oedema ensued, and death by asthenia. After death, the overgrowth in the glands was found undergoing in some places fibroid, in other situations fatty degeneration; the liver contained minute growths undergoing fatty degeneration, and the kidneys were also granular and fatty. Dr. Gowers raised the question as to whether the drug might be suspected of an influence on the kidney degeneration. Dr. Greenfield related the particulars of the second case, that of a woman, aged

26. The external glands were much, and the spleen slightly enlarged; and the patient frequently suffered from severe attacks of dyspnoea. Phosphorus was given, but the glands continued to enlarge; the patient became emaciated and prostrate, with great daily variations of temperature, and she finally sank and died, after the phosphorus had been continued for six weeks. Her blood contained an excess of white corpuscles, in the proportion of about one white to fifteen red; but Dr. Greenfield thought the increase was not sufficient to warrant its being designated a case of leucocythæmia, and he would call it a case of Trousseau's "adénie", "anæmia lymphatica", or "Hodgkin's disease". Neither phosphorus nor quinine appeared to have had much influence on the progress of the disease. Dr. Goodhart read notes of the next case, that of a married woman, aged 45, still in Guy's Hospital under Dr. Pavy, who had general anasarca, great pallor, and a distended abdomen, due principally to enlarged liver. The blood contained about sixty colourless to one hundred red corpuscles, whilst the white cells were smaller than the red, and granular. The proportion of white corpuscles varied at different times, however, being occasionally almost normal in number, compared with the red. Phosphorus was given, and continued for about three months, with improvement in the patient's general health, though the cervical and axillary glands continued to enlarge, whilst the spleen was not noticeably increased in size. Dr. Goodhart said it must still be doubtful whether in this case Hodgkin's disease alone existed, or splenic leukaemia alone, or both together. Sir William Jenner then related three cases, with all the usual symptoms of splenic leucocythæmia, in all of which phosphorus had been steadily administered, but without apparent benefit. The discussion upon these cases, which was deferred until next Friday night, will probably serve to show how very far from settled are the opinions of English pathologists and physicians respecting the origin and relationships of anæmia, leucocythæmia, and kindred diseases; and, until the origin of these diseased conditions is more distinctly understood, we can scarcely hope that their treatment will be improved.

STATISTICAL SOCIETY.

THE first monthly meeting of the present session was held on Tuesday, November 21st, at the Society's rooms in the quadrangle of King's College; the President, James Heywood, F.R.S., in the chair. After a long list of candidates had been unanimously elected Fellows of the Society, the President delivered his opening address, in the course of which it was stated that the Howard Medal for 1876 (with £20) had been awarded to Dr. J. C. Steele, Medical Superintendent of Guy's Hospital. At the close of the address, the medal referred to was presented to Dr. Steele. The subject of the essay for next year's medal was announced to be, "On the Condition and Management, past and present, of the Workhouses and similar Pauper Institutions in England and Wales, and their Effect on the Health, Intelligence, and Morals of the Inmates". Dr. F. J. Steele, the Foreign Secretary, read a report on the International Statistical Congress recently held at Buda-Pest, to which several Fellows had been appointed delegates of the Society. The address and report in question will be published in due course in the journal of the Society.

EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner of the Edinburgh University Club was held at St. James's Hall on Monday, November 20th, when a large number of members and guests assembled, under the presidency of Dr. De Chaumont of Netley. After the usual loyal toasts, the Army, Navy, and Reserve Forces were proposed; and, in responding for the first of these, Deputy Surgeon-General George Anderson was enabled to comment in very unfavourable terms on the recent changes in the Army Medical Department, and to regret the loss of the old regimental arrangements, under which he had spent so many happy days. The Chairman took advantage of the opportunity afforded him by the toast of the evening to give some interesting historical details of the early history of the University of Edinburgh, and congratulated all present

on the continued successes of their Alma Mater and of the Club. Dr. Duckworth proposed the Visitors, and coupled with this toast the name of Mr. MacKellar, welcoming him back to his place in London after four hard months of successful surgery in Servia. The health of Dr. De Chaumont, proposed by Dr. Jardine Murray of Brighton, and drunk out of the punch-bowl recently acquired by the Club as a memorial of their late esteemed Treasurer Dr. Halley, was enthusiastically received; and songs by Dr. Cobbold, Dr. Percy Boulton, Dr. Ord Mackenzie, and Dr. Duckworth, contributed much to the success of the evening.

ALCOHOL AND LIME-JUICE IN THE ARCTIC REGIONS.

THE experiences of Sir John Ross, of Sir Edward Parry, of Captain McClure and Sir John Richardson, Sir A. Armstrong, of Dr. Rae and Sir John Hooker, had long ago established the absolute superiority of tea over alcohol as an invigorating drink in Arctic latitudes. It is, therefore, not surprising that the total abstinence members of the recent Arctic expedition are able, on their return, to give a very good account of themselves; but it adds to our surprise that, under these circumstances, room should have been found on the sledges for large quantities of spirits—so that Commander Markham abandoned, on his home journey, a considerable quantity of them—while none could be found for the daily ounce-ration of lime-juice necessary to ward off scurvy. Alcohol in excessively cold temperatures will find few defenders even as a luxury; lime-juice will find no detractors as an absolute necessity. On whose authority was it omitted?

TYPHOID FEVER IN PARIS.

DURING the three weeks ending November 23rd, no fewer than 424 deaths from typhoid fever were recorded in Paris, the weekly numbers having successively been 171, 150, and 103, showing a decline in the fatality of the epidemic. The number of fatal cases of this disease in Paris from the beginning of the year to November 23rd was 1,665, equal to an annual rate of 1 per 1,000 persons living; whereas the rate in London from typhus, typhoid, and simple fevers during the same period was only equal to 1 in 3,000 persons living. The weekly deaths from typhoid fever in Paris rose to 87 and 82 in the middle of August, and, after a decline to 29 in the middle of October, rose rapidly to 171 in the first week of November, since which, as above mentioned, they have again declined. The prevalence and fatality of the disease appear to have spread through all the quarters of Paris, the various hospitals having been crowded with cases. The attacks have been characterised by ataxic and adynamic symptoms; the eruption has been more than usually abundant and marked; the proportional fatality of cases has been high, and their duration exceptionally short. There does not appear to have been, at present, any serious and scientific attempt to discover the source and cause of this remarkable epidemic.

A LUNATIC CONDEMNED TO DEATH.

MEDICAL details are rarely given with sufficient minuteness in newspaper reports to make comments on medico-legal cases quite safe. But the statements made, and apparently unrefuted, during the trial of William Drant at Lincoln on the 27th instant for murder, show so strong a *prima facie* case of insanity, that the public interest requires a reference to them. Drant had been subject, according to the *Times*' report, occasionally to some kind of fits. On the evening of October 14th, he accompanied his mother to the house of a neighbour—a Mrs. Goddard. He there complained of illness; said he thought he was dying; asked his mother to kiss him, and wished some one to pray for him. This was done, and the prisoner returned with his mother to his own home about ten or eleven o'clock, Mrs. Goddard following them. Upon arriving there, the prisoner lay down on the sofa and remained quiet for about half an hour. At the end of that time, he began to accuse Mrs. Goddard of attempting to poison him, and, after some conversation, in which she tried to soothe him, he suddenly sprang up and shook his fists in her face. She begged him not to hurt her,

as they were "old particulars". He then called for his mother, who, taking alarm, had run out to fetch assistance. On her return, he attacked and tried to murder her with a knife. Some neighbours came in and rescued her, one of them striking the miserable maniac on the head with a fence-rail. This implement he shortly after seized and chased a man who had in the meantime appeared on the scene. This person fled and escaped; but, during his pursuit, the prisoner came across another poor fellow, whose head he battered in and killed. Some evidence was given of hostile expressions used a few weeks ago by the prisoner against the deceased, who had formerly employed, but last year ceased to employ him. The learned judge directed the attention of the jury to the judge's answers in M'Naughton's case, and "dwelt upon the prisoner's discrimination of persons as pointing to his sanity". We need not encumber this case with many comments. A man, after feeling unwell, suddenly manifests a gross delusion; viz., that an "old particular" friend is trying to poison him; then attempts to murder his mother, whom a few minutes before he had asked to kiss him, because he felt so ill, that he thought he was dying, and then "runs a-muck", and, in a paroxysm of fury, tries to murder one man and succeeds in murdering another. It is positively painful that a learned judge should dwell on the prisoner's discrimination of persons as pointing to his sanity. Will he take the earliest opportunity of going round a lunatic asylum and judging of what value such a test is? We should fail in a plain duty, if we did not express a strong opinion that, in all such cases, the judge should exercise the power entrusted to him of calling in an expert, and, at all events, hearing his opinion. We hope that the Home Secretary, who is a man of good sound common sense, will turn his attention to this point. Drant is a dangerous, though probably intermittent, lunatic, whose proper destination is Broadmoor and not the gallows; and yet we doubt whether, unless he have another maniacal paroxysm and murders a warder, the Home Secretary has power to rectify the mistake that has been made.

FATAL CASES OF SMALL-POX AMONG VACCINATED PERSONS.

THE experience of recent small-pox epidemics shows that scarcely any successfully vaccinated children, or revaccinated adults, die from this disease. In order, however, to be able to compile completely satisfactory statistics in support of this statement, much more care must be devoted to the filling up of medical certificates relating to deaths from small-pox. The Registrar-General has pointed out that, in 100 out of the 371 fatal cases of small-pox registered in London, between the 1st of January and the 25th of November last, the medical certificates gave no information as to vaccination; thus, in 27 per cent. of the cases, we have no reliable information as to vaccination. In 165 cases it was certified that the deceased had not been vaccinated; and, in 106 cases, it was certified that vaccination had been performed. Anti-vaccinators, not unnaturally, point to those 106 deaths from small-pox, in spite of vaccination, as evidence of the futility of vaccination, and it suits their purpose to ignore the conclusive evidence of the protective advantage of vaccination afforded by the statistics of the Registrar-General, showing the relative mortality from the disease among the vaccinated and unvaccinated. It is well, therefore, to consider the bearing of these fatal cases of small-pox among vaccinated persons upon the claims urged by the believers in vaccination, that the operation effectually performed in infancy and repeated during adolescence affords all but absolute immunity from the disease, and especially its fatal results. During the forty-six weeks of this year, ending November 18th, 97 deaths from small-pox in London were certified as vaccinated cases; 5 were of children under five years of age, 22 of children between five and twenty years of age, and 70 of adults aged between twenty and sixty. No reference was made to revaccination in the certificates relating to any of the 70 adult cases; and, although it would be unsafe to assume that revaccination had been neglected in every case, it would be necessary to prove that revaccination had been performed before the cases could be used as evidence against the claims of those who believe in the efficacy of vaccination. Only in a few of the adult cases

do the certificates give any clue to the period of vaccination, by inserting the words "vaccinated in infancy". Only 5 of the certified vaccinated cases were of children under five years of age; but why, it may be asked, should there be any, if successful vaccination be held out as an absolute protection from small-pox up to the period of adolescence? We would answer this question by boldly stating that, notwithstanding the certificates, we have good ground for disbelieving in the trustworthiness of the facts certified as reported. The Registrar-General reports, for instance, that, during the forty-six weeks under notice, one child certified to be vaccinated, and aged between one and five years, died from small-pox in London. He also points out that, among equal numbers living, 372 deaths from small-pox occurred among the *unvaccinated* children at this age in London, to one among the *vaccinated* children. This is a powerful argument; but we are loth even to accept this single case as trustworthy. We believe the case reported to be that of a child aged three years, who was vaccinated on November 2nd, on whom the eruption appeared on the 8th, who was admitted into hospital on the 11th, and died on the 15th. This death was certified as a vaccinated case, and was doubtless so registered and classified by the Registrar-General. Indeed, unless the dates quoted above had been inserted in the certificate, there would have been no ground for its rejection as a vaccinated case. In possession of the dates, however, it becomes evident to anyone who knows the course of the disease, and that the period of incubation is, in Mr. Marson's words, "precisely thirteen times twenty-four hours", that the above-mentioned child had contracted small-pox eight days before she was vaccinated. If the certificate had stated, "vaccinated six days before the eruption appeared", the Registrar-General would have been clearly justified in treating the case as unvaccinated. If our surmise be correct, not a single vaccinated child aged between one and five years died of small-pox in London in the forty-six weeks. The cases of four infants under one year of age were, however, certified as vaccinated; how about them? We are not in a position to maintain the particulars relating to each of these four cases: we believe, however, that one was of an infant, aged five months, vaccinated on November 3rd, on whom small-pox appeared on the 11th, and whose death was certified by the same practitioner who performed the vaccination. In this case, only eight days elapsed between vaccination and the appearance of the eruption, and, as the period of incubation is "precisely thirteen times twenty-four hours", the infant must have caught small-pox at least five days before it was vaccinated. We do not know that it has ever been conclusively established at what stage of the vaccinia protection from small-pox is acquired, but it has never been even asserted that vaccinia, during the incubation period of small-pox, confers any protection, and the two above-mentioned cases prove that it does not. During small-pox epidemics, vaccination is very frequently performed upon children and others who are exposed to the risk of infection from small-pox patients in the same house or family. Hence many are vaccinated after they have been infected, and unless the medical certificates are very carefully and precisely filled up, such cases get registered as deaths from small-pox "after vaccination", which may be true to the letter, although essentially inaccurate in spirit. We can only urge medical practitioners, in the interest of public health, to afford the death-registrar such precise information as to the vaccination and revaccination of persons dying from small-pox, as will enable the Registrar-General to compile and publish statistics which may in time reduce the now small but noisy band of antivaccinationists to a few solitary fanatics, who will probably, then as now, persist in saying, in the face of all facts, that vaccination never has saved the life of a single human being, and never can.

SALICYLATE OF QUININE.

MR. J. GRAHAM BROWN, in the *Edinburgh Medical Journal* for November 1876, speaks very highly of the antipyretic power of salicylate of quinine, which he illustrates by thermographic charts from cases observed in the wards of Dr. Grainger Stewart.

THE LATE DR. JOHN C. HALL.

AT a special general meeting of the Governors of the Sheffield Public Hospital and Dispensary, the following resolution was passed unanimously. "That this meeting deeply regrets the irreparable loss which the Public Hospital and Dispensary has sustained in the death of the Honorary Secretary, Dr. Hall. The governors feel their sense of the unwearied exertions, unceasing energy, and great ability displayed by Dr. Hall as the founder, physician, and successful secretary of this hospital, without which it could never have attained its present sphere of usefulness. In thus feebly expressing their deep sorrow at the removal of so great and useful a friend to the Hospital and Dispensary, the Governors hope that they may show the sympathy they feel for the family of Dr. Hall in the great bereavement they have sustained, and that the knowledge of the thorough appreciation by the Governors of this hospital of the work he has done may tend to mitigate their great sorrow."

AN ALLEGED SURGERY THIEF.

JOHN ROGERS, aged 30, who refused his address, describing himself as a clerk, was on Wednesday charged with being a suspected person entering the surgery of Dr. Wallace, 243, Hackney Road, for the purpose of committing a felony. The prisoner told a long story to the Court, of having been of good position and well connected; but, in consequence of making an imprudent marriage, had been discarded by his family. He had, he said, entered for the medical profession, and passed through the hospitals, but being reduced to destitution had given way to temptation. The police asked for a remand, stating that there were eighteen cases of robbery from surgeries lately reported, and the prisoner was believed to be the man wanted. A remand was granted. Dr. Wallace's letter on this subject is published in another column.

CROWN PROSECUTION OF AN ILLEGAL PRACTITIONER.

THE Attorney-General, the Solicitor-General, and a learned junior, appeared before Baron Pollock on Tuesday last to prosecute an illegal practitioner on behalf of the Crown. Is it needful to add that this formidable and costly array was for the punishment of an unqualified legal—not medical—practitioner? A fine of £50 was inflicted. We hope—against hope—that the Government will read the opening remarks of their own chief legal adviser, since, *mutatis mutandis*, they apply with equal force to unqualified medical harpies. The Attorney-General observed that the result of the provision of the Act of Parliament was, "that every unqualified person who drew certain legal instruments incurred a penalty; and, in his opinion, the provision was a wise one, and necessary for the protection of properly qualified practitioners as well as for the public." It was very hard upon a man who had gone through a long, a laborious, and an expensive training, and who had thereby duly qualified himself for the practice of the law, that he should be subject to the competition of those who were unqualified, and, as a rule, were quite unfit to undertake the conduct of legal matters; and it was for the interest of the public that their legal affairs should be transacted by duly qualified persons, who, in case of want of skill or negligence, were liable to an action, or were subject to the control of the courts." It may be added that, so far as appears in the published reports, no incompetence was alleged against the defendant.

ACCIDENTAL POISONING.

AN inquest was held some days ago in Leeds on the death of a woman named Margaret Conway, the wife of a fish-dealer. The deceased was given by a druggist's assistant, who said he had been fourteen years in the trade, a bottle purporting to be stomachic medicine. The bottle bore a label, lettered plainly "Liq. Strychn.—Poison". This label was seen by Mrs. Conway's daughter, a married woman, who could not spell the word "poison", and who hence did not caution her mother. The deceased swallowed a small tablespoonful, from the effects of which she died in two hours. The assistant said that by mistake he gave the deceased a bottle of solution of strychnine. The ver-

dict was, "Excusable homicide connected with the grossest carelessness".—A woman named Isabella Wall, at Middlesbrough, has been poisoned by taking by mistake some nitric acid lotion instead of chloric ether.

VOLUNTEER SICK-BEARERS.

A MEETING was held on November 24th at the Society of Arts, at which it was resolved to call, in London, a meeting of commanding and medical officers of volunteers to consider a proposal for drilling a certain number of men in each volunteer regiment, or establishing a special corps in centres like London, for the duty of conveying wounded and sick men from the field of battle to the field-hospital. It was stated that the number of men trained for this duty in the regular army is far from being large enough to afford any help to the volunteers in the case of emergency, and that the responses to a circular issued by the Provisional Committee showed a very strong feeling in favour of the course proposed.

HOSPITAL DRILL.

MAJOR-GENERAL LYONS, C.B., Quartermaster-General of the Army, and Sir William Muir, Inspector-General of the Army Medical Department, visited the camp at Aldershot on Tuesday week, and inspected a detachment of the Army Hospital Corps, consisting of one officer and a hundred non-commissioned officers and men. Lieutenant-General Steele, K.C.B., Major-General Primrose, C.S.I., and a large number of officers were present. The proceedings commenced with a number of men in marching order being sent out to represent the wounded, each man bearing a ticket describing his wound. A company of Army Hospital men then went out, provided with stretchers, bandages, lint, splints, and other medical appliances; and, after temporarily dressing the wounded, conveyed them to the ambulances, and by these to the field-hospital, where they were supposed to receive further attention. Another company were exercised in improvised methods of carrying the injured. At the conclusion, the men underwent an inspection, and General Lyons expressed himself well pleased.

RECENT URBAN MORTALITY.

DURING last week, 5,581 births and 3,537 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 23 deaths annually in every 1,000 persons living. The annual death-rate was 16 per 1,000 in Edinburgh, 23 in Glasgow, and 24 in Dublin. In the twenty English towns the death-rates were as follow: Brighton, 11; Newcastle-upon-Tyne, 19; Bristol and Nottingham, 20; Leeds, Leicester, Birmingham, and Norwich, 21; Sunderland and London, 22; Portsmouth, 23; Manchester, 24; Liverpool, 25; Bradford, Sheffield, and Hull, 26; Plymouth, 27; Wolverhampton, 30; Oldham, 35; and again the highest rate, 40, in Salford. The annual death-rate from the seven principal zymotic diseases averaged 3.1 per 1,000 in the twenty towns, and ranged from 0.7 and 1.3 in Plymouth and Bristol, to 7.7 and 12.8 in Sunderland and Salford. Scarlet fever caused 11 more deaths in Portsmouth. In the twenty towns, 65 deaths were referred to small-pox, against 61 and 81 in the two preceding weeks; 43 occurred in London, 13 in Salford, 9 in Liverpool, and not one in any of the seventeen other towns. In London, 2,367 births and 1,504 deaths were registered. The births were 10, and the deaths 201, below the average. The annual death-rate from all causes, which in the five preceding weeks had steadily increased from 18.3 to 28.2, declined under the influence of the milder weather to 22.5. The 1,504 deaths included 43 from small-pox, 27 from measles, 42 from scarlet fever, 10 from diphtheria, 23 from whooping-cough, 32 from different forms of fever, and 7 from diarrhoea; in all, 184 deaths, against 169 and 205 in the two preceding weeks. These 184 deaths were 83 below the average, and were equal to an annual rate of 2.8 per 1,000. The 45 fatal cases of scarlet fever included 4 in Pancras, 4 in Islington, 5 in Mile End Old Town, 3 in Bow, 4 in Lambeth, and 4 in Woolwich and Plumstead. Measles showed the greatest fatality

in the south, and whooping-cough in the north groups of districts. The 32 deaths referred to fever were 13 below the corrected average. In greater London, 2,820 births and 1,762 deaths were registered, equal to annual rates of 34.3 and 21.4 per 1,000 of the population. In the outer ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 16.9 and 1.9 per 1,000 respectively, against 22.5 and 2.8 in inner London. At Greenwich, the mean reading of the barometer last week was 29.74 inches. The mean temperature of the air was 43.6 degs., or 1.9 degs. above the average of the week. Rain fell on three days of the week to the aggregate amount of 0.30 of an inch.

SMALL-POX AND VACCINATION.

IN the 20 largest English towns, 65 deaths were last week referred to small-pox, against 61 and 81 in the two preceding weeks; 43 occurred in London, 13 in Salford, 9 in Liverpool, and not one in any of the 17 other towns. In London, the deaths from small-pox, which had been 21, 48, and 52 in the three preceding weeks, declined to 43 last week, of which 9 were certified as vaccinated and 20 as unvaccinated; in 14 cases, the medical certificates did not furnish any information as to vaccination. One of the unvaccinated cases was of a male, aged 72, described as having been inoculated in early life. Of the 43 fatal cases, 19 were registered in the three Metropolitan Asylum District Small-pox Hospitals at Homerton, Stockwell, and Hampstead, and 1 in the Highgate Small-pox Hospital; the remaining 23, or 53 per cent. of the total cases, occurred in private dwellings. Twelve of the deceased small-pox patients had resided in Hackney and Homerton, 3 in Mile End, 6 in Lambeth, 3 in Clapham, and 3 in Camberwell; in all, after distributing the hospital cases, 1 belonged to the West, 17 to the North, 2 to the Central, 7 to the East, and 16 to the South groups of districts. The three Metropolitan Asylum District Small-pox Hospitals contained 433 patients on Saturday last, against 185, 231, 269, and 350 at the end of the four preceding weeks. The Registrar-General also states that, with reference to the calculated rates of mortality among the small-pox patients in the Metropolitan Asylum Hospitals at Homerton and Stockwell during the present year, published in the last Weekly Return, which were 13 per cent. among the vaccinated and 57 per cent. among the unvaccinated cases, it may be stated that, of the 687 completed cases dealt with, only 7, or scarcely more than one per cent., were of infants under one year of age. In order to estimate satisfactorily the protective power of vaccination, it would be necessary to know the numbers of vaccinated and unvaccinated persons exposed to risk from small-pox. This information as regards the adult population is, unfortunately, not available; but recent vaccination reports issued by the medical officer of the Local Government Board show that at least 91 per cent. of the children living under five years of age in London are successfully vaccinated. It may thus be estimated that, of the 348,441 children living in London in the middle of this year between the ages of one and five years, 317,081 had been successfully vaccinated and 31,300 were unvaccinated. At these ages, 50 deaths from small-pox were registered in London between January 1st and November 18th, 1876; of these, 1 was certified to be a vaccinated case, 35 to be unvaccinated, and in 14 cases the medical certificates did not furnish any information as to vaccination. Disregarding the "not stated" cases, it appears that only one death from small-pox occurred among the 317,381 vaccinated children living in London between one and five years of age, whereas 35 deaths from this disease were recorded among the 31,360 unvaccinated children at the same ages. Thus, in equal numbers living, 372 deaths from small-pox occurred among unvaccinated to one death from the same cause among vaccinated children at these ages.

MR. W. E. FORSTER, M.P., was on Friday last installed as Lord Rector of the University of Aberdeen, when the degree of LL.D. was conferred on him. He afterwards delivered the usual Rectorial address.

SCOTLAND.

It was reported last week that there were upwards of three hundred children lying ill of measles in the village of Lassodie, near Dunfermline.

SEVERAL dealers in cream in Glasgow have been fined heavily for selling cream adulterated with milk. In each case, the milk present reached about sixty per cent.

THE following have been elected Presidents, for the ensuing year, of the Royal Medical Society of Edinburgh in the following order: Dr. J. Graham Brown, Dr. R. Kirk, Mr. Cox, and Dr. J. Baker. The session promises to be a most successful one, as there have been nearly fifty new members elected.

TYPHOID FEVER AT LINLITHGOW BRIDGE.

AT a meeting of the Linlithgow Local Authority, on Friday last, it was stated that, as far as could be learnt, the number of cases of typhoid which had occurred at Linlithgow Bridge had been sixty-two, of which seven had terminated fatally—the population of the village is four hundred and sixty-five—thus one in every seven had suffered from the epidemic. It was agreed to remit to a person of skill and experience to examine the wells in or near the village, for the purpose of ascertaining the causes of the impurity disclosed by analysis of the water. The medical officer of health reported that the number of cases of illness was on the decrease. It was arranged that the water of the Stockbridge well should be forwarded to Dr. Littlejohn for analysis, and that an arrangement should be made with him to come on an early day to Linlithgow to examine into its sanitary state and report thereon.

HEALTH OF EDINBURGH.

THE death-rate of Edinburgh was again remarkably low last week, the total number of deaths registered being 64, or at the annual rate of 16 per 1,000 persons living. Of these deaths, only three were the result of zymotic diseases, two being due to scarlatina and one to whooping-cough. One-third of the total mortality was due to diseases of the chest.

SALE OF METHYLATED SPIRITS.

AT the instance of the Officers of the Inland Revenue Department, a man was charged at the Glasgow Police Court, last week, with selling two gallons of methylated spirits, by which he had rendered himself liable to a penalty of £50; and further, for selling a quart of the same spirits as a beverage. A detective gave evidence that methylated spirits was largely used by the lower classes for drinking, because about twopence worth made them tipsy. A fine of £62 10s. was enforced.

FATAL ACCIDENT.

ON Wednesday, November 22nd, an accident, which has since terminated fatally, happened to Dr. Lumsdaine of Gilmerton. The deceased gentleman left his house early in the evening to make a call in the neighbourhood, and about two hours afterwards he was found lying at the bottom of an adjoining quarry, in an unconscious state. From this state he never rallied, and died the following morning. Dr. Lumsdaine, who was between sixty and seventy years of age, was somewhat defective in his eyesight, and it was supposed he had mistaken his way in the dark.

UNIVERSITY OF ST. ANDREW'S.

AT the half-yearly statutory meeting of the General Council of the University of St. Andrew's, on Friday, 24th ultimo, Dr. Archibald moved the adoption of the following resolution, of which he had given notice: "That Drs. Richardson and Sedgwick of London, members of this Council, be requested to give evidence before the Scottish Universities Commission as to the propriety of increasing the privilege of

granting medical degrees to registered medical practitioners. At present, only ten such degrees can be granted annually by one university; and, as the University of Durham now proposes to grant an unlimited number of such degrees, it is necessary that we protect ourselves by craving an extension of the privilege referred to." He pointed out that, while the University was restricted to granting ten degrees *per annum*, the age of the graduates was also fixed at not less than forty years. These ten degrees yielded an income of three hundred and fifty guineas, after deducting the necessary expenses of diplomas and examiners. The proposal of the University of Durham, to grant an unlimited number of degrees, would constitute it a rival to St. Andrew's, the more especially as nine out of ten of the St. Andrew's graduates were Englishmen, who might naturally prefer Durham to the Scotch University. The motion was supported by Professor Pettigrew and others, and agreed to, with a rider, suggested by Professor Crombie, that the representatives of the Council should press for only a moderate extension of existing privileges. In the course of the discussion, it was stated that a memorial had already been sent to the Commissioners on the subject, in which it was urged that the age should be reduced, and that power should be given to grant from twenty to twenty-five degrees annually.

IRELAND.

DURING the week ending November 18th, two deaths from confluent small-pox were registered in Dublin. Both took place in the Mater Misericordiae Hospital; one on the 4th ult., and the other a couple of days afterwards; the duration of illness in both cases being nine days.

SURGICAL SOCIETY OF IRELAND.

THE first meeting of the session took place at the College of Surgeons on the 24th ult., the chair being occupied by the President, Dr. Kidd, who, in the opening address, paid a very handsome tribute to the memory of the late Sir William Wilde, and, in the course of succeeding remarks, referred to the opprobrium under which the practice of midwifery laboured in former times, when that particular branch was neglected, and not allowed to be on a par with either medicine or surgery. He pointed out the absurdity of any one being a competent accoucheur who was not a good surgeon, physician, and anatomist, as a knowledge of either medicine, surgery, or anatomy was constantly called into requisition in midwifery practice. Some pathological specimens were afterwards exhibited, and a communication read by one of the members.

THE IRISH CONJOINT SCHEME.

THE Committee appointed by the University of Dublin, the College of Physicians, and the Royal College of Surgeons, have terminated their meetings, and we understand that the following suggestions are among the results of their proceedings. The Preliminary Arts Examination will comprise English, Algebra, Geometry, Arithmetic, and two languages, viz., Greek and Latin; the Previous Medical Examination will consist of Botany and Materia Medica, Physics and Chemistry, Anatomy and Physiology, including a knowledge of the Microscope; whilst the Final or Pass Examination will comprise Medicine, Surgery, Midwifery, Forensic Medicine, Hygiene, Clinical Medicine and Surgery, etc. The examiners will be selected by the three corporations; lecturers in the universities or schools are eligible, but "grinders" are very properly disqualified. It is understood that neither of the corporations shall give its separate qualifications to any one who has not previously passed the Conjoint Board examination, unless previously registered. The total fees for the various examinations will be thirty-one guineas.

PECULIAR WILL CASE.

IN the Court of Probate, Dublin, last week, there was a suit to establish the will of a Miss Harris, who died in last July, and by which the principal part of her property was bequeathed to Dr. Edward

White, who had attended her for some years. The will was disputed, and the evidence given showed that the old lady had peculiar delusions, one being that her next-door neighbour, a medical practitioner, was in the habit of constantly working a galvanic battery to annoy and molest her. She was also in the habit of wearing her night-dress over her ordinary clothing, and doing various other extraordinary acts. Judge Warren, in reviewing the eccentricities of the testatrix, said he did not assert that it was impossible, notwithstanding this extraordinary conduct, that the lady was of sound understanding; but he was not aware of any case where, upon the same evidence and believing it, a jury had so decided. The jury, after a short interval, upset the will; the judge directing a verdict against Dr. White with costs, less £20.

BELFAST ROYAL HOSPITAL.

THE annual meeting was held last week in Belfast; and, from the report read, it appears that the subscriptions during the year amounted to £1,606, being £300 over those of the preceding year; whilst the donations and bequests were much less than usual, leaving a deficiency of nearly £2,000. The artisan and operative class, for whose benefit the hospital has been instituted and maintained, do not respond as they should, and their donations have been very trifling indeed. Owing to the large expenditure the hospital is subject to, in the case of accidents and diseases from the increasing population, the Committee of Management have been obliged to refuse admission to consumptive patients. During the year, 1,684 patients were admitted to the wards; and 109 deaths took place, 17 being moribund on admission, whilst 52 were caused by surgical affections and 42 by medical; 176 surgical operations were performed, with a mortality of 8, being equal to 4.5 per cent. The students attending the hospital numbered 210 during the winter and summer session. A medical scholarship, called the "Coulter Exhibition", has been founded during the year, in memory of the late Dr. John Gordon Coulter, who died in India; the sum of £475 having been received for the purpose, which has been invested so as to produce £20 *per annum*.

DR. BROWN-SÉQUARD.

DR. BROWN-SÉQUARD finished on last Monday his course of three lectures at the King and Queen's College of Physicians, presided over by Dr. Gordon, President of the College. His recent views in connection with the localisation of function and disease in the brain are pretty well known now, in consequence of his communications to the profession in Boston, Paris, and lately in London; in the latter, his lectures have recently been published in the JOURNAL, and, therefore, we shall not go over the same ground, merely observing that the essence of his new views may be thus generally stated. Symptoms of paralysis, anæsthesia, amaurosis, aphasia, etc., are due to irritation, and not cessation in the function of various parts of the brain; for irritation of parts around the portion destroyed by disease causes certain sensations; not that the part destroyed causes them, but because an irritation starting from the place around influences cells, some near, some at a considerable distance from the locality of the lesion. Dr. Brown-Séquard, therefore, believes that certain functions of the brain, instead of being localised in clusters of cells, are, on the contrary, spread over the greater (if not the entire) part of the brain; and this theory explains a very large number of cases of disease which otherwise it would be impossible to understand. Parts in the brain supposed to be endowed with special functions can be destroyed without any alteration in the loss of functions and *vice versa*; so that it follows that any part of the brain can produce anæsthesia, aphasia, paralysis, or amaurosis, and parts supposed to contain special functions can be destroyed without causing aphasia, amaurosis, etc. As regarded treatment in cerebral affections, Dr. Brown-Séquard places most reliance on the actual cautery brought to a white heat, and scored along the back of the neck, opposite the last cervical and first dorsal vertebrae. Strychnia also, pushed so as to produce spasmodic movements, was of considerable service, but perfectly useless in smaller doses. Dr. Banks

moved a vote of thanks to the distinguished lecturer, which was seconded by Dr. Lyons, and passed with acclamation.

HEALTH OF IRELAND: QUARTERLY REPORT.

DURING the quarter ended September 30th, the births registered in Ireland amounted to 33,121, being equal to an annual ratio of 1 in every 40.2, or 24.9 per 1,000 of the estimated population; and the deaths registered to 18,631, affording an annual ratio of 1 in every 71.4, or 14 per 1,000. The number of deaths that resulted from the eight principal zymotic diseases amounted to 2,101, or 11.3 per cent. of the total deaths, and 39.5 in every 100,000 of the population. Small-pox only caused four deaths, and one of these occurred in July last year. Measles caused 85 deaths, scarlet fever produced 413 deaths: a considerable falling off from the corresponding quarter of last year, when the mortality from this affection came to 788. To diphtheria 73 deaths were ascribed; whooping-cough caused 295 deaths, fever 583, diarrhoea 615, and simple cholera 33. The deaths from zymotic affections were 699 under the average for the eight preceding quarters, and 595 for the third quarter of 1875. That this decline in the fatality of preventable diseases is due to improvements in the sanitary state of various districts can scarcely be denied; but certainly a great deal still remains undone in the utter neglect in various places of the simplest hygienic laws. Bad drainage, imperfect water-supply, overcrowding, manure-heaps in proximity to dwelling-houses, and refusal to isolate those suffering from infectious disease: these are the evils to one or other of which the origin or the propagation of zymotic diseases can, in most instances, be traced. To illustrate this matter, we cite a few examples from the reports of the registrars. Thus the Registrar of Kells District, in which ten of the thirty-eight deaths registered were caused by scarlatina, says: "The fatal cases, as usual in every epidemic, all occurred in the overcrowded, ill-ventilated cabins with which the district abounds." The Registrar of No. 4 Cork City District observes: "Several cases of typhus occurred during the past quarter. The sanitary condition of Kerry Pike is in a deplorable state. The houses are small, badly ventilated and lighted (some of them with perforated roofs), carefully flanked front and rear with dung-heaps and cesspools." The Registrar of Annacarriga District says: "I regret to write that typhoid and, more recently, typhus have appeared here. . . . Manure in the yards and pigs in the houses are the two great enemies to sanitation. . . . There is an open sewer, which I am sure has done harm; but the sanitary authority refused to have it remedied as I suggested."

EXAMINATION OF RECRUITS.

NEW regulations for the medical examination of recruits and re-engaged men have recently been issued. Medical officers are informed that they must be guided by their judgment and experience in rejecting men who do not possess the physical capacity requisite for the endurance of the toil, hardships, and exposure incidental to military life. The principal points to be attended to are, that the recruit is sufficiently intelligent, that his vision is sufficiently good, that his hearing is distinct, that he has no impediment of speech, that he has no glandular swellings or marks of scrofula, that his chest is capacious and well formed, and that the soundness of his heart and lungs has been stethoscopically ascertained; that he is not ruptured, that his limbs are well formed and fully developed, that there is free and perfect motion of all the joints, and that the feet and toes are well formed. The medical officer is to note on the attestation paper his opinion whether, judging from appearances, the man has, in his opinion, previously served in the army. Recruits passed by civilian practitioners, or by medical officers of militia or yeomanry, will in all cases be re-examined by a military medical officer. A recruit who is once passed by the medical officer and afterwards considered unfit for service, can only be brought forward for discharge as an invalid. No boy is to be received as drummer or trumpeter who does not give fair promise of growth and becoming an effective soldier. Soldiers wishing to re-engage are not to be rejected on account of minor defects or trivial ailments, which do not interfere with the efficient performance of their duties. In doubtful cases, the soldiers may be allowed to appear before a medical board.

THE INTERNATIONAL MEDICAL CONGRESS IN PHILADELPHIA.*

SECTION OF OBSTETRICS.

Dr. ROBERT BARNES, the Chairman, was introduced by Professor William Goodell. He paid a graceful tribute to the American medical profession, and to American gynaecologists, who had done so much towards making obstetrics an exact science.

Non-puerperal Hemorrhages.—A paper on the causes and treatment of non-puerperal hemorrhages of the womb was read by Professor WM. H. BYFORD (Chicago), ordered to be published, and a vote of thanks tendered to the author. He described the uterus as naturally a hemorrhagic organ; the menstrual changes depending on the ovarian reflex nervous influence exerted unremittingly through the genito-spinal centre. These changes consist of hypertrophy at the commencement of the menstrual flow, denudation of the mucous membrane, and the involutions of that period. He referred at length to the various constitutional and local causes producing disturbances of harmony and profuse flow as a result, and afterwards described the treatment, which is curative, removing the pathological conditions; palliative, such as will stay the bleeding until radical treatment can have its effect.—Dr. GOODELL had found gallic acid very effective (grs. xx-xxx every hour). He had given as much as half an ounce through the day (in treacle or jelly). In a few cases ergot increased the bleeding, but, in most instances, it proved valuable, especially hypodermically. Free dilatation of the cervix was often sufficient to check bleeding; after removing the sponge-tent, he applied chemically pure nitric acid by a swab to the whole interior surface of the womb, with excellent results. He endorsed Dr. Byford's recommendation of bichloride of mercury in the general treatment.—After some remarks from Dr. ROSEBRUGH, Dr. WORKMAN, and Dr. HODDER, Dr. A. R. SIMPSON (Edinburgh) said that he had found oxide of zinc to materially reduce the menorrhagia (gr. i thrice daily, or gr. ss oftener). He has no great faith in the vaginal tampon as a direct preventive of uterine hemorrhage, but it is sometimes beneficial by the impression and confidence it gives the patient. The sponge-tent is preferred generally, as it opens the way for subsequent exploration and treatment. Nitric acid may be applied in the intervals, but in actual hemorrhage he preferred the perchloride or persulphate of iron. In obscure cases, and where the mucous membrane is granular, Sir James Y. Simpson's plan of scraping off the mucous membrane with a curette proves effective; he had seen cases cured by it without astringents.—Dr. T. W. GORDON recommended full doses of quinia.—Dr. H. F. CAMPBELL had noticed a periodical character in the bleeding in malarial regions, and used full doses of quinia.—Dr. T. F. ROCHESTER thought quinia had an ectrotic influence apart from its antiperiodic power.—Dr. B. F. SHERMAN recommended Sims's styptic cotton for a tampon, and in granulations, a saturated solution of permanganate of potassa.—Dr. C. SHEPARD had checked hemorrhage by injecting ice-water through a female catheter into an India-rubber bag previously carried up through the cervix.—Dr. ROSEBRUGH thought gallic acid the only reliable astringent internally.—Dr. R. BURNS gave tonics, and applies locally a solution of a drachm each of tannic acid and sulphate of zinc in an ounce of glycerine.—Dr. PARVIN referred with commendation to Trousseau's plan of injecting quantities of hot water, and applying heat to the spine. Hemorrhage, generally accompanying endometritis, can be relieved by scraping or pinching off portions of mucous membrane with forceps, and applying Churchill's tincture of iodine.—The CHAIRMAN said that quinine was very valuable in the treatment of metrorrhagia, especially with subinvolution. He had noticed the law of habit in hemorrhages where the uterus was healthy, occurring independently of ovulation and often postclimacteric. They were to be attributed largely to regional attraction of blood to the uterus. Attention must be paid to the constitutional state, especially where no local lesion can be detected. Topically, the most efficacious plan is to dilate the cervix and inject astringents. Gallic acid had succeeded in his hands given by the mouth; but remedies not strictly astringents are useful, such as digitalis, reducing the heart's action, and sometimes checking the bleeding. He had also good results from witch-hazel. The curette treatment should not be adopted in malignant disease, as it may be followed by furious bleeding. It should be handled with great care.—Dr. BYFORD said, that in the vast majority of cases, hemorrhage from a non-pregnant uterus is due to one of two conditions: 1. Hyperæmia. The treatment should aim at condensation of the uterine structures; here quinia is second only to ergot. The sponge-tent also induces condensation by pressure. 2.

Vitiated state of the mucous membrane from inflammation or growths, this structure giving way more readily under the menstrual molimen and bleeding more freely; topical applications are indispensable. He had also noticed a periodical character in metrorrhagia in malarial districts. Where bleeding occurs after the menopause from determination of blood to the womb, better results had been obtained by him from large doses of quinine and iron than from ergot.

Labour in Narrow Pelvis.—Dr. WM. GOODELL read a paper on the mechanism of natural versus artificial labour in narrow pelvis. He gave the following general conclusions. 1. The unaided first-coming head and aided after-coming head observe in a flat pelvis precisely the same general laws of engagement and of descent. Hence, version here means art *plus* nature. 2. The forceps, however applied in a flat pelvis, antagonises more or less with the natural mechanism of labour. Hence, the forceps here means art *versus* nature. 3. The aided and unaided first-coming head observe in an uniformly narrowed pelvis precisely the same laws of engagement and of descent. Version violates these laws. Hence, the forceps here means art *plus* nature; version, art *versus* nature. 4. At or above the brim of a flat pelvis, fronto-mastoid or even fronto-occipital application of forceps interferes less with the moulding of the head, and violates natural mechanism of labour less than biparietal application. 5. In flat pelvis, the vectis aids natural mechanism of labour, and therefore meets applications better than the forceps.—The CHAIRMAN (Dr. BARNES) pronounced this to be the most able summary of the matter yet heard by him. The passage of the fetus through the pelvis, and the obstructions to its progress from deformities, were not only to be studied from experience, but, as the conditions are mechanical, by *a priori* reasoning, though experience must be the test.—Dr. BYFORD had heretofore recommended the use of the vectis in the fore- or after-coming head when above the brim, and applying the forceps in the canal; but would now be inclined to turn in kidney-shaped pelvis, instead of delivering directly.—Dr. LUSK (New York) did not believe that the forceps tend to produce extension of the head, but that they will bring it down just as they find it at the pelvic brim.—Professor SIMPSON (Edinburgh) said that the flat pelvis presents peculiar advantages for version being performed here with the best hope of success, and theoretically the best result would be anticipated from bringing the base of the skull to the pelvic brim. He thought the amount of force applied to deliver the head after version might endanger the neck of the fetus. He had himself found it impossible to apply forceps to the sides of the head when above the brim.—The CHAIRMAN had practised version instead of the forceps where contraction was at all marked. In minor degrees of contraction, forceps aid in elongating the head and assist delivery. The vectis might be used in minor degrees of contraction where forceps would do as well or nearly as well, but between the forceps and version the vectis does not come in. In version, the great danger to the child is in the amount of traction employed. This risk may be reduced by pulling in the line of axis of the superior strait, so that the head may rotate around the projecting promontory as a centre, and by having an assistant to push the head backwards with his hand in the hypogastric region. He had seen a child's head pulled off by injudicious traction. The use of forceps in the fore-coming head is not based on sound mechanical principles in contracted pelvis, except in minor degrees of deformity. When ordinary delivery is impossible, with no hope of saving the child, perforation of the head and escape of a few ounces of brain-matter allows the skull to collapse, and delivery is comparatively easy.

Relations of Convulsions to High Temperature.—A paper was read on the management of convulsions in children, depending upon a high temperature of the body, by Dr. T. K. HOLMES, of Chatham, Ontario. The writer believed that in many cases the convulsions in children are directly attributable to the effect of high temperature on the nervous system. The following propositions had been confirmed by experience: that the extreme nervous susceptibility of children under ten years of age, predisposes them to convulsions; that the bodily temperature of 103 degs. (F.) and over, tends to produce them; that their severity bears a direct ratio to the intensity of a fever; that they are most apt to occur at the onset of the morbid attacks; and that whatever reduces temperature arrests or modifies the muscular spasms. Several cases treated by the author were mentioned to show that in simple pyrexia, without zymotic influence, convulsions were caused by heat and promptly controlled by the bath. Tepid water is at first used to prevent alarm or shock, gradually reduced by adding ice-water to about 60 degs., and until the axillary temperature becomes nearly normal, the patient being then taken out and put in blankets. The temperature of the body is not to be reduced in the bath below the standard of health.

Enucleation of Ovarian Cysts.—Dr. JULIUS F. MINER read a paper

* Continued from p. 696 of last number.

on the enucleation of ovarian cysts. The operation was advocated by him seven years ago. After stating the relations of the ovarian cysts to the peritoneum and vessels, and the facility with which the cyst-wall is cut open, the tumour readily rolling out, he said that the fear of hæmorrhage was unfounded, as the vessels moving from the peritoneal coat are capillary, and oozing is readily checked. Bleeding is more likely where the clamp is used and vessels cut across. A dry napkin to the collapsed cyst-wall checks the oozing, larger trunks are closed by torsion or ligature, and the contracted membrane is restored to the abdomen, giving no further trouble. If the operation fail, the clamp, cautery, or ligature may be subsequently applied. The diseased portion is removed, the living part retained; there is no pedicle outside, no need for drainage. Manipulation is no more difficult than separation of cystic growths from cellular tissue elsewhere.—The CHAIRMAN said that in some cases enucleation was the only operation; he had been accustomed to regard it as a *dernier resort*. He did not hesitate to tie the pedicle with whipcord and return into the abdomen; he had seen no bad result from the ligature, but thought the clamp gave greatest security.—Dr. J. P. WHITE said, where the pedicle is large and flat we cannot enucleate satisfactorily; where there is bleeding the hot iron is useful to sear the stump.—Dr. E. R. PEASLEE had lost one patient by hæmorrhage after enucleation, a vessel deep in the pelvis being broken off that could not be secured. He saw no objection to applying ligatures. He would adopt enucleation in cysts adherent to the liver. He generally cut the ligature close, and had only one case where the pedicle sloughed.—Remarks were also made by Dr. G. KIMBALL, Professor A. SIMPSON, Professor T. PARVIN, and Dr. MINER.

Treatment of Fibroid Tumours of the Uterus.—Dr. W. ATLEE read a paper on this subject. The subject was treated mainly from the standpoint of personal experience. The paper inquired into two general subjects: 1. Tumours usually accompanied with hæmorrhage, embracing (a) fibroids occupying the vaginal canal; (b) fibroids within the cavity of the uterus; (c) interstitial submucous fibroids; (d) interstitial fibroids proper; (e) recurrent fibroids. 2. Tumours usually not accompanied with hæmorrhage, including (a) interstitial subperitoneal fibroids; (b) sessile peritoneal fibroids; (c) pedunculated peritoneal fibroid; (d) interstitial cervical fibroid; (e) myomatous degeneration of the uterus; (f) fibro-cysts of the uterus. He considered the best mode of treatment, both surgical and medicinal, as the removal of tumours *per vias naturales*, by abdominal section, the propriety of extirpating a fibroid uterus by either of these methods, and an inquiry into the several agents which are supposed to control the growth of fibroid tumours.—Dr. J. L. ATLEE stated that, through an error of diagnosis, abdominal section had been performed in his practice in two cases of fibroids, followed by recovery. In one, the tumour was sessile, springing from the fundus; hæmorrhage took place on one side, under the cyst-wall, giving a sense of fluctuation, and forcing the tumour into a half-moon shape. The growth, weighing twelve pounds, was removed, and a clamp applied. In the other case, there was ovarian cyst on right side, and a subperitoneal uterine fibroid (six pounds) in the left; both pedicles were included in the same clamp.—Dr. A. DUNLAP had noticed subperitoneal fibroids stopped growing after attaining a certain size—sometimes even receded.—Dr. KIMBALL reported a case of abdominal section for supposed ovarian cyst, which proved to be fibroma. The organ was extirpated, and a silk ligature applied. He was sent for six months later to remove the ligature, but found it firm; eventually it slipped inside, and gave no further trouble. The woman has gained sixty pounds since the operation. He had not seen any result from muriate of ammonia or ergot in subperitoneal fibroids, but one case got entirely well after a year's treatment by injection of iodide of potassium into the uterus three times a week (grs. viij-x to 3j).—Dr. PEASLEE, in a case of uterine fibroma not attended by any symptoms, recommended muriate of ammonia; where the tumour is interstitial, Squibb's fluid extract of ergot (gtt. x-xij thrice daily). In hæmorrhage, there is no better remedy than ergot and chloride of iron. In a variety of polypus growing from the posterior wall of the cervix, projecting into the canal, and perhaps into the vagina, there is always serious hæmorrhage from the pedicle. In such cases, he used the ligature and antiseptic washes. In the Negro race multiple fibroids are so numerous, that in a home in New York he was informed they are invariably found in cases over forty years of age.—Dr. H. LENOX HODGE said that the best means of treating hæmorrhage from uterine fibroma is to lift up the uterus and keep it in good position with an appropriate pessary.—After remarks from Dr. C. B. KING, Dr. CHAS. SHEPARD, Dr. GEO. SUTTON, and Dr. E. H. TRENHOLME, the CHAIRMAN said that he had lost three cases within a year by attempting to remove the tumour through the vagina, and was extremely shy of operating unless he could remove every particle

of the growth. Septicæmia may be remedied by frequent antiseptic injections and administration of quinine by the mouth.

Obstetrical Instruments.—Three obstetrical instruments were exhibited by the Secretary, sent by Professor Lazarewitch of Kharkoff, with a folio containing photographs and descriptions of their application. They consisted of a pair of short forceps, fitting together in a peculiar way; a double blunt hook, with an eye in one extremity, by which a fillet could be passed; and a peculiar cephalotribe and tractor, which to the Chairman appeared, in principle, to be an old English instrument revived. A vote of thanks was returned to Professor Lazarewitch.

Nature, Causes, and Prevention of Puerperal Fever.—Dr. W. T. LUSK read a paper on this subject. Looking on puerperal fever as a generic term, he examined into its different varieties, making a distinction between non-infectious and infectious forms. The non-infectious form was the result of traumatic injuries, old peritoneal adhesions, disregard of hygienic precautions, and mental influences; the infectious form was a septic disease. Local lesions were the usual, though not the necessary point through which the poison entered the system. He then inquired into the relations of bacteria to puerperal fever, the influence of erysipelas, scarlatina, diphtheria, etc., upon the puerperal state; and atmospheric influences. In studying the causes, he made deductions from civil and hospital statistics and private practice, and gave rules for prevention based on our knowledge of causes.—After remarks from Dr. H. P. YEOMANS, Dr. GOODELL, Dr. T. W. GORDON, Dr. BYFORD, Dr. J. L. ATLEE, Dr. J. P. WHITE, Dr. TRENHOLME, and Dr. R. BURNS, the CHAIRMAN said that the chapter should be entitled "Fever of the Puerperal State", and extend from simple mastitis to those accompanied by poisoned blood. Many cases called puerperal fever were typhoid fever, occurring in the puerperal state, and more rapidly fatal on account of lessened power of resistance. Apart from fever caused by special poisons, which might suggest a division of cases into typhoid puerperal fever, scarlatinal puerperal fever, and those due to erysipelas, measles, etc., others closely resemble the fever following surgical operations. It would be interesting to inquire if soldiers wounded early in the fight, while fresh and vigorous, were less liable to surgical fever than others wounded in the same battle after hours of fatigue and exhaustion. An analogy exists here between such cases and the puerperal condition, so far as relates to dangers to which puerperal women are exposed from short and long labours. We should study all the sources of this disease that we can find in our daily rounds. Most of the germ-destroyers are acids—carbolic, sulphurous, salicylic, etc. There is nothing better to disinfect the hands than common vinegar; after extraordinary exposure, the clothing should be exposed to sulphurous acid fumes.

Electrolysis, especially for the Cure of Ovarian Cyst.—Dr. F. SEMMLER read a paper on this subject. After some general remarks on electricity, he gave an account of the effects of electric currents on solutions of salt or albumen, stating that the positive and negative pole act somewhat differently, and that from this circumstance different indications may be derived. He then passed to the cure of ovarian tumours by electrolysis, and gave a short statement of six cases he had successfully treated. The method is nearly new. Though cases were published in 1856, they were long forgotten; the profession took no notice of them. No inflammation, no pain, no adhesions were caused; his patients were never put under chloroform, nor confined to bed. The cures required from one to five months.

Paracentesis, Aspiration, and Transfusion.—Dr. SIMON FITCH read a paper, in which he considered: 1. Paracentesis as it was, with the old trocar; 2. Paracentesis and aspiration, as they are with modern instruments; 3. Paracentesis, aspiration, and transfusion, as they should be with available apparatus. The following conclusions were given. 1. The old trocar, with big head and split cannula, should be esteemed a relic of the past. 2. Modern trocars chiefly used are, either the pointed single tube, too often used in aspiration without a guard to cover the point, which is very dangerous; or the same guarded by a cannula on the outside, which if thick is uncertain to enter; if thin, is only somewhat less hazardous than the point itself. 3. The trocar of the future should be easy of insertion, harmless when inserted, safe as a probe or sound, competent for the free passage of fluids, adapted to the aspirator, and certain to have a wound ready to heal. A series of instruments under the general name of dome-trocar was described by him, and its mode of application and advantages explained at some length.

Retroversion of the Gravid Uterus.—Dr. T. F. ROCHESTER reported a case of retroversion of the gravid uterus, between the fourth and fifth months. So completely was the organ overturned, that it was impossible to find the os uteri. It was impossible by position and manipulation to replace the womb. It was decided, on consultation with Dr. J. P.

White, to puncture or tap it, through the wall of the everted fundus, with a capillary trocar. Three days thereafter, a foetus nine inches long was expelled, and the mother recovered without an unfavourable symptom. Two months afterwards, the womb was replaced with Simpson's sound, and retained *in situ* by a hard India-rubber cradle-shaped pessary. The patient continued perfectly well, but has not since become pregnant.—Dr. J. L. ATLEE cautioned against puncturing every retroverted gravid uterus.—Dr. W. J. HEDDENS had reduced two recent cases of inversion with the air-bag.—Dr. W. L. ATLEE reduced in ten minutes an inverted uterus of several months' standing, with the blunt end of the large dome-trocar of Dr. Fitch.

SECTION OF DERMATOLOGY AND SYPHILOLOGY.

Variations in Skin-Diseases in Different Countries.—A paper on variations in type and in prevalence of diseases of the skin in different countries of equal civilisation was read by Dr. JAMES C. WHITE, Professor of Dermatology in Harvard University. This was based on statistics drawn from reports of leading dermatologists of Europe and America, embracing 50,000 cases from abroad, with 12,000 observed in this country. As a result of examination and comparison of these statistics, he deduced the following conclusions. 1. Certain obscure affections, the etiology of which is little if at all understood, even in those parts of Europe to which they are mostly confined, may be regarded as practically non-existent among us. Of such are prurigo, pellagra, and lichen exudativus ruber. 2. Certain diseases directly connected with and dependent on poverty and habits of personal uncleanliness are less prevalent in the United States than in those parts of Europe of which we have sufficient statistical information for comparison. Examples of this class are the animal parasitic affections especially. 3. Some cutaneous affections of grave character, dependent on, or a part of serious constitutional disorders, are of less frequent occurrence and of milder type amongst us than in Europe in general, or those parts of it where they are endemic. Lupus, the syphilodermata, and leprosy, are the most marked instances of this class. 4. Certain disorders of the skin, especially those connected more immediately with its nervous system, are apparently more prevalent with us than in Europe. The most notable examples of the former, are: seborrhoea, acne, and possibly heat rashes; of the latter, herpes, urticaria, and pruritus.—Considerable discussion ensued regarding some of these points. The various propositions presented were finally passed; it being placed on record, however, that the sense of the Section regarding the third proposition was understood to be, that lupus vulgaris is of a milder type and less prevalent in this country than in Europe; that leprosy is not sufficiently known to warrant an expression of opinion; and that, upon the subject of the syphilodermata, the Section differed from the reporter.—Dr. BULKLEY offered the following additional proposition, which was adopted: The type of certain acute congestive and nervous diseases of the skin is more severe in America than abroad.

Are Eczema and Psoriasis Local Diseases, or are they Manifestations of Constitutional Disorders?—Dr. L. D. BULKLEY (New York) read a paper on this question. The propositions, as finally adopted by the Section, were as follows. 1. Eczema and psoriasis are diseases *sui generis*, and are not to be confounded in any way with other states; as the former with artificial dermatitis, and the latter with the eruptions of syphilis, scaly eczema, or leprosy. 2. Eczema and psoriasis cannot own a double independent causation or nature, at one time local and another constitutional; but, with other diseases, they may have a twofold cause, namely, a predisposing and an exciting. 3. Eczema and psoriasis in many of their features resemble the accepted constitutional diseases more than those recognised as local. Local causes play an important part in the etiology of eczema; they are probably inoperative in psoriasis. 4. Certain relationships between psoriasis and epithelioma have been claimed, which require much further investigation. At present they are not established, and are no proof of the local nature of psoriasis. 5. No direct causal connection has yet been demonstrated between the scrofulous state and eczema and psoriasis. 6. Local treatment is often insufficient alone to remove the lesions of eczema and psoriasis, and cannot prevent or delay relapses. 7. The success of local treatment in eczema and psoriasis does not demonstrate the local nature of these affections. 8. Constitutional treatment alone and singly can cure many cases of eczema and psoriasis, and prevent or delay relapses in a certain proportion of cases; under constitutional treatment it is intended to signify every agency not properly placed among local measures. 9. The total weight of argument is, that eczema and psoriasis are both manifestations of constitutional disorders, and not local diseases of the skin.

Lupus.—Professor RUDNEFF (St. Petersburg) read a paper entitled, What is the disease known as lupus? by Dr. Woskrensky of the Insti-

tute of Pathological Anatomy, St. Petersburg. The name was originally loosely applied, just as "sarcoma", "cancer", etc., were. The changes of the tissues in lupus have no signs by which it can be considered a separate and independent disease. It is merely a name applied to several species of tumours. From personal observations in facial cases, he considered that all the different varieties might be classed under three divisions: 1, a form which is simply a horny cancer, and incurable; 2, adenoma simplex, or confounded with the cancer; 3, granuloma syphiliticum, easily cured.

The Virus of Venereal Sores; its Unity or Duality.—The following propositions were stated by the reporter, Dr. F. J. BUMSTEAD: 1. The virus of venereal sores is dual. 2. Venereal sores may be due to the inoculation of the syphilitic virus, and also to the inoculation of the products of simple inflammation. 3. These two poisons may be inoculated simultaneously. The first of these was passed without discussion; but, as to the second, all that portion of the original proposition which follows the word "virus", was, after long debate, rejected by the Section. In connection with the second proposition, Dr. Bulkley offered the following, which was adopted by the Section. The present state of science has demonstrated that suppurative inflammatory lesions resembling chancroids may be produced on different portions of the body, by inoculation with simple pus from various lesions.

Leprosy in the Sandwich Islands.—The SECRETARY read a paper on this subject by Dr. F. H. ENDERS, Government Physician. The writer was unable to say positively whether it was a disease *sui generis*, or a form of syphilis, although he inclined to the latter view. He had seen over four hundred cases, all of whom except two had had syphilis. Two forms of leprosy were met with, the anæsthetic and the tubercular.

The Constitutional Treatment of Syphilis.—A paper was read by Dr. E. L. KEYES on the treatment of syphilis, with special reference to the constitutional remedies appropriate to its various stages, the duration of their use, and the question of their continuous or intermittent employment. The propositions presented were as follow. A. Negative conclusions; views for which there would seem to be no foundation in fact. 1. Syphilis commencing mildly needs but little treatment, and does not require mercury. 2. Mercury given internally is necessarily debilitating. 3. Mercury is only useful in secondary syphilis. 4. Iodide of potassium is of considerable value in secondary syphilis. 5. Iodide of potassium is of no value unless preceded by the use of mercury. 6. Iodide of potassium acts by liberating mercury which has been lying latent. B. The following positive conclusions, which in the present state of our knowledge may be affirmed, were then enunciated by the reporter, and laid before the Section. 1. Mercury is an antidote to the syphilitic poison, and of service in controlling all its symptoms in all, even the latest stages, of the disease; its power over gummata being least, and not to be relied upon. 2. Mercury in minute doses is a tonic. 3. Iodine cures certain symptoms of syphilis, but does not prevent relapses. 4. Mercury long continued uninterruptedly, so far as practicable in small doses from the time of earliest eruption, constitutes the best treatment of syphilis.

[To be concluded.]

THE CONTAGIOUS DISEASES ACTS.

At the annual meeting of the Royal Albert Hospital, Devonport, on November 24th, the Earl of MOUNT EDGUMBE, President of the Hospital, who occupied the chair, moved the adoption of the report of the Managing Committee, which was of a very satisfactory character; and, in the course of his speech, made the following remarks, which we extract from the *Western Morning News*.

"The report had referred to the special branches of the work to which a very large portion of the building was devoted, and which was supported by Government aid, under the sanction of special Acts of Parliament. Although that was not the time to discuss at length any of those Acts of Parliament, and painful and repulsive, he might say, as were the necessities involved in the execution of these Acts, still he could not resist expressing what he had never sought previous opportunities of doing, his firm conviction that the arguments of those who were agitating for a repeal of the Acts could not bear the test of calm and impartial judgment. He knew these arguments were various, he might say almost opposite, depending upon the different views of those who dealt with them. Probably one of the strongest of those arguments was used by those who, upon moral and religious grounds, objected to the law as, in their opinion, representing the sanction of vice. In answer to that, he could only say that, when vice had ex-

tended, as it had in this instance, throughout the land, and brought with it such fearful consequences, it was impossible to do other than recognise it. And in such cases there were only two courses for the legislature of the country to adopt: one to attempt by penal enactment the suppression of vice—which in this case would be utterly impossible—and the other to attempt, in some indirect way, to lessen and reduce the evils consequent upon it. There was but one other course conceivable to his mind, and that would be for the country to shut its eyes to it and allow it to go on unchecked, disseminating disease, misery, and suffering, not only among those to whom it might be considered that the evils brought their deserved punishment, not only among those whose evils might have excuses which even the most rigid moralist would pity, but often among the absolutely pure and the absolutely innocent, which was the acknowledged cause of many apparently independent maladies, and which, if allowed to go unchecked, must sap the strength of our population, and leave an indelible mark upon the physical constitution of our people. There was another argument also used which appeared to him to be very different, almost contradictory, in fact; it was one which he should almost be inclined to style the immoral argument, and that was that the law was an infringement of individual liberty. If they only thought, for one moment, what the individual liberty was to which the argument referred, he thought it must be a surprise to some of them that that argument came sometimes from the lips of ladies. Perhaps the argument might be an indication of feeling in their minds of an injustice which they thought the law perpetrated in dealing only with one, and that the weaker, sex. No one would feel more strongly than he that, when two people were equally guilty, it was a gross injustice that all the degradation of punishment should rest with one and the other go free. That, he felt, would be a monstrous injustice; but he did not think it applied to that case. God forbid that he should speak without forbearance for the most sinful or most degraded, but, at the same time, it was only true to say that the lives of those for whom the provisions of the Acts were alone intended to apply had no parallel in the lives of men. The arguments for the repeal of the law were not deserving attention, provided it could be shown, as he believed it could be, although he would not go into figures on the question then, that the law had, as far as it had gone, distinctly been of use in reducing physical evil, and had not done anything to encourage or increase the moral evil; and, at the same time, that the law had not been abused so as to be either unjustly cruel to those who ought to be brought under its provisions, or to be brought unjustly to bear upon any to whom it was not intended to apply. He knew attempts had been made to prove abuses of that kind, and they had, he believed, in every instance, and in that neighbourhood also, signally failed. The opponents of the Acts could not prove by their existence the moral evil had increased, and he hoped, as years went on, that it would be still further shown that the execution of the law did go hand in hand with every effort to bring religious and moral improvement to bear upon those who were subject to its operations. They would see in the report that that was the case. With regard to that hospital, that religious influence was attempted, and with success, and he hoped, with regard to the laws, that the legislature would be firm, and not allow ignorance or prejudice to undo the work which they had begun, and which he believed, if carried on as at present, would do great good to the country."

In reply to the vote of thanks, his lordship, alluding to the recent meeting of the opponents of the Acts during the recent meeting of the Church Congress held in Plymouth, remarked that he was glad that the Committee should have avoided and declined a discussion upon a point which was very much mixed up with the credit and existence of the hospital. Without thinking that his argument was a sufficient one against the opponents of the measure, he only expressed his own personal feelings, in order that he might feel he had done his duty by not concealing his views upon the subject.

ASSOCIATION INTELLIGENCE.

THAMES VALLEY BRANCH.

A MEETING of the above Branch will be held at the Griffin Hotel, Kingston-on-Thames, on December 14th, at 5 o'clock.

Members who may be willing to read papers, are requested to communicate with the Honorary Secretary as soon as possible.

Dinner at 7 o'clock. Charge, 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary*.
Surbiton Road, Kingston-on-Thames, Nov. 22nd, 1876.

BATH AND BRISTOL BRANCH.

THE next ordinary meeting of the Session will be held at the York House, Bath, on Thursday, December 7th, 1876: H. F. A. GOODRIDGE, M.D., President.

R. S. FOWLER, Bath. } *Honorary Secretaries.*
E. C. BOARD, Clifton. }

Bath, November 9th, 1876.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

THE next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, December 14th, at 4 P.M.; Dr. STRONG in the Chair.

Dinner will be provided at the Greyhound Hotel at 6 P.M. Charge, 6s., exclusive of wine.

The following papers are promised.

1. Mr. Timothy Holmes: On Pyæmia as seen in Hospitals.
2. Dr. Fredk. Taylor: On the Diagnostic Value of Apex Murmurs.
3. Mr. Stilwell: On Four Cases of Paralysis.
4. Dr. Herbert Ilott: On a Case of Infantile Convulsions.
5. Dr. Lanchester: A Case of Foreign Body in the Trachæa.
6. Dr. Strong: A Case of Fatal Hæmophilia.

JOHN H. GALTON, M.D., *Honorary Secretary*.

Woodside, Anerley Road, S.E., November 25th, 1876.

CORRESPONDENCE.

THE MEDICAL TEACHERS' ASSOCIATION.

SIR,—As the honorary secretaries of the Medical Teachers' Association, we have received from the executors of the late Dr. Sibson, who was treasurer of the Association, the sum of £18 14s. 1d., which was lodged in his hands. The Association has been practically defunct since the last Council meeting on November 17th, 1871, when it was resolved: "That, as the Association had satisfactorily performed, during the last four years, the objects for which it was originally instituted, and as it did not appear that there were any points connected with medical education requiring the special attention of the Association, it would be expedient that the Association should for a time suspend its meetings."

Owing to the death of the president, Mr. Campbell De Morgan, and the treasurer, Dr. Sibson, we are the only officials left; and we request that you will allow us to give notice, through your columns, to the members of the Medical Teachers' Association that, failing any expression of opinion to the contrary, we shall, on January 1st, 1877, pay the sum in our hands to the treasurer of the Medical Benevolent Fund for the benefit of that charity.—We remain, sir, yours obediently,

HENRY POWER.

London, November 28th, 1876.

CHRISTOPHER HEATH.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE HORSHAM BOARD OF GUARDIANS AND THE SUPPLY OF EXPENSIVE MEDICINES.

WE are pleased to be able to announce that the Board of Guardians of this Union, at their meeting on the 14th ult., rescinded the resolution come to some weeks previously of declining to find expensive medicines for the district sick poor of their Union; and that in future such medicines will be supplied on the requisition of the medical officers, as heretofore, at the cost of the ratepayers. We feel we are justified in claiming the credit of directing public attention to the folly of the guardians, and thereby of securing this favourable issue.

SMALL-POX IN HASLINGDEN.

THE Health Committee of the Southport Town Council recently held a special meeting, to consider a report that an outbreak of small-pox in the Rosendale Valley, in the Haslingden Rural Sanitary District, was due to the importation of the disease from Southport. The Committee, in order to be able to disprove the report, which appeared likely to be injurious to Southport, appointed a deputation consisting of several members of the Town Council, and Dr. Vernon their me-

dical officer of health, to visit Rossendale Valley to elicit the facts of the case. It is reported to have been stated by the Committee, that Southport had been free from small-pox for the past six months; this, however, can scarcely be correct, since the last quarterly report of the Registrar-General shows that eight fatal cases were registered during the three months ending September 30th last. Small-pox now prevails more or less severely in so many parts of Lancashire, that the Rural Sanitary District of Haslingden runs the risk of the importation of the disease from other places besides Southport, and the danger to be found from such importation may be measured by the proportion of unvaccinated persons in the population.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

MACCLESFIELD.—After giving an abstract of the various Acts relating to the health of the community passed during the preceding session, and referring to the polluted state of the rivers passing through the neighbourhood of Macclesfield, Dr. Bland proceeds, in his last annual report on the health of that town, to deal in detail with the work done since his previous report. A regular house-to-house visitation is in progress in Macclesfield year by year, and a more effectual mode of ascertaining the causes which tend to injure health and to produce death from preventable causes cannot well be devised, provided it is only properly carried out. One of the principal defects noticed in the houses thus visited appears to be the frequency with which the interior of houses is, by means of sink and other pipes, brought into connection with the drains. The evils attendant upon this system of house-draining which will, we trust, before long be obsolete, are pointed out in the report, and plans have been prepared and placed at the disposal of the public, showing how they may best be remedied. The real requirement in this matter is, to use the words of Dr. A. Carpenter, "ventilate; do not trap". The necessity for adequate ventilation in Macclesfield is the more urgent because of the defective state of the town drainage, some of the sewers being those rough constructions of flags and rubble-stones which are always calculated to favour the stagnation of sewage, and so to cause nuisance and injury to health. With regard to closet-accommodation, we learn that, though it is still defective in quantity, and in some districts thoroughly bad in point of quality, yet steps are gradually being made to remedy this state of affairs. Where the midden-privy is retained, it is to be hoped that a thorough mingling of ashes and excreta will be insisted on; for it is not an unfrequent occurrence for sanitary authorities to be content with the exclusion of rainfall and slops from the structures, but still to permit of the ashes being thrown in behind the closet properly so-called, and thus to allow all the excreta to accumulate beneath a closet seat, where they retain their wetness, and hence their tendency to decompose and to lead to the spread of disease. The death-rate of Macclesfield is still nearly 27 per 1,000, and the infant mortality remains very high; indeed, in two districts of the town, one-fourth of the children die within the first year of life. Whilst, therefore, we note with pleasure the attention which is being paid to the sanitary circumstances of this town, we would at the same time point to the necessity of grappling energetically with the various causes of preventable mortality which still remain to be dealt with.

BRIGHTON.—Dr. Taaffe, in his Report on the sanitary state of Brighton for 1875, states that the number of marriages in Brighton during the year was 843; of births, 2,868; and of deaths, 2,180; so that the excess of births over deaths was 688, which is less than in any year since 1869. The birth-rate was only 25.8 per 1,000 population, which is also lower than for either of the previous six years. The regular and constant diminution in the birth-rate must arise either from a diminished population, or from a reduction in the proportionate number of married residents of child-bearing age. In addition to the 2,868 births in the municipal borough, there were 242 births in Hove, which forms part of the parliamentary borough. There were 2,180 deaths registered in the municipal borough, which was equal to a death-rate of 21.9 per 1,000, which is the largest since 1872. Of the 2,180 deaths, 216 were those of non-residents, and 1,964 of residents; "the latter being equal to an annual death-rate of 21.3 per 1,000 for the resident population". We think this is scarcely a trustworthy calculation; and we should like to know after what length of occupation, in Dr. Taaffe's opinion, a person becomes a resident. The 2,180 deaths were made up of 777 deaths of children under five years of age, which is a large proportion; and it appears that no fewer than 509 of these were of infants under one year, or 23.3 per cent. of the total number of deaths. We also find that the proportion of deaths under one year to each 1,000 births was no less than 17.7 per cent., or 0.1 per cent. above the average of eighteen large towns, including Liverpool,

Bradford, Leicester, Leeds, and others. This certainly does not speak well for Brighton, unless the great majority of its child-bearing population consists of poor persons. We consider, whenever the proportion of deaths under one year to total births habitually exceeds 15 or 15½ per cent., that, unless there are very exceptional circumstances, such as very great overcrowding, the general sanitary condition of the place must require considerable improvement. The mortality from the seven principal zymotic diseases was 11.1 per cent. of the whole, or at the annual rate of 2.4 per 1,000 population, which is a low average. There was no death from small-pox during the year; but there were as many as 101 from diarrhoea; whilst diseases of the respiratory organs, including phthisis, were returned as having caused 708 deaths, or 32.5 per cent. of the total number. This was at the annual rate of 7.1 per 1,000 population, which is in excess of that for former years. The deaths from violence were as many as 53, or 2.4 per cent.; and the inquests 3.7 per cent.; so that, whilst the deaths from violence were more than double, the inquests were about one-half of the average in the eighteen largest English towns. The amount of sanitary work appears to be satisfactory; as, although only 1,973 complaints were received, 6,004 houses were inspected, and 2,236 notices served; so that many houses must have been inspected which were not complained of. There were 282 special inspections through death or sickness; and a considerable number of bakehouses, slaughter-houses, and "provision-shops" were visited. There have also been 555 connections made with the main drainage, making a total of 10,657 since the present system of drainage was commenced. There are, however, 7,430 connections of houses to be made; so that, if the work should not go on quicker than at present, it will take about fourteen years to complete it. This is certainly by no means satisfactory, and we hope to be able another year to note an increased rate of progress. Dr. Taaffe also reports that, when sanitary defects (we suppose in drainage) were found on making special inspection, a special circular was sent to the owner of the house, pointing out the defects, and recommending the proper remedy; which was attended with the best results. The importance of preventing the possibility of the entrance of sewer-gas into houses is especially pointed out. The common lodging-houses, bakehouses, etc., are also favourably reported on. Dr. Taaffe presses with considerable force on the Town Council the advisability of securing an intimation to the medical officer of all cases of infectious disease, as by that means not only would a knowledge be obtained of all the unhealthy localities, but also of every unhealthy house. He states that ninety houses were inspected in 1874-5, through infectious diseases having occurred in them, without "any clashing with the interests of private medical practitioners". Nor was the course objected to by the heads of families, who indeed rather felt the medical officer to be their friend. He feels some doubt as to the party to be called upon to supply the information, but none as to its value. He also expresses his belief that many of the infectious diseases which have occurred in the borough were imported by patients convalescent from the disease, but still capable of communicating it. The necessity of a hospital for the reception of cases of infectious disease is also pointed out; and he advises that, if the municipal authority should take up the matter, the hospital should be placed as nearly as possible equidistant from all parts of the town, Hove included. Dr. Taaffe also recommends for consideration the desirability of providing an *abattoir* for slaughtering cattle, the establishment of a mortuary and *post mortem* room, as well as of a small chemical laboratory, and of public conveniences throughout the town.

BIRKENHEAD AND CLAUGHTON-CUM-GRANGE.—Mr. F. Vacher reports the births in 1875 to have been 2,066, and the deaths 1,362, showing an excess of births over deaths of 704. Mr. Vacher says that he has some diffidence in calculating the death-rate, as the population is so fluctuating that the ordinary plan of estimating the numbers of inhabitants will not apply to Birkenhead, especially as the numbers of the births and deaths have failed to indicate the population. After due consideration, he estimates the population at 54,000, which would give a birth-rate of 38.2, and a death-rate of 25.2 per 1,000 persons. This is not a favourable rate when compared with other years, although it contrasts fairly with the mean mortality of twenty-one large cities and towns. If, however, the deaths of residents which occurred in the workhouse outside the urban sanitary district be added, the mortality would be as high as 26.9 per 1,000, which is very unsatisfactory when the deaths of children under five years are shown to be 50.8 per cent. The death-rate from zymotic diseases was 7.29 per 1,000 living; that from constitutional affections was 3.20, and from local 10.20, which is much above the average. The mortality from scarlet fever was very high, but that from diarrhoea unusually low. Two outbreaks of small-pox occurred; but, with proper measures, the disease was confined to the

relatives of the first cases, without causing any death. The mortality from premature births and atrophy and debility were higher than usual. The sanitary work appears to be fairly satisfactory, as 673 nuisances were abated without legal proceedings being taken, and 28 after summonses, making a total of 701. There were also 4,715 pounds of meat and small quantities of fish and fruit destroyed.

VACCINATION.—Mr. William Cox of Winchcombe has received a special grant of £15:2 for efficient vaccinations during the past two years.—Mr. T. Lawrie Gentles, Public Vaccinator for the South District, Derby Union, has received, for the third time, a Government award of £72:19 for efficient vaccination.—The Local Government Board has awarded Julian Willis, Esq., of the New Winchester and Andover Unions, a grant, for the second time, for efficient vaccination in his districts.

OBITUARY.

EDWARD BATTY, M.R.C.S.ENG., OF LIVERPOOL.

THIS veteran member of the profession in Liverpool died last week, at the advanced age of 82. His professional career dated from the year 1816, when he obtained the old "double qualification", M.R.C.S. and L.S.A. Soon after that date, he commenced practice in Liverpool, where his cousin, the late Mr. Robert Bickersteth, had been for some time established. Mr. Batty soon acquired reputation as an accoucheur, and was one of the first lecturers of the School of Medicine, lecturing on Midwifery and Diseases of Women and Children. He was for many years attached to the Ladies' Charity, first as surgeon, and then as consulting surgeon; and had at one time an extensive obstetric practice. He was formerly a member of the Association, and held the office of President of the Lancashire and Cheshire Branch. About ten years ago, he resigned his lectureship at the Royal Infirmary School of Medicine; and still later on, in consequence of failing health, gradually relinquished practice. His remains were followed to the grave on Saturday last by a large number of professional friends, including the leading physicians and surgeons, by whom he was highly respected.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent Second M.B. Examination for Honours.—Medicine.

First Class.

Pepper, Augustus Joseph, (Scholarship and Gold Medal), University College
Hunt, Joseph William (Gold Medal), University College
Pinnell, Thomas Mark, University College
Helliier, John Benjamin, Leeds, and University College
Ferrier, John Christian, Guy's Hospital

Second Class.

Rogers, Thomas King, University College
Burton, Samuel Herbert, University College
Jones, Arthur Henry, Guy's Hospital
Kidd, Walter Aubrey, Guy's Hospital
Parry, Thomas Sharp, University College

Obstetric Medicine.

First Class.

Helliier, John Benjamin (Scholarship and Gold Medal), Leeds, and University College
Pepper, Augustus Joseph (Gold Medal), University College
Ferrier, John Christian, Guy's Hospital
Pughe, Rhinallt Navalw ap Joan, Liverpool Royal Infirmary
Jones, Arthur Henry, Guy's Hospital

Second Class.

Burton, Samuel Herbert, University College
Rossiter, George Frederick, St. Thomas's Hospital
Edwards, Edward Joshua, St. Mary's Hospital
Rogers, Thomas King, University College
Kidd, Walter Aubrey, Guy's Hospital

Third Class.

Langley, John Geoffrey, University College
Lamb, William Henry, Guy's Hospital
Duke, Herbert, Guy's Hospital

Forensic Medicine.

First Class.

Pepper, Augustus Joseph (Scholarship and Gold Medal), University College
Kidd, Walter Aubrey (Gold Medal), Guy's Hospital
Jones, Arthur Henry, Guy's Hospital

Second Class.

Langley, John Geoffrey, University College
Harrison, Charles Edward, St. Bartholomew's Hospital
Parry, Thomas Sharp, University College
Rogers, Thomas King, University College

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 23rd, 1876.

Dring, William Ernest, Beacon Hill, Camden Road
Merriman, William Temple, Knutsford, Cheshire
Powell, John, Ewyas Harold, Hereford
Taunton, William Whitchurch, Redlynch, Wilts

The following gentlemen also on the same day passed their primary professional examination.

Hoole, Henry, Charing Cross Hospital
Richardson, Richard Tippetts, London Hospital
Skipton, Arthur, King's College

MEDICAL VACANCIES.

The following vacancies are announced:—

BELPER UNION—Medical Officer for the Union and Workhouse. Salary, £58 per annum.

BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer. Salary, £80 per annum, with board, lodging, and washing. Applications on or before December 8th.

BOURNEMOUTH GENERAL DISPENSARY—Resident Surgeon. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Testimonials, diplomas, etc., to be sent in on or before December 31st.

BRISTOL HOSPITAL FOR SICK CHILDREN—House-Surgeon. Salary, £100 per annum, with furnished apartments, coal, gas, and attendance. Applications on the 2nd instant.

CENTRAL LONDON SICK ASYLUM—Assistant Medical Officer and Dispenser for the Asylum in Cleveland Street. Salary, £100 per annum, with board and residence. Applications not later than 12 o'clock noon on the 9th instant.

CHESTER GENERAL INFIRMARY—House-Surgeon. Salary, £80 per annum, with board and residence. Applications on or before December 4th.

CONSUMPTION HOSPITAL, Brompton—Resident Clinical Assistants. Applications, with testimonials, on or before December 4th.

COSFORD UNION—Medical Officer for the Lavenham District. Salary, £49:4 per annum.

DRAYTON UNION—Medical Officer for the Fifth District. Salary, £51 per annum.

HAILSHAM UNION—Medical Officer for the Third A. District.

HOSPITAL FOR SICK CHILDREN, Manchester—Assistant Physician. Salary, £300 per annum. Applications on or before the 22nd instant.

LONGFORD UNION—Medical Officer. Salary, £120 per annum. Applications on or before December 5th.

NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Resident Medical Officer and Registrar. Salary, £100 per annum, with board and lodging.

PARISH OF LISMORE and APPIN—Medical Officer. Salary, £120 per annum. Applications on or before the 26th instant.

PETERBOROUGH UNION—Medical Officer for the Caistor District.

PRESTON UNION—Medical Officer for the Fourth District. Salary, £70 per annum.

QUEEN'S HOSPITAL, Birmingham—Honorary Physician. Applications, with testimonials, on or before December 2nd.

RISBRIDGE UNION—Medical Officer for the Second District. Salary, £56 per annum.

WESTMINSTER HOSPITAL—House-Surgeon and Resident Obstetric Assistant. Appointments will be held for six months, and each officer will be provided with board and lodging. Applications not later than the 4th instant.

WHITEHAVEN and WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—Resident House-Surgeon. Salary, £150 per annum, with rooms, attendance, fire, and gas.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

FIRTH, Charles, M.B., appointed House-Surgeon to the Norfolk and Norwich Hospital, *vice* J. R. Baumgartner, M.R.C.S.Eng., resigned.

HARRHY, William R., M.R.C.S.Eng., appointed House-Surgeon to the Public Dispensary, Stanhope Street, *vice* Andrew Duncan, M.B., resigned.

THOMAS, J. L., M.D., F.R.C.S.Ed., appointed Assistant-Physician to the Royal South Hants Infirmary, *vice* John Broster, M.D., resigned.

THOMAS, W. R., M.D., appointed Physician to the Sheffield Public Hospital and Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

CORFIELD.—On November 27th, at 10, Bolton Row, Mayfair, London, W., the wife of *W. H. Corfield, M.A., M.D.Oxon., F.R.C.P.Lond., Professor of Hygiene and Public Health at University College, London, of a son.

At the annual meeting of the subscribers to the Guest Hospital, Dudley, a scheme was adopted for applying the income to be derived from the investment of £2,350 given by the family of the late Mr. Alexander Brodie Cochrane for the benefit of poor convalescents. The money is to be vested in trustees, and the income devoted to the welfare of four patients in the Guest Hospital, the assistance of deserving nurses to improve their health, and the contribution or subscription of sums of money.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1 30 P.M.
TUESDAY.....	Guy's, 1 30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1 30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1 30 P.M.—St. Mary's, 1 30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2 30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1 30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1 30 P.M.
SATURDAY....	St. Bartholomew's, 1 30 P.M.—King's College, 1 30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.—St. Thomas's, 9 30 A.M. and 1 30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 30 P.M. Adjourned discussion on Dr. Edmunds's "Case of Caesarean Section".
TUESDAY.—Pathological Society of London, 8 30 P.M. Dr. Lediard: Aneurism of Thoracic Aorta—two cases. Mr. Walsham: Unobliterated Ductus Arteriosus. Mr. Alban Doran: Fracture of both Sesamoid Bones of Forefoot of Horse. Mr. Holmes: Stricture of Esophagus. Mr. Butlin: A Fatty Tumour. Mr. Godlee: Granulation Material from White Swelling of Knee. Mr. Howe: Ossification of Axillary Artery following injury. Dr. Ord: Spontaneously Fractured Vesical Calculi. Mr. Gould: Sarcoma of Thigh. Mr. Gould: Tumour of Buttock. Dr. Barlow: Brain of Microcephalic Infant. Dr. Coupland (for Mr. Balding): Sequel to case of Tumour of Sciatic Nerve. Dr. Coupland: Biliary Calculi encysted in Peritoneal Adhesions. Dr. Goodhart (for Dr. Lewis Marshall): Aneurism of Aorta.
WEDNESDAY.—Obstetrical Society of London, 8 P.M. Dr. Langdon Brown, "On the Obstetrical Aspects of Idiocy"; Dr. Budin (of Paris), "On a Diagnostic Sign of Vaginal Haemorrhage during Parturition"; and other communications.—Royal Microscopical Society, 8 P.M. The Rev. W. H. Dollinger, "On Navicula Cressinervis, Navicula Rhomboidea, and Frustulia Saxonica, as Test Objects".
THURSDAY.—Harveian Society of London, 8 P.M. First Harveian Lecture. Mr. James Lane, "On Syphilis".
FRIDAY.—Clinical Society of London, 8 30 P.M. Discussion on Leucæmia. Dr. Hermann Weber, "Cases illustrating the Treatment of Rheumatic Fever and other Febrile Diseases by Salicine and its Congeners"; Mr. Brodhurst, "Cases of Subcutaneous Section of the Neck of the Thigh-bone".

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the *BRITISH MEDICAL JOURNAL*, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the *JOURNAL*, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CORONERS AND MEDICAL MEN.

SIR,—I write simply for information as to whether it is customary for a coroner to bring with him to an inquest upon a man who died quite suddenly a medical man who had never seen the man in life, or who at any rate had not attended him, to the exclusion of the medical man in attendance upon members of the same family, and whether you consider it a satisfactory conclusion to arrive at "apoplexy" as the cause of death, without any *post mortem* examination having been made, especially as there were none of the usual symptoms of apoplexy at the time of death.—I am, etc.,

A. X.

* * We have our own opinion as to what ought and may be done under such circumstances, but we should be glad if our correspondent's query should elicit information from various sources as to what is done.

A LEEDS FELLOW.—We are always very sorry to see medical men adopt advertising practices, and regret to read the circular issued by Mr. Pitts at Calverley.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the *BRITISH MEDICAL JOURNAL*, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

A "CAUTION".

SIR,—You very kindly inserted a letter from me a fortnight back, thereby putting my fellow-practitioners on their guard in reference to a man calling on me and requesting my attendance "in about an hour's time", etc., at a certain address, which, upon visiting, I found to be a hoax, the object of which has since been pretty clearly shown. Well, sir, I am sure you and your readers will be pleased to hear that my letter has been the means by which Dr. Wallace of Hackney Road has very nicely captured this scoundrel. I had the immense satisfaction of identifying this very anxious "patient" at Worship Street Police Court this morning, where, I understand, his very interesting and extensive career will be further investigated on Wednesday next.

Thanking you very much for publishing my letter, I am, sir, yours truly,
44, Trinity Square, S.E., Nov. 29th, 1876. F. G. LARKIN.

SIR,—I am glad to say that last evening I gave the man alluded to in Mr. Larkin's "caution" into charge, and he was brought up at Worship Street this morning, when Mr. May, of Holloway Road (with whom I had communicated, knowing that he had been robbed), further charged him with stealing a case of instruments of the value of £15, on which the magistrate committed him for trial, but remanded him for a week, on my charge of coming to my house with intent to commit a robbery, so as to give time for others who have been victimised to prosecute. The prisoner admitted his guilt, and pleaded poverty as his excuse, which the magistrate seemed disinclined to believe, as he was fairly well dressed. He also said that he had been a student "at one of the metropolitan hospitals", which may account for the robberies that have been committed at some of those institutions. His name (Rogers) is doubtless fictitious, and he refused his address. The case will come on again next Wednesday at eleven o'clock, at Worship Street, when I hope others who have been robbed will attend to prosecute, and bring any witness that may be necessary to substantiate his identity.—Yours faithfully,
243, Hackney Road, Nov. 29th, 1876. FREDK. WALLACE.

SIR,—The "gentleman" who favoured Dr. Larkin with a call recently, and who was so solicitous about his wife's condition, also honoured me with a visit a month or so ago. He called in the middle of the day, and was shown into my room, where, fortunately, I at once joined him. He went through the same story: had just arrived from Jersey, taken lodgings in the neighbourhood, wished me to call and examine his wife, but not till the lapse of an hour or two, so that he might have time to fetch his wife's sister, who resided at Holloway. I need not say that, on my calling subsequently at the house, no one answering to his description had been there at all. I should say that he left the name of Vallance. I hope, sir, that "should his footsteps haply stray where caution marks", etc., he may find himself lodged in a police cell.—Yours truly,
79, Edgware Road, W., Nov. 28th, 1876. THOS. RABNER.

SIR,—About a fortnight ago, I was subjected to an attempted imposition exactly similar to what befell Mr. Larkin, as detailed in his letter in to-day's *JOURNAL*. A gentleman of the same appearance as Mr. Larkin's visitor called on me about seven o'clock in the evening, and asked me to see his wife, who lived in the neighbourhood. "She was very ill, and he did not know what could be the matter with her. They had just come from Jersey, and he did not know whether she was pregnant (they had been married three months): but before I went, he wished to go and fetch her sister, who lived in the City, so that if I would call in an hour's time he would then have returned." He added, that she objected to be seen by any medical man unless in her sister's presence. I replied that the sister might not be at home, and that he might not be able to have her back in an hour, therefore I would not go till he returned with her, and then he could come for me and I would accompany him to the house. He pleaded pathetically that I should go in an hour's time without waiting for his return, as he was sure to be back by that time; but I resolutely declined. The result was, that, unlike Mr. Larkn, I had no journey to an empty house, and I never heard of the fellow again.—I am, sir, faithfully yours,
42, Grove Road, Regent's Park, Nov. 25th, 1876. NORMAN KERR, M.D.

N. M., and H. F. S.—If you read the regulations of the College, which you can obtain by writing to the Secretary, you will find that the next preliminary examination will take place in March, and not in December, as heretofore.

INSTRUCTION IN NURSING.

SIR,—A young lady friend of mine wishes to learn nursing. Will you kindly inform me, in your answers to correspondents, what London hospitals receive lady probationers in the nursing department?—I am, your obedient servant,
November 24th, 1876. L.R.C.P.LOND.

* * St. Thomas's and St. Mary's Hospitals; probably also others.

ALPHA asks.—Will some one kindly inform me what books to read up for the second examination for the L.R.C.P. of London? Having been in practice for several years in the country, with time much pre-occupied by professional duties, I have had little for study.

MEDICAL INSPECTION OF SHIPS AND EMIGRANTS.

SIR,—I regret that in the hurry of the moment I should have used the expression "stage of incubation" in my letter to your *JOURNAL* on the Medical Inspection of Ships and Emigrants. What I should have written was "stage of invasion". Of course, there are no symptoms to be noted usually in the incubative stage of such diseases as scarlatina and the other exanthemata.—I am, your obedient servant,
Edinburgh, Nov. 28th, 1876. JOHN COCHRANE.

BETA.—Certifying factory surgeons must be registered under the Medical Act and in actual practice, and must not have a beneficial interest in any factory. The appointments are made by the Inspectors of Factories or by the Home Secretary.

PROVIDENT DISPENSARIES.

SIR,—I should be very much obliged if you or any of your correspondents could inform me of any instances in which a small infirmary and dispensary in combination for some years, supported by voluntary contributions, have been converted into provident hospitals and dispensaries? If so, where situated, that I might apply to them directly for further information?—Yours faithfully,
H.

ERRATA.—In the article on Production and Prevention of Cholera, in last week's *JOURNAL*, line 19 from top, for "usefulness" read "uselessness"; in line 25 from bottom, for "bustus" read "bustees".

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

A READY SOLVENT FOR SALICYLIC ACID.

SIR,—In reference to the above, let me suggest to A Prescriber of Salicine the following prescription: I think he will find in it all he desires. Acid. salicylici gr. 80; liquor. ammoniæ citratis ʒij; infusi aurantii ʒviij. I have used this frequently, and found it very efficacious. The addition of iodide of potassium makes it still more soluble.—I am, yours truly,
Liverpool, November 26th, 1876. J. MAUNSELL, M.D.

Mr. C. F. MATTOCK (Boughton).—We do not think that there is any evidence which could justify the assumption that any form of specific fever can be conveyed by "cows drinking from a pond into which flows drainage". Their health may be disordered, and their milk rendered less plentiful or less wholesome; but that the milk can convey any sort of infection, is not only quite unproven, but, we suspect, impossible. When infection has been conveyed by milk, it has been due to the addition to the milk of polluted water containing disease-germs, or by its otherwise direct infection with those germs.

Mr. C. A. BRIGSTOCKE (Newcastle).—The subject received notice in a paragraph in the JOURNAL a fortnight since, which was very extensively reproduced by the press throughout the kingdom.

ACTION BY THE SOCIETY OF APOTHECARIES.

SIR,—I shall feel obliged by your allowing me to say that the action reported in your columns last week was brought by the East London Medical Defence Association in the name of the Society of Apothecaries.—I am, sir, your obedient servant,
R. H. S. CARPENTER, Hon. Sec. East London Medical Defence Association.
November 25th, 1876.

PELLAGRA.

SIR,—In answer to Rusticus's query, I beg to say that, if he read German, the most exhaustive treatise he can consult is Hirsch's *Handbuch der Historisch-geographischen Pathologie*. He can obtain it from Messrs. Williams and Norgate, Henrietta Street, Covent Garden, for 4s. 6d. The only English references I know are Good's *Study of Medicine*, by Cooper, fourth edition, vol. ii, p. 631; and Holland in *Medico-Chirurgical Transactions*, vol. viii, p. 317. Hirsch gives a great number of references, chiefly in Italian and French, which, if Rusticus be in London, and choose to call on me, I will be happy to show him. I have also Mason Good's book beside me.—I am, yours faithfully,
311, Battersea Park Road, S.W., Nov. 24th, 1876. W. MUNRO.

MORPHIA-CRAVING.

SIR,—In answer to your correspondent Associate, I beg to say that he will find a very interesting article upon the subject in the *Edinburgh Medical Journal* for 1850, vol. x, by Sir Robert Christison, Bart. This eminent physician, after a large experience on the treatment of such cases, says that no good can be done by "gradual reduction", and that it can be safely left off abruptly, even after many years' indulgence. He recommends bromide of potassium to allay irritability, and chloral to procure sleep. For the first three days, the patient suffers from great depression, loathing, sickness, and vomiting. By the fourth night, he falls asleep and awakes refreshed, and in most cases the progress afterwards is very satisfactory. There is, however, great danger of relapse. Should diarrhoea supervene, suppositories of morphia should be ordered.—Yours truly,
Manchester, Nov. 27th, 1876. A. EMRYS JONES, M.B.

THE ROTUNDA HOSPITAL.

SIR,—The leader of the 18th, and the letters in this week's edition, respecting the study of pathology and the holding of *post mortem* examinations in the Rotunda Hospital, suggest an idea which, if carried out, would not be expensive, and would at the same time insure the utmost safety to the maternity patients, and give the clinical class every advantage of *post mortem* study. Divide the *post mortem* room with a framework of glass, and have a speaking-tube connecting the two divisions. The pathologist (who should not be directly connected with the maternity department) could then make a full investigation, describe every appearance and condition, and the lookers-on would be safe from any contaminating influence. This is similar to the Morgue at Paris, and, I think, has been suggested for a like purpose in London.—I am, etc.,
Brighton, November 25th, 1876. J. F. B.

WARMING BEDROOMS, ETC.

W. H. H. (Billinghurst).—We think the "paraffin" portable stoves very useful for warming bedrooms and other rooms where there is no fireplace, and we do not think them at all injurious any more than a lamp of the same kind would be. A new portable tubular warming apparatus, recently adapted by Dietz and Co., of Carter Lane, E.C., was lately brought under our notice, of which we have formed a very high opinion, for its efficiency, portability, convenience, and cheapness.

ABUSE OF TEA.

SIR,—Can any of your readers inform me in next week's JOURNAL of any writings or pamphlets, etc., on the "uses and abuses of tea"?—Yours truly,
Winchcombe, Nov. 27th, 1876. WM. COX.

GOVERNMENT LICENCES TO MEDICAL MEN.

SIR,—On November 11th, you inserted a letter from me on the above subject, in which I advocated the issue of licences to medical men on payment of an annual sum to Government. I ventured to express the opinion that it would be the most effectual way of putting down illicit practice by both druggists and quacks. It seems to have entered the minds of others besides myself—in proof of which I forward to you a paragraph in to-day's *Liverpool Mercury* by its London correspondent. I was in hopes that the subject would have been noticed in some way or other; and perhaps it will be, now that there is some prospect of the subject being taken in hand by outsiders. I still think that the plan would work well, and, if put into operation, would result in great benefit to the profession.—I am, sir, yours truly,
J. E. BURTON, L.R.C.P. Lond.

GOUTY PSORIASIS.

SIR,—As an external application in this troublesome malady, I would recommend A Member to try Cleaver's medicated terebene soap, or apply terebene to the patches with a brush. This, combined with two-grain doses of iodide of potassium, may give relief.—Yours, etc.,
Halifax, November 25th, 1876. THOS. BRITTON, M.D.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Hull and Lincolnshire Times; The Derby Mercury; The Hull Criterion; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; The Redditch Indicator; The Dundee Evening News; The Hampshire Post; The Hull News; The Penrith Observer; The Buxton Advertiser; The Border Advertiser; The Edinburgh Courant; The Bournemouth Visitors' Directory; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Hampshire Telegraph; The Falkirk Saturday Herald; The Craven Herald; The Broad Arrow; The Figi Times; The Shield; The British Press and Jersey Times; The Elgin Courier; The Whitby Times; The Suffolk Chronicle; The Exeter and Plymouth Gazette; The Lakes Chronicle; The Tring Telegraph; The Hexham Herald; The South Wales Daily News; The Dudley Herald; The Tunbridge Wells Gazette; The Jarrow Express; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. G. Buchanan, Glasgow; Dr. Robert Barnes, London; Dr. George Johnson, London; Dr. G. H. B. Macleod, Glasgow; Dr. Greatrex, Lawton; Dr. Joseph Bell, Edinburgh; Mr. B. F. C. Costelloe, Oxford; Dr. Cornelius B. Fox, Chelmsford; Mr. W. H. A. Jacobson, London; Dr. James Russell, Birmingham; Dr. Douglas Powell, London; Dr. Charteris, Glasgow; The Secretary of the Harveian Society; Mr. G. D. Brown, Ealing; The Rev. F. Mattock, Faversham; Dr. A. Napier Kidd, Caledon; Dr. Munro, Cupar Fife; Dr. Charteris, Glasgow; Mr. Tinsley, London; Mr. C. A. Brigstocke, Newcastle Emlyn; An Associate; Mr. Whittall, London; The Registrar-General of England; Dr. J. Milner Fothergill, London; Dr. J. B. Bradbury, Cambridge; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; Dr. Edis, London; Mr. Eastes, London; The Registrar-General of Ireland; Dr. Tripe, Hackney; Dr. Mansell, London; Dr. W. R. Thomas, Sheffield; Dr. T. Britton, Halifax; Dr. Mackey, Liverpool; Dr. Norman Kerr, London; Dr. Berkart, London; Mr. Emrys Jones, Manchester; Mr. B. Brown, Liverpool; Dr. R. H. S. Carpenter, London; The Secretary of the Clinical Society; J. F. B.; Mr. H. Sewill, London; Dr. John Galton, Anerley; The Secretary of the Obstetrical Society; Dr. Braidwood, Birkenhead; The Secretary of the Royal Medical and Chirurgical Society; Dr. Buzzard, London; Dr. Leared, London; Dr. Joseph Rogers, London; Dr. Jukes Styrap, Shrewsbury; Dr. Fazquharson, London; Medicus; Dr. Wiltshire, London; Mr. Henry Power, London; Mr. Christopher Heath, London; Mr. Richard Davy, London; W. H. H.; Mr. W. Cox, Winchcombe; Mr. J. Blackshaw, Stockport; Mr. H. J. Hawthorn, Ecclesfield; Mr. Butterfield, Halifax; Dr. Lownds, Egham Hill; Our Edinburgh Correspondent; Mr. Pope, Tring; Dr. T. Lauder Brunton, London; H.; Mr. T. Lawrie Gentles, Derby; M.D.; Dr. Rickards, Birmingham; Mr. G. Bates, Plumstead; Dr. Burton, London; The Secretary of the Royal Microscopical Society; Quessitor; Mr. H. S. Cartwright, London; Dr. Stevenson, London; Mr. Horace Turner, Norwich; Mr. James R. Lane, London; Dr. Corfield, London; Dr. Pitman, London; Mr. Thomas Rayner, London; Dr. Ransom, Nottingham; Dr. L. W. Marshall, Nottingham; Dr. Wardell, Tunbridge Wells; Dr. Goodchild, Leamington; An Old Member; Mr. J. M. Rumsey, Rolvenden; Dr. Kellett, Liverpool; Mr. W. Reeves, London; Dr. Cole, Bath; Mr. W. K. Giddings, Calverley; The Secretary of the Pathological Society; W.; Dr. Bond, Gloucester; Dr. Clement Daruty, Leith; Mr. John Cochran, Edinburgh; Our Dublin Correspondent; A Member; Dr. Cayley, London; Dr. Edmunds, London; Captain Burgess, London; Mr. Adams, London; Dr. Lee, London; Dr. Sharpey, London; Mr. F. Wallace, Hackney Road; Mr. S. Hartress, Whitehaven; Mr. F. J. Larkin, London; Mr. Hemsted, Whitechurch; Mr. R. Kershaw, London; Mr. Robert Smith, Heckfield; Mr. T. Holmes, London; Dr. Wade, Birmingham; Mr. G. M. Stansfeld, Bristol; Mr. C. B. Keetley, London; Dr. Hollis, Yarmouth; Dr. G. M. Hiron, Bournemouth; Dr. Ford Anderson, London; Mr. J. Elliott, Leominster; Mr. Julian Wills, Micheldever; Enquirer; L.R.C.P.; Surgeon-Major Colville; etc.

BOOKS, ETC., RECEIVED.

Water Analysis: a Practical Treatise on the Examination of Potable Water. By J. A. Wanklyn and Ernest Theophrastus Chapman. Fourth Edition. Rewritten by J. A. Wanklyn, M.R.C.S. London: Tribner and Co. 1876.
A Manual of Ophthalmic Surgery, with Illustrations. By B. Thompson Lowne, M.R.C.S. Eng. London: Smith, Elder, and Co. 1876.
Atlas of Skin-Diseases. By Tilbury Fox, M.D., F.R.C.P. Part 14. London: J. and A. Churchill. 1876.
Medicinal Plants. By Robert Bentley, F.L.S., and H. Trimen, M.B., F.L.S. Part 14. London: J. and A. Churchill. 1876.
The Functions of the Brain. By David Ferrier, M.D., F.R.S. London: Smith Elder, and Co. 1876.

AN ADDRESS

ON

PREGNANCY REGARDED AS AN EXPERIMENT ILLUSTRATING GENERAL PATHOLOGY.*

By ROBERT BARNES, M.D., F.R.C.P.,

Obstetric Physician and Lecturer on Midwifery and Diseases of Women at St. George's Hospital.

THE light that the study of a pregnant woman under the influences of menstruation and pregnancy can throw upon general pathology has been very inadequately considered. The special or fragmentary manner in which medicine has of late years been studied and practised, although it may produce greater technical or so-called practical skill, has this unquestionable drawback: that, by splitting up the grand unity of physiology and pathology into isolated parts, it scatters, distorts, or extinguishes the light which each part should reflect upon the others, and which should unite in one beam of natural truth.

A better theme for inquiry could hardly be started than the relations of menstruation and pregnancy to pathology. Ever so little observation and reflection cannot fail to show that, in menstruation and pregnancy, there are conditions which, although physiological in design and in general issue, touch closely upon the domain of pathology; that, in many cases, the physiological phenomena pass by almost or quite imperceptible steps into pathological states; that, where a new physiological task is imposed upon a subject bearing some latent infirmity, the healthy execution of that task may be thwarted and new manifestations of the underlying morbid defect will be brought out.

Reasoning upon this basis, let us look upon menstruation and pregnancy as experiments instituted by Nature; testing the powers of resistance or reaction; evoking new phenomena; exalting certain functions; giving new life and development to certain organs; throwing heavy strain upon other organs; modifying the constitution of the blood; affecting its dynamic conditions; modifying the nervous system; in short, producing a remarkable revolution or change in the entire organism that can hardly fail to display new facts for pathological discussion.

The actual or achieved conditions of many pathological states or so-called diseases that we meet with in hospitals or in private life may be obvious enough; but, when we try to trace back to their origin and through their progress the processes or causes out of which those achieved states have come, all is obscurity, uncertainty, speculation. The beginning is too often lost in the myths of history; the progress is often a confused tumult of complications either defying analysis or, where analysis is attempted, betraying into error. Even dissection, so indispensable to a correct and full knowledge of disease, is a test that has often led astray. What the scalpel and the microscope reveal is either the product of disease, or is largely compounded of the direct or indirect products of the disease and of accidental or intercurrent factors.

Now, in the case of a woman falling pregnant, the conditions are nearly as simple as any pathological problem can be. We start with a healthy woman. In this strictly physiological subject, we induce a new function and observe the phenomena that are developed. In many instances, perhaps in the majority, nothing more than physiological reactions are produced; but even these are of the highest interest, if we regard them as the groundwork of potential pathology, if we watch the transitional steps by which they drift into morbid conditions. Let me illustrate this by convulsion. The forms of convulsion are various; but several of the most important forms receive striking elucidation from the observation of pregnancy. Take especially that form of eclampsia which is associated with albumen in the urine. In the ordinary cases in men and women in which albuminuria is connected with organic disease of the kidney, convulsions only break out in a certain proportion, or they only occur in the last or moribund stage. Convulsion is an occasional accident marking the advanced or culminating point of a long series of complicated processes. For example, it was long thought that, whatever the causes, the essential seat of the disease was the kidney, whose structure was invariably found to be changed when the opportunity of examining it arose. But of late the theory has gained ground that the changes in the kidney are, if not secondary

or even more remote, at any rate only concomitant expressions of a general degeneration of the circulatory apparatus. How does this case compare or contrast with the so-called uræmic eclampsia of pregnant women? In the latter case, the whole experiment is carried through in a brief period of time; it is free from many or from all of those fallacies which gather around a long protracted disease. The constituent elements seem to admit of analysis. And the results so obtained from this more simple case may be applied to the elucidation of the more complex cases.

In men and in non-pregnant women, we have a slowly marching disease, in which the blood-vessels and the kidneys undergo progressive degeneration which gradually unfits these organs for their function, and which, thus disabled, induce or aggravate—for the first factor is hard to trace—a degraded condition of the blood and consequent impaired nutrition of the nervous and all other tissues. At a certain stage, and under certain accidental influences supervening more or less suddenly, convulsion may break out. On the other hand, in the pregnant woman, we begin with a perfectly healthy subject; and perfect health may continue until the approach of the natural term of gestation, so that, if the experiment be cut short by bringing the gestation to a premature close, no albuminuria, no convulsion appears. But let the experiment go on; then, within the space of two or three weeks, or even less, the whole morbid chain is completed; the disease begins, culminates, and vanishes. Convulsions the most terrible set in like a sudden storm. Only now, perhaps, retrospective inquiry elicits the fact that some slight anasarca had been noticed, or that the woman had complained of some disturbance of sight, hearing, or other nervous distress; and now the urine is found loaded with albumen, and the blood conversely is found charged with urinary constituents. Presently, labour being provoked and the uterus emptied, the kidneys recover their function, the albumen disappears quickly and completely, the convulsions cease, there is no trace of organic disease, and the subject has quite recovered. Here, then, we have a brief but violent storm, through which the subject may ride unharmed, to compare with the water-logged and sinking wreck caused by Bright's disease. To what is this difference due? In both cases, there are albuminuria, uræmia, convulsion. In the chronic case of Bright's disease, the convulsion, however, is not nearly so constant. This may be explained in two ways: the very slow and gradual progress of the disease admits of a corresponding process of accommodation; and, secondly, there is no special or independent central nerve-irritability. The conditions are widely different in the acute albuminuria of gestation. There is no time for accommodation. It is a constant condition that the nervous centres are in a state of extreme tension. In both, there is highly increased vascular tension; but, in gestation, this is rapidly induced. In gestation, the mobility—if one may use the metaphor—of the sympathetic, cerebral, and spinal systems is enormously exalted. The sympathetic nerves presiding over the dilatation and contraction of the blood-vessels generally seem also to be the agents which determine those sudden fluxes of blood to particular regions or structures, of which we see so many striking examples in the female economy. For example, we have the familiar rush to the capillaries of the face and neck under the emotion that causes blushing, the sudden rush to the breasts and rapid secretion of milk under the emotion of maternal feeling, the sudden rush of blood to the uterus often revealed in flooding under various emotions of joy or fear.

Now, this nerve-mobility, which may at any moment divert a large proportion of the blood-mass to a particular region, may be conceived as acting in this way in producing or evoking convulsion. An emotion is derived through the sensual organs or through the more subtle process of thought; an increased amount of blood is suddenly turned on to the uterus; this blood is overcharged with deleterious matter, uræa, carbonic acid, and other excrementitious matters which have the property of exciting contraction of the unstriated muscular fibre. Here, then, is a double source of reflex irritation at work. The emotion, in many cases, is enough by itself; the eccentric uterine irritation, the sufficiency of which may almost at any time be demonstrated by the simplest experiment. Thus we see commencing uterine contraction, immediately followed by a fit; oftentimes, touching the vulva, as to pass a catheter or to make an examination, produces the same result.

It is worth while to analyse these phenomena a little further. In the ordinary condition—that is, in freedom from albuminuria—the like emotions will not produce convulsion, nor will uterine irritation do more than bring back from the spinal cord a force that will cause the uterine fibre to contract. This, indeed, in its full development, is in some features analogous to a convulsion; but it is a healthy physiological convulsion concentrated upon one organ and its associated muscles. But where there is a poison circulating in the blood, the convulsion is no longer directed to a definite physiological end; it

* Delivered before the Midland Medical Society at Birmingham.

affects the whole system; the nervous energy breaks bounds; there is universal perturbation.

We have, then, these three factors in the production of puerperal eclampsia:—1. An exalted physiological central nerve-tension, the immediate consequence of pregnancy; 2. A poisoned blood which irritates the nervous centres, and also increases the peripheral or eccentric excitability; 3. Eccentric or emotional excitation, the immediate provocative of the fit. Where the first two factors exist, an explosion may not occur; but it is always imminent. The slightest cause may provoke it. Now, if we eliminate the second factor, the poison, and reduce the conditions to those ordinarily present in pregnancy, we still have the exalted central nervous irritability and the high arterial tension; then convulsion of the kind under consideration is not likely to occur. But, suppose that the nervous centres have acquired or inherited some peculiarity of structure or nutrition, such as entails a proclivity to epilepsy, chorea, ague, then a lesser degree of eccentric or emotional irritation may call forth the latent disorder, which declares itself by convulsion. Thus it may be said that pregnancy is a test of the soundness of the nervous system.

In illustration of this, we may appeal to the history of chorea. I believe this form of convulsion very rarely occurs for the first time in pregnancy. It will almost invariably be found that the subjects had suffered from the disease in childhood. Bristowe (*Treatise on the Theory and Practice of Medicine*, 1876) correctly states the general opinion that "the recovery from chorea (putting cardiac disease out of the question) is generally in the long run complete". And so it is, to all appearance, unless pregnancy supervene. In this case, the disease presumed to be eradicated, but really only latent, breaks out afresh and with tenfold intensity, perhaps developing into insanity and causing death. It is an interesting illustration of the analogy between pregnancy and menstruation, that a girl lately under my care had suffered from chorea when five years old, and was apparently cured, but had a renewed outbreak at thirteen, when menstruation set in.

The comparison of cases of chorea complicating pregnancy with chorea independent of that condition enabled me to disprove the embolic theory of the cause of the disease; a theory since destroyed on other evidence by Ogle and Dickinson and rejected by Bristowe. This corrective or controlling observation, then, shows that the condition upon which the latent disposition to chorea depends is some change of nutrition or of structure of the nervous centres, unimportant under the ordinary conditions of life, but liable to be called out into renewed activity under that special increase of central nervous development which is the constant attendant upon pregnancy.

Many analogous facts confirm this view. Thus women born of epileptic or other morbidly nervous parents may manifest no marked similar disorders until the advent of menstruation—a mimic or abortive pregnancy—or of true pregnancy. In such subjects, convulsion truly epileptic, that is, unaccompanied by albuminuria, is determined under the central nervous development and the increased reflex irritability. A similar history may be traced in the study of ague. Women who have been the subjects of ague, or whose constitutions have been affected by malarial influences, may be apparently cured, and so remain for years until pregnancy overtakes them. Then back come the ague-fits; again the spleen shows enlargement, and it will not be easy to subdue the disorder whilst the pregnancy lasts. It is interesting to remember that, in this case, there is not only an apparent rekindling of the central nervous fault, but that the spleen, which is specially attacked in ague, is also the seat of normal increase of functional activity, and probably also of structural increase during pregnancy.

The development of insanity under the trial of pregnancy is another proof of the proposition that pregnancy is a test of the soundness of the brain. This is one of the most familiar facts in the history of women. But for pregnancy, the latent proclivity to insanity might never be suspected. It is enough for our immediate purpose to specify this relation. I will, however, mention a singular case that lately came under my knowledge. The wife of a medical friend had been insane before marriage. The mental disorder was suspended during two pregnancies, and recurred afterwards. May we explain this by supposing that the function of pregnancy, demanding a special nerve-force, diverted to this physiological channel that which would otherwise have found a pathological expression?

Pregnancy further supplies most interesting examples of general nervous shock and of shock more especially limited to the brain or spinal cord, shown in prostration or sudden death in the one case, and in paraplegia or other form of paralysis in the other.

I must refrain from loading this paper with illustrative cases; but I cannot doubt that appeal to your memories will bring up abundant examples. I have cited several in my Lumeian Lectures on the Convulsive Diseases of Women (1874). But I may be excused for making a

few more observations upon this topic. It may be assumed that physiology consists in the perfect adjustment of organs working harmoniously to the accomplishment of natural functions. Now, this perfect adjustment and correlation are liable to disturbance. When a new function, notably that of reproduction, is started, a special organ, the uterus, is called from the reserve into active and leading service. It cannot be fitted for this leading service without suppressing to a great extent the ovary, which hitherto was the chief sexual organ, without taxing other organs, without raising unwonted supplies. Amongst the earliest, if not the first conditions observed, are increased blood-flux to the uterus, increased arterial tension, and increased nervous irritability. As the uterus grows in response to the developmental stimulus of the ovum, these phenomena become more accentuated. As the nutrition of the embryo proceeds, the wants, recremental and excremental, of a new organism are added to the similar wants of the mother; that is, her organs of assimilation and of elimination have to do double duty. This call is met in two ways, perhaps in more. The organs increase in bulk—that is, in working capacity; and in activity—that is, by doing more work in a given time. Thus the increased work thrown upon the circulation demands an increase in driving power. The addition of an enormous area of blood-supply, involving more blood and a larger system of vessels to carry it, necessarily compels an addition to the effective moving power of the circulation. Hence, as the vascular system of the pelvis extends, so the work of the heart increases. The heart undergoes a normal muscular hypertrophy, and it beats more quickly than in the non-pregnant state. I believe it is not necessary, in order to account for this growth of the heart, to invoke the influence of pressure of the gravid uterus upon the iliac arteries. In many cases, this pressure is never great; and in many the increased power and action of the heart are manifested at so early a stage of gestation, that mechanical pressure is inappreciable.

These conditions of the circulation are marked by a rise in the arterial tension. And this pressure is exerted upon the chief organs of functional activity. The liver, the spleen, the kidney, the lung, the skin, the uterus, and the nervous centres, feel the unwonted impulse. The liver and the spleen certainly enlarge and become more vascular; probably the kidney is affected in the same manner; the condition of the uterus is obvious enough; the skin also becomes more active; its glands, sebaceous and sudatory, work more. So vast an increase of circulatory, nutritive, formative, and excretory force implies a corresponding increase of the nervous force; without which these functions could not be kept going under the ordinary conditions. That there is, then, in all physiological probability, a tissue-increase of nerve, and especially of the sympathetic and spinal systems, it is reasonable to assume. The bare anatomical fact might be determined by a series of comparative observations of animals in the pregnant and non-pregnant states. I will not reopen the controversy as to the development of nerves in the uterus and heart. I will only remark that, even granting the insufficiency of anatomical proof, the presumptive or *a priori* evidence that increase of work demands increase of material is hard to resist. But of the relative activity of the nervous function there can be no doubt. Apart from the greater activity of the circulation and of the glandular organs, proofs of exalted central nervous irritability are constantly forced upon our observation. The increased emotional mobility and the intensification or perversion of the intellectual and moral qualities under the influence of pregnancy have been recognised in all ages and in all countries. Of the development of central spinal irritability, I will cite a few examples. It will be useful to turn first to the ultimate function of the spinal cord in the accomplishment of the function of reproduction; viz., that of parturition. In this final act, we see the culminating effort of the excitatory or diastolic system. The force generated and stored up to supply the uterus and its auxiliary muscles to effect the expulsion of the mature ovum is now expended with a rapidity and energy for which there is hardly a parallel. Certainly, I am justified in repeating that, for most of our delicately nurtured daughters of luxury, the only day's hard work they ever know is that on which they fall in labour. If we accept the dictum that Nature does nothing in vain, we must admit that this accumulation of nerve-force expended upon a determinate purpose is a special provision. Now, although this expenditure or explosion of nerve-force during labour is more or less sudden and limited to a short period of time, there are not wanting manifestations of the generation of this force beforehand in preparation for the coming struggle. Thus it is not uncommon to witness during pregnancy twitchings of the legs, involuntary, so that it is painful for the sufferer to be in society. These movements may be regarded as a mode of discharge of superfluous nerve-force not yet wanted. They exert a regulating or balancing function.

I have seen instances of periodical fits of sneezing during pregnancy in subjects quite free from colds, and not liable to similar attacks at

other times. These attacks occurred in the morning, and seemed to replace the morning-sickness.

This morning-sickness is the most remarkable and the most familiar example of the nervous disturbances induced by pregnancy. It has been too narrowly regarded as simply due to uterine reflex irritation. Undoubtedly, irritation proceeding from the uterus is the chief immediate or exciting cause of the vomiting. But we must presuppose an excitable condition of the nervous centres, especially of the spinal cord. Under ordinary circumstances, equal or greater uterine irritation will not produce the same effect. But during pregnancy, especially during the early months, and at the very end of gestation, when labour is at hand, the local irritability is enormously intensified. Commonly, at the end of two or three months, the vomiting ceases. Accommodation has been established. There is a just correlation between the newly developed nerve-force and the uses to which it is applied. But sometimes the physiological adjustment is disturbed; and pathological phenomena are manifested. Nutrition is impeded; the nervous centres are unable to recover their equilibrium; what, for want of more accurate knowledge or expression, may be called a habit of vomitive convulsion is acquired; this is now excited by the slightest causes, and special uterine irritation is not the only cause; smelling or seeing, or even thinking of food, or the smallest mental or physical effort or shock, will evoke an attack. And every attack produces a shock, which adds to the general prostration. But when, or perhaps before, things have arrived at this point, another complication has been introduced. There is blood-poisoning; and thus the situation resembles that of uræmic eclampsia. When nutrition from ingested food is arrested, the process of absorption of tissue acquires intense activity. This is seen in the rapid and extreme emaciation. Now this absorption of tissue, attended as it is by defective excretion of waste material, implies the retention and circulation in the blood of noxious matter, and, further, an absolute degradation of the blood. The vessels then carry a poison to the spinal cord, a poison which probably, as in the case of uræmia associated with albuminuria, increases its excitability.

But the poisoned blood acts in another way. The function of respiration being imperfectly exercised, the blood carries, not only excess of waste material, but an undue proportion of carbon. Now, carbonic acid certainly, as Marshall Hall and Brown-Séquard have sufficiently shown, excites contraction of the unstriated muscular fibre. Hence the disposition to abortion brought about by a double process; first, the direct action of the poisoned blood exciting the uterus to contract; secondly, the reflected stimulus to contract derived from the spinal cord. Thus it is that occasionally abortion is induced under the influences of obstinate vomiting; that it is induced still more frequently under the influence of uræmic eclampsia; because, during the fits, oxygenation of the blood is so impeded that a large accumulation of carbonic acid takes place. Thus it is also that, in apoplexy occurring during pregnancy, abortion is induced. Of this I have seen remarkable examples. Thus it is, again, that, in the moribund from any cause, abortion often precedes death. Thus it is that, in cases of rapid poisoning from inhalation of carbonic oxide or carbonic acid gases, abortion is very constant. It is true that, as Marshall Hall observed, when the influence of the cerebral centre is eliminated, as by anaesthetics, of which carbonic acid is not the least effective, or by extirpation, the reflex activity of the spinal cord is augmented. But this factor is an addition to those to which I have referred.

In these cases, we cannot help seeing evidence that abortion is salutary, at least in design, and not seldom in effect. It is a natural conservative process. The uterus, casting out the ovum, casts out the *fons et origo mali*. The nerve-force, directed to the uterus and expended upon this process, finds a safe employment; and, in some cases entirely and in others to a certain extent, obviates the aberrant and dangerous explosions in convulsion. In addition to this mode of relief, the cause of the augmented nerve-tension removed, the disposition to convulsion and other mischief is at once lessened. And more than this; the attendant hæmorrhage acts beneficially, by diminishing the arterial tension. The dangerous experiment is at an end; the economy, finding itself unequal to the trial, brings it to a premature termination.

It may, on the other hand, be affirmed that, whereas abortion is the natural mode of relief when the resisting or accommodating forces are overpowered, these nervous explosions in vomiting, sneezings, twitches, are, in the majority of cases, means of discharge of excessive nervous energy, by which abortion is averted.

It would lead us too far to trace, with any detail, the changes wrought in the constitution of the blood under the influence of pregnancy. I will simply recall the leading facts that have been ascertained: the diminution in the number of red corpuscles, the relative or absolute increase in the number of white corpuscles, the relative increase of fibrin and water. These changes no doubt exist, in very various degrees, in dif-

ferent cases; and, where they are extreme, the transition to pathological conditions is easily made. If the secreting and excreting organs be not in good working order, there will be added some foreign matters of a positively injurious character; and thus the fall into disease will be precipitated.

Another point, to which brief reference must be made, is the change in the dynamic condition of the circulation. The chief features are briefly these. Under the new developmental stimulus in the uterus, a sudden and powerful special determination of blood takes place to the pelvic vascular region. This vascular region undergoes rapid and enormous extension. It, therefore, holds and transmits a larger mass of blood. Under the double duty of nourishing the new organism, as well as maintaining that of the mother, and preparing her for the ulterior processes of parturition, childbed, and lactation, the whole mass of blood made is greater. The heart has more work to do; it is compelled to drive more blood at a higher speed. Hence, as we have seen, the heart undergoes a normal hypertrophy; the greater projectile force it exerts implies a higher arterial tension, demonstrable by the sphygmograph. This, in its turn, implies greater strain upon the liver and kidneys, and indeed upon the capillary system generally. There is a tendency to capillary fulness in every part of the body. This capillary fulness is increased by the retardation of the blood in the veins. Venous retardation is especially marked in the veins of the pelvis and lower extremities; and this may, to some extent, be due to the pressure of the gravid uterus upon the iliac veins and inferior cava. But I think this cause is secondary, not essential, and rarely of chief importance. This pelvic venous hyperæmia is, perhaps, the earliest sign of pregnancy. It is seen in the dark-violet colour of the vaginal mucous membrane, a condition sometimes so exaggerated that the veins present a prominent tortuous appearance, forming masses of venectasis actually projecting into the vagina and outside the vulva. This venous repletion is extended more or less, as might be expected, to the veins of the thighs and legs. These may show distinct varicosities, and the frequent oedema of the legs is further evidence of this condition. These conditions of general and local hyperæmia or plethora, and of increased vascular tension, like the increased nervous tension, may easily exceed the physiological equilibrium; and certain provisions must be made for regulating or controlling them. This accommodation is sometimes successfully accomplished by the increased action of the secreting and excreting glands. The vomiting, already referred to as a means of discharging excess of nerve-force, acts also in the direction indicated—that is, the fluid thrown off by the glands of the stomach lessens *pro tanto* the vascular tension. The skin-transpiration is also increased, so is the quantity of urine. If these means be insufficient—that is, if the secreting and excreting glands be not in good working order—not only is the dynamic fault unremedied, but effluvia material accumulates in the blood. At this point, the danger is imminent. Sometimes Nature restores the balance by setting up diarrhoea, by increase of vomiting, by the comparative abstinence from ingesta thus enforced. But if the balance be not so restored, we may see organs, hitherto doing no more than routine duty, excited to astonishing activity. As an example of this, I may instance profuse salivation. I have known cases, where the daily quantity of saliva was measured by pints. I saw one such case with Dr. Williams of this town. This excessive salivation also acts as a means of carrying off excess of nerve-force; for profuse glandular secretion implies unusual derivation of nerve-force. As in other cases, salivation, salutary within certain limits, may pass into predominant importance and attain pathological significance.

If excessive vascular tension be not moderated by increased glandular action, the vessels may give way, the blood bursts through; we have hæmorrhage. This is a very interesting feature. It is almost certain that the mucous membrane of the alimentary tract is subject to hyperæmia, like the skin of the inferior extremities. The same may be predicated of the mucous membrane of the respiratory tract and of the urinary tract. Thus we occasionally see oedema of the lungs (independently of albuminuria, in which this condition is very frequent), and occasionally hæmoptysis and epistaxis. In other cases, the eruption takes place from the intestinal canal in the form of hæmatæmesis, melæna, or bright blood from the anus. In other and rarer cases, we have hæmaturia, the blood coming either from the kidneys or from the bladder. I have interesting clinical illustrations of all these varieties of what we may call the regulating hæmorrhages of pregnancy. In the typical cases, the hæmorrhages have entirely ceased after labour; in some, similar hæmorrhages have recurred in subsequent pregnancies. But there is a safeguard much more frequently brought into action than these devious or displaced hæmorrhages. I refer, of course, to abortion. The uterus is the seat *par excellence* of blood-determination. The delicate vessels connecting the ovum and uterus give way more easily than do the vessels of any other part of the body. Like a chain

under tension, the circulation gives way at its weakest point. And, unlike a chain, the tension is greatest at this particular point.

No other vascular region is equally exposed to those sudden or rapid flows which so sorely try the resisting force of the vessels. There is abundant reason to conclude that ovulation, or at least an attempt at ovulation, proceeds during pregnancy. Hence is explained the fact that abortion and the bleedings associated with placenta prævia mostly occur at menstrual epochs. It seems a happy provision of Nature that the break-down happens at this place. The system, unable to bear the burden of pregnancy, saves itself by rejecting the ovum. If hæmorrhage do not take place from the uterus, abortion attending or not, or from some other mucous membrane, thus obeying the physiological law of hæmorrhages, extravasation would be the more likely to take place either into a serous cavity, as the peritoneum, into the parenchyma of the internal organs, or into the brain, producing apoplexy.

Depending partly upon the altered dynamic conditions of the circulation, and partly upon the altered constitution of the blood, various inflammations are apt to arise during pregnancy, but more especially soon after labour. These I can only glance at. But it must be obvious that this rapidly developed proclivity to inflammations must illustrate the causes of inflammation in the non-pregnant. Upon the same conditions depend essentially the phenomena of thrombosis and embolism. Indeed, in no other state do we find so many or such instructive examples of this blood-disturbance as in pregnancy. Did time permit, I could adduce evidence to show that, for the production of thrombosis, arterial or venous, the addition of a third factor, the entry of poisonous matter into the blood, is at least generally necessary.

What is the mode of genesis of that singular disease, *acute yellow atrophy of the liver*? Conjecture is nearly all that can at present be offered; but, since a very large proportion of all the recorded cases have occurred during pregnancy, it is surely in the direction to which I am pointing that a solution must be sought. Taking note first of the known modifications wrought in the blood by pregnancy; secondly, of the increased strain thrown upon the large glands, especially upon the liver; thirdly, of the liability of the blood to be invaded and altered in its chemical form by poison; fourthly, of the peculiarly impressionable explosive condition of the nervous centres—we may see dimly looming in the distance the path that shall lead to the synthetic thought that will reveal the truth.

One of the most curious and least understood phenomena of pregnancy is *pigmentation*. Many isolated facts may suggest lines of speculation to account for the production or deposit of pigment in certain cases; but the hope of discovering the combining links that shall produce a true theory of pigmentation must lie in the observation of pregnant women, who present so many examples of the process. That pigmentation is intimately dependent upon blood-conditions, cannot be doubted; but facts are not wanting to show that the nervous system is concerned in the process. In the investigation of this problem, there lies the promise of a rich harvest of physiological and pathological discovery. Here I cannot help citing a most remarkable experiment due to the perils of the sea recorded in the touching narrative (*Blackwood's Magazine*, 1876, by F. Wordsworth) of the sojourn of forty-nine persons for nearly seven months on one of the Crozet rocks, who had escaped from the wreck of the *Strathmore*. After living some time on sea-birds and their eggs, exposed to wet, cold, and fatigue, it was found that the dark-haired persons had grown fair and the fair-haired had become flaxen, with pink and white complexions; and that, conversely, the pristine pigmentation was regained when return was made to the ordinary diet and conditions of life.

In this place, I take the opportunity of calling attention to a clinical fact not previously, at least to my knowledge, recorded. My late resident-assistant at St. George's Hospital, Mr. Lacy, observed in two cases of postpuerperal inflammation that the temperature rose at every menstrual epoch two or three degrees, sinking again on the subsidence of the flow. I have since made other observations in point. It is highly probable that we may in this fact discover indications in the treatment of inflammations in women. An associated fact in one case is very interesting. It was a case of pyæmia with arthritic complications. At the menstrual periods, the temperature rose to 101.5° and hæmoptysis attended. She had never had hæmoptysis before.

But the warning hand of inexorable Time reminds me that I must respect his authority and your patience. The subject I have feebly sketched, or rather pointed to, is inexhaustible in matter for observation and in its theoretical and pathological applications. I shall not have failed altogether if I incite others to work and think in this direction. I will not weary you with any further speculations, but will simply state one or two propositions which may fitly conclude this address.

1. The physiological phenomena evoked by pregnancy must be

studied and grasped as a whole; that is, as forces called into combined action to accomplish a definite object. We cannot arrive at a just idea of the state of any one organ, or system of organs, without taking into consideration the state of all the rest in their absolute and relative conditions. This may seem a somewhat obvious proposition, but I cannot call to mind a systematic treatise on medicine or even on obstetrics in which more than a faint glimmer of the lesson it propounds is manifest.

2. This general law may be stated. Since, in pregnancy, nearly every organ and the whole organism are specially weighted, and undergo extraordinary development and functional activity, so any defect or fault inherited or acquired, howsoever latent, will be liable to be developed or intensified under the trial. Hence pregnancy is the great test of bodily soundness.

3. Whether there be any latent defect or not, but more especially if there be a latent defect, the history of pregnancy supplies illustrations throwing a vivid light upon many problems in pathology complementary to that derived from the ordinary methods of clinical observation and pathological research. Pregnancy is a more luciferous experiment than was ever devised in the laboratory.

TWO CASES OF ADDISON'S DISEASE WHICH ENDED WITH CEREBRAL SYMPTOMS.*

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IT is not necessary before a medical society in England to defend the reality of Addison's disease, or to trace the steps by which our present knowledge of it has been acquired. Here at least pathologists have not been blind to the facts, which no difficulties in explanation can alter, and one might rather complain that this last and most striking discovery of Dr. Addison has diverted attention from his other and no less remarkable services to medicine.†

I may, however, remind you that, in 1855, the original short treatise on the *Constitutional and Local Effects of Disease of the Suprarenal Capsules* was published. Of its eleven cases, only the first six were undoubtedly genuine; but the doubts which reasonably existed on a subject incompletely worked out were, or ought to have been, set at rest by the publication in the *Guy's Hospital Reports* for 1862 of twenty-five genuine cases, with a commentary by Dr. Wilks, in which the characteristic lesion of the adrenals‡ was distinguished from others to which they are subject, and the clinical features of the disease were fully described. In 1866, Dr. Greenhow was able to publish in the seventeenth volume of the *Pathological Transactions* no less than one hundred and twenty-eight cases of morbus Addisonii verus; and the same physician has since added to these about fifty more, and has embodied the results of his investigations in the Croonian Lectures delivered last year before the College of Physicians, and afterwards published in this JOURNAL as well as in a separate form. To these lectures I may refer for a more detailed account of the literature of the subject.

The point to which I desire particularly to direct the attention of this Society is the occasional rapid termination of the disease, when apparently in a very chronic stage, by the sudden access of cerebral symptoms: a mode of death of which the following two cases are examples.

CASE I.§—A boy, aged 14, came among my out-patients at Guy's Hospital last March, whose appearance had already led the house-physician to a correct diagnosis of the case. Several years before, he had suffered from caries of the tarsus, and Mr. Bryant had removed some dead bone with good result. Though somewhat thin and delicate in appearance, he appeared to be a healthy boy until a few months before I saw him, when his appetite began to fail; he complained of headache and pain in the back, and occasionally vomited. Meanwhile,

* Read before the Hunterian Society.

† Especially his recognition of the disease since known as idiopathic or pernicious anæmia, his classical paper on pneumonia, and his long-forgotten but now accepted doctrines on phthisis.

‡ I venture to use this word, familiar to comparative anatomists, as a more distinctive and convenient term than suprarenal capsule. The organs were described as *glandule* by their discoverer Eustachius, in 1564; by Wharton, a century later, as *glandule ad plexum* (sc. *solarum*); and it was the Danish anatomist Bartholinus who gave them the doubly misleading title of *capsule atralivariæ*. Since they are neither true (secreting) glands nor lymphoid structures, since they do not form black-bile, and are only capsules when the medulla has decomposed into an apparent central cavity, it is better to use a term which is sufficiently short and characteristic, and does not involve any theory as to their function.

§ This case has already appeared in a paper on Morbus Addisonii, which I published in *Virchow's Archiv* for 1875.

the skin had gradually become dark, until, when I first saw him, the boy looked like a half-caste. His face was of a brunette complexion, and would have looked healthy enough but for the contrast with his light brown hair, hazel eyes, and English features. The back of the hands was of the same colour, the trunk and limbs lighter, except the loins and bend of the joints; the penis and scrotum were very dark. This characteristic distribution of pigment in the disease is strikingly different from that produced by exposure to air or sun, from the melasma of prurigo senilis, or the discoloration of jaundice; but it is precisely like that seen in the darker races of mankind, for in them also the genitals and the areola of the nipples are darkest, the face darker than the trunk, and the palms and soles the lightest parts. A microscopic section also of the skin of a patient affected by Addison's disease shows precisely the appearance of a similar preparation from a negro: pigment-granules deposited in the Malpighian layer of the epidermis, and, less abundantly, in the papillary layer of the cutis. The boy, though somewhat slender in build, was fairly nourished, and the mucous membrane of the mouth was not anæmic; there were one or two dark patches on the inside of the lips. The temperature, the blood, and the urine were normal, and the chest and abdomen gave no indications of disease. I took the patient into the hospital, and gave him the twentieth of a grain of phosphorus thrice daily. During the two months following, there was no notable change, except that the colour of the skin gradually deepened and several minute dark brown spots, like pigment-nævi, appeared on the face and trunk. There was some nausea and a feeble rather rapid pulse. The urine gave a slight precipitate with tincture of galls, but never contained albumen. One morning, he complained of severe pains in the head. He lay for about three hours screaming with pain, and then sank into an unconscious state till the evening, when he died. There were no convulsions and no paralysis, nor was there previous vomiting. At two in the afternoon, the temperature was 96.2; the pulse rapid and almost imperceptible at the wrist.

After death, besides the usual condition of the adrenals, which were shrunken, hard, and caseous, there was no other important lesion found. The heart showed the usual fatty degeneration of the ventricles. The lungs were normal; but there were slight old adhesions of one pleura and one of the bronchial glands contained a little caseous material. The lymph-follicles of the stomach and intestines (lenticular and solitary glands) were large and distinct even for a boy of 14. The thymus was also rather large. The connective tissue around the adrenals was thickened; but, on dissecting out the solar plexus, its ganglia appeared to be normal. The brain was large, weighing fifty-eight ounces; the fornix and septum lucidum were soft, probably from *post mortem* change, as there was other appearance of disease in the brain or membranes. There was no tubercle found, nor any disease of the vertebræ, tarsus, and other bones.

CASE II.—J. H., aged 27, was a patient of Mr. R. H. Cooke of Stoke Newington, to whom I am indebted for the following notes. He was a clerk, who was always taking medicine, and was thought by his friends to have little else the matter with him.* For several years, he had become darker in complexion. The exact time we could not ascertain; but his brother knew that the change had gone on for at least seven years, and Dr. Gooding of Cheltenham, whom the patient consulted a year before his death, believes that he then stated that his skin had begun to darken eight years before. One day last August, he went to bed in his usual health, and next morning was found cold and insensible on the floor of his room. He was put to bed and rallied enough to take a glass of wine and answer questions, but could not remember the attack, which must have come on in the early morning. He was soon afterwards seized with convulsions and, after a series of well marked epileptic fits, died comatose in the course of the following night. The fatal attack thus lasted about twenty-four hours. No urine was passed during this time. The pupils were sensible to light. We were only allowed to examine the kidneys and adrenals. The former were healthy and surrounded by a quantity of fat; the latter were shrunken, the one dense and contracted, the other soft and caseous. There was no thickening or adhesion of the surrounding connective tissue. The discoloration of the skin was characteristic in its distribution, the body looking like that of a mulatto. The face was very dark and the genital organs quite black. There was a fair amount of subcutaneous fat.

REMARKS.—It is not uncommon, during the extreme exhaustion which attends the last stage of morbus Addisonii, when uncomplicated by phthisis and not cut short by an intercurrent disease, for the patient to sink into a half-conscious condition, lying quiet, with half-open eyes,

slow gentle respiration, and almost imperceptible pulse. The state is apparently the same as that seen in some cases of diabetes, more frequently in fever, and occasionally in cirrhosis of the liver and in Bright's disease. It is thus described by Addison himself:—"With respect to the first mentioned form of cerebral disorder connected with renal disease, that of quiet stupor, it is in its most exquisite form probably the least frequently met with. The face is pale, the pulse quiet, the pupil natural, or at least obedient to light; and, although the patient may lie almost completely motionless, there is no paralysis; for, on attentively watching him for some time, he will be observed slightly to move all the extremities. By agitating him and speaking loudly, he may sometimes be partially roused for a moment, but quickly relapses into stupor as before; or it may not be possible to rouse him at all. There is little or no labour of respiration, no stertor, and no convulsions." (*On the Disorders of the Brain connected with Diseased Kidneys*: Sydenham Society's Edition of Addison's Works, p. 188.)

But, when this condition comes on as the most frequent termination of uncomplicated disease of the adrenals, it is always preceded by extreme and increasing prostration, with vomiting and syncope; while the sudden and more violent cerebral symptoms occurred in both the above cases during an almost latent state of the usual constitutional symptoms. The last patient seen by Dr. Addison himself (No. 18 in Dr. Wilks's paper, *Guy's Hospital Reports*, 1862), a lad aged 15, was delirious, with slight convulsions before death. In the thirty-seven cases given in detail in the appendix to Dr. Greenhow's volume, most died in the state of extreme prostration without loss of consciousness described by Dr. Addison, three were delirious, one of these and two others died comatose, and in three cases there were epileptic convulsions. In one of the last, there were found congestion of the brain, excess of serum in the ventricles, and a diffused state of the fornix and septum lucidum; but Dr. Greenhow does not regard these appearances as at all explaining the cerebral symptoms. Softening of the central parts of the brain, fulness of the vessels, and slight excess of serum in the ventricles, are so commonly found that, in the absence of all signs of meningitis and of microscopic evidence of inflammation in the brain, they are commonly and justly regarded as due either to *post mortem* changes, or to the obstruction of respiration which may have existed shortly before death.

I am, therefore, disposed to look on these violent and fatal symptoms as purely functional; that is, dependent on some molecular change in the grey matter of the brain, not on "metastasis", meningitis, or any inflammatory or tubercular lesion. They should take their place with the vomiting and cardiac disturbance, which are both independent of any anatomical change in the stomach and head, and are correctly looked upon as neuroses. From Addison himself to Dr. Greenhow, the best observers of the disease have attributed its characteristic symptoms not directly to the affection of the adrenals, but indirectly, through the implication of the nerves of the solar plexus. A long-continued peripheral irritation of the great branches distributed to these organs probably affects the nervous centres somewhat as they are affected in the vomiting of pregnancy, in the syncope which follows a slight blow on the epigastrium, or in the convulsions which, in some cases of epilepsy, can be traced to a distal source of irritation. A German pathologist has even supposed that all the symptoms of Addison's disease, pigmentation included, are due to a primary affection of the nervous system, including both the motor and the trophic centres, without any necessary lesion of the adrenals. But, in the first place, the single case on which this ingenious theory is based was clearly not one of Addison's disease at all, the distribution of pigment being very different; secondly, it was complicated with scleroderma; and, thirdly, the elaborate macroscopic and microscopic investigation of the organs after death is, unfortunately, deficient in one important point—the state of the spinal cord.*

It is abundantly clear that the characteristic features of the disease during life go with the characteristic lesion of the suprarenal capsules found after death. But that this connection is through the nervous system seems to be indicated by the character of the symptoms themselves as well as by the large supply of nerves and ganglia to the organs, by far the largest in the body in proportion to their size. We can scarcely expect beforehand that the quasi-tubercular lesion of the adrenals should in itself produce the symptoms of Addison's disease; for they may be destroyed by cancer or hæmorrhage, or waxy degeneration, without any apparent result. Moreover, both their histology and the history of their development lead us to regard them as obsolete and functionless organs, at least after birth. Either their use is during fetal life, when they attain their full size, or even that development must be regarded as a "recapitulation" of a lost stage in

* A prescription containing bismuth and hydrocyanic acid was found after death, which pointed to his having suffered from nausea or vomiting.

* See Virchow's *Archiv*, vol. i. p. 166.

phytogenesis. In the adult, Riolan maintained them to be "inutiles, inquam viciat et marcidat, instar vasorum umbilicalium; adeoque usum quærentium in fœtu".

The unfortunate term "gland" has led some writers to imagine that a "secretion" might be retained in the blood when their supposed function is injured, and others to look for leukaemia: a condition which, I believe, never exists in Addison's disease. They are, we know, glands in no other sense than is the glans penis. They have neither the structure of a secreting gland, nor that of a lymph-gland; and, whatever the term "blood-vascular gland" may mean, they have certainly no connection in structure, physiology, or disease with the thymus, the spleen, or other lymphatic structures. Like the thyroid and the pituitary body, they are probably rudimentary organs, survivals of what once performed functions in the individual or the race. Their importance depends upon the mischief they may do through the abundant nerves and ganglia they contain. If rapidly and completely destroyed, as by cancer, or if only chemically altered, as by waxy degeneration, no symptoms ensue; but a chronic inflammatory change, leading to caseous degeneration and contraction, keeps up a continued irritation, which, sooner or later, produces the various neuroses that make up the symptoms of the disease.

CASE OF OVARIOTOMY.

BY GEORGE BUCHANAN, M.A., M.D.,

Professor of Clinical Surgery in Glasgow University.

George De FARQUHARSON, Coatbridge

MRS. R. of Cuilhill, near Coatbridge, aged 40, had given birth to seven children; no miscarriages. Her previous health and family history were good. Three years ago, she was treated for what the doctor designated inflammation of the liver, from which she suffered very acutely. Eleven days after the commencement of the attack, she was delivered of a child; labour, she believed, being brought on by the application externally of hot fomentations to the region of the liver, violent movements of child having been felt at that time. However, she recovered from this illness completely.

In 1872, she felt a lump about the size of a fist, two inches above Poupart's ligament, on the left side. It was so movable, that she could carry it across to the corresponding place on the opposite side. For this she consulted Dr. Simpson of Edinburgh, who diagnosed that it was an ovarian tumour. It gradually increased in size, became fixed and fluctuating, and displaced the viscera. From its great bulk and weight, it was a source of great inconvenience and discomfort, and Dr. Farquharson thought it proper to tap it in the usual way on January 7th, 1873. The fluid that was drawn measured ten Scotch pints. She experienced a little faintishness, but was much relieved afterwards. Again she was tapped on July 27th, when the fluid measured nine pints. During all this time menstruation was regular, though a little scanty.

Dr. Buchanan operated on November 21st. She then measured fifty-six inches round the abdomen at the umbilicus. She was very emaciated, and suffered much from the bulk of the tumour. The longitudinal incision measured nearly nine inches, through which, after separating adhesions, the tumour was extracted. It weighed 103½ lbs., and was multilocular; the largest cyst containing fluid of a pale straw colour, the smaller ones a viscid material.

The patient did well during the operation, which occupied three-quarters of an hour, commencing at 1 P.M. on November 21st. At 3 P.M., her pulse was 109; at 3.30 P.M., 106; at 5.30 P.M., 108; at 12.45 A.M., 98; at 3.15 A.M., 108; and so it remained till the night of November 22nd.

On the night of the 21st she complained of pain in the right shoulder. At 12.30 A.M., her urine was drawn off, which measured four ounces, and was high coloured. At 5.30 A.M., she got an opiate enema, which was repeated three times during the next day. Ice only was given. She complained of little pain.

November 23rd, 10.30 P.M. Pulse 114. The urine was drawn off; it measured five ounces. The skin was cool; the tongue reddish and gently moist; thirst great. She had snatches of sleep from 3 P.M. Ice was continued. Pain was felt occasionally in the right shoulder. The left leg was powerless. She complained of pain in the bowels and round the loins from flatulence. There was no vomiting or sickness. She had lain in one position till now, when the pillows were turned. An enema of tincture of opium was repeated at 7 P.M. The patient had a cheerful look, and seemed in good spirits.

November 24th, 8 A.M. The urine was drawn off; it measured three

ounces, and was paler than previously. Menstruation had appeared. She passed some wind, which afforded much relief. She had not the slightest pain. Last night she slept three-fourths of an hour, which was the longest sleep she had had. Thirst was still great; pulse 102. She was ordered a teaspoonful of milk with ice every hour. She had a sensation of hunger to-day, having had no food or brandy from 2.30 P.M. of the 21st till 9 A.M. of November 24th. The skin was always moderately warm. There was no excitement.—2.30 P.M. Pulse 96. She passed more wind. She could move the paralysed limb freely. She complained of hunger, and was ordered a tablespoonful of milk with ice every hour. The other symptoms were unchanged. The urine measured seven ounces.—10.30 P.M. The urine measured eight ounces. She was restless; pulse 114; no fever. She was still hungry. The flatus was annoying, otherwise she was well and cheerful.

November 25th, 8 A.M. She slept one hour last night, which was the longest sleep as yet. A drachm of tincture of opium was given at bedtime. The urine measured nine ounces. She was still hungry. There was a slight smell from the wound. Skin natural; pulse 90.—5 P.M. Urine twelve ounces; pulse 96. She was ordered a tablespoonful of chicken-soup every hour.—12 P.M. Urine eight ounces; pulse 96. The opiate was repeated. She had no pain, but felt rather chilly.

November 26th, 7 A.M. Urine eight ounces.—2 P.M. Urine seven ounces; pulse 80. The wound was dressed; it had a slight smell. She was still hungry. She passed more wind. There was a tingling felt in the left leg. She felt happy and comfortable. The wound looked well. There was very little grumous pus. Slight tenderness was felt over the left iliac region.—10.30 P.M. Urine eleven ounces; pulse 78. Milk and soup were continued, with ice. The opiate was repeated. She was very anxious for food. The symptoms were unchanged.

November 27th, 1.30 P.M. Pulse 90. Iced milk was given every hour; and she had a cup of beef-tea with a half slice of bread toasted. Tea and toast at 5 P.M.; after which she slept for half an hour, then feeling very comfortable.—10 P.M. She had no pain; tongue clean. There was no thirst to-day. She had improved much on beef-tea; and was ordered porridge and milk in the morning. The urine was natural.

November 28th, 1.30 P.M. She enjoyed the porridge, which was followed by a cup of tea and a little toast an hour afterwards. Beef-tea and toast were given at 2 P.M., and tea and toast in the evening, milk and ice being given between. Pulse 84. She felt stronger, very well and comfortable. The urine still required to be drawn off, and was quite natural.

November 29th, 1.30 P.M. The ice was stopped; pulse 84. She felt stronger. The food was similar to yesterday's, only increased in quantity. The urine was the same.

November 30th, 1 P.M. Pulse 90. She still enjoyed food, and felt well. She passed urine herself to-day for the first time; it measured four ounces. The wound was dressed; a small quantity of dark fluid was found around the clamp. The wound was healed; the edges at the clamp were healthy and granulating. Carbolic oil dressing was used. The fluid evidently originated from the decaying pedicle. The appearance of the abdomen was natural, except that the part was drawn in where the clamp was attached. She had now no pain on being lifted. The tongue was slightly furred. The food was as yesterday, but increased in quantity. She had no thirst.

December 1st, 2 P.M. Urine normal; pulse 90. The wound was dressed. The discharge around the clamp was very slight. The patient felt very well. She was ordered a mutton-chop for dinner.

December 3rd. There was slight pain in the wound, but she felt stronger.

December 4th. The bowels were moved freely. She had slight tenesmus afterwards.

December 5th. The tenesmus continued. She was ordered a drachm of castor-oil. There was very little discharge from the clamp, but a little more pain when touched.

December 6th. The patient was quite well to-day. The bowels were moved without oil; pulse 84. The wound, which was healthy, was dressed. She felt pain on lying on the left side.

December 7th. The dose of castor-oil was repeated; the bowels were freely moved; she felt much lighter; pulse 96, a little weak. Her appetite was good; she slept well; she moved in bed with considerable freedom.

December 8th. The clamp came away; a circular sore was left, fully half an inch in diameter, healthy. The retraction of the abdomen was not so great. Pulse 96. She did not require an opiate last night. She slept well, and felt very hungry in the morning.

December 9th. The wound was dressed; it looked healthy; there was very little pus. The bowels were moved in the morning. She was taking more solid food.

From December 10th to the 17th the wound gradually became smaller, and the depression was less marked. One ligature was removed. On the 13th she sat up for the first time, and on the 15th port wine was commenced.

The patient completely recovered, became pregnant, and was safely delivered of a son on April 6th, 1876, the labour being natural. Nothing at all was remarkable during the period of gestation.

THE STATE OF THE ARTERIES IN BRIGHT'S DISEASE.

By W. R. GOWERS, M.D. Lond.,

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THE ophthalmoscope is of service to the physician, among other uses, because it enables him to see the termination of a minute artery and vein; and to gain direct evidence of their condition, such as is to be obtained in no other way. When the retina is free from local disease, there is no reason to believe that the retinal artery and vein differ in their condition from other arteries and veins of the same size, and, therefore, any marked change in their state, apart from cerebral or ocular disease, may be taken as evidence of a similar change throughout the vascular system.

The object of the following paper is to bring forward certain facts concerning the retinal vessels in Bright's disease, and I believe the facts warrant this conclusion; that, in chronic Bright's disease, the arteries of the retina are sometimes of normal size and sometimes very distinctly lessened in size; that this diminution in size depends upon contraction; and that this visible contraction stands, as a rule, in direct proportion to the tension of the arterial blood, as measured by the incompressibility of the radial pulse.

A few words are necessary as to the manner in which the size of the arteries is estimated. Their condition can only be seen under considerable magnifying power. Examination by the indirect method does not, as a rule, give sufficient enlargement unless a lens of very long focus be employed, as in Carter's demonstrating ophthalmoscope. Now and then, if the eye be hypermetropic and the vessels very distinct, the indirect examination with a lens of three or four-inch focus will suffice; but, as a rule, it is necessary to employ the direct method of examination. If the pupil be small, it must be dilated with atropine, since it is often necessary to trace the vessels for some distance from the disc.

There is unfortunately no method of applying any gauge to the vessels; their size must be estimated by the eye. The change in size may be judged of absolutely or by comparison with the veins. For an absolute estimate of their size, familiarity with their normal appearance under direct examination is, of course, necessary. Further, as the degree of magnification varies with the refractive power of the eyeball, this must be allowed for. It may generally be estimated by noticing the apparent size of the disc.

The change in the size of the arteries is frequently such as to be recognised at once; there is no need for comparison with the veins. The reduction in size may be so considerable, that even the primary branches of the central artery are so small that their double contour is recognised with difficulty, and it may be unrecognisable even by direct examination, the arteries being, as in one example I have to show, visible only as lines.

In other cases where the diminution in size is slighter, it can be most conveniently estimated by comparing the arteries with the veins. The distribution of the arteries and veins corresponds approximately, not exactly. Sometimes two arteries accompany one vein, sometimes one vein corresponds with two arteries. But in each eye there are usually some single branches of arteries and veins which have an identical course and distribution, run side by side, and are available for comparison. When this is the case, it will be found that, as a rule, the width of the artery is about two-thirds or three-quarters that of the vein. When the artery bears less proportion to the vein than this, it is usually due to one of three causes: 1. General venous distension, as in cyanosis; 2. Impediment at the sclerotic ring, by which the entrance of blood into the arteries is impeded, and its exit from the veins is also hindered, in which case the arteries are narrow and the veins distended, as in certain stages of optic neuritis; 3. Contraction of the arteries. In the two former cases, the veins are, of course, abnormally large, and their abnormal size is generally easy of recognition. In the latter case, the veins may be normal in size or may be smaller than natural. If they be smaller, the diminished proportionate size of the arteries is of still greater significance. It is neces-

sary, therefore, to be familiar with the normal size of the veins, in order to estimate the size of the arteries by comparison. From their darker colour, their size is easily noted, and the size of the arteries is readily estimated by comparison.

The arteries may be of normal size upon the optic disc, and yet present very marked reduction in size on the retina, a little distance from the disc. An artery may leave the disc beside a vein to which it bears its normal proportion, and, after a little course, without giving off any visible branch, may diminish to one-half or one-third of the size of its accompanying vein.

From what has been said, it will be obvious that these changes in the relative size of the vessels possess most significance when the retina has not undergone the special changes to which it is liable in chronic Bright's disease. Exudation within the sclerotic ring, compressing the vessels, alters their relative and absolute dimension, as I have stated. This is well seen in ordinary optic neuritis. I believe that it is rare in Bright's disease for the neuritic change to be sufficient to produce this effect. Certainly, in cases of albuminuric retinitis, the actual contraction may often be recognised as something quite out of proportion to the retinal change.

As I have said, the rule that, when the arterial tension is increased, the retinal arteries may be seen to be contracted, is general, but not universal. This is in accordance with what might be expected from the various conditions which are known to influence, on the one hand, blood-tension, and, on the other, arterial contraction. Moreover, local influences may cause local modifications. The most notable exceptions to the rule, which I have met with, have been in cases of local retinal disease.

The following are some of the facts on which the conclusions described have been based. The incompressibility of the radial pulse was employed as the estimate of arterial tension. "When practicable, my own estimate has been corroborated by a sphygmographic tracing, or by an independent opinion."

On opposite sides of a ward in University College Hospital, there recently lay two patients (under the care of Dr. Reynolds), whose cases illustrated in the most marked manner the relation of blood-tension and the state of the retinal arteries. The one case was that of a man, fifty-eight years of age, whose illness had commenced gradually, with shortness of breath and weakness, two years before. Slight cedema of the legs had existed for only one month before his admission. His urine contained one-third of albumen; had a specific gravity of from 1.005 to 1.008, and contained numerous casts, granular and hyaline, with some degenerated epithelium, both free and within the casts. His retinae were normal in appearance; the arteries of full size, presenting not the slightest evidence of contrac-



Fig. 1.

tion. His pulse was full, but very soft and compressible. There was no evidence of cardiac change. The other case was that of a man, aged 46, whose symptoms resembled those of the first. They began

with shortness of breath and swelling of the legs nine months before. His urine had a specific gravity of 1,007 to 1,010, and contained from one-third to one-half albumen; its quantity was from two to four pints, and it contained many casts, granular, hyaline, and epithelial. His retina presented evidence of slight disease. The optic discs (Fig. 1) had softened outlines, and their surface was reddish-grey, paler in the vicinity of the vessels. There was little, if any, swelling. The veins were smaller than normal; in the left eye, one only approached the average size. The arteries presented a greater reduction in size than in any case I have seen. Even on direct examination, they were visible only as lines, no double contour being recognisable, although they were quite distinct. A few minute white dots existed in each eye near the macula lutea, and in each there were a few small extravasations. The vessels were similar in the two eyes. The disc in the right was a little less grey than in the left. Vision: R.—one-sixth; L., one-twentieth. There was no peripheral limitation of the fields of vision. The pulse was extremely hard; the artery felt like whipcord under the finger, and was almost absolutely incompressible. The strongest pressure which could be put upon it with a Marey's sphygmograph did not modify its character. The accompanying tracing (Fig. 2) was taken under the highest available pressure (about four hundred grammes).



Fig. 2.

The sepia drawing now passed round represents the fundus oculi in a case of chronic Bright's disease, the sequel of an acute attack 12 years previously, the patient having in the meantime had at least two other acute attacks. The urine was loaded with albumen and contained granular and fatty casts. The retina presents abundant soft-edged white areas and also many striated extravasations; most of these had appeared during the preceding ten days. The disc is concealed by oedema. The veins are of normal size; the artery at the papilla is rather smaller than natural, its branches being not more than half the size of the veins; but, a little distance beyond the limits of the papilla, they disappear. The veins can be followed distinctly on the retina, but the arteries can only be seen as dim lines here and there. It may be suggested that this appearance is due only to the opacity of the retina; but the fact that they can be dimly seen here and there as lines suggests that their indistinctness is due in part only to the opacity of the retina, in part also to their reduction in size. The greater extent of this reduction on the retina than on the disc suggests that it is not due to their obstruction at the lamina cribrosa, but to their active contraction. The facts of other cases give support, I think, to this view. This patient's pulse was also very hard and incompressible. He insisted on going out of the hospital, but died comatose a few days afterwards. A *post mortem* examination was obtained by Dr. Burton, one of the resident assistants at the hospital. The kidneys were found lessened in bulk, increased in consistence, and moderately granular on the surface. The heart was hypertrophied.

The next two sketches (Figs. 3 and 4) represent the optic disc of a

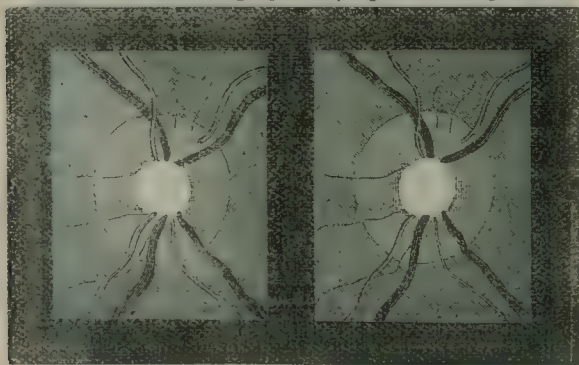


Fig. 3.

Fig. 4.

patient (under the care of Dr. Ringer) suffering from acute Bright's disease passing into a chronic state. The first was made six weeks after the onset. The retina presented a few small hæmorrhages, white dots around the macula lutea, with a few larger white areas. The arteries and veins were normal in size, the former being just two-thirds the diameter of

the latter. The pulse was soft and compressible, giving no evidence of increased blood-tension. When the second sketch was made, six weeks later, the patient's general condition had improved, the albumen in the urine was less, but the casts had become fatty; the retinal changes had become considerably less; the white areas had lessened. The retinal arteries, however, presented distinct diminution in size compared with their previous condition. The veins were apparently of the same size as when the former sketch was made, while the arteries had diminished to one-half the size of the veins. The pulse also presented a marked alteration. It had become distinctly harder and less compressible. The change seemed to have taken place only a short time before the sketch was made; for, on my calling the attention of the resident assistant to its character, it struck him at once as quite different from that which had been its character a short time before.

I have repeatedly formed, from an inspection of the retinal vessels, an opinion as to the arterial tension, which, I afterwards found, on examining the pulse, was correct. In order, however, to obtain some evidence which might be without even unconscious bias, I asked my friend Dr. Coupland to be good enough to examine the pulse in a series of cases of Bright's disease whilst I examined the retinal vessels. Each wrote down independently the result of the examination. Five cases were examined, and the results agreed in four. In one case, they differed; but in this the fact that there were many retinal hæmorrhages may, as I have already said, explain the absence of arterial contraction, although the pulse was hard. The following are the details of these examinations.

CASE I.—Arteries small, about one-half the diameter of the veins; moderate contraction (retina healthy, except for a few hæmorrhages; disc clear); pulse moderately tense, *i.e.*, moderately incompressible.

CASE II.—Arteries one-half the size of the veins; moderate contraction (retina perfectly normal); pulse incompressible (about as the first case).

CASE III.—Arteries nearly two-thirds the size of the veins; very little contraction (many extensive retinal hæmorrhages); pulse markedly incompressible.

CASE IV.—Arteries less than half the size of the veins; great contraction (retina normal, disc clear); pulse very incompressible.

CASE V.—No diminution in the size of the arteries; retina healthy; pulse soft and compressible.

Thus, in the case in which the retinal arteries were smallest, the arterial tension was greatest; that in which the arteries and the retina were normal presented no excess of arterial tension; the two others, in which there was a moderate contraction of the arteries, presented a moderate increase in the arterial tension.

There is, of course, nothing new in the fact that the retinal arteries are small in Bright's disease; it has long been remarked as a common feature in albuminuric retinitis, and is shown plainly in the best illustrations of this change (as in those of Liebreich). But it is usually regarded as a consequence of the retinal change, and the points on which I would insist are that it occurs also quite independently of the retinal change, and stands commonly in direct relation to another condition—the blood-tension.

It is hardly necessary for me to point out the bearing of this conclusion on the theory of Dr. George Johnson, which ascribes the increased tension of the blood in Bright's disease, in part at least, to contraction of the minute arteries. It constitutes, I think, a direct proof of the correctness of that theory, which has hitherto derived its chief support from indirect inference from pathological facts. If the tension of the arterial blood and the arterial contraction occur in common proportion, they must stand in a causal relation to one another. But the blood-tension cannot be the cause of the arterial contraction, because it is well known from physiological experiments that the tendency of increased blood-tension is, through the depressor nerve, to cause relaxation of the arterioles. But, on the other hand, as the immediate effect of contraction of the arterioles must be an increase in the arterial blood-pressure, it is reasonable to conclude that such is the sequence of events in the phenomena under consideration; that, although the two phenomena may be in part the result of a common cause (altered state of the blood), the contraction of the arteries, seen in those of the retina and inferred to exist elsewhere, is, in part at least, the cause of the increased blood-tension.

The practical use of inspection of the retinal vessels is perhaps less than its pathological value, but it is, I think, considerable. It is true we can generally ascertain the amount of arterial tension more readily and more surely by feeling the pulse than by looking at the retinal vessels. But sometimes the incompressibility of the pulse cannot readily be estimated, on account of its smallness and the amount of subcutaneous fat or oedema. In these cases, retinal inspection may be useful. Moreover, as

affording definite information regarding the pathological processes in different cases of Bright's disease, it will, I think, have considerable value; and some facts which have come under my observation, at present too few and isolated for more than mention, make me hope that ultimately it may help us better to distinguish between morbid states included under the term and at present imperfectly distinguished.

THE DISSEMINATION OF ZYMOTIC DISEASE AMONGST THE PUBLIC BY TRADESPEOPLE.*

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Medical Officer of Health of East, Central, and South Essex.

The subject of this paper will, doubtless, be regarded as one of an alarming character by the public at large, as highly objectionable by tradespeople, as very important by medical men in general, and as one of the highest interest and concern by medical officers of health.

The necessity of preventing trades from being so conducted as to be injurious to public and private interests is admitted on all hands. We have not only Acts of Parliament which regulate the employment of dangerous substances used in trades, such, for example, as the Petroleum Act, the Pharmacy Act, the Acts relating to explosive compounds, as gunpowder and nitro-glycerine; but we have Acts which, although imperfect in their nature, regulate to some degree factories, coal-mines, bakehouses, workshops, etc. The employment of labour in such trades as lucifer-match-making, fustian-cutting, the manufacture of mineral acids, of earthenware, glass, and metals, of percussion-caps, cartridges, paper, staining of prints, bleaching and dyeing, etc., is to a certain extent controlled. The first-named Acts, as also the Alkali Act, are designed to shield the public at large from the risk of an exposure to hurtful and poisonous substances, whilst the others are directed more especially to the prevention of injury to the health of those engaged in them, and to the non-employment of those who are physically unfit to be exposed to such unwholesome avocations. The protection of the public health by the regulation of offensive trades, such as those of blood, bone, tripe, and soap-boiling, and tallow-melting, is relegated to the Public Health Act of 1875, under which power is also given to compel the consumption of smoke in certain cases.

The existence of all these legal enactments shows conclusively that the principle of the regulation of trades has been deemed by the legislature to be sound, wholesome, and expedient.

Legislation has proceeded on the assumption that, if a trade be so managed as to be injurious to the health of those engaged in it, or to the public generally, or in such a manner as to be a nuisance, *alias* an excessive annoyance or danger to the public, the best practicable means of preventing the evil shall be adopted. The several Rivers Pollution Bills have been drawn with this self-evident desideratum steadily in view. The Rivers Pollution Bill that will sooner or later succeed in running the gauntlets of the Lords and Commons, will undoubtedly be thus framed;† and the Air Pollution Bill, which, I fear, is in the very far distance, must be supported on this basis, if ever it is to be a reality. The liberty-loving people of this free country would never be able to submit to such interference with, and control over, their modes of carrying on business for less important considerations than those of national health and wealth.

Admitting, then, the facts (1) that, in the interests of the public, it is highly desirable that trades should be supervised for public health purposes, and (2) that certain legal enactments at present exist of a very imperfect and limited character, having for their object the regulation of certain trades, so that they shall not be injurious to health, is it not a matter of logical necessity that, if it can be shown that there exist other trades not yet provided for, which are actively engaged every now and then in sowing broadcast the seeds of preventable disease, some remedy for such an anomalous state of things cannot be with any sense of consistency and justice longer withheld?

To prove to medical men, and especially to those amongst them who are engaged in the public health service of the country, that zymotic disease is disseminated by tradespeople amongst their unsuspecting customers, is really to waste time and to assume an ignorance of facts which they are constantly deploring. My object in addressing the Association on this subject is rather to suggest to and consult with those

medical men who are attending this gathering, as to the best mode in which the existing sanitary law could be so altered and modified as to protect the public from the dangers to which they are exposed in this direction. As these lines will be read, however, by many who do not belong to the medical profession, it will be useful for me to narrate briefly a few instances of the spread of zymotic disease by tradespeople amongst those whom they serve which have come under my immediate notice.

CASE I. Scarlet Fever in a Public-house.—Scarlet fever was exported from London into a public-house in Essex. Whilst the children of the publican lay ill of this disease in the bedrooms, their mother, who was in constant attendance on them, descended to serve each customer who called to partake of refreshment. I, as medical officer of health, advised the temporary closure of this house of call, but my recommendations were unheeded. From that house, as was naturally to be expected, the fever spread into the surrounding parishes and deaths resulted. There was no legal power to compel a cessation of business during the presence of this communicable disease in the house. It was found that the publican could not be punished under Clause 126 of the Public Health Act of 1875.

CASE II. Outbreak of Typhoid Fever from Polluted Milk.—An outbreak of enteric fever occurred in a portion of the town of Brentwood. Whilst the houses of the families affected were provided with different modes of disposal of excrement, some draining into private cesspools and others discharging into the town-sewer, and whilst the water employed by all, with one exception, proved on analysis, although derived from different sources, to be very pure, there was one condition in common. They all, with one exception, drank milk from the same dairy, and the dairyman washed out his cans with water which was most offensive sewage-water. The exception to the rule was the case of a young man who did not deal with this dairyman, but who drank of the same water as that with which he manipulated his milk. I could not learn that anyone besides this young man employed this water for drinking purposes. I myself saw the milk-vendor milking his cows into a pail which resembled a filthy pig's bucket. His dairy where the milk was stored in large pans was situated virtually in a bedroom redolent of organic matter. My surprise was great to find that milk could be preserved for even a short time in a sweet state in such impure air. Why, I ask, should the lives of our children, who are the great milk-consumers, and our own lives be exposed to such dangers, when nothing would be easier than to have dairy establishments under proper sanitary control, in the same way as we at present have slaughter-houses?

CASE III. A Village School distributing Measles.—Measles appeared in a parish under my supervision. On investigation, it was discovered that the day-school was the centre from which it spread; for the children of the schoolmaster, who lived at the school, fell sick of the disease one after another and imparted it to the children who daily attended the school. I recommended that the schools which were busily engaged in infecting the parish should be temporarily closed.* The managers refused, on the plea that they should lose the Government grant, to secure which a certain number of attendances are necessary, although, when a school is closed by reason of the presence of epidemic disease, a reduction in the number requisite to secure the grant is allowed. There existed no legal power to compulsorily close the schools. Contrary to my advice, they were kept open, and they disseminated the disease in a most successful manner throughout the whole parish, which suffered severely.

CASE IV. Small-pox in a Public-house and Restaurant.—A traveller who was temporarily lodging in a public-house exhibited an eruption, which proved to be that of small-pox of a confluent kind. On entering the door of this house of public resort, I could distinctly recognise the peculiar smell characteristic of the disease. In the bar where men were drinking, the odour was still stronger. Trade was going on as usual. No remonstrance had any effect on the publican. There was no exposure of the sufferer, and it could not be proved that there was any exposure of infected articles. From this house the disease spread, and no legal means existed whereby the calamity could be prevented. The public were frightened some time ago by a report of the discovery of a bad case of small-pox lying in a shake-down bed in the kitchen of an eating-house in London. Some strong feelings were aroused as to the dangers to which people are exposed; but the circumstance was soon forgotten, and made no lasting impression on the public mind.

CASE V. Enteric Fever spread by a Tailoring Establishment.—A case of enteric fever appeared in the family of a tailor who lived in a small

* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

† Since writing the above, the Act of 1876 has, by the consent of all parties, been allowed to pass with a view to a settlement of the question. It insists on the adoption of "the best practicable and available means" for counteracting the evils with which it is supposed to war.

* The mere exclusion of the children belonging to an infected family from school will sometimes prevent the spread of such diseases as measles and scarlet fever. When several families of a parish are infected, the closure of the public school will be generally found the most effective method of limiting their diffusion.

four-roomed house in a terrace. This tailor was employed by the fashionable and principal tailor of the town, who displayed his goods in a large and handsome shop situated in the best street. The assistant-tailor, whose four-roomed cottage was his place of business, where clothes were made and repaired, employed under him a journeyman tailor and a sempstress, who lived near. On my visiting the assistant-tailor's house, I found that work was proceeding as if no fever existed upstairs. Clothes were being manufactured there for the fashionable tailor with the handsome shop, who would soon distribute them to the unsuspecting public. The journeyman tailor and the sempstress both received from the assistant-tailor some clothes to be repaired. Both became infected with the fever, and communicated it to others.

CASE VI. *Scarlet fever in a Village Grocery Business and Post Office.*—A child of a village grocer, who was the postmaster of the district, became infected with scarlet fever, the poison of which was conveyed into the house from a distance. On ascertaining that the house was a small one, and that the mother and father passed from the bedside of the sick child into the shop to serve customers, and fearing, moreover, that the poison of the disease might be circulated through the agency of the post office, I recommended the temporary closure of the business. My advice was disregarded, and no power existed of compelling compliance. The disease, of course, spread throughout the village.

CASE VII. *Whooping-cough in a Village Beer-shop.*—Whooping-cough of a fatal character being very prevalent in one part of my extensive district, destroying in about four months forty children, attempts were made to prevent the spread of the disease from any cases imported into the other parts of the district. A case was conveyed into a beer-shop, and infected all the children of the publican. This beer-shop was daily frequented by many of the fathers and mothers of the village, or their children. I myself saw children entering it, having been sent with jugs for beer by their parents. I recommended the publican to temporarily close his house of public call, pointing out the danger to the whole village which a refusal would involve. He quite acknowledged the risk to his customers, but assured me that he could not afford to temporarily close his business. This assurance would have been received by me *cum grano salis*, had I not good reason for knowing that he spoke the truth. I asked the legal adviser of the Sanitary Authority whether some compensation could be granted him by the Authority, if the publican agreed to close his house, but found that the auditor would not sanction an outlay of this kind, as the law does not provide for such an expenditure of public money. The disease, as was only to be expected, spread amongst the customers, and occasioned three or four deaths.

The absence of any power to afford compensation has recently been authoritatively declared by the Local Government Board in the following case. Scarlet fever of a mild description was imported into the families of some "Peculiar People", living in a village, who kept the matter a secret. The children attended the National and Dame's Schools during the desquamative stage of the disease, and, through these schools, infected a portion of the village. I recommended that both of the schools should be temporarily closed. The clergyman of the parish, who had the control of the National Schools, consented. The periodical inspection and examination of the children had just been completed, and there was no danger of losing the grant. The old dame, who taught the very young children of the parish, and who had to maintain her still older husband (above eighty) out of her weekly earnings, also closed her school; but very naturally looked for some compensation, as she could not afford to be deprived of her weekly pittance. The legal adviser of the Sanitary Authority wrote to the Local Government Board, asking whether the Sanitary Authority could compensate the poor dame for the loss she would sustain by the closure of her school. The Local Government Board replied in the negative. In a former case of this kind, I was obliged to compensate the dame out of my own pocket, as it was impossible to allow the poor creature to suffer. If village dames refuse to close their schools when engaged in propagating disease, there exists no power to compel them to do so.

To detail more cases of this description is needless. Dozens, all telling the same tale, are to be found published in medical and sanitary journals. Perhaps the most recent in the recollection of sanitarians will be that of the distribution of the scarlet fever poison, through the medium of cream, at a West-end party; and that of the discovery of a case of small-pox in a milk-shop at Manchester.

A cottage, used as a laundry or as a butcher's-shop, may lodge in its bedrooms cases of typhus fever; a private school may disseminate scarlet fever through a district by means of its day scholars; a grocer's shop or a public-house may be served by those who have just come from the bedside of persons dying upstairs of small-pox; the cottage of the village postwoman may contain some communicable disease, the poison

of which she may distribute with the letters; and yet there exists no power to temporarily close such disease-spreading establishments.

I have written enough to show what dangers surround the public, and as to the state of helplessness in which medical officers of health find themselves, when they wish to prevent a tradesman from disseminating the poison of some disease with his wares, be it the milkman with sewage in his milk, or the schoolmaster who distributes a dose of the poison of measles with a knowledge of the three R's amongst the village children, or the sempstress, belonging to some drapery establishment, whose lodging may contain children labouring under malignant scarlet fever—a fact which may be unknown, in the absence of an Act for the compulsory registration of communicable disease, to any sanitary official. That our children should be subjected to the risk of being poisoned with sewage in their milk, because some milk-vendor chooses to wash out his cans and manipulate his milk with sewage-water; that our wives and that we ourselves should be exposed to the chance of infection from wearing clothes ordered at some respectable shop, and made in some garret full of fever or other contagious disease, the existence of which is kept a profound secret, is simply intolerable. If the liberty of the subject, about which we in this country hear so much, is to be maintained at the expense of a quiet submission to an exposure to such perils, I, for one, would pray the legislature for less liberty.

The question now arises, as to how this evil of the dissemination of zymotic disease by tradespeople can best be prevented. On this point, I doubt not, there will be some difference of opinion.

My own view is that it can be averted:

1. By placing the regulation of all trades under the control of the sanitary authorities and their officers (the power to compulsorily close a school or public-house, etc., when necessary, would be of course comprehended in an enactment of this kind);

2. By enabling a sanitary authority to grant compensation out of the rates, in cases of temporary closure of business for the protection of the public, when the sanitary authority has reasons for believing the truth of an allegation of inability to sustain pecuniary loss on account of poverty;

3. By extending the provisions of Clause 126 of the Public Health Act (1875), by inserting one making it a misdemeanour for persons to endanger the lives and health of their fellow-creatures by wilfully spreading communicable disease in any way—an amendment which has recently formed the subject of a petition of the health officers of the country to both Houses of Parliament.

The proposal to place trades under the control of the health authority of the district in which they may be situated must sooner or later be carried out. It is merely a question as to the time when the public will become as fully alive to the importance of the subject as medical men already are.

There can be nothing unfair in expending public money in giving compensation to a very poor and struggling tradesman, when a sanitary authority compulsorily closes for a short time his business in the interests of the public. Sanitary authorities already possess the power of giving compensation to the owner on account of bedding, clothing, and other articles exposed to infection which they wish to have destroyed.

Again, when schools are closed under the advice of the health authority, in consequence of the presence of infectious disease, a certain compensation is granted to them in not requiring the same number of attendances as is usually needful to secure the Government grant.

CLINICAL REMARKS ON A CASE OF ACUTE RHEUMATISM TREATED BY SALICIN.

By BALTHAZAR FOSTER, M.D., F.R.C.P. Lond.,

Physician to the General Hospital, and Professor of Medicine in Queen's College, Birmingham, etc.

THE interesting observations which have recently been made on the use of salicin in the treatment of acute rheumatism justify the hope that we have a new and powerful remedy for many cases of this disease. I say many cases, because it appears to me that we must not expect to find a single drug universally potent against a condition like acute rheumatism. Notwithstanding their external similarity, cases of this disease differ greatly from one another, and each requires a preliminary study of its special characters to suggest the happiest treatment. Believing, as I do from observations made in this hospital,* that an excess of lactic acid in the system will produce acute rheumatism under favourable conditions, causing the joint and heart symptoms by its irritating qualities, and the

* *The British Medical Journal*, December 23rd, 1871; and author's *Clinical Medicine*.

high temperature by its oxidation, I nevertheless do not contend that lactic acid in excess is the sole cause of rheumatism. Were it so, quinine, salicylic acid, and possibly salicin would be even more generally efficacious than they are, by virtue of their power of checking those chemical changes on which the development of an excess of lactic acid depends. Taking this view of the disease, I cannot concur in the hypothesis that salicin is a specific remedy for acute rheumatism like quinine for ague. In many cases in this hospital, it has proved valuable in lowering the temperature, and apparently cutting short the duration of the disease; but these results would need to be universally true to justify some of the statements made respecting the efficacy of the drug. It has an antipyretic action in other febrile conditions, and also has a strong influence in reducing the pulse frequency. These properties alone make salicin a valuable agent, and go far to explain its value in rheumatic fever. In such a malady, any drug which lowers temperature and reduces the pulse frequency lessens the gravity of the attack and the risk of heart-mischief. The case to which I now call attention shows, however, that these results do not always follow its use; but, on the contrary, that the free use of the drug while reducing the pulse rate may fail either to materially lower the temperature, to prevent heart-mischief, or to shorten the duration of the disease.

The patient was a man, aged 30, who had some years previously suffered from two attacks of rheumatic fever. Eight days before his admission, he had felt *malaise*; and, on the next day, pain and swelling in his knee-joints and ankles had come on. He remained in bed; but, at the end of the week, applied to the hospital, and was admitted. During the seven days he was in bed at home, he had taken little except tea and one egg. On admission, all his larger joints except the hips were affected, tender, and swollen; the pain was very severe. No cardiac or pulmonary complication. The urine was acid, of specific gravity 1030, loaded with urates, and free from albumen. The temperature on the evening of admission was 103 deg. Fahr.; pulse 92; and respirations 30.

I saw him on September 12th, the morning after his admission; as his temperature was high and the symptoms very acute, salicin was prescribed in ten-grain doses every two hours.

The following table shows the results of the treatment by salicin.

Date.	Pulse.	Temperature. Fahrenheit.	Treatment.
Sept. 12	M. 90 E. 88	102.4 102.8	10 grs. of salicin every 2 hours.
" 13	M. 72 E. 100	101.6 102.6	
" 14	M. 102 E. 108	101.6 103.4	15 grs. of salicin every 2 hours.
" 15	M. 90 E. 92	102.4 102	
" 16	M. 96 E. 96	102.6 102	10 grs. of salicin every 2 hours during the day.
" 17	M. 96 E. 100	103.4 102	
" 18	M. 84 E. 84	101.4 102.2	Salicin, 10 grs. at 11 P.M. and 1 M.; morphia <i>sub cute</i> .
" 19	M. 96 E. 84	102.4 102	
" 20	M. 68 E. 72	100.4 101.6	10 grs. of salicin daily—viz., 10 grs. at 5 A.M., 11 M., and 9 P.M.; morphia <i>sub cute</i> at night.
" 21	M. 72 E. 68	101 103	
" 22	M. 72 E. 84	101 102	10 grs. of salicin daily—viz., 10 grs. at 5 A.M., 11 M., and 9 P.M.; morphia <i>sub cute</i> at night.
" 23	M. 84 E. 72	101.6 103	

On September 14th, when the fifteen-grain doses of salicin every two hours were begun, hourly observations of the temperature were carefully made by the resident clinical assistant, Mr. J. H. Palmer, from 10 A.M. to 9 P.M. At 10 A.M., the temperature was 101.6 deg.; at 7 P.M., it was 103.8 deg.; and at 9 P.M., it was 103.6 deg. The next morning, at 9.30, it was 102.4 deg.

On September 16th, salicin was given in thirty-grain doses every two hours, from 1 to 10 P.M.; and the observations of the temperature were as follows: at 1, 103.2 deg.; at 2, 102.7 deg.; at 3, 103.2 deg.; at 4, 102.2 deg.; at 5, 102.4 deg.; at 6, 102.2 deg.; at 7, 102.7 deg.; at 9, 102 deg.; and 103.2 deg. at 10 P.M. No observation was made at 8 P.M.

These results and the table above show that, in this case at all events, the salicin failed to act as an antipyretic, even when most freely given, and when the temperature was observed so as to record any immediate effects. The pulse was more decidedly affected, and fell from the time the larger doses were given, and did not rise, even when some of the highest temperatures were recorded. It rose again when the salicin was discontinued, being 96 on the following evening.

The treatment adopted after the discontinuance of the salicin, on the morning of the 24th, was the free administration of alkalies during the day, and a full dose (ten grains) of quinine at night. On the first day of this treatment, the pain in the joints became much less. The temperature was 103 deg. on the evening of the 25th, before the quinine was taken; and, on the evening of the 26th, it reached its highest point, 104.6 deg.; but fell three hours after the quinine to 102.8 deg., and then steadily declined. The next evening, it was 101.4 deg.; the next, 100.6 deg.; and only once afterwards did it reach 100 deg.

During the whole period of the salicin treatment (12th to 23rd), the patient was very restless at night, and required the hypodermic morphia; the pain in the joints was severe. The smaller joints of the hands became affected on the 14th and 15th; and, on the 16th, a distinct mitral systolic murmur was discovered.

The man made a good recovery; but left the hospital too early, on account of family trouble, and returned on October 30th, with fresh rheumatic symptoms, which yielded in seven days to the alkaline and quinine treatment.

A COLD AND ITS CURE.

By JUKES STYRAP, L.R.C.P., etc.,

Physician Extraordinary to the Salop Dispensary.

II.

It has been well remarked by Dr. George Johnson, that "a cold," or ordinary catarrh, although of itself not a dangerous or serious malady, is nevertheless, with many persons, an oft-recurring one, causing much annoyance and discomfort both to the sufferer and to his associates, of which fact, all of us are doubtless more or less disagreeably cognisant from personal experience; and, as medical treatment, notwithstanding popular prejudice to the contrary, has very considerable influence on the progress of the disorder, it is, I think, well worth our while to give the question thoughtful consideration.

The exciting cause and symptoms of catarrh, together with its popular domestic treatment, are too well known to need recapitulation. I purpose, therefore, to limit my remarks to the medical treatment which, for a period of twenty years, I have adopted with considerable success. At the same time, I think it well to note that the treatment refers to that particular form of "cold" characterised by excessive defluxion from the nares and lacrymation, and more or less febrile disturbance (and not to that which, in ordinary language, is styled "a dry and stuffy cold"), and is based on the principle of restoring the natural functions of the skin, which a chilling wind or other atmospheric influence on persons with lowered vitality has wholly or partially suppressed. There are two simple modes of accomplishing the wished-for effect: firstly, by the direct application of heat to the surface of the body by immersion in a warm bath of 100 deg., increased to 110 deg. of Fahrenheit—but in a far more efficient degree by the use of a hot-air bath; and secondly, by the action of certain diaphoretic medicines in combination—which latter are generally sufficient (and certainly the least inconvenient) to effect a cure of ordinary catarrh. In my own person, indeed, I have never found it necessary to have recourse to a bath; still, in severe colds, it may be judicious to combine the two—the bath and the medicine. And here, gentlemen, you will perhaps permit me to read my reply to a note on the subject which I received last year from my old teacher Sir Thomas Watson, then engaged in revising his *Lectures on the Principles and Practice of Physic*, and who had expressed a wish to be made acquainted with the simple treatment of "a cold in the head," as practised by myself.

Shrewsbury, August 26th, 1870.

"Dear Sir Thomas,—In reply to your note, I am glad to remark that the remedy alluded to is a very simple one, and the treatment based on the principle recommended by Dr. George Johnson in his recent *Lecture on the Treatment of Catarrh and Bronchitis*, and which I have carried out for upwards of twenty years with much success.

"The difference in our respective treatment by opium, however, would seem to be, that he prescribes it in a 'full dose' at bedtime (hence the nausea, headache, etc., to which he refers), with or without ipecacuanha; whereas I invariably give small doses of morphia and antimony every three or four hours until the sneezing and defluxion cease, which, with ordinary precaution, results after the third or fourth dose. The antimony has, in my opinion, a more special effect on the mucous membrane of the breath-passages than ipecacuanha.

"The following are the forms which, slightly varied, I have used for many years: a dose or two of either of which has enabled me on various occasions, when suffering from catarrh, to attend to my professional duties with comparative impunity. Confinement, however, to

the house for a day or two should, I need scarcely remark, be insisted on, whenever practicable. The warm or hot air-bath (or 'packing'), as suggested by Dr. G. Johnson, is a valuable adjuvant to the treatment, if had recourse to on the day of seizure; and, in severe cases, I generally recommend one or the other, if obtainable, and an immediate retirement to bed in a warm room.—Believe me, yours very truly,

"Sir Thomas Watson, M.D., Bart."

"JUKES STYRAP."

R Liq. morphia (P.B.) mxl; vini antimon. mxxx; potassæ citratis ðiv; syr. aurantii 3ij; aquæ ad 3iv. Misce et fiat mistura, cujus sumat cochlearia magna ij quâqua tertiâ vel quartâ horâ.

R Liq. morphia mxl; vin. antimon. mxxx; liq. ammon. citrat. 3j; potassæ citratis ðiv; sp. chloroformi 3j; aquæ ad 3iv. M. Ft. mist., cujus capiat cochlearia magna ii quâqua tertiâ vel quartâ horâ.

My attention was originally directed to the value of small doses of morphia in catarrh under the following circumstances. Many years ago, I was confined to my room by a very severe catarrhal attack and bronchitis, for which antimony, etc., were prescribed by a friend with but trifling relief. For some reason or other, I was induced to add the twelfth part of a grain of morphia to a dose I was about to take, and in half an hour or so the sneezing and defluxion had considerably abated. The next few doses were taken without the morphia, and the coryza, etc., returned, and the cough became troublesome; in consequence of which, I repeated the morphia, and again the sneezing, etc., ceased. In every subsequent attack of catarrh (to which I was, at one period, very subject), I combined the antimony with morphia; and, having tested their value on myself, prescribed them for others with a like satisfactory result. In what way the morphia effects the speedy relief from discomfort which almost invariably follows its administration, I am not prepared to say. Probably, as Dr. G. Johnson suggests, it is due to some direct influence on the nerves and vessels of the inflamed mucous membrane, rather than to any diaphoretic action. Be that as it may, I would strongly advise such of you as are subject to "colds" just to try the medicine; and I entertain little doubt that the effect of its first trial will be such as to induce you eventually to thank me for the suggestion of so simple a remedy.

The antimony, in addition to its special effect on the inflamed mucous membrane, tends to counteract the usual constipating action of the morphia; and the citrate or bicarbonate of potass relieves the thirst and itching not infrequently produced (in my own case at least) by the opiate. I would also remark that, by giving the morphia in small and repeated doses of one-twelfth of a grain, combined with correspondingly small doses of antimony, it can be safely administered to persons otherwise intolerant of opiates, without suffering from the headache, nausea, and other distressing symptoms which so often follow a full dose of opium.

Mayhap some of you will mentally exclaim, "Oh! the principle of treatment has been known from time immemorial". Possibly so. Nevertheless, simple and efficacious as the treatment by morphia and antimony in small doses really is, I can truly assert that, during the not few years in which I have been in the profession, I have never seen it alluded to in any work on medicine, or practised by others than myself; which fact will, I trust, be deemed a sufficient apology for soliciting your attention to it.

In regard to the hot-air bath, I need scarcely remind you that such may be readily extemporised—the chief essential being a capacious spirit-lamp, with a large wick, usually kept in stock for the purpose by surgical instrument makers; and, being made of tin, the cost is trifling. The following will be found a simple and effective plan. Let the patient be seated, undressed, in a suitable armchair in his bedroom, and carefully enveloped in two or three folds of blankets extending from above the shoulders to the floor, but *outside* the chair (or, still better, a hoop affixed thereto), so as to allow a free circulation of the hot air round the body. A Mackintosh cape thrown over the blankets will enhance the effect. The best position for the lamp, according to Dr. G. Johnson, is, with due precautions, between the legs, rather than underneath the chair; and it should be kept burning for twenty or thirty minutes, or until free perspiration be established. The patient should get into a warm bed between the blankets. Nervous people are apt to object to a hot-air bath so constructed, from an absurd fear of the flame of the lamp. The difficulty may be obviated by placing a wire guard over it.

In the absence of the means for providing a hot air or water bath, an effective action of the skin may be induced by wrapping the patient in a sheet or thin blanket (to which latter patients offer less objection than to a wet sheet, on account of the relative warmth-imparting feel), wrung out of moderately hot water, and enveloping him in a couple of warm dry blankets; in other words, "packing" him, as it is termed, for an hour or more, until free perspiration takes place: a plan of

treatment which, I venture to affirm, you will find highly beneficial in renal and other forms of disease, notes of which I reserve for a future paper, with "Gleanings from Hospital Practice".

SOME CASES OF CATALEPSY.

By GEORGE H. SAVAGE, M.D.,

Assistant Medical Officer to Bethlem Royal Hospital; Lecturer on Mental Diseases at Guy's Hospital; etc.

ONE reads in text-books that catalepsy is a disease allied to hysteria and to epilepsy; that it is very rare, and that its onset is sudden; that the state lasts only a short period and then passes off, the patient being unconscious of what has transpired. What I have to describe differs from this. In our cases, the state was persistent. Catalepsy is an undoubted neurosis, and, therefore, allied to hysteria and epilepsy; but in the following cases the relationship was nearer to insanity. In many cases of melancholy with stupor, one sees a more or less cataleptic state, but with memory and knowledge of what was going on around. I am convinced that many of the so-called cases of catalepsy are the result of mental disease that has been of so slight intensity or of such short duration that it has been passed by unobserved.

I publish the following cases, with the permission of my colleague Dr. Rhys Williams.

All the cases were males; all were young; in one only was there distinct family taint; all suffered from melancholy, and were at times dirty; and all will pass into dementia and cease to be cataleptic. I cannot explain why in this process of decay, for a time, persistent muscular action is seen. In the insane, we may have insane organs and insane muscles; that is, organs or muscles that are not controlled by the nerves, or in which the nerves are discovered. Thus, we have had lately a series of cases of torticollis in melancholic patients.

The first case was one of catalepsy following melancholia. The patient was Alexander C. B., a letter-sorter, single, aged 23. He inherited no neurosis; had been sober and industrious. He received injuries seven years ago from being run over, but the effects passed off. The cause of his present illness was supposed to be worry; he fancied that he would be accused of theft; he became more and more nervous, and gave up his work. He gradually seemed to shrink into himself. I first saw him at the Westminster Hospital with Dr. Sturges, whence he was transferred to Bethlem. On admission, he was thin, sallow-looking, with cold moist skin; pulse small, rapid, and weak. He ate fairly, and slept well. In whatever position he was put, there he remained; and on several occasions he maintained the outstretched position of his arm for two hours together. He could be made to stand on one foot, the other being outstretched in front. He did not flinch if slightly pinched, but did if pricked or severely pinched. Everything had to be done for him. At first, he was wet and dirty. We used the continuous current through his head daily; and for a time were able to get some movements following a word of command. The interrupted current produced more pain and more results. He was induced to follow another patient; and, as long as this patient walked slowly and steadily, the cataleptic followed like his shadow, not eighteen inches from him. No power of initiation was obtained; and, after three months, he was discharged uncured.

The next case was that of Frederick M., bank clerk, aged 27. One of his brothers was insane. He had had no previous attack. He was first restless and uneasy; gave up his situation, and left England. He still felt miserable; and at length attempted suicide by dividing the skin and muscles of his left arm down to the bone, at New York. On the wound healing, he was brought to England. On admission, he was in a similar state to the last patient. As his limbs were left after one meal, so they would be found at the next. The appetite was voracious; and the patient slept well. The damaged arm was galvanised; and the wounds over the knuckles and in the palm healed. This patient would maintain the same position for hours together. He was wet and dirty. As he is now (November 30th) steadily losing what was left of his mental powers, so is he losing this cataleptic state, and will, no doubt, soon simply be a dement.

The last case I shall give is that of Thomas H. F., aged 20, a clerk. He had no insane relatives. The supposed cause of his illness was family and pecuniary troubles. He was naturally cheerful and industrious. Seven months before admission, he lost his interest in his work and surroundings, and complained of "feelings in his head". He was suicidal, and had hallucinations of hearing. He ate his food, if fed with it; and slept fairly well. On admission, he was typically anæmic and will-less. He was led about by others; and, as they left him, so he remained. Morphia subcutaneously was tried, and galvan-

ism produced no good results. He has now (November 30th) become more demented and less cataleptic; and will undoubtedly sink into weak-mindedness if he do not die sooner of some intercurrent lung-disease.

CLINICAL MEMORANDA.

PARTIAL HERPES FRONTALIS, WITH INFLAMMATION OF THE EYE.

THE patient, a man aged between 50 and 60, attends at St. Mary's Hospital once a week on account of paralysis agitans, affecting chiefly the left upper extremity. He has the intolerable restlessness, and experiences the subjective sensation of heat, characteristic of paralysis agitans; and the tremors can be controlled for a time by effort when the hand is held out. He had been taking arsenic for several weeks, when, on November 10th, herpes broke out on the left side of the brow and forehead, and the eye became inflamed. On Wednesday, November 15th, it was seen that there were only three patches of herpes: one on the eyebrow, on the supraorbital foramen, which was in the vesicular stage; another rather more than halfway up the forehead, close to the middle line, further advanced, and showing a group of small, shallow, irregular ulcerations; the third higher on the head, about an inch from the middle line, smaller, and healing. There was no distinct herpes on the nose; but, on examination, an abrasion, apparently left by a single vesicle, was found at the tip of the left side. The interior of this nostril was very sore, and the patient said there had been pain and small red spots on the left side of the nose. Both conjunctiva and the intraocular structure were inflamed, but not severely.

There are several points of interest in this observation. One is, the occurrence of herpes during the administration of arsenic, which is so common that, as Mr. Jonathan Hutchinson has suggested, arsenic must be capable of provoking this affection. But it seems also to show that the nasal division of the fifth is more closely related with the internal division of the supraorbital nerve than with the other branches. I have several times seen herpes along single branches of the supraorbital at a distance from the middle line, and always without implication of the nasal division or eye. Cases such as this, again, in which herpes follows one or two twigs of a large nerve, throw light on the causation of the eruption. It is almost universally admitted that herpes is due to disturbing influence exercised on the nutrition of the skin by a nerve; but it is not a settled point whence the irritation starts. An opinion largely held is, that the ganglion on the posterior root is the origin of the disturbing influence. My own conclusion is, that injury of or disease in a nerve-trunk or branch—i. e., affecting fibres only, and not cells—is adequate to the production of herpes. It seems to me improbable that inflammation in a ganglion could produce trophic consequences along only one small branch, bound up, perhaps, for a great part of its course, in the trunk of the nerve. More conclusive, however, on this question, are cases such as the following. An elderly man received a severe bruise on the right side of the chest, at about the posterior axillary line. He suffered much pain; and, in a few days, severe herpes came out along two intercostal spaces from the seat of injury nearly to the sternum, the vesicles closely aggregated, forming a continuous band over the two spaces and the intervening rib, while none are found behind the bruised point.

It is worthy of note that, in herpes, the trophic influence travels towards the periphery, and therefore against the direction of the usual functional impressions, which are centripetal, the nerves being sensory. (This is excluding, of course, the hypothesis of special trophic fibres, which I do not accept.) If this is the case with sensory nerves, it may be the case also with motor nerves, and peripheral lesions may react upon the nerve-cells of the cord.

W. H. BROADBENT, M.D., F.R.C.P., Physician
to St. Mary's Hospital.

CHLORAL-HYDRATE AND CONGESTION OF THE KIDNEYS.

As deaths from doses of this drug are common, and I fear the habit of patients taking it without the authority of medical men is increasing, I beg to call attention to the fact, or what I believe to be a fact, that this drug causes congestion of the kidneys; and, if it do so, it must be injurious if taken when the individual is already suffering from congestion of these regions. My attention to this point was attracted by two cases; one, a medical friend of mine, who was found dead in his bed about half-past ten o'clock at night. Death was attributed to a dose of chloral, presumably an overdose. It was stated that he was suffering from con-

gestion of the kidneys, and at the *post mortem* examination they were found much congested.

The second case had been considered one of hydrophobia, and had been taking large and repeated doses of chloral. At the *post mortem* examination, we found hæmorrhage into the spinal canal and intense congestion of the kidneys, to which two causes the death was attributed.

Many experiments on animals have convinced me that congestion of the kidneys may and does almost invariably follow the use of chloral; and I therefore write this in the hope that some one more experienced in this line of research may clear up my opinions on the subject.

CHARLES ORTON, L.R.C.P. Ed., Medical Officer to the North
Staffordshire Infirmary, Newcastle-under-Lyme.

A CASE OF THORACENTESIS.

WM. SHERWOOD, a coalheaver, aged about 36, was admitted into the Ealing Cottage Hospital on May 25th, 1876. He was suffering from urgent dyspnoea, and there was evidently a large accumulation of fluid in the left pleural cavity. He stated that he had been ill for about a month.

On the following day, the fluid was withdrawn by the aspirator, and was found to measure over eight and a half pints; it was of an albuminous character, and somewhat turbid from a small admixture of pus. The effusion again formed, and in about a fortnight was again withdrawn, amounting to five pints. This was done twice subsequently. The fluid became more purulent, and on the last occasion was thick and fetid; and he now coughed up a quantity of similar matter, showing that a communication was established between the bronchial tubes and the pleural cavity. I now determined to insert a drainage-tube, and accordingly did so on July 15th. A pint of a weak tepid solution of iodine was injected daily into the pleural sac. The quantity of pus daily secreted was for the first week about eight ounces; it gradually diminished, and now (September 11th) averages one ounce daily. The patient's general health has much improved, and, in fact, he seems perfectly well. Since the drainage-tube was inserted, his weight has increased from 10 st. 3 lbs. to 11 st. 8 lbs. The left side of the thorax has somewhat contracted, and now measures seventeen inches, the right being eighteen. Respiration of a healthy character is heard over the whole left lung, excepting a very small portion at the base.

GEORGE D. BROWN, M.R.C.S.

OSSIFICATION OR CALCIFICATION OF THE HEART.

EDWARD M., aged 21, of dark complexion, middle height, spare, but muscular, was taken suddenly ill in the street, and died whilst being removed to hospital. On a *post mortem* examination, death was found to have resulted from disease of the heart of unusual character. The organ was enlarged and congested, weighing seventeen ounces one drachm. It measured eleven inches around the base and seven inches from the base to the apex. In the hand, it felt dense and unyielding, especially posteriorly, where, in its substance and on the surface, was observed a quantity of hard white concrete deposit. The right auricle and ventricle were greatly distended, but healthy in fibre. The anterior wall of the latter was four lines in thickness; the valves were sound. The septum cordis was thickened, hard, and solid at the upper part, seemingly occupied by a foreign body, causing it to encroach more than naturally on the right chamber of the heart. The left auricle did not collapse, but maintained its full outline from the presence of deposit in its interior, being lined irregularly with a thick incrustation, which was much aggregated about the opening of the pulmonary veins. From the outside, the auricle communicated to the touch a sensation as though it were full of cracked nutshells adherent to the walls. The left ventricle was, as to its posterior and left side, almost entirely converted into a solid bony calcareous mass, so dense and firm as to require considerable force with a strong knife to cut through it. The interior of the septum was in a similar condition, but not to the same extent. The tendinous zones, the foundations of the heart, were changed into a hard structure. In this situation, most probably the diseased action originally commenced. The columnæ carneæ were large and healthy; but in many of them were found embedded particles and patches of the deposit. The mitral valves were free and sound, while those of the aorta were thickly incrustated; but, beyond their immediate vicinity, the vessel itself appeared healthy. The wall of the left ventricle was one inch in thickness.

The deceased man was one of four sons, all of whom died about the same age (21), some of them suddenly, save this, the last of the four. The parents are living—strong healthy persons, advanced in life. They stated that their son was never sick; never complained, except that, one Sunday, some months ago, he fainted in church. On the day of his death, deceased left home, some miles distant from the city,

"in high spirits and the best of health" (so expressed), to find that death which, viewing the condition of his heart, it can only be a matter of surprise did not come to him long before.

RICHARD W. EGAN, L.R.C.S.L., L.R.C.P.Ed., Dublin.

ORCHITIS AT EIGHTY-FOUR YEARS OF AGE.

SEVEN years ago, in consultation with Dr. Herbert Davies, I tapped, *per rectum*, the bladder of a male, the subject of stricture, to relieve retention of urine. The patient recovered in due time, and chose to be satisfied with his condition when the stricture would transmit a No. 8 catheter. Since that period, he has thrown aside the catheter, and to-day (November 23rd) he presented himself with a tender and painful enlargement of the epididymis and cord of the left testicle. The stricture with difficulty transmits a No. 3 bougie, and the urethra behind it is very sensitive. C. F. MAUNDER, F.R.C.S.Eng., Surgeon to the London Hospital.

THERAPEUTIC MEMORANDA.

SOLUTION OF SALICYLIC ACID.

IN the JOURNAL of November 4th, Dr. G. F. Duffey gives a note on the use of liquor ammoniæ acetatis as a solvent for salicylic acid, and recommends it as a convenient form for administering the remedy. I have been lately using acetate of potash as a solvent for salicylic acid; and a solution of this kind, with the addition of aqua carui, is very palatable and can be readily taken. In rheumatic fever, acetate of potash has the additional advantage of being an alkaline diuretic, while a diaphoretic, such as liquor ammoniæ acetatis, is not indicated.

Mr. J. Nesbit, pharmaceutical chemist, of this town, to whom I am indebted for suggesting this solvent, has furnished me with the following particulars. "Two parts of salicylic acid are freely soluble in water on the addition of three parts of acetate of potash or four parts of citrate of potash. The solution in acetate of potash does not give off the vapour of acetic acid on boiling, and free salicylic acid may be extracted from it by means of sulphuric ether. It is, therefore, a fair inference that no decomposition takes place."

P. A. YOUNG, M.D., Portobello, Edinburgh.

LIQUOR FERRI PERCHLORIDI FORTIOR AS A LOCAL APPLICATION IN ERYSIPELAS.

HAVING during a course of several years, in hospital and private practice, used a variety of local applications in simple or cutaneous erysipelas, I have for the past two years discarded all for the above, which I have never seen to fail. The form in which I use it is the following: Equal parts of liquor ferri perchloridi fortior (B. P.) and spiritus vini rectificatus; the whole affected surface, and about an inch beyond the affected parts, to be painted over with the lotion by means of a camel's hair brush.

W. LEAVENS WHITE, M.B.,

Medical Superintendent, Southport Convalescent Hospital.

REMEDIES FOR CHRONIC DIARRHŒA.

In autumn
At this time of the year, medical men are often troubled with cases in which a painless diarrhœa is the leading symptom. It may come and go with the changes of temperature (being specially influenced by dampness of air and decaying vegetation), or it may be the sequel of an acute form of the malady which was never properly cured during the summer. Assuming that most of the common remedies within reach have been tried and have only partially succeeded, I venture to recommend, firstly, a systematic use of the more powerful vegetable astringents somewhat as follows. (a.) A teaspoonful of tincture of galls in an ounce of distilled water three times a day is extremely effective, and should be continued at least once daily for some weeks. (b.) The liquid extract of bael has many merits, and may be given in the same way. (c.) Salicin should be administered in a dose of five or six grains, perhaps combined with a grain of ipecacuanha. Let them be mixed into a couple of pills, and taken three or four times a day. This plan seldom fails to appease an obstinate diarrhœa. But, secondly, opium is now and then absolutely necessary, and I contend that it should always be prescribed in comparatively small and frequent doses, so as to obtain the least physiological with the most medicinal effect. Let the wine of opium be given to an adult in the quantity of three or four minims (with an ounce of chloroform water) five or six times in the twenty-four hours, and the remedy ought invariably to be left off by degrees. Speedy and permanent results may

follow this method. One point in diet is important. Sometimes bread in any form disagrees, and, in the place of it, the patient ought exclusively to eat biscuits. (S. JOHN L. SPENDER, M.D. Lond., Bath.)

(Bridgwater Med. Journal)

BICARBONATE OF POTASH AS A NERVE-SEDATIVE.

AT present, we hear much of the relative value of the treatment of rheumatic fever by the use of salicine or salicylic acids and its compounds, and that where the alkalies or the acetate or bicarbonate of potash are used. That the bicarbonate of potash is a nerve-sedative can easily be demonstrated by anyone taking a large dose of it, such as a drachm; in water. A peculiar tingling, numbing, sensation is soon felt in the lips and cheeks, and afterwards in various parts of the body, extending gradually downwards to the lower limbs. I have used this drug, combined with the bromide of potassium in epilepsy, with decided effect. That this sedative action on the nerves has a great deal to do with the successful treatment of rheumatism by the bicarbonate I have not the slightest doubt. As this is a fact, it is desirable, in treating rheumatic fever with this drug, to give it in sufficiently large doses, such as a drachm dissolved in water, every few hours. That some cases are best treated by means of alkalies there can be no doubt. Others, however, and especially those where there is great hyperpyrexia, are better under the salicine or salicylic acid treatment.

JOHN A. ERSKINE STUART, L.R.C.S. Edin.,
Musselburgh, N.B.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

GUY'S HOSPITAL: DR. LAIDLAW PURVES' AURAL CLINIQUE.

Use of Rectified Spirits of Wine.—In cases of perforation of the membrana tympani, with thickened mucous membrane in the middle ear and muco-purulent discharge, after a short use of the stronger astringents if necessary, Dr. Purves has had excellent results with spirits of wine, in lotion or injection, containing 25 per cent. and upwards, mixed with water. It produces drying, hardening, and bracing effects upon softened and relaxed tissues.

Retracted Membrane, with Adhesions.—In some of these cases, the tympanic membrane is very dense and immovable, and it is plausibly considered that deafness is due to its not conveying vibrations, and plugs of cotton-wool soaked with glycerine are applied. Where the membrane is thin, atrophied, and in part flaccid, whilst in other parts it is adherent to the ossicles or the promontory, Dr. Purves endeavours to remedy the evil not by the knife, but by a combination of forcible drawing forwards of the membrane, of steam-inhalations containing iodine, etc., and glycerine-plugs. For the former purpose, he uses Siegle's exhausting speculum, which, though originally introduced as a means of diagnosis only, answers very well for forcing the membrane to and fro when used with forcible suction. The most useful inhalation is equal parts of acetic ether and tincture of iodine. Ten to twenty drops of this are put to about half a pint of hot water, the steam drawn into the mouth, and then driven into the ears. In cases where there is accumulated discharge in the middle ear, with bulging of the membrana tympani, Politzer's is an accepted mode of treatment, viz., incising the membrane and forcing out the secretion by strong currents of air through the Eustachian tube. This is often unpleasant, must be varying in its force, and rather liable to tear the membrane too much. Dr. Purves prefers the method just described, of withdrawing the secretion by suction, and controlling it by the iodine inhalations. Sulphuric acid is the best agent for producing or keeping open a perforation. The deafness connected with atrophied membrana tympani may often be relieved by an artificial membrana tympani, even when there is no perforation. The form preferred is moistened cotton-wool, and patients are instructed to remove or replace it themselves, with the help of forceps.

The tuning-fork is largely used; and, if unheard when placed upon the temporal bone, it is considered diagnostic of nervous deafness. In a deaf and dumb child, the fork was not heard at all; it was noted that, to test the sense of hearing in such a case, it was necessary to make some noise unseen by the patient. In the present instance, so

long as he could see the mother speaking to him, he uttered sounds like her, but had no perception of noise made behind him.

Syphilitic Deafness.—A young woman presented herself, having been completely deaf for several years. The membrana tympani were dense and opaque, and the tuning-fork was not heard. In such cases, there is generally evidence of old choroiditis, as in the present case. The face was pallid, somewhat flattened, and the frontal bone rather irregular. There was no definite history or other sign of syphilis; but, the fact of the deafness coming on since childhood did not forbid that diagnosis. For the time, it was largely a question of care. For instance, a gentleman, known to be the subject of hereditary syphilis, had no deafness during his youth at home; but, when subjected to the harder life of an engineer's apprentice, gradually lost his hearing, at the same time that choroiditis developed.

New Optometer.—In examining the eyes, Dr. Purves made use of a very ingenious optometer, well calculated to determine the amount of refraction and astigmatism. Behind the ordinary perforated ophthalmoscopic mirror are placed two discs, made to revolve from their centres by a cog-wheel arrangement; a small racket passing down the handle, and being controlled by the thumb. In one disc, are twelve *plus* lenses, and in the other, twelve *minus* lenses, which are readily revolved round each other. This instrument was described last year by its constructor, and an improved form of it is one of the few new English ophthalmological instruments in the South Kensington Loan Collection. (Donders's Collection, Room O: Four discs of lenses are arranged on this instrument; and there is also a separate optometer for astigmatism.)

Abscess of Meatus or Middle Ear.—Good results are obtained from washing with dilute carbolic acid, drying, and then filling the meatus and tympanic cavity with the glycerine of the same acid, and keeping the cavity constantly filled, thus making it a closed abscess. The application is renewed every twenty-four hours, and this antiseptic method of treatment saves much trouble and annoyance to the patient.

The Aural Speculum has been improved by cutting out a piece from the side, as in the anal speculum. This leaves much more room for manipulation with the probe, etc., besides exposing part of the meatus.

Electricity in Ear Disease.—Benefit has been found from the Faradic current, when there has been reason to consider that deafness depended upon impaired muscular power. Bonnet's mode of placing two rheophores on the drum itself has been used, but is very uncomfortable. The ordinary mode of filling the ear with liquid is sufficient. In cases of nerve-deafness, as diagnosed by the tuning fork, there has been no definite improvement from any form of electricity.

ST. GEORGE'S HOSPITAL.

Lymphatic Fistula.—We had an opportunity of seeing, with Mr. Holmes, a marked case of this rare affection, in the person of a single woman aged 28. The left thigh was more than twice its natural size, resembling the limb of elephantiasis. At the upper and inner part, small openings had evidently existed. The skin was enlarged; and in the left one were several minute openings. The general appearance and health of the patient were good, the catamenia regular. She stated that she was delicate in youth; that about twelve years ago, without known cause, her leg began to swell, and her calf became wider round than her waist. There was occasional discharge from the minute openings referred to of a clear watery liquid, which was found, under the microscope, to contain lymph corpuscles. Previously to such discharges, she had pyrexial attacks, with rigors and rigors, and afterwards the limb became smaller. Its size would lessen also when she kept her bed for a time. The attacks occurred at irregular intervals, sometimes of two to three weeks, at other times of as many months. Mr. Holmes remarked that very few such cases were on record. Dr. Vandyke Carter had published some which occurred in Harbours; and Dr. Day, a case in a boy. [In Dr. Carter's cases, there was varying swelling of the scrotum, and discharge of chyle-like fluid through minute openings in the thigh. He argues that similar breach of continuity in the renal lymphatics is the explanation of elephantiasis. *British Clinical Transactions*, vol. xlv.) In Dr. Day's case, the right lower extremity was noticed to be enlarged at the age of two years and a half. It was probably congenital. Chylous fluid exuded from vesicles and openings in the limb, scrotum, etc.; there was overgrowth of skin, muscle, and bone. Other cases (French) are quoted in the report, which is contained in vol. ii. of the *Clinical Society's Transactions*. See also Holmes's *System of Surgery*, vol. iii. (Rep.)

Malignant Disease of Bone. (7)—A patient, admitted with rheumatism, was referred to Mr. Holmes, with an oval fluctuating swelling below the head of one tibia. It had developed in a few weeks, independent

of injury or known cause. It was remarked that the contents would be either pus or blood; and, on incision, dark blood exuded. A similar case, in the practice of Mr. Caesar Hawkins, had proved to be a blood-cyst, and the first indication of malignant disease of the bone. The same condition must be suspected in the present instance.

GENERAL HOSPITAL, BIRMINGHAM.

CASE OF CARDIAC DISEASE IN WHICH THE EFFECT OF DIGITALIS WAS VERY MARKED.

(Under the care of Dr. RICKARDS.)

[Reported by Mr. RHODES, Clinical Clerk.]

SARAH H., aged 19, was led into the out-patient room on June 19th, having been brought from a distance. She was coughing and panting. Her mother said that she had been so for ten days. On examination, there was found to be much mitral regurgitation and hypertrophy of the left side of the heart; there was no organic disease of the lungs or kidneys. The cardiac lesion was probably of rheumatic origin; its duration undeterminable—probably of four years' standing. She was kept quiet in bed, on spoon-diet, until June 26th, when the following notes were made.

The cough was almost incessant—twenty times in ten minutes. Dyspnoea was extreme; she could only breathe in the upright position and with the mouth open. Respirations 36. There was dropsy of the feet and legs. Insomnia was such that she said that she had not slept two hours for fourteen days. The urine amounted to ten ounces in twenty-four hours. The radial pulse was small, irregular, difficult to count, for the pulsations ran one into the other, their number per minute appearing to be 90; whereas the heart beat strongly, 137 times per minute. To-day, her sputa were streaked with blood. There was much mitral regurgitation, with hypertrophy of the left ventricle of the heart. The lungs were congested.

June 27th, 5 P.M. She was ordered a drachm of infusion of digitalis in half an ounce of water every hour.

June 28th. She was much better in every respect. She vomited once. She was ordered to discontinue the digitalis.

June 29th. The cough was almost gone—only once or twice during the day. The dyspnoea was much less. Respirations 24. She chose the recumbent position. The dropsy had almost disappeared. She slept eight hours last night. Urine thirty-seven ounces in twenty-four hours. Pulse 60; pulsations full and distinct, each cardiac pulsation being felt at the wrist.

July 4th. She walked about, and slept well at night; her only trouble was dyspnoea on exertion.

July 29th. She was going home, feeling as well as she had done for the last four years. The loud mitral regurgitant murmur persisted, as did the hypertrophy. Pulse 68.

REMARKS.—Dr. Rickards remarked that persons with mitral valvular disease of rheumatic origin were still at periods of exacerbation of the symptoms consequent upon it, and it was at those periods that digitalis seemed so beneficially efficacious. In the case reported, before the administration of digitalis, the rapidity of the heart was so great that those constant interchanges which take place between the blood and the tissues, and upon which life depends, could not be effected; and the pulmonary congestion was so great, that some of the capillaries of the left lung had given way.

WEST SUSSEX INFIRMARY, CHICHESTER.

CASE OF PEMPHIGUS.

(Under the care of Dr. PAXTON.)

[Reported by Mr. G. O. MEAD, Assistant House-Surgeon.]

W. O., AGED 49, labourer, was admitted into the Infirmary, under Dr. Paxton's care, on September 12th, 1876, suffering from pemphigus. The patient, a moderately well formed man, stated that he had always enjoyed good health, with the exception of having frequent boils in various parts of his body, until about three weeks previously, when his appetite failed and he had a general feeling of lassitude, soon followed by the formation of various "bullæ" on the arms.

Upon admission, bullæ in various stages of formation and decline, exhaling a very fetid smell, were found on all regions of his body with the exception of the scalp. Large raw-looking surfaces, of many inches in diameter, involved the whole of the cutaneous surfaces of the nates, the bends of the elbows, and axillæ. The patient was put in bed. The bullæ were pricked, washed with carbolic water (one in thirty), dried, and painted with flexile collodion. Iron and quinine in moderately large doses were given internally every six hours. This

was continued until the 16th, when the patient was much better, and his appetite had returned; but a considerable surface on the axillæ and buttocks was still raw. An ointment of four ounces of glycerine of starch and a drachm of carbolic acid spread on lint was applied to the excoriated surface. At this time, there were extensive exudations from the edges of the eyelids; to these a mixture of a drachm of ointment of nitrate of mercury and seven drachms of lard was frequently applied. Some raw surfaces on the inner border of the lower lip were touched with lunar caustic. The medicine was continued throughout. On October 10th, the patient was thoroughly cured.

REVIEWS AND NOTICES.

ON REST AND PAIN: a Course of Lectures on the Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain. Delivered at the Royal College of Surgeons of England in the years 1860, 1861, and 1862. By JOHN HILTON, F.R.C.S., F.R.S., Surgeon Extraordinary to the Queen, late Professor of Anatomy to the College of Surgeons, etc. Second edition, by W. H. A. JACOBSON, Assistant-Surgeon to Guy's Hospital. London: Bell and Sons, 1877.

MR. HILTON's Lectures on Rest and Pain are, perhaps, the most considerable contribution to surgical literature furnished by any of the professors of surgery who have occupied the Chair at the College of Surgeons since Sir James Paget's celebrated lectures on Inflammation and the Healing Process, and on Tumours, were delivered. In saying this, we do not forget Sir William Fergusson's interesting addresses, Mr. Le Gros Clark's admirable volume, Mr. Hewett's profound researches on Injuries of the Head (which unfortunately, however, have never been published in a complete form), Mr. Holmes's learned and most judicious discussion of Surgical Aneurism, nor the other excellent courses of lectures on special subjects which have been delivered by other occupants of the same chair. What gives Mr. Hilton's lectures their peculiar value to our mind is, that they treat of a subject which, though all-important and bearing on every-day practice, lies away from the ground covered by the ordinary text-books. The work has long been out of print, and has lately been very difficult to procure, though, as it has taken its place as a surgical classic, it was constantly sought for. We are, therefore, less surprised to see it now in a second edition than not to have seen it long ago. It seems, however, that Mr. Hilton had not the leisure necessary to revise it himself, and has, therefore, found himself obliged to enlist the services of one of his juniors. And he is certainly to be congratulated on his choice of an editor. Mr. JACOBSON combines every requisite for the office: an intimate knowledge of Mr. Hilton's teaching and manner, a large acquaintance with surgical literature, and the accomplishments of an active and zealous practical surgeon as well as those of a scholar. Hence, although we regret that Mr. Hilton has not himself supplemented his former utterances out of the rich stores of his subsequent experience, we accept with all gratitude the present excellent republication of these most important and valuable lectures. This publication is, indeed, now peculiarly opportune. Some surgeons have become so enamoured of operative surgery, and so convinced of the harmlessness of various desperate proceedings, if performed in the method prescribed by their theory, that we hear constantly of new operations for the cure of ailments which are seldom grave enough to justify any severe treatment to an ordinary mind. Many of these brilliant proposals disappear after having glittered for a short time before our astonished eyes. When we have duly admired the "heroism" which exposes other people's lives to grave danger and their bodies to severe mutilation, for the cure of ailments like varicocele or enlarged veins of the leg, we find that these triumphs of surgery have been quietly ignored by their authors, who have gone in search of some other ingenious novelty. But, though the proposals themselves may be transient, the habit of mind remains, and many of us are inclined to believe that the benefits which have undoubtedly followed on the introduction of the antiseptic and other careful methods of dressing wounds are, to a large extent, balanced by the encouragement so held out (particularly to ardent juniors) to treat insignificant affections, or affections which at least involve no danger to life and no unbearable suffering, by operations of which the same can hardly be said. Now, to this meddlingness and hasty surgery, a book like Mr. Hilton's provides an admirable corrective. When we see how much may be done to alleviate diseases, which look at first sight very formidable, by perfect rest assisted by the simplest remedies, if only the nature of the affection be accurately known, we shall soon learn not to be in such a hurry with the scalpel.

The "rest", however, of which Mr. Hilton speaks demands for its proper application an intimate knowledge of the cause of the disease. It does not consist merely in putting the patient to bed and telling him to lie there till he gets well, but in discovering what organs are implicated, and how the symptoms are produced, in order that the active functions of those organs may be as far as possible suspended and the nerves by which the symptoms are manifested be freed from irritation. This is what Mr. Hilton has denominated "physiological" rest, and it is clear that, in order to apply the remedy, the distribution and functions of the nerves must have been accurately studied. It is in its ingenious application of the facts of ordinary dissecting-room anatomy to the requirements of daily practice that the first great merit of Mr. Hilton's book consists. These facts are in general regarded as a mere mass of dry detail to be "crammed" by the student in the shortest possible space of time, and, we fear, forgotten by the practitioner in a shorter time still. How many medical men of twenty years' standing could "go through the branches of the lumbar or sacral plexus" as they could have done before going up to the College, or would think it a matter of the least importance whether they could or no? Yet in this volume we have indubitable proofs that a patient may have suffered for years from symptoms which might have been relieved by the simplest means, if the distribution of the nerves of the part had been known and borne in mind, but which, for want of such knowledge, or of its application, were attributed to all sorts of causes erroneously, and, therefore, treated with total want of success. We would refer especially to a case related on page 220 of the present edition, as proving that such oversights occur not only in the practice of the hard-worked "general practitioner", but even in that of the most eminent surgeons.

Here, a gentleman had been suffering pain in one side of the penis, and had been under the care of Mr. Aston Key and other medical men, by whom he had been treated for disease of the bladder and urethra, but, of course, in vain, since the pain was proved to be due to irritation of the perineal branch of the inferior gluteal (or small sciatic) nerve, due to the pressure of a hard and somewhat uneven seat, and was relieved at once by relieving the main trunk of the nerve from pressure. This, and many similar cases which Mr. Hilton relates, speak for themselves and prove their own theory. Nor can we doubt the truth of Mr. Hilton's views as to the reason of the, at first sight, inexplicably intricate distribution of the nerves of the limbs. We use the term "reason" merely in its popular sense, with no intention of discussing whether these teleological theories will bear the test of metaphysical argument. They will, at any rate, serve equally well to illustrate physiological and pathological facts. According to this view, then, the fascia of the limb is to be looked upon as an integral part of the insertion of the muscles, and the nerve which supplies the muscles supplies also the fascia, which is really one of the insertions of those muscles. Thus the musculo-spiral (or radio-spiral) nerve which supplies the extensor group of muscles, sends its cutaneous branches down to the very extremity of the fascia and subcutaneous tissue covering that group; and the anterior crural nerve, which supplies the extensor group of muscles of the leg, sends a branch (the long saphenous) down to the inner side of the foot, covering the fascia to which the sartorius muscle is directly connected. The effect of this arrangement (or its "reason", if we adopt that phraseology) is that, in affections of the parts supplied by the sentient branches of those nerves, the affection is telegraphed, as it were, to the nervous centre, and the appropriate muscles are set in action to ensure the physiological rest of the part affected. So far, we can all go along heartily and undoubtingly with the author. We see the simplicity and probability of the theory, its harmony with the facts of anatomy, and how it converts those facts from the parrot-like acquirements of the mere dissector into vital and fresh ideas. We can even conjecture that, if ever the minute steps of the development of the various parts become better known, the truth of this idea may receive confirmation from a knowledge of the stages of growth of the various parts of the limbs. In some other speculations, Mr. Hilton, we allow, shoots a little over our heads, and his views of the reason of various complicated anatomical facts seem to partake a little of the "science which entangles itself in overwiseness". Yet even here, if his views are theoretical and dubious, how ingenious and suggestive they are! We would ask the reader to turn to the speculations on the reasons of the distribution of various arteries on pp. 267-270, in which the idea is promulgated that the celiac axis is the "digestive" artery, the subclavian the "respiratory", the internal maxillary the "masticatory", etc.; and, as a characteristic specimen of Mr. Hilton's manner, we will quote the following note, which the editor has introduced from another of Mr. Hilton's works.

Mr. Hilton, in his lectures on the Cranium, speaks thus of the course of one or two branches of the internal maxillary artery, which

at first sight seem to have nothing to do with mastication; and, first, of the course of the middle meningeal to the interior of the skull.

"If it were only for the sake of a supply of a certain quantity of blood to the dura mater, the special intracranial arteries, viz., the two internal carotids and the two vertebrals, would be amply sufficient for this purpose, and there would be no necessity for the entrance of those streams that are derived from vessels supplying parts on the exterior of the skull. There must, therefore, be some design in such an arrangement. The aggregate or essential purpose of the internal maxillary artery is to build up or nourish those parts directly necessary or accessory to the process of mastication, so that it may be fairly called the masticatory artery. From this trunk is derived the middle meningeal artery, which, whilst ramifying in the dura mater, gives branches outwards that supply the squamous portion of the temporal, the greater wing of the sphenoid, the frontal and the parietal bones; those bones, in fact, which contribute to form the temporal fossa, the chief origin of the temporal muscle, one of the most important agents of mastication. It also gives a branch inwards to develop and maintain that other portion of the great wing of the sphenoid which gives origin to the external pterygoid, another important muscle of mastication. The middle meningeal artery, therefore, may be said to be sent by the internal maxillary into the interior of the cranium to build up and afterwards to nourish that portion of its extent, which, in giving attachment to masticatory muscles, is rendered subservient to the masticatory function. So fully, indeed, is this intention carried out, that a small artery given off from the middle meningeal, or the trunk of the internal maxillary itself, enters the cranium by the foramen ovale, apparently for the express purpose of furnishing nutritive material to the third division of the fifth, the nerve that supplies the muscles of mastication. Now, although the intracranial portion of the third division of the fifth is situated in such close proximity to the entrance of the internal carotid artery into the skull, yet it is not supplied by this vessel, but, as we observe, receives a distinct offset from the masticatory trunk, so that its nutrition may be maintained in the closest possible relation with that of the other structures administering to the same function." (Footnote, p. 269.)

Can anything be more exquisitely ingenious? All that the severest critic could say is, that it is, perhaps, too ingenious to be true; yet, true or no, what a light does it throw on anatomy, what an interest does this way of speculating on facts give to their investigation. Even the errors of such a master may be rich in instruction.

We have made these few observations on Mr. Hilton's lectures, not because we fear that any of his former hearers or readers can have forgotten his teaching, but in order to kindle a younger generation to study one of the most valuable, most practical, and, at the same time, most ingeniously speculative of all surgical works written by a living author. Life moves fast in these railway times, and one of the evils of our rapid movement is, that we are very apt to be content with a hurried glance in passing, and to speedily forget things which deserve patient study and long familiarity. Such is Mr. Hilton's work; one that the student should use as his "enchiridion" till he has not only become familiar with the matter of his author, but has imbibed his author's habit of mind and way of study, and has prepared himself to investigate the bewildering phenomena of disease, mental and physical, with the same reliance on physiological science, the same patient observation, and the same fertility of resource. It is this combination of theoretical insight with accurate diagnosis and practical readiness which makes the really accomplished surgeon; one whose triumphs are seen less in operations than in therapeutics; less in saving patients' lives after cutting their limbs off, than in saving their lives and limbs too by avoiding needless operations.

We could amplify and support our good opinion of this excellent treatise by an army of quotations, if it were necessary, but it is not. We would merely recall to the reader's attention three of the most important (as they seem to us) of Mr. Hilton's practical observations. The first is the fact, which every-day experience is making more and more widely accepted, that the so-called "scrofulous" diseases of the joints, and notably that of the hip, are really in most, if not all, cases the results of chronic inflammation produced by injury: a most important view in its bearing on practice, in which Mr. Hilton has been followed by several of the surgical writers of the day. In fact, one of the best known American writers on affections of the joints (Dr. Sayre) seems to claim the idea as his own. Another very useful practical point is the method (described in Lecture vi) of opening deep-seated abscesses, by thrusting a director into an opening made through the fascia and enlarging the opening by means of a pair of dressing-forceps introduced along the groove of the director: a safe proceeding, which has now come into extensive use. The third point we shall notice is the most suggestive view developed in Lectures xi and xii of the effusions

into serous and articular cavities, as being Nature's provision for securing the greatest available amount of physiological rest for the inflamed organs: a suggestion truly philosophical and worthy of Hunter himself. We need not make any further references. The book was in every one's hands when it first came out, and the present edition ought to be, and we hope it will be, read and reread by all who are not familiar with the first.

For the editor's part in the work, we have also nothing but praise. He has carefully pruned away some excrescences which the oral style of the original lectures had allowed to creep in; has withdrawn several faulty illustrations, and occasionally supplied new ones, either original or borrowed from approved works, and has enriched the text with many excellent and instructive notes, some from his own practice or reading, others from authors who have written since Mr. Hilton delivered his lectures. In these notes, Mr. Jacobson displays a freedom most creditable to himself and to his author. The scholar is too independent to feel himself obliged "jurare in verba magistri", and the master too real a votary of science not to welcome independent criticism even in juxtaposition with his own text. Hence several of the notes are rather corrections or questionings of the author's views than elucidations of them. Thus Mr. Jacobson questions the anatomical accuracy of Mr. Hilton's views on the arrangements of the spinal arachnoid membrane (note on p. 22), and corrects or, at any rate, expands his teaching on the subject of latent peritonitis (p. 227) and of the joint-complications allied to pyæmia which occur during the progress of fever (p. 284).

We have done scant justice to this important treatise; but our reader will be amply repaid if what we have said leads him to procure and study it for himself.

ON STETHOMETRY. By ARTHUR RANSOME, M.D., M.A. Cantab.
London: Macmillan and Co. 1876.

THE application to clinical medicine of the graphic method and other modes of exact measurement used in physiological research is yet in its infancy. Interesting and valuable results have been obtained by different observers from the use of the sphygmograph and cardiograph; but the physician has had hitherto but little opportunity for estimating by instrumental aid those respiratory movements, the rough observation of which is so important an element in diagnosis. In the volume before us, this research is undertaken by Dr. RANSOME, who brings to the task not only the faculty of careful observation, but an admirable ingenuity in the construction of the necessary instruments.

At the commencement of the book, the author discusses various methods of chest-mapping, and describes a chest-rule, consisting of a rectangle of thin spring steel, marked out into squares, and so flexible that it may be applied to the chest during auscultation or percussion. By means of this, the position of any point, such as that of the heart's impulse-site, is exactly fixed for future reference by rectangular co-ordinates, namely, its distance downwards from the top of the sternum, and outwards from the middle line. The relation of the spot to the size of the chest under observation is shown by marking the chest-rule on a diagram-figure, or by recording the co-ordinates of certain points of reference, such as the nipple and the lower end of the sternum. By some observations made in this way, the position of the heart's impulse was found to be altered as much as from two to five inches laterally by a change from a right to a left decubitus.

The author next proceeds to the more important and original part of his subject, namely, the registration of the chest movements. His aim is here far more ambitious than that of any other observer. For, by the stethographs of Marey and Bert, only changes in the circumference of the chest are recorded; by that of Sanderson, only variations of a single diameter: by that of Riegel, only forward movements. But Dr. Ransome has devised an instrument, the three-plane stethometer, by which the movements of any point forward, upward, and outward are separately indicated on three different dials. This instrument, first described in the *Medico-Chirurgical Transactions*, vol. lvi, seems to reach perfection in the simplicity and accuracy by which its object is attained. By the adaptation of its three movements to the tambours of a polygraph, it can be converted into a three-plane stethograph, by which three simultaneous tracings of the three elements of the motion are described. Dr. Ransome also uses a simple form of stethograph, by which the actual path in upward and forward motion of any point of the chest is recorded upon a fixed stage. In this case, the outward movement, which is the smallest and the least important, is disregarded. The results obtained by both instruments alike lead him to an important physiological conclusion, namely, that the forward movement of the chest is much greater than can be accounted for by the motion of the ribs upon their articulations. This can only be explained as due to an

actual change in the shape of the ribs, by which in inspiration their curvature is diminished, and their chord-length, therefore, increased. The author finds this explanation confirmed by actual comparative measurements of the chord-length in expiration and inspiration, taken with callipers designed expressly for this purpose. The tracings of the stethograph show that the excess of forward motion takes place chiefly at the commencement of inspiration. The fact thus demonstrated is just the reverse of the view which is given in Quain's *Anatomy* as the orthodox opinion, and which at first sight might appear the most probable, namely, that in inspiration the front of the chest is acted upon by a greater inward force, due to the weight of the sternum and adjoining parts and the elasticity of the lungs, and that the curvature of the ribs is, therefore, increased.

The explanation of this discrepancy involves the whole question of the action of the muscles of respiration. Dr. Ransome accepts the view of Hutchinson, Sibson, and Traube, that the external intercostal with the intercartilaginei muscles are muscles of inspiration, while the internal intercostals, when acting separately, are expiratory. He points out, however, that both sets of fibres may act in concert, both in forced inspiration, when the upper ribs are fixed, and in forced expiration, when the lower ribs are drawn down, and that one of their actions is, therefore, that of constricting the thorax. He considers that the main cause of the excess of forward motion is the elasticity of the ribs themselves when released from the inbending force exerted in forced expiration. That portion of it, however, which occurs in the later part of the curve he attributes to some action of the inspiratory muscles. He does not explain how it is that this produces an opposite effect to that of the same constricting muscles in expiration. We may suggest that in forced expiration the abdominal muscles, with the triangularis sterni, predominate over the intercostals, the front of the chest is more constricted than the sides, and the chord-lengths of the ribs shortened. In forced inspiration, on the contrary, the intercostals have a constricting effect greatest at the sides of the chest, and the chord-lengths become greater than they would be if the ribs were free from strain. We would also point out to Dr. Ransome that he has only given curves of movements commenced after forced expiration, and that further light would be thrown upon the question by the comparison of these with curves beginning from the pause at the end of normal expiration, when no force is acting except elasticity and muscular tonicity. In the latter case, the first element in the excessive forward motion would be eliminated.

An important part of Dr. Ransome's work is that in which he gives instances of the application of his method as a guide to diagnosis, prognosis, and treatment. It is in phthisis that he finds that most assistance can be derived from the stethometer. When only one lung is affected, the readings constantly point to the diseased side; and, when both are diseased, the fact is indicated by the small extent of motion of the chest generally, and especially by a proportionate diminution of the excessive forward motion already shown to depend on an alteration of the curvature of the ribs. The instrument thus affords some means of estimating the stage to which the complaint has already advanced, and also the power of measuring and recording the rapidity of its progress within a certain time. Warning may also be given at an early stage of disease by the abnormal weakness of chest movements when no other physical sign can be discovered. Again, the effect of a previous attack may be detected by this sensitive test when all other signs have passed away; or, on the other hand, a negative result may show that it is possible for every trace of disease to disappear. In reference to prognosis also, the author considers that the stethometer will prove a valuable aid, for he finds that, in acute forms of phthisis, the impairment of motion is much greater than in chronic forms at the same stage. He arrives at this conclusion, both by the comparison of several pairs of cases, in which physical signs indicated a nearly equal amount of consolidation or disorganisation, and from an average derived from tables of the measurements in twenty acute and twenty chronic cases.

Extensive experience can alone decide how far the stethometer will prove useful to the practical physician; but Dr. Ransome has produced evidence enough to show that his method fully deserves investigation by independent observers. We can recommend his book not only to those who are interested in the graphic method, but to all who are specially concerned in the treatment of diseases of the chest.

NOTES ON BOOKS.

BERNARD and HUETTE'S *Operative Surgery and Surgical Anatomy* has long and justly had a classic reputation for its handiness of size, completeness, and the beauty of its plates. It is being reissued in parts by Messrs. Baillière, Tindall, and Cox; the text being translated and edited by Mr. Arthur Norton of St. Mary's Hospital. This

will certainly be a popular book; and, thus issued, it will probably prove attractive to many who find it more easy to purchase such a book in instalments. Part I contains eleven plates, having in all over forty figures, beautifully coloured: and is very cheap at five shillings.

We have received a copy of a new *Medical Visiting List and Register*, which we can favourably recommend to the notice of physicians and general practitioners as calculated to meet a want often felt by the profession. It contains a posological table, which includes all the pharmaceutical preparations in general use arranged alphabetically, is printed on good paper, and may be obtained from the publishers, Messrs. Sang and Barker, Barony Street, Edinburgh, at prices ranging from 1s. 6d. to 3s. 6d., according to size and character of cover. The 3s. 6d. issue is made to meet the requirements of a large practice for a year.

Effectual Reform in Man and Society. By HENRY TRAVIS, M.D. London: Longmans and Co. 1876.—As long as evil lasts, Utopias will be written. The book before us is one of them. Opening with the momentous words, "The change is near", the sanguine writer proceeds to sketch a colossal system of reformed education; by which, "instead of the very defective intellectual and moral characters which have hitherto been formed, to produce poverty and the fear of poverty, to a most lamentable extent", all men will be made wise and good, and the golden age will come again. Dr. Travis's idea is, that the doctrine of free will has wrought havoc among mankind by withdrawing attention from the education of character, but that the celebrated schemes of Mr. Owen at Lanark were vitiated by an opposite error—the denial of responsibility. More sanguine than all the psychologists, Dr. Travis proclaims that he has solved the difficulty, and proceeds to rehabilitate Owen's ideal society. "New villages", constructed on the best sanitary principles and containing from three hundred to three thousand inhabitants, are to rise from the ground; labour is to be arranged according to age, and is, of course, to be universal; the proceeds are to belong to the society, and will be distributed by enlightened benevolence; etc. This well-meaning little book is marked, like every other Utopia, by a *bizarre* juxtaposition of excellent truisms in the statement of principles, and absurd impossibilities in the application of these to the conditions of life. The whole is closed by some interesting appendices on the results of Owen's work at New Lanark, on the productive powers of England, etc. There is no reason why books like this should not be written; still less why they should not be read by those who take an interest in such speculations. The waste-paper baskets of the world are full of them.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PILLISCHER'S "INTERNATIONAL" MICROSCOPE.

THE objections urged by physiologists against the English microscope—viz., complication, expense, and weight—have caused most workers to seek the foreign market for instruments more suited to their investigations; and it is a matter of surprise that the English makers have not earlier produced an instrument modified to suit the requirements in these particulars of the scientific investigator. Mr. Pillischer has brought out a model microscope, named the International, which, after trial, we can recommend to the microscopist, whether his bent be physiological or general. It is made on the plan of the Oberhäuser or Hartnack, but with several improvements. The instrument, when taken out of the case, is at once ready for use. It is steady, without being cumbersome. The object-glasses are excellent; and in this latter particular Mr. Pillischer has met a want which has long been felt by the physiologist, of an object-glass of high power, with moderate angular aperture, allowing of a greater space between the objective and the covering glass, and also a greater depth of focus. The definition of the lenses we have tried is excellent.

The microscope is all brass, with sliding body and draw-tube, rack-work, and fine adjustment; two Huyghenian eye-pieces, No. 2 and 3; a five-eighth and one-seventh objective, magnifying from 50 to 420 diameters; a bull's-eye condensing lens and concave mirror. The whole is packed in a strong mahogany box, ten inches long, four inches deep, and six inches wide. The cost of the microscope, as described, is £7. On the whole, it is the best working instrument we have seen by an English maker at anything like this price.

AN IMPROVEMENT IN BEDS FOR THE HOSPITAL AND SICK ROOM.

We can very strongly recommend a new invention, by Mr. Tinsley of 8, Catherine Street, Strand, for raising a patient to a reclining or sitting position, without exertion, fatigue, or disturbance of the bed-clothes. A hinged inner frame, sliding on the side piece of the bedstead, is drawn up by the revolution of cog wheels acting on a cross-bar at the head of the bedstead. It may be cheaply introduced in the manufacture of ordinary bedsteads, and is one of the most useful inventions we have seen: indeed, for simplicity and effectiveness, it excels everything yet invented, although there are a good many complicated arrangements for the purpose.

KORFF'S COCOA POWDER.

THE natural cocoa contains fifty per cent. of cocoa-butter or fat, and consequently cannot, without management, be kept in a powdered condition. Manufacturers resort to two expedients in order to purvey powdered cocoa. (The one expedient is to extract (by melting out) a portion of the fat; and, that having been done, the remainder may be reduced to powder and kept in powder. The other expedient is to mix the cocoa with a quantity of starch, after which the cocoa may be powdered and kept in powder. Whether the one or the other expedient is the better, depends upon circumstances. In the present instance, Korff's cocoa powder, the former method has been followed, and the cocoa contains 35.05 per cent. of fat and 5.05 per cent. of ash, and no starch is to be detected by the ordinary tests. This cocoa, we have every reason to believe, contains nothing but cocoa, but is partially denuded of fat.

SELECTIONS FROM JOURNALS.

MEDICINE.

DISPLACEMENT OF THE LIVER. Chvostek (*Wiener Med. Presse*, Nos. 26-29) describes the case of a woman aged 53, who had had twelve labours, and who was constantly troubled with gastralgia and dyspepsia. On examination, the normal hepatic dulness was missed. A movable swelling was discovered, commencing at the right hypochondrium and reaching as far as the pelvis; it had a sharply defined border, on which the gall-bladder could be felt. When the pelvis was raised, the liver could be almost completely restored to its normal situation. Chvostek says that seven cases have been recorded—all in women who had borne children. In one case, the spleen also was displaced, and in another there was transposition of the abdominal viscera. The present case was remarkable for the great tenderness of the liver. Jaundice was present in one instance; in Chvostek's case, there was slight yellowness of the conjunctiva. Colicky pains and pyrosis were sometimes present. The greatest amount of relief was obtained from elastic bandages.—Wassilieff (*Petersburg. Medicin. Wochenschrift*, No. 30) observed in Dr. Botkin's wards three cases of displaced liver along with dislocated spleen, and in one instance with floating kidney. He says that dislocation of the liver occurs in men as well as in women. It may arise from pendulous abdomen, enlargement of the liver, riding, etc., but only when there are abnormally lengthened or extensible bands, or when a mesohepar is present. He recommends faradisation of the recti abdominis muscles.

ABSCESS OF THE ABDOMEN SIMULATING PNEUMOTHORAX.—The last number of the *Nordiskt Medicinskt Arkiv* contains a description, by Dr. F. Levison of Copenhagen, of the case of a young man aged 22, who was admitted into the Frederic Hospital in Copenhagen with symptoms resembling those of peritonitis from gastric perforation. A few days after admission, percussion over the left subclavian region revealed a tympanic sound extending over about an inch and a half, while above and below there was dullness. Two days later, the tympanic sound extended over the posterior surface of the left lung as far as the spine of the scapula; and in the greater part of this region amphoric respiration and metallic tinkling were heard. A diagnosis of pyopneumothorax from perforation of the diaphragm was made. To relieve the patient, puncture with aspiration was used in the eighth left intercostal space outside the scapular line; and, as no result was produced, the operation was repeated in the seventh space. On the removal of the stilette, a large quantity of foetid gas escaped, and more was withdrawn by the aspirator; but no fluid. The stethoscopic signs

remained the same. Diphtheria attacked the pharynx, and, spreading downwards into the air-passages, proved fatal. At the necropsy, there were found to be adhesions between the stomach, the left lobe of the liver, the omentum, spleen, and diaphragm; forming a cavity which contained much gas and a small quantity of pus. It had no communication with the pleural cavity, which contained neither gas nor fluid. The diaphragm had been pushed up so high that, in making the last puncture, the trocar passed through it. The left lung was much compressed. The right pleura contained a considerable quantity of serum; and the lower lobe of the right lung was in a state of croupous pneumonia. Dr. Levison has been able to find records of only two similar cases: one by Wintrich, in Virchow's *Handbook of Pathology and Therapeutics*; the other by Barlow, in the *London Medical Gazette* for May 1845.

SURGERY.

FORCED FLEXION IN THE TREATMENT OF ANEURISM.—Dr. Ambrosio Aniello reports (*Movimento Medico-Chirurgico di Napoli*) several cases of aneurism treated by this method. They were cases of aneurism situated at the level of the articulations, and principally of popliteal aneurisms. The duration of treatment varied from three to twenty-three days. The rules laid down by Ernest Hart in his papers in the *Medico-Chirurgical Transactions* have been followed, and are summed up as essential to success. The flexion was neither complete nor permanent from the outset, but was only arrived at gradually and in measuring the tolerance of the patients. The conditions which the author concurs with E. Hart in recognising as favourable to the success of this method are, the small size of the tumour, the absence of complicating lesions, the situation of the sac at the posterior part of the artery, and, finally, the power of obtaining complete cessation of the aneurismal pulsation under the influence of flexion. (*Brit. med. Journal*)

ON ANÆSTHESIA BY CHLORAL IN CHILDREN. According to M. Bouchut (*Revue Médicale de Paris*, September 25th), complete anæsthesia in children may be obtained by injections of chloral into the stomach, an effect which cannot be obtained in the adult subject. A child will easily take forty-five to sixty grains. A quarter of an hour after the whole dose is taken, the anæsthesia commences, and is complete at the end of an hour. The operation may then be performed on the sleeping child, who cries out without waking; sometimes moves a limb; then relapses into immobility; and when it wakes, about four hours afterwards, knows nothing of what has passed. At the Hospital for Sick Children, at eight o'clock the sister in charge gives forty-five or sixty grains, according to the age of the patient; and the child goes to sleep in about twenty minutes. The dentist comes at nine o'clock, and removes the painful tooth, or even two, if necessary. The child moans and moves without waking; then relapses into deep sleep; and, when it comes to itself, it is minus a tooth, without having felt any pain or seen the dentist. To those who know the pain of having teeth extracted, and the difficulties of their extraction in children, it is evident that chloral forms a valuable anæsthetic for the purpose.

EXCESSIVE DISCHARGE OF URINE CONSEQUENT ON RETENTION.—Retention of urine is sometimes followed by a more or less considerable discharge, which lasts from four or five up to ten days. This accident, which is treated of by Dr. Persillon in his *Thèse de Paris* (1876), is to be attributed to the removal or the sudden diminution of the pressure on the urinary passages by catheterism or any other means. This polyuria is temporary, and produces no inconvenience beyond weakening the patient on account of the waste of matter due to the increase of secretion. In order to avoid or lessen the polyuria consequent on retention of urine, it is necessary to reduce the pressure on the interior of the urinary passages gradually, and not suddenly. The best means of effecting this are, the use of the *sonde à demeure*, perfect catheterisation with an India-rubber instrument, and the precaution of leaving a certain quantity of fluid in the bladder after each use of the catheter. Polyuria may render the frequent use of the catheter necessary, and thus add fresh dangers to those consequent on retention of urine.

NEW METHOD OF TREATMENT OF THE PEDICLE IN OVARIOTOMY.—Kovacs (*Ortosi Hetilap*, No. 26, and *Centralblatt für Chirurg.*, 1876, No. 35) has in two successful cases of ovariectomy used the following method of tying the pedicle. After having made the section of the pedicle with scissors, he divided it into four parts and tied each artery separately with catgut. The hæmorrhage being thus completely mastered, he turned back and sutured the peritoneum around the stump. He left a drainage-tube in the lower angle of the wound.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 9TH, 1876.

A CRISIS IN MEDICAL EXAMINATIONS.

THE rejection of the Conjoint Scheme of Examination by the efforts of a reactionary party in the College of Surgeons had been reported with much confidence as a foregone conclusion, and those whose wishes fathered the thought had very openly declared that the preliminary victory at the former meeting only indicated a decree of rejection which had been successfully engineered, and was only to be registered on Friday last. Our energetic protest against such a procedure, if it be open to the criticism which we are told was very freely inflicted upon it by more than one speaker at the Council on Friday last, of being couched in unusually warm terms and extremely plain language, had at least the salutary effect of startling the members of the Council into a full perception of the responsibility which they were assuming, and of the really revolutionary results likely to follow upon their ultra conservative resolve to sacrifice the interests of the profession and the public on the altar of collegiate privilege and to the petty hankering after power and place. Those who thought that, on a question of this magnitude, and where a great reform was at stake, they could safely indulge the dreams of personal ambition or follow the retrogressive counsels of personal prejudice, were rudely awakened from the vain dream, and a decisive majority of fifteen to five so completely reversed all previous anticipations, that we believe the most experienced official prophet of divisions has declared that henceforth he will never again venture to predict the result of a College debate. If such a forecast is to be made without taking into account the force of professional and public opinion, it might be as well to adhere to that resolution. No doubt the freedom and energy with which the leading journal reproduced our leader of November 25th entire in its columns, and the promptitude with which it showed its intention to defend the public interests in peril, contributed powerfully to the conversion of the majority, which before the appearance of our argument was thought secure, into a small minority. At any rate, we may acknowledge our indebtedness, and, as we think, the indebtedness of the profession generally in England, to the *Times* for the powerful and prompt aid which it rendered by at once showing that, if the College played false at the last moment, it must expect to have to justify itself in the open day before the public as well as the profession.

Having survived so many storms, and dashed to pieces this last and most dangerously interposed obstacle, we trust that the Conjoint Scheme may now safely and speedily reach its final port. If it do, we think we can see in the future a very satisfactory adjustment of the question of obtaining a completely satisfactory uniform minimum examination for England. The signs point to a like result in Ireland. Scotland has a much harder nut to crack; but time and patience will probably succeed there also.

Thus one important point of medical reform will be carried; and, since this question seems destined to a piecemeal settlement, we may express the hearty wish that our Medical Reform Committee would take in hand and bring to an immediate settlement, as it has easily the

power to do, the amendment of the *penal clause*. The Government, the General Medical Council, the British Medical Association, all agreed several years ago to a perfectly satisfactory amendment of that clause, which would make it really effective in putting down a large class of quacks who now laugh at prosecutions. This very short and easy piece of work would confer a great boon upon the profession and the public, and would give to this Committee a lasting claim to the gratitude of both.

AN ETHICAL JUDGMENT.

THE tone of professional feeling among us is fortunately so high, that we are but rarely called upon to lay the particulars of medical disputes and quarrels before our readers; for, even when such private differences do arise, it is generally found that the good offices of peace-making friends, or the publication of correspondence in our columns, are sufficient to soften down the roughness of irritation and pave the way to a resumption of official and even cordial relations. It occasionally happens, however, that the wounds are too deep for such facile treatment, or that broad ethical principles are involved, which affect the honour and welfare of the whole profession and raise a local question into the dignity of public interest. Minor efforts at arbitration having probably failed, the case must be carried to a higher tribunal; and, knowing the costly and unsatisfactory remedial powers of the law, we must look for our cure elsewhere. And, fortunately, it happens that the British Medical Association provides means of considerable efficiency for the impartial consideration of all such disputed points; and that, either through its Branches or by the direct action of the Committee of Council, a jury of specially qualified experts can be empanelled to discuss the delicate and unwritten law of medical ethics. In recording an example of the exercise of this important function of our corporate body, we may express the hope that our members may come to recognise more and more the judicial force and great wave of opinion which we can at any time bring to bear on any case of wrong or injustice. The value of such a court of appeal in these days, when the growing power of arbitration is making itself so widely felt, must be sufficiently self-evident; and it is one of the most satisfactory functions of the Association to assist in extending aid to those of our brethren who come to us for such protection or advice. It would, of course, be inexpedient for the most part to give full publicity to the proceedings of these courts of inquiry, as it must often happen that a satisfactory result may be obtained without exposing all the particulars of heated controversy to the light of day; but now and then such a line of action is forced upon us; and in the case which has induced us to make these remarks, and the facts of which we are about to narrate in briefest possible form, the onus of publication rests with the *South London Press*, which not only printed the decision of the Committee of the Association, but added the adverse criticism of the local board of guardians, endorsed by their own editorial approval. It will be convenient to assume their report of the original question to be correct, and we will found our statement principally on the printed matter before us.

The case stated is, that Mr. Pope of Brixton, in the performance of his duties as Poor-law medical officer, signed a lunacy certificate for Eugenie Rogers, who was removed from the workhouse and placed under treatment in the Wandsworth Asylum. Mr. Soper of Clapham Road, in the discharge of his duties as member of the board of guardians, subsequently visited this patient, and, coming to the conclusion that she was no longer insane, brought the case under the consideration of the board. At the beginning of the proceedings, Mr. Lloyd, medical superintendent of the workhouse, cleared up a misapprehension under which he was supposed to have signed the certificate; and Mr. Soper then, stating that he had taken some trouble in the

matter, proceeded to denounce that document as "unjustifiable", "abominably weak", and to express his decided opinion that "it was probable it had made the girl a lunatic". His denunciation elicited the approval of the board; and some of the guardians took the opportunity of making various offensive insinuations against the medical profession, both on this and on a subsequent occasion, when Mr. Pope tried in vain to justify his line of conduct before them. The fact of the undoubted insanity of Eugenie Rogers was amply confirmed by Mr. Chance and Mr. Collambell, independent magistrates, and subsequently by the Commissioners in Lunacy; and Mr. Soper was reluctantly obliged to confess himself to have been in the wrong as to the facts on which he based his denunciation. Mr. Pope, however, having been unable to obtain any apology or expression of regret, and having been publicly accused not only of direct instrumentality in consigning a perfectly sane girl to a lunatic asylum, but of having actually caused her to become insane, naturally felt aggrieved, and, on our advice, laid the whole case before the Council of the Metropolitan Counties Branch of the British Medical Association. The Council, being incompetent to act in consequence of Mr. Soper not belonging to their Branch, remitted the matter to the Committee of Council, who appointed three of their most experienced members to draw up a report. These gentlemen, after prolonged and anxious consideration, adopted the following resolutions, which were fully endorsed at a subsequent meeting of Council.

"1. That Mr. Soper should not have commented in the terms he did upon the certificate at the board of guardians.

"2. That Mr. Pope was fully justified, as confirmed by the approval of his certificate by Mr. Chance, Mr. Collambell, also a magistrate, and the Commissioners in Lunacy, in certifying to the insanity of Eugenie Rogers; and that Mr. Soper was not justified in giving the guardians the impression that there had been any negligence in the matter.

"3. That Mr. Soper has, therefore, acted unadvisedly, and should express his regret in writing to Mr. Pope.

"4. That a copy of Mr. Soper's communication to Mr. Pope should be sent to the Chairman of the Board of Guardians of Lambeth."

Here we might have hoped for a termination of this unpleasant affair by some expression of regret on the part of Mr. Soper for having, intentionally or otherwise, cast aspersions on the professional character of Mr. Pope; but, unfortunately, he refused to retract, and explained his conduct as being dictated by the oft-maligned name of duty: a statement which may palliate, but not excuse it. He states that his strictures were made in entire ignorance of the fact of Mr. Pope's name being attached to the certificate; and that, as his line of action was rendered necessary, in his opinion, by due regard for the interests of the guardians, he must beg to tender his resignation of membership of the British Medical Association. Nor is the board itself backward in its expression of opinion; for, in three resolutions which have been forwarded to us, it assumes the principle "that it appears to this board detrimental to public interests that a Medical Association should subject a member who may happen to be a guardian to pressure to compel him to retract opinions which, in his public capacity, he may have felt it incumbent on him to express, and which he has given utterance to without malice and simply as a matter of public duty". This deliverance calls for no special comment on our part. We do not expect the guardians of South Lambeth to understand the true meaning of professional courtesy in such a matter, and we can all understand their line of conduct; but we hold Mr. Soper to have been entirely in the wrong throughout. Assuming freely that no personal considerations actuated his line of conduct, it is amply evident that he owes some apology to the entire profession for venturing, without the most absolute proof, the insinuation that any of its members could knowingly consign a sane girl to a lunatic asylum. Such accusations may win a little brief popularity among a certain class of the people, and especially among the guardian class; they are, however, sure

to recoil in the end on the head of the originator. Mr. Soper would have done well to withdraw every shadow of such imputation, and to show some indication of neighbourly spirit towards Mr. Pope, whom he had maligned, by apologising for the annoyance and professional discredit which his remarks were calculated to inflict. As the matter stands, we hold that Mr. Pope has proved his case, and that the Subcommittee of the Association have given a righteous judgment, which the profession at large will fully endorse.

THE ARMY MEDICAL DEPARTMENT.

It will be within the recollection of our readers that we did not share the anticipations of those who expected brilliant results from Mr. Hardy's "short service scheme". Like many other plans of regeneration, it was rather one-sided, and seemed to require the exercise of the possession of an unusual array of cardinal virtues on the part of the professional public, without offering any return for so much self-sacrifice. Faith must be largely present to accept the too often broken promises of warrants; hope to gild the future with glittering expectation; charity to impute no motives to any man. All past grievances were now to be swept away; sterling merit and honest hard work were henceforth to have their due reward; and those unselected candidates whose services appeared superfluous at the end of ten years might be seen in the far distance gaily pocketing their £1,000 and invoking blessings on the heads of their official benefactors. Peace and plenty must naturally lead to contentment and good-will, and a happy and united department might at last reward the sanguine efforts of the Secretary of State for War.

Could this charming idyllic scene have been realised in any measure, no note of congratulation would have been more emphatic or sincere than our own; but scarcely had the flourish of trumpets with which the curtain drew up subsided, than we felt it our duty to protest against what we believed to be an ill-digested measure and a specious attempt to win back the rapidly waning popularity of the Army Medical Department on a basis really intended to promote economy while ostensibly designed to redress grievances. We were not alone in the warning which we uttered on that occasion; and, in the press and the lecture-theatre, pen and voice concurred in the verdict which we had unhesitatingly given. The worst predictions have now been fully fulfilled. At the first examination for candidates under the new system, we find that fifty vacancies can attract but thirty-three applicants, that competition is now a farce, and that the general average of marks is much behind that of former years. We see that the present increase of pay, with the terminal bonus, can be made to weigh but lightly in the balance against the loss of the certainty of a life-career and the probability of being once more cast on the world, with lapsed opportunities, disappointed hopes, and broken health. We see that once more the recruiting sergeant is spreading his lures; advertisement proclaims the need of more surgeons; but we would most earnestly warn intending applicants very carefully to discuss the question in their own minds before committing themselves to army medical service under its present conditions. We can hardly conceive any position more dreary than that of a young man now joining the medical staff at one of our large military stations, homeless, friendless, with no social position, and quite unrecognised in any way as belonging to the regiment to which he may be temporarily attached. In former days, the medical officer was well treated, cordially received, and found himself, under all conditions, the associate of those with whom his lot was cast; and bitterly may he draw a contrast with the evil times upon which he has recently fallen. An incomplete and partial unification, whilst removing much of the comfort and *prestige* from the surgeon's life, has given him nothing in exchange. Condemned, as he now is in many cases, to live out of barracks, he finds his lodging-money insufficient, his meals dull and solitary, his professional work frequently restricted to the monotonous manipulation of dry returns and forms. Attached to no mess, and imbued with no feeling of *esprit de corps*, we can hardly

expect that much zealous interest can be taken by him in the unvarying routine of his colourless existence. If his regimental position be gone, we cannot find that his dignities are increased in any other direction; for not only is he considered unworthy to hold military command over his own orderlies, but heavy responsibilities in the way of stores have been laid upon him, for which any compensating advantage may be looked for in vain; and, should his views not happen to tally in every respect with those which now reign supreme at Whitehall Yard, and should any remonstrance be risked, we may warn such audacious spirits of the existence of such a thing as half-pay without half-pay, and of a now too well known means of asserting absolute authority.

To those who like this picture we would say, "By all means give up your prospects of advancement in civil life, and rally round the military standard". And, should war unhappily be forced upon us, patriotism would induce us to give this advice in all sincerity; but, should peace continue to guard our shores, then let us frankly tell our younger brethren that the solution of the difficulties of the Army Medical Department rests mainly with themselves. Mr. Hardy tells us that he has now given up trying to please the doctors, and we can, therefore, expect no more concessions from him. Let the supply of candidates, however, continue to fall short, and the victory is ours. We can then arrange our own terms, and either go back to the old regimental system or demand unification proper, which is, no doubt, best adapted to the requirements of this advancing age. One thing, however, is certain, and that is, that dissatisfaction now reigns supreme; that suspicion and mistrust and disappointment are daily gaining ground; and that the oil recently poured on the troubled waters proves to be eminently vitriolic in quality. The short service system has failed, and something must be done before very long if we are to retain an Army Medical Department at all.

THE CASE OF THE MILITIA SURGEONS.

THE year is fast drawing to a close, and with it the time when militia surgeons will have to elect whether or not they will place their names on the departmental list. At the meeting held on November 14th, of which we have reported the resolutions, a diversity of opinion arose as to the best course to be pursued in the matter, and a number of the surgeons seemed inclined to enrol their names under the new warrant, believing that by so doing they would not endanger any claims they might have for compensation on account for loss of emoluments through the formation of the dépôt centres. Some of those surgeons who had had experience in War Office promises, pointed out that the words, "any claims they may consider they may have", was very far from an acknowledgment of their just claims by the War Office; and the surgeons whose regiments had already been removed to dépôt centres, were able to speak feelingly of the loss of some £200 per annum; still there were some who hoped that the Parliamentary promises of Mr. Hardy to consider each case on its own merits might be relied on, and that it might be wise to send in their names for the "departmental list" under the new régime. These hopes have, however, received a final blow.

We quote from a letter dated November 15th, 1876, from the Financial Office, War Office, signed John Milton. "I am directed by Mr. Hardy to acquaint you that, after a very careful investigation into the claims preferred by the surgeons of militia generally, he regrets that he is unable to discover sufficient grounds to justify him in submitting to Parliament a vote for the grant of compensation for any reduction they may have sustained in their emoluments by the adoption of the measures prescribed by the recent Royal warrant."

The Secretary of State for War therefore distinctly repudiates the promises made by him self and by his predecessor Lord Cardwell, to enquire from individual members of Parliament and to questions in the House, on which occasion the answer has always been, that "each case should be considered on its own merits". Each claim that has

been submitted to Mr. Hardy has hitherto been summarily dismissed without even a shadow of the promised consideration.

It is a well-known fact that the Government fails to secure, for the two services, a high class of candidates, or even enough of one class; and surely, summarily and without compensation, to deprive men of professional standing in their respective counties of the emoluments of regimental appointments worth, in several instances, between £200 and £500 a year, and which a large number of them have held for twenty years or more, is hardly the way to place the Medical Department on an improved footing. The adjutants of militia regiments had the option of retiring under the Act of March 1875, providing a pension of ten shillings a day, or of accepting the new terms; and why should not an Act of the same nature be passed in favour of the surgeons? We fail to see the reason; we also, fail to see what are the advantages which militia surgeons are asked to embrace under the new Warrant; there is, to be sure, the rank of a lieutenant-colonel, but "all is not gold that glitters".

To sum up the matter, we would advise all militia surgeons immediately to send in particulars of their income to the Society of Militia Surgeons, basing their claims for compensation upon the amount of income and length of service; and to postpone accepting the new Warrant until the Comité has met again, and resolved upon the course of action to be adopted with a view of obtaining a reversal of the present decision, either from the War Office or from Parliament itself. The battle will be a hard one to fight; but militia surgeons are brought much into contact with Parliamentary Members and with Lords-Lieutenant, and others having influence, which can be made available. This question will have ultimately to be fought in Parliament; and each surgeon should take an early opportunity of securing Parliamentary support and interest, in each House, for the redress of this manifest grievance. The assistance of the Parliamentary Committee of our Association has been invoked, and we feel sure that it will be very readily and actively given; but the militia surgeons must help themselves, and the sooner they begin to do so the better will be their chances of ultimate success.

PARASITIC ORGANISMS IN THE LUNGS IN SMALL-POX.

REFERENCE has been made by Dr. Braidwood and Mr. Vacher, in their report on Contagion in course of publication in the JOURNAL, to the observations of Cohn, Hallier, and others, on the presence of parasitic organisms (*micrococcus variolæ*) in the skin in cases of small-pox. M. Ivanoffsky, Prosecutor to the Medico-Chirurgical Academy of St. Petersburg, has published in the *Centralblatt für die Medicinischen Wissenschaften* for November 4th a paper in which he states that, in the necropsies of fourteen cases of variola during the last three years, the lungs in eight contained small scattered nodules like the foci of acute catarrhal pneumonia. They were firm, red or grey in colour, and larger than a pea, and were found in no great number in the lower lobes. Microscopic examination of the red nodules showed them to consist of the pulmonary alveoli filled with cells like white blood-corpuscles, lying in a thick network of coagulated fibrine. Many of the pulmonary alveoli also contained a large number of red blood-corpuscles; and rather frequently there were also seen large round or polygonal cells with a turbid granular protoplasm—detached and degenerated epithelium. The capillary vessels of the alveoli were much distended and filled with blood. The connective tissue around the vessels contained scattered cells in various quantities.

In the grey nodules, the minute blood-vessels were mostly empty; the alveoli were filled with exudation, as in the former case, but the cell-elements presented evident signs of retrograde change. They were opaque, granular, with indistinct outline, and contained many fat-granule; they lay in a finely granular mass, the product of destruction of fibrine. Other alveoli, again, were almost entirely filled with finely granular detritus, with almost no trace of cells. On micro-chemical

examination, it was evident that the *détritus* consisted of albuminous and pigment granules, with very fine fat-drops. The remaining parts of the lungs presented more or less advanced stages of œdema and hyperæmia; many of the alveoli contained detached epithelium-cells which had undergone granular degeneration.

The foregoing description applies to the appearances observed in the peripheral part of the nodules. In their central parts, some of the alveoli were found to be filled with very fine homomorphous globules, refracting light rather strongly, either pressed together without order, or occasionally arranged in short chains. They either filled the entire alveolus, or only filled its central portion, the outer part being occupied with granulation-cells and red corpuscles. They were found both in the red and in the grey nodules; in the latter, they became especially distinct after the addition of acetic acid, which produced no change in them, while it dissolved out most of the granular products of disintegration. No obvious change was produced in them by ether, alkalies, or other ordinary reagents; nor by colouring matters, except iodine, which coloured them dark red or light blue. They were, therefore, regarded as identical with the organisms (*micrococcus variolæ*) described by Cohn, Hallier, Klebs, and others, as being found in variolous lymph in the skin and in internal organs.

M. Ivanofsky regards the exudation into the alveoli, the granular infiltration, and the extravasations, as indications of reactionary inflammation around the parasitic foci. The presence of the parasites in the pulmonary alveoli, but not in the lung-tissue itself, leads him to conclude that they must have been introduced from without, through the inhalation of air charged with the variolous poison. This being assumed, the nodules would represent primary foci of infection, quite analogous to those produced by inoculation on the skin.

WE hear on good authority that Dr. Charles West has been unanimously selected as the President-elect at the Obstetrical Society.

NOTICES are out of a vacancy in the medical staff of St. George's Hospital, due to the resignation of Dr. John Ogle.

WE have the official authority of the Secretary of the Admiralty for stating, that their Lordships are now prosecuting an inquiry into the causes of the outbreak of scurvy in the recent Arctic Expedition.

AT Bradford, this week, Hezekiah Thornton was fined £10 and costs for having assumed the title of a legally qualified medical practitioner.

THE man Rogers, whose arrest was effected in consequence of the letter of Mr. Larkin published in a recent number, was committed for trial this week.

WE understand that Queen Charlotte's Hospital has been temporarily closed, in consequence of an outbreak of puerperal fever among the inmates.

A SERIOUS outbreak of typhoid fever has occurred at Coggeshall, Essex. As many as twenty-three cases are reported. The cause is said to be impure water.

A DESPATCH from St. Petersburg says that the Porte has notified its complete adhesion to the Geneva Convention in regard to treatment of sick and wounded in time of war. The Turkish armies, however, will substitute the Crescent for the Red Cross.

A MEETING of chemists and druggists was held last week under the auspices of the Early Closing Association, to consider the question of closing their shops early in the evening. Three resolutions on the subject were adopted, and it was suggested that medical men might render valuable aid to the Early Closing Movement by writing their prescriptions early. We do not precisely understand the meaning of this suggestion.

WE are very glad to be able to state that His Royal Highness Prince Leopold is nearly convalescent from the troublesome sprain and consequent swelling of the knee-joint, from which he has been lately suffering.

THE Metropolitan Asylum Board has resolved to prepare for an anticipated small-pox epidemic by increasing the accommodation at Stockwell and Homerton Hospitals, and by erecting wards at Fulham and Deptford for three hundred and fifty patients.

THE Grocers' Company have contributed the sum of £300 towards the expenses of the Seamen's Hospital (late *Dreadnought*), Greenwich: a more than usual liberal donation even from this wealthy company.

AT the last meeting of the Carmarthen Town Council, the medical officer attributed the existence of typhoid fever in the town to the exhalations from the sewer ventilators. This must, we imagine, be due to defective construction of the sewers, and imperfection and probably insufficiency of the sewers; since efficient ventilation of sewers is more likely to prevent than to cause typhoid fever.

AT a meeting of the Council of the Metropolitan Hospital Sunday Fund, held at the Mansion House, under the presidency of the Lord Mayor, it was determined that, of the sum collected in June last for this fund, £23,827 should be given to sixty-nine general and special hospitals and four institutions, and £2,275 to forty-five dispensaries.

M. HAYEM has recently laid before the medical societies of Paris his view of the action of iron in anemia. He believes, from experimental research, that it causes the blood-corpuscles to become charged with a larger amount of colouring matter, and this, not merely in the curable anemia, but even in cachexia; where, the organism being exhausted, the production of red-corpuscles is almost entirely stopped.

THE Association of Surgeons Practising Dental Surgery has commenced its second session under very prosperous circumstances. The Association numbers already forty-four members, all dental surgeons with the exception of three. The discussion at the last meeting was worthy of any of the older surgical societies; and we see no reason to doubt that the Society will fulfil its object of putting the dental department of surgical practice on its right footing, and of tending to strengthen the hands of those who wish to see dental practice drawn more and more into professional lines.

REPORT tells strange stories of the singular vagaries of choice of an attendant in the case of H.R.H. the Duchess of Edinburgh. The appointment, it is stated, was first offered to a well-known young surgeon who is guiltless of acquaintance with the obstetric department of the profession, and only fell into the highly competent hands of the physician ultimately selected after a singular series of events. Not half of the current reports on such subjects can, of course, claim credit; but that which is well vouched in this history is strange and amusing enough.

M. DE BLEYME communicates (*Lyon Medical*, November 22nd) a very interesting note of an epidemic of pemphigus among the infants of the hospital at Limoges. One was a case of pompholyx solitarius, which proved fatal. The epidemic occurred during a period of great heat.

AT the recent Italian Medical Congress held at Turin, Dr. Cottaglia raised a discussion on "obligatory medico-legal denunciations", and pointed out the evident contradictions of a code which on the one hand imposes on the physician the duty of secrecy, and on the other the duty of denunciation. Dr. Fournier, at the Hôpital St. Louis, Paris, in a lecture on nurses and nursing, recently treated of a similar contradiction in the French code. We are not aware that any

such difficulties occur in this country, where on both subjects we are unfettered by any special legal code, and have the less difficulty in reconciling our duties as citizens with our duties as practitioners of medicine.

THE use of anæsthetics in labour appears still to be in its infancy in France; and M. Blot communicated recently to the Société de Chirurgie, as a sort of novelty, two cases of primiparous labour in which rigidity of the os was overcome, and the use of forceps facilitated, by the administration of chloroform: a proceeding, it might be thought, of such commonplace utility as hardly to be worth communicating to a learned society.

At the same Society, M. Nicaise related two cases of hemiplegia supervening upon strangulated hernia, and raised the question of causation by reflex influence. M. Verneuil mentioned cases of grave and even fatal pneumonia occurring in the same connection; and MM. Lannelongue and Perrin were also of opinion that there was here something more than coincidence.

M. HALMA GRAND has published an interesting thesis (Delahaye, Paris, 1876) on a subject which Garrod has brought into prominence—the frequency and peculiarity of progress of saturnine gout.

M. GENEVOIX has published a thesis (also chez Delahaye) which treats of the very interesting subject of the variations of urea and uric acid in the diseases of the liver. Basing upon observations of M. Charcot, M. Bouchardat, M. Brouardel, and others, and upon his own observations, he concludes that benign disorders of the liver—those which do not seriously attack the parenchyma of the liver, such as, for example, icterus and hepatic congestion—increase the amount of urea excreted; while the graver affections of cirrhosis, acute atrophy, cancer, cysts, abscess of the liver, etc., diminish it very considerably.

• THE TRAINING SHIP "CORNWALL".

TYPHOID fever has again broken out on board the school ship *Cornwall*, off Gray's. We regret to hear this, as the authorities of the ship have done all in their power to avoid such a misfortune. If they are wise, they will ask the Government to grant them the use of another ship, as the *Cornwall* itself cannot be healthy, and it is too old to warrant them in going to any further expense.

CÆSAREAN SECTION.

At the meeting of the Medical Society of London on Monday last, the discussion on Dr. Edmunds's case of Cæsarean section was resumed. The discussion was chiefly directed to the question of suturing the uterus. Drs. Routh, Heywood Smith, Grigg, Rogers, Galabin, and others, joined in the discussion, and a diversity of opinion was manifested. The discussion occupied the whole evening. The subject of the non-alcoholic treatment of the case was but slightly touched upon, the patient being a bright lively Alsatian, and one for whom no stimulants seemed to be required.

OBSTETRICAL SOCIETY OF LONDON.

THE Society's rooms were filled on Wednesday night to witness Dr. Roussel's demonstration of his apparatus for the performance of direct transfusion from vein to vein in the living subject, which has been already exhibited at the Royal Medical and Chirurgical Society and elsewhere in London. At the same meeting, Dr. Langdon Down read a most interesting, instructive, and suggestive paper on the Obstetrical Aspects of Idiocy. He proved statistically the great preponderance of idiocy among first-born children, and laid great stress upon the fact of suspended animation at the time of birth being an important factor in the production of idiocy. The use of the forceps, contrary to what was often believed, was not an important factor in the production of brain-disease; in only three per cent. of the cases observed had forceps been employed. After a most interesting discussion, the Society adjourned.

THE MEDICAL BENEVOLENT COLLEGE.

THE following letter has been addressed to the Council of the Royal Medical Benevolent College at Epsom.

"Gentlemen,—My desire in writing to you is to express the deep sense of gratitude I feel and owe to Epsom College, and particularly to Dr. Carr and the supporters of the 'Carr Scholarship'. The last four years of my school days were spent at Epsom as a Foundationer, and while there I received an education enabling me to pass well through the London University matriculation. I was then fortunate enough to obtain the 'Carr Scholarship'—a scholarship instituted by the benevolence and kind heart of Dr. Carr—that has enabled me to obtain a qualification (M.R.C.S.) I strongly and very favourably contrast my position and chance in life now with what it might have been had it not been for Dr. Carr and the College, and by this you may judge of my appreciation of the benefits received. Will you do me the honour to add my name to the list of the life governors of the said College, and accept the sum enclosed of ten guineas?"

THE ROYAL SOCIETY.

THE anniversary meeting of the Royal Society was held on November 30th. The President, Dr. Hooker, in his address, gave a summary of the work of the Society, as carried out by the Council during the year then expiring, and particularised the subjects most worthy of attention. He adverted to the long-pending Handley bequest of nearly £6,000 to form a trust-fund for scientific purposes; the late R. C. Carrington's bequest of £2,000, Mr. Dircks's of £878, and the bequest by Sir Charles Wheatstone of £500 to the Donation Fund founded by Wollaston for scientific purposes; the munificent gift by Mr. Jodrell of £6,000 for the "encouragement among our countrymen of original research in the physical sciences"; and the proposal of the Government to add by way of experiment, during five years, £4,000 annually to the yearly grant of £1,000 which the Society administers for the Treasury, chiefly in "providing investigators with instruments and assistance". As regards the £4,000, recommendations are to be made to the Lord President of the Council, which may occasionally include "personal allowances or grants of money". Dr. Hooker explained the course taken by the Council of the Society in the matter of the Vivisection Bill, and their "earnest remonstrance" against "the admission into the statute-book of a principle essentially antagonistic to the progress of all natural knowledge". The Copley Medal was delivered to the foreign secretary of the Society, for Professor Claude Bernard of Paris. A Royal Medal was taken by Sir Wyville Thomson, chief of the scientific staff of the *Challenger*.

HABITUAL DRUNKARDS' LEGISLATION SOCIETY.

THIS Society, which has sprung out of a Committee of the British Medical Association, was started in September last for the promotion of legislation for the control and cure of habitual drunkards. It has, we are glad to see, made considerable progress in its organisation, and now bears upon its prospectus a very influential array of supporters. The Earl of Shaftesbury is President; among the Vice-Presidents are the two archbishops, and several bishops, deans, and noblemen, and the Society is supported by members of Parliament and of representative men from all classes. The Executive Committee have had the advantage of high legal advice upon the subject, and have occupied several long sittings in considering a tangible basis for legislation. The resolutions which they have agreed upon have been placed in professional hands for the embodiment in the draft of a Bill, which will receive the fullest consideration. It is hoped that, by the time Parliament meets, a measure will be ready for introduction, which will commend itself to the medical support and the public in general. They also hope to succeed in obtaining a member in the House of Commons who will undertake the charge of the Bill. The extensive notice which has been taken of this movement by the press generally is a proof of the deep interest which has been awakened in the public mind, and this is finding its natural vent in numerous publications, among which may be mentioned a paper recently read before the Social Science Association, by the Honorary Secretary, on the neces-

sity for legislation, and the new story, *Who's to Blame?* the exponent of the theory of irresponsibility. There is also in the press, a work by one of the leading metropolitan justices, which will contain much valuable information in regard to the criminal branch of the question.

A NOVEL DANGER.

MR. JAMES GREENWOOD calls attention to the very common and dangerous practice of obtaining novels from the circulating library for the use of invalids recovering from infectious diseases, and returning them without their being properly disinfected. We do not know whether the full extent of this danger has ever occurred to Mr. Mudie, but it is no doubt a rather serious one. It might be obviated by establishing "an invalid's library". Meantime, it may be well to warn the good-natured friends of such invalids, that the practice of returning such novels into circulation in this unguarded way exposes them to a penalty of £5, and that proprietors of a library are not, we imagine, altogether free from legal responsibility, if it can be shown that they are the conscious accomplices of the act. (*But not Journal*)

COFFEE-TAVERNS.

AMONG the most hopeful means of arresting the spread of drunkenness among the working classes, is the provision of places of refreshment where other than intoxicating drinks can be obtained at a cheap rate, and where something of the same sort of warm and comfortable entertainment may be had in the evening as the public-house bar and the gin-palace now seductively afford. A preliminary meeting for the purpose of promoting the establishment of "coffee-taverns" in the metropolis was recently held at the house of Mr. Ernest Hart, 59, Queen Anne Street, W., and a company has now been formed for the purpose, under the title of the "Coffee-Taverns Company, Limited", of which Mr. T. Hughes, Mr. Pope, Mr. Ernest Hart, Mr. Barnard, and Dr. Norman Kerr are directors. Mr. Cowper-Temple, the Duke of Westminster, Mr. Backhouse, M.P., Mr. Elder, Miss Stirling, Dr. Andrew Clark, Dr. Symes Thompson, Dr. Heywood Smith, and many other persons of consideration, have offered their support to this undertaking, and upwards of a thousand pounds have already been promised in subscriptions. It is probable that the new coffee-taverns will be modelled very much after the plan of the highly successful cocoa-houses started in Liverpool by Messrs. Colville and Capper, of which fourteen are now in active, useful, and profitable operation, having sprung into existence and popularity there in little more than a year.

SOCIAL INCENDIARIES.

RED-HOT philanthropists are not always the best friends of humanity; and society has often suffered a good deal from the wild schemes of enthusiastic crotchet-mongers for the redress of imaginary wrongs. The prospectus of one of these projects lies before us. It calls itself "*The Humanitarian Society of Great Britain*". The projector has been reading some stray reports of inquests and other cases of hardship, such as unhappily are always to be found in a complex society like that in which we live. He has worked himself into a state of frenzy over this mass of outrage and cruelty, and forthwith he feels it his duty to write a prospectus. First of all, as might be expected, he writes to the papers upon the Vivisection Bill, believing that "vivisection has been proved by the highest authorities to be *not only inhuman and superfluous, but utterly worthless and unreliable for the purposes of science*". This alone would show sufficiently the childishness of the whole affair; but he goes on to collect a number of cases of "gross inhumanity" in hospitals, workhouses, and prisons. They are a lamentable array of imbecilities. One young woman had to wait for a hospital doctor; another man was asked to "wait his turn" before he could be treated for an accident; a third, who was a teetotaler, was ordered "to take plenty of wine and stout", and, when he refused to do so, was somewhat curtly told he was a fool. We have also prison cases, such as the following, which is harrowingly described as "more intolerable than the Inquisition in its worst days". "W. R., a strong young man, nearly six feet in height, and weighing over twelve stone,

was sentenced to forty days' hard labour for assaulting a constable. On his release, he was met by his friends, who threw a great coat over the *famished frame* of their companion. After some refreshment at a neighbouring tavern, a cab was called to take him home (presumably because he was unable to walk); and, on his arrival, he was found to be dead." Next comes a hit at the "so-called Charity Organisation", in the form of a reprint of the exploded case of the woman who, at the very time when that Society was voting her ample relief, and that in full time to extricate her from her difficulties, went off in a weak moment and pawned her employer's shirts. There is no need to pursue the recital of these absurd parodies of humanitarianism. None but the class of people whose sympathy runs away with their judgment will be likely to join the proposed Society. But it may be worth while to point out to projectors like this enthusiast, that there is a grave responsibility attaching to such wild attempts to disturb the public mind. Half a dozen crazy people may do more harm by raising a specious cry on such questions as vivisection, for example, than twenty times their number of fully informed and sensible men can cure. Let any man imagine the chaos that would ensue if these projected humanitarians could roam at will, as this paper proposes, through hospitals, workhouses, and prisons, fomenting insubordination and applauding disorder—hampering Science, Charity, and Law in their best work by worrying complaints and meddling obstruction; or the deluge of fraud and mendicancy that would follow their plan of searching for promiscuous distress in order that they may *there and then relieve it*; or the jubilation among the criminal classes at their attempts to stop the dreaded treadmill and afford assistance in all harsh though legal School Board prosecutions. One is almost tempted to wish that society had a strait waistcoat for this species of moral incendiary. These so-called humanitarians remind one of the fanaticism of the middle ages, when the prevalence of the black death was ascribed to the poisoning of wells by the heretics.

AN USEFUL FUND.

THE Committee of the Guest Hospital, Dudley, report thankfully a munificent donation of £2,350 given by the family of the late A. B. Cochrane, Esq.; and as the objects of the donation are very judiciously and minutely selected, our readers will, we believe, feel interested in reading the following paragraphs from the letter by which it was accompanied. "We have now the pleasure to submit the following proposal to you, that the sum of £2,350 shall be forthwith vested in Trustees, and form a fund to be called 'The late Alexander Brodie Cochrane Memorial Fund'; and that the annual income to be derived therefrom shall be appropriated and devoted to the following objects, such objects having in view the primary welfare of poor patients in the Guest Hospital, Dudley: (a) The payment or appropriation of small sums of money to assist poor persons, patients in the Guest Hospital, in getting or in providing them with suitable clothing and other necessities on leaving the Hospital; (b) To assist such poor persons by providing or paying for cabs, fares, or other conveyances for them when leaving the Hospital, to take them to their homes or destinations; (c) To assist deserving nurses in the Guest Hospital, either with money or tickets to enable them to improve their health by visiting for a limited period a well organised sanatorium at the seaside or elsewhere; (d) The contribution or subscription of sums of money, varying from five guineas to fifty guineas, to well organised sanatoria or convalescent institutions at the seaside or elsewhere, with the object of obtaining tickets of admission of patients to such institutions, such tickets to be given to and appropriated exclusively for the poor patients or deserving nurses of the Guest Hospital, the poor patients at all times having the preference; (e) The selection of the poor persons or deserving nurses referred to in subsections a, b, and c, to be made by the medical officers of the Guest Hospital or the Weekly Board, as the trustees may from time to time determine. 2. If and when it shall appear to the trustees for the time being that the fund cannot, by reason of a change of circumstances or from any other cause, be well and usefully applied for all or any of the

objects above-mentioned, the trustees to have the power to devote the principal and income of the fund to the primary or other objects for which the Guest Hospital was founded." The report of this very useful Hospital states that "seventy-three operations have been performed during the year with the remarkable result of only two deaths, seventy-one being either cured or relieved. Considering that thirty of these were formidable operations, the results are highly satisfactory, showing, we believe, as low a rate of mortality as ever has been recorded at any kindred institution."

PRESCRIBING DRUGGISTS AND OTHER ILLEGAL PRACTITIONERS.
THE East London Medical Defence Association has now successfully instituted fourteen prosecutions, and it is at present engaged in several more. We should be glad to see a Defence Committee of like activity attached to all our Branches. Three successful prosecutions of unqualified persons were carried out last week in Glasgow by the Procurator Fiscal. One man named Chalmers pleaded that, although without a diploma, he had gone through his whole curriculum; the other, that he had recently come from America, and was a poor man with a large family; the third, that he had considerable experience as a "hospital orderly" in the army. The sentence in each of the cases was £5 fine and a like amount of expenses.

DRY PREPARATIONS.

FOR preparing rapidly bones and ligaments for museum purposes, Dr. L. Frederick (*Bulletin de l'Acad. Royale de Belgique*, June 1876) recommends that after the soft parts have been taken away, except the ligaments, the preparation be washed in water, dehydrated by alcohol, and then plunged into essence of turpentine. After two or three days' maceration in this fluid, the skeleton is placed in the position in which it is designed to keep it, and dried in the air. In drying, the bones and ligaments become beautifully white, and the whiteness increases as time passes. The same process gives less satisfactory results for muscles. For a parenchymatous organ, on removing it from the turpentine-bath, Dr. Frederick plunges it into melted wax or paraffin during half an hour to two hours, till the bubbles of turpentine have ceased to pass off. When withdrawn and cooled, the piece resembles a wax model, but is far superior in its minor details: the colour of the organ persists.

A HOMŒOPATHIC AUDIENCE.

"A CHAIR of Homœopathy" was inaugurated in the University of Buda-Pest in October 1875. Six persons, according to the *Wiener Allgemeine Med. Zeitung*, constituted the audience; but before the course was concluded they had all deserted the benches.

DRUNK OR DYING.

THE Holborn Board of Guardians object to the frequency with which policemen bring to the workhouse persons who are merely drunk. The police are quite right to be careful in these cases; but if they have no right to take a difficult diagnosis into their own hands, so also they have no right to impose it gratuitously on the workhouse doctor, whose duties are already more than sufficiently onerous and underpaid. In any case of doubt, they should summon the police-surgeon, whose proper function it is to decide, and who receives a proper payment for the purpose.

A NEW FOUNDLING HOSPITAL.

It would be interesting to know what lies behind the following advertisement. "The New Metropolitan Foundling Hospital for the Prevention of Infanticide, now so prevalent." A nobleman, of the highest rank and character in the country, has generously consented to become governor of the above proposed institution, on condition that other gentlemen of equal reputation will also act as governors. Those desirous of assisting, will address C. Nicholls, 33, Essex Street, Strand." Foundling hospitals are very apt to become the instruments of wholesale infanticide, and the means of social demoralisation. On

this subject we may refer to the Report of the Select Committee of the House of Commons on "The Preservation of Infant Life". The method of "getting up" the proposed new charity does not highly commend itself to our apprehension.

SCOTLAND.

DR. PIRRIE, Professor of Surgery in the University of Aberdeen, has been appointed an Honorary Surgeon to the Prince of Wales in Scotland.

WE understand that the Faculty of Physicians and Surgeons of Glasgow have lately established a lectureship on subjects connected with medical science. These subjects may lie within any part of the domain of the medical science, whether scientific or practical. The appointment of the lecturer is vested in the Council, to whom the fullest latitude is allowed in the way of selection. We believe that it is the desire of the Council that the lecturer should as far as possible be selected from gentlemen who have been working in some special field of investigation. The sum of fifty guineas is allowed as an honorarium for the lecturer.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

THE following were elected office-bearers of the Royal College of Physicians of Edinburgh for the ensuing year at a meeting held on Thursday, November 30th:—*President*—Dr. Keiller; *Vice-President*—Dr. Robert Paterson; *Council*—Dr. Paterson, Dr. Peddie, Dr. Matthews Duncan, Dr. Rutherford Haldane, Dr. G. W. Balfour, and Dr. Douglas MacLagan; *Treasurer*—Dr. J. Alexander Smith; *Secretary*—Dr. John Wyllie; *Curator of Museum*—Dr. T. A. G. Balfour; *Librarian*—Dr. G. W. Balfour.

UNIVERSITY OF EDINBURGH.

THE Principal of the University of Edinburgh, as convener of the acting Committee for the buildings' extension scheme, has received a communication from the Secretary of the Goldsmiths' Corporation of London, intimating that the Court of Assistants of that corporation had voted a sum of £500 to the scheme, and forwarding a cheque for that amount. We understand that the Government are at present considering the request made to them for a State grant, and that a reply is shortly expected.

GLASGOW WESTERN INFIRMARY.

THE second annual meeting of the contributors to the Western Infirmary, Glasgow, was held on Thursday week. It appeared from the report that in the course of the past twelve months the out-patients had numbered 7,808, while 1,767 had been treated in the house. Of these last, 1,014 had been cured, 132 dismissed as incurable, 137 died, and 178 were left in the house; this latter number being exactly the average daily number of in-patients. The ordinary income amounted, in round numbers, to £10,000, which was exceeded by the expenditure to the amount of nearly £1,500. The following legacies were reported: from the trustees of the late Mr. James Baird of Cambusdoon, £2,250; of the late Mr. Black, Villafield House, Barony, £2,000; of the late Sir James Campbell of Strathcathro, £1,000.

CHARGE OF FRAUDULENT CERTIFICATE.

TWO young men, Arthy and Dearden, were tried at the Glasgow Sheriff Criminal Court last week on a singular charge. It was alleged that Arthy had defrauded the examiners in Arts of the Glasgow Faculty of Physicians and Surgeons by personating a medical student named Southern in the preliminary examination, and thus obtaining for him the certificate necessary for entering upon a medical course at the Andersonian University. Arthy and Dearden were charged with entering into a similar conspiracy on behalf of the latter, who is also a medical student. After hearing evidence, the jury found the first charge against Arthy not proven, and in the second case returned a verdict of not guilty.

GLASGOW MATERNITY HOSPITAL.

IN the Annual Medical Report of the Glasgow Maternity Hospital, prepared by Dr. Tannahill, it is stated that 293 patients have been treated in the institution and 937 outside, in all 1,230, during the past year. The number of indoor cases was somewhat below that of the previous year, while those outside had increased. This change was attributed to the removal of streets inhabited by the lowest class through the operations of the Improvement Trust, combined with the establishment of maternity wards in the various poorhouses. Only five deaths, or less than one-half per cent., had occurred in connection with the hospital during the past twelve months. It was stated that the existing buildings, which were never intended for hospital purposes, had been found inadequate; and it was urged that better accommodation should be provided as soon as possible.

IRELAND.

THE Lord Lieutenant of Ireland, the Duke of Abercorn, at a farewell reception last week, conferred the honour of knighthood on two members of our profession, one of whom is a member of the Association. The Lord Mayor of Dublin, Dr. George B. Owens, a member of the Court of Examiners of the Apothecaries' Hall, and of the Royal Dublin and Natural History Societies; and Dr. William Miller, the Mayor of Londonderry, Surgeon to the Derry Infirmary, are the recipients of this honour from her Majesty's representative.

AT a special meeting of the Corporation of Londonderry last week, Dr. William Miller was elected Mayor of Derry for the third time in succession.

UNIVERSITY OF DUBLIN.

THE University intend to present an address this week to the Duke of Abercorn, in connection with his resignation of the Vice-royalty. At a meeting of the Senate held last week, a grace was unanimously passed, that the honorary degree of LL.D. should be conferred upon Sir Redmond Barry, President of the University of Victoria, Australia. Sir R. Barry was an alumnus of Trinity College, and has been identified with the Victoria University since it was opened; he is also one of the trustees of the Victoria Library, which has cost £100,000.

CRIPPLES' HOME, BRAY.

THE foundation stone of the new wing of this institution was laid last week by Lady Georgina Hamilton. The Home was established about two years since, principally by the exertions of Mrs. Sullivan, the Lady Superintendent, and who was formerly connected with the Adelaide Hospital, Dublin. About fourteen inmates are maintained at present; one hundred applications for admission having been refused for want of accommodation. The cost of the additional wards will be about £3,000, of which two-thirds has already been obtained.

THE IRISH CONJOINT SCHEME.

BESIDES what we mentioned last week, we may also add some further particulars concerning this proposed scheme. It is intended that the Examiners in each Court shall be appointed in equal number by each of the three Corporations; the Examiners consisting of three in each of the following subjects, viz., Arts, Botany and Materia Medica, Physics and Chemistry, Anatomy, Physiology, Medicine, Surgery, Midwifery, and Forensic Medicine; that no Examiner shall hold office longer than three years in succession; and that no member of the Committee of Reference, or any person engaged in private tuition, shall be eligible as an Examiner. After payment of the expenses of the Professional Examinations, the surplus remaining will be divided between the Colleges of Physicians and Surgeons, three-eighths to the former and five-eighths to the latter Corporation. The candidates who have paid the necessary fees (thirty-one guineas), and have passed the examinations of the Conjoint Board, will be entitled, without additional

payment, to the Licences of the College of Physicians and College of Surgeons, provided that the candidates shall have complied with the regulations of the respective bodies. As Trinity College does not share in the distribution of the surplus left, after deducting the expenses of the examinations, it is arranged that her graduates and undergraduates in Arts shall be admitted to the Professional Examinations on payment of fees sufficient to cover the expenses of the examinations, viz., one guinea for each subject of the previous Medical Examination (four guineas), and to the final examination on payment of five guineas; such graduates and undergraduates not to be entitled to the Licences of the Colleges of Physicians and Surgeons without an additional payment of twenty-one guineas. The scheme, if carried out without an alteration of fees, will involve a diminution in the emoluments of the teachers of anatomy and surgery; and the Committee are of opinion that this result should be guarded against by fixing the fees in Anatomy and Physiology and in Surgery at five guineas for the first course and four guineas for the second.

EXPOSURE OF SMALL-POX PATIENTS.

AT the Dublin Police Court last week, two persons, husband and wife, were charged for having removed from the Cork Street Fever Hospital, contrary to the wishes of the hospital authorities, their child, aged four years, who was suffering from small-pox, and exposing it in the streets to the danger of the public health. When the prisoners were arrested by the police, the child was returned to the hospital, and the parents taken into custody. The child was absent only a few minutes from the hospital, owing to the precaution taken by Dr. Atkins, resident medical officer, who gave notice of the matter to the police, otherwise the consequences might have been very serious indeed. The prisoners were fined £5 each, with the alternative of two months' imprisonment; and, being unable to pay the fine, were removed to Grangegorman Prison. The twenty-sixth clause of the Public Health Act gives power to any justice of the peace, with the consent of the hospital authorities, to order any patient, suffering from a contagious or infectious malady, into hospital, provided that such patient has no proper lodging or occupies a room in common with others; but, very stupidly, whoever framed the Bill did not give power to the hospital authorities to detain him or her—a mistake in a very important Act, which should be remedied without delay.

RATHMINES WATER-SUPPLY.

THIS flourishing suburb is supplied with canal water, but a large number of the ratepayers are at present trying to obtain the introduction of the Vartry water. They have had an interview with the Dublin Waterworks Committee; and we understand that a supply, adequate for Rathmines and Rathgar, can be obtained for about sixpence in the pound on the valuation. The Commissioners are not willing that the purer water should be obtained for the township; but the ratepayers' committee have arranged to call a public meeting in the Town Hall, to lay the matter before the general body of ratepayers and inhabitants, when such steps will be taken as may be considered advisable.

PATHOLOGICAL SOCIETY OF DUBLIN.

AT the first meeting of this Society for the present session, held on Saturday, November 25th, the following were elected officers. *President*: Thomas Hayden, F.R.C.S.P. *Vice-Presidents*: J. T. Banks, M.D.; Sir Dominic J. Corrigan, Bart., M.D.; Samuel Gordon, M.B.; Edward Hamilton, M.D.; George H. Kidd, M.D.; Robert McDonnell, M.D. *Council*: Anthony H. Corley, M.D.; Henry G. Croly, M.B.; George F. Duffey, M.D.; Arthur W. Foot, M.D.; Henry Kennedy, M.B.; James Little, M.D.; Thomas Evelyn Little, M.D.; Alfred H. McClintock, M.D.; Benjamin George MacDowel, M.D.; John Mallet Purser, M.D.; William Stokes, jun., M.D.; James H. Wharton, M.B. *Honorary Secretary*: William Stokes, jun., M.D. *Secretary and Treasurer*: Edward H. Bennett, M.D. *Secretary for Foreign Correspondence*: Robert D. Lyons, M.B. It was announced that the subject selected by the Council for competition for the Society's Gold Medal—to be awarded to the best essayist at the end of the session—was "The Pathology of the Oesophagus".

ROYAL COLLEGE OF PHYSICIANS.

THE Lectures for 1877 will be delivered at the College, Pall Mall East, on each of the following Wednesdays and Fridays at five o'clock—*Goulstonian Lectures*: Dr. Lauder Brunton, "On Pharmacology, and its Relations to Therapeutics", February 23rd, 28th, March 2nd—*Croonian Lectures*: Dr. J. Braxton Hicks, "On the Difference between the Sexes in relation to the Aspect and Treatment of Diseases", March 7th, 9th, 14th—*Lumleian Lectures*: Dr. George Johnson, "On the Muscular Arteries, their Structure and Function in Health, and in Certain Morbid States", March 16th, 21st, 23rd.

These courses of Lectures will, by arrangement with the authors, be printed in the forthcoming volumes of the BRITISH MEDICAL JOURNAL.

UNIVERSITY OF LONDON.

THE Crown has nominated Mr. George Busk, F.R.S., as a member of the Senate of the University of London, in the vacancy caused by the death of Dr. Sibson. The nomination is one which will be generally approved of by the graduates.

ON Wednesday, the Chairman of Convocation formally presented to the University of London, on behalf of a numerous body of subscribers, a full length portrait of the Chancellor of the University, the Earl of Granville, painted by Mr. Richmond. The artist has been very successful, and the portrait is one which will be valuable as an excellent likeness of the highly esteemed Chancellor of the University, and as a work of art.

GENERAL MEDICAL COUNCIL.

WE hear that the Branch General Medical Council for England are likely to have some trouble over their refusal to register the honorary diploma of M.D. recently conferred on Surgeon Eustace, R.N., for his gallant conduct in the Ashantee expedition, by the Queen's University in Ireland. Some indignation is felt, inasmuch as in some notable instances, on a prior occasion, honorary degrees conferred on leading members of the British Medical Association by Trinity College, Dublin, were registered without question. In that case, however, the registration was, it is alleged, permitted in error, and in contravention of the law, which gives no power to the Medical Council to register any degrees except after examination.

VOLUNTEER SICK-BEARERS.

IN response to a circular issued by Major Burgess of the Honourable Artillery Company, and Mr. A. Maclure, jun., of the London Scottish Rifle Volunteers, a preliminary meeting was held on November 3rd for the purpose of considering the means of organising, in connection with the Volunteer Force throughout the kingdom, a corps of trained men for the aid of sick and wounded in the field. A number of medical officers of Volunteer corps were present.

Surgeon-Major MOORE, Instructor to the Army Hospital Corps, said that he had been requested by Major Burgess to make a few remarks on the subject. He had been responsible for the training of the army hospital corps for two years, and there have passed through his hands upwards of six hundred whom he had endeavoured to train. He had also had some war experience in the expedition to Ashantee and elsewhere. He said that in modern warfare, the organisation required to assist the wounded consists of two institutions—the field hospital and the sanitary detachment, or the "bearer's detachment". In the field hospital are surgeons, hospital orderlies, boxes containing stores, and necessaries of every sort for housing the wounded and sick. In the sanitary detachment are those employed in moving the sick, and appliances such as stretchers, mule-litters, etc., to carry the wounded off the field. By the sanitary detachment the wounded are moved from the place where they fall to the hospital in the rear, and there they are attended to until they can be removed to their homes. The attendants and the surgeons of the field hospitals and those in the sanitary detachment are different, and have different duties. A very small knowledge of medical matters is sufficient for the man who removes the wounded man from the field; but the know-

ledge that the hospital orderly requires is of a much superior order. If the volunteer service wish to have a hospital department like that of the regular army, they must have these two institutions, field hospitals, and sanitary detachments or bearer columns. It would, he thought, be impossible for the volunteer service to organise field hospitals. It takes six months' training to make a man available for hospital service; it takes only a month to make an attendant suitable for the service of a sanitary detachment. Volunteer officers could not spare the time necessary to get up a field hospital, nor could volunteer soldiers spare the time for so long a training as service in the field hospital would require; and, if they could, would not be willing to go through what is necessary. On the other hand, the sanitary detachment would not require more than a month of training to make them fit for use. The training of those who serve as bearers need not occupy longer than a month, and, with intelligent individuals, there is no reason why a sufficient number could not be trained. It is necessary that a man should know his drill, squad drill, and the ordinary company drill; he also is required to know the formation of fours, the training to use the stretchers and load the carriages follows exceedingly rapidly, and there is no reason why in one month they should not be fairly instructed in the art of removing the wounded. He thought that the training should be at the training school at Aldershot, appliances of every description being there, and instructors in abundance. If the instruction could not be given there, it could be given at the regimental depôts; and there no individual could train men so well as the surgeon of the regiment. If the medical officers are prepared to undertake the training, they themselves require to have a certain training in the first instance. The medical man who sets about the task must himself understand the preliminary movements to enable him to put the men into training on the field. It would be necessary for them to understand the technical exercise, to put the men through the drill in addition to the squad drill. If the volunteer officers would undertake these duties—and he saw no reason why they should not do so—they would be in a position to render an important service to the country. The corps once established must be kept up in the training, which is almost as necessary as the original training. They have to learn the way to apply triangular bandages and plaster of Paris moulds. If the medical officers cannot spare the time to learn the drill, then the only other method to carry out the movement is to send regular medical officers to assist the volunteer medical officer in the training. He did not think any efficient system could be undertaken unless in the way he had described.

Captain LAMBTON YOUNG did not think there could be any doubt that it was perfectly possible to organise in connection with the volunteers a body of men who would be of immense assistance in case of war. But he did not think it would be possible to organise a corps of itself for this special purpose. Every regiment ought to have drilled and organised twenty men to work entirely under the surgeons. He thought the surgeons would have to go to Aldershot first. The hospital was the last thing to be thought of. Many had spoken to him about a veteran team, but the War Office set their face against that. After a man had served a certain number of years, why not let him go into an ambulance corps of twenty or thirty men set apart for that particular purpose, with a badge, and certain privileges?

Major BURGESS said that the idea was to keep those trained as sick-bearers with their regiments. They could not do better than take such men as Captain Lambton Young had described as "veterans", and strike them off regimental duty, and let them be under the medical officers who would learn the preliminary rules of drill, and the proper way of drilling the ambulance men. Then the whole of these men would be trained on one system, and when the regiments met together in brigade, the bearers would work under their own surgeons, or as ordered. With regard to hospitals, he did not think the volunteers could enter into anything of the sort. They were not supposed to be required to serve out of this country; and there were plenty of hospitals at home. It ought to be possible to raise two men from each company of volunteers throughout the kingdom, so as, in a short time, to have 3,500 trained "sick-bearers".

Surgeon-Major MOORE stated, in reply to a question, that it would take not much less than one month, provided that the surgeon were acquainted with the preliminary drill. This was indispensable. The training school was at Aldershot; but the importance of the subject might, it was to be hoped, induce the Government to open a school in London for the volunteer medical officers. Bandsmen were of no use as sick-bearers, because they were of all sizes.

Mr. J. S. YOUNG doubted whether the War Office was prepared for a medical department of the volunteer force, and a Director-General. There was none for the militia, and there was no necessity to constitute one for the volunteers. It would be necessary to call in the aid

of the volunteer commanding officers before proceeding further. It would be better to form a Provisional Committee, then to call a larger meeting, with the view of urging upon the War Office the necessity of having sick-bearers.

Captain LAMBTON YOUNG suggested that sick-bearers should count as a part of the regimental grant. There ought to be an inspection from the Army Medical Department, and he should certify whether the corps is efficient.

The following resolutions were then submitted to the meeting and passed unanimously—

1. "That this meeting is of opinion that it is desirable to organise in connection with the volunteer force a service of trained 'sick-bearers'."
2. "That a circular be addressed to the commanding and medical officers of the volunteer corps throughout the kingdom, informing them of these resolutions, and inviting their co-operation."
3. "That this meeting resolves itself into a Provisional Committee for the purpose of furthering the views of the meeting."

At a meeting held at the Society of Arts on November 24th, a large number of letters in reply to the circulars were produced. Many of them contained valuable suggestions, and some were collective expressions of approval. Four only considered the movement unnecessary.

Surgeon HELSHAM stated, with the authority of his commanding officer, that the 19th Surrey Rifles would join in the movement.

Surgeon HARVEY HILL said that, in the 36th Middlesex Rifles, steps had already been taken for some training of the men.

The general opinion of the meeting was, that many men who had served a few years in the ranks, and were getting tired, would be prevented from retiring altogether by having an opportunity of learning a new sort of drill, and would thus still keep a connection with the regiments. It was decided to call a meeting of commanding and medical officers, to be held in London about the middle of December, with the object of making a representation to the War Office, and asking for facilities being given by the authorities for training the medical officers of the volunteers in the system used in the army.

Major BURGESS described the drill that he had seen in Berlin in 1869, when the "bearers", commanded entirely by medical officers, proceeded with stretchers and appliances to remove a number of soldiers who had been sent out, each labelled with his supposed wound. The wounded were picked up and disposed in a scientific manner, properly bandaged, etc., on the stretchers; bayonets, scabbards, rifles, etc., being improvised as splints, and were brought to the waggons, where they were attended to by the medical officers. The members of the Provisional Committee decided to go to Aldershot to see the system of drill carried out there by Surgeon Sandford Moore, the Instructor of the Army Hospital Corps.

The question of cost of training was discussed, and it was thought that the War Office might appoint an inspector, and, on his certificate, the corps should receive an allowance as "efficients" for men who passed the test, and attended a certain number of drills in each year. The question of having special corps, as well as the two men from each company, was also considered. It appeared that the two would not clash, but could exist side by side; indeed, a special corps appeared to be a necessity as well as the two trained men belonging to each company. A "half bearer detachment" would be a corps with two surgeons, four non-commissioned officers, and sixty-seven men, and four ambulance waggons. The surgeons would be the only commissioned officers—none but medical officers being required.

SPILSBY.—During the year 1875, there were registered 771 births, of which 42 were illegitimate; and 509 deaths—giving an annual birth-rate of 26.20, and a death-rate of 17.29, per 1,000 population. The deaths under one year were 103 in number, which is equal to 20.2 per cent. of total deaths and 13.4 per cent. of all the births. The deaths from zymotic diseases were 49, which were below the average; but deaths from diarrhoea were in excess. There were 8 deaths from typhoid fever. Deaths from diseases of the respiratory organs were double those in 1874. There were also 39 deaths from debility, atrophy, and marasmus, against 19 in 1874. Dr. Walker attributes the increased number of deaths to the unusual rainfall having made the cottages so damp that, during 1875, he often saw "walls permeated with moisture, brick floors glistening with wet, paper hanging loosely from the walls covered with fungoid growths". The rainfall at Spilsby was 30.5 inches; and at Langton, which is close to Spilsby, it was 33.65, or 8.5 inches in excess of the average. There were 466 nuisances abated; and the main drainage had been improved in Spilsby and Alford, but at Brough it was extremely bad.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM AN OCCASIONAL CORRESPONDENT.]

Removal of the Infirmary.

THE trustees of the Manchester Royal Infirmary have decided, at an excited meeting held in the Town Hall on Monday, December 4th, by a majority of eleven (the numbers being 115 to 104), in favour of the infirmary remaining on its present site. The explanation of this result is to be sought for in the fact that the corporation of Manchester do not relish the idea of dealing with the infirmary site. Property shows a tendency to decline in value, and the ruling municipal powers are timorous in the face of becoming possessed of such a plot of land. The decision is calamitous, and probably must defer—it cannot do more than defer—all hope of our having an infirmary equal to our needs for a generation to come—

" 'Tis true, 'tis pity, and pity 'tis 'tis true."

What will now be done it is premature and, indeed, impossible to say. Some do not even yet lose hope of arousing the trustees to a nobler sense of their responsibilities; they lay stress upon Mr. Netten Radcliffe's report being condemnatory of the present condition of the hospital; they point out that, much as we have already suffered from erysipelas, etc., we have as yet by no means reaped the harvest for which there is such abundant seed, but that a day, and that not a distant one, will come when typhoid fever and its attendant host of evils will arise and punish us for our selfish policy; they trust that the admitted insufficient size of the present building, coupled with the fact that the land, if covered with a new hospital, would only accommodate three hundred beds, while at least four hundred are wanted, will lead to wiser and more generous counsels. "Hope, that glittering angel girl with golden wings", points them to the dawn of a brighter day, when the unanimous voice of the Medical Committee will be heard and an old and unhealthy hospital shall give place to one in every way worthy of the town and of the time. But there is little beyond hope to support them. Others, with a desire to make the best of a bad job, suggest that at least one important evil should be removed by delivering all the lectures, except those on Chemistry, Anatomy, and Physiology, within the precincts of the hospital, and so save the students the weary mile which separates the college from the infirmary. Others, again, are of opinion that a hospital for purely clinical purposes should be built near the College, leaving the present institution much as it stands. I may return to these subjects at a future time, but cannot now do more than thus vaguely indicate the various schemes of the party of progress who have been so calamitously defeated by the joint forces of selfishness and mock sentiment in their earnest and honest efforts to advance the best interests of this great charity.

LIVERPOOL.

[FROM AN OCCASIONAL CORRESPONDENT.]

The Election at the Liverpool Royal Infirmary.

A SPECIAL general meeting of the trustees of this institution was held on Tuesday last, to elect a physician in the place of Dr. Turnbull, who lately resigned. Dr. Alexander Davidson and Dr. Edward H. Dickinson (both of Liverpool), two well-known associates, and physicians of acknowledged ability, were candidates for the vacant office. The contest was a very close one, and the proceedings were watched with much interest by professional and other friends of the respective candidates. Eventually, Dr. Davidson was elected by a majority of eighteen votes. The numbers were: for Dr. Davidson, 371; Dr. Dickinson, 353. So large a number of votes has never been recorded before in the history of this institution; and, as the whole constituency does not exceed 800, there were very few votes not secured. Dr. Turnbull has been appointed Consulting Physician.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Death of Dr. Regnault.

IT is with much regret I have to report the death of Dr. William Regnault, which took place on Wednesday, November 29th, under the following melancholy circumstances. Dr. Regnault had been attending a child suffering from so-called croup; and on November 25th, in performing tracheotomy, he accidentally inoculated himself with the virus

through an abrasion of the skin on the finger. On the following day, he went about as usual paying his morning visits, when, about noon, he was suddenly seized with giddiness and violent pains in the head, which were followed by febrile symptoms. A physician, a friend of the deceased, was immediately summoned to see him. This gentleman diagnosed "angine couenneuse" (membranous or diphtheritic sore throat), which was confirmed by five other physicians who were called in in consultation; and, notwithstanding their assiduous attendance and persevering efforts to avert a fatal issue, the patient succumbed. His obsequies took place at the Trinity Church; and, if tears and the number of mourners may be looked upon as marks of esteem and affection, the friends and relatives of the deceased may feel some satisfaction in the spectacle witnessed at the funeral of our departed *compère*, for the church, which is a first-class building of its kind, was quite full, many with tearful eyes, and all more or less deeply affected. After the funeral service, the body was removed to Moulins, in the Department of Allier, his native town. Dr. Regnault was in the prime of life, being only forty years old; and, by his untimely death, may be looked upon as a victim to his duty. He leaves a young widow and three children.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 5TH, 1876.

JOHN W. HULKE, F.R.S., in the Chair.

Report of Chemical Committee.—The report of this Committee on Dr. Thorowgood's specimen was read. It was found to be round, of irregular outline, and of grey colour. It weighed six grains and three-quarters. The outer layer was darker than the inner; a portion of this layer burnt with a white ash consisting of phosphate and carbonate of lime. The inner portion consisted of cholestearine. The nature of the mass was unquestionable; it was a mass of cholestearine.

Aneurism of the Aorta.—Dr. LEDIARD exhibited a specimen of aneurism of the thoracic aorta, from a man aged 32, who had had cough and dyspnoea for three weeks, with a heaving over the sternum. There was no murmur, but a short systolic whiff was heard at the ensiform cartilage. Swallowing became difficult; and rheumatic pains betwixt the shoulders were complained of. He ultimately bled to death. On the *post mortem* examination, a large aneurism was found in the arch of the aorta and adherent to the vertebræ, and in it was found a large clot. There was an opening of the size of a sixpence in the gullet. There was also an opening into a large aneurismal pouch in front, so that the aneurism consisted of two sacs. The rest of the aorta was healthy. There was no syphilis. A second aneurism came from a female, aged 54, who had suffered for years from palpitation, with cough, fulness of the neck, and dyspnoea. She also had pain extending down the left arm, and a well-marked heaving. There was a murmur with the first sound; and the left radial pulse could not be felt. She often spat blood, an ounce or two at a time; and died of exhaustion. At the *post mortem* examination, the body was found laden with fat. The manubrium sterni was eroded by an aneurismal dilatation of the aorta, extending from the arch seven inches down the descending portion. The walls of the aneurism were calcareous. There was a cribriform opening into the trachea, with a hard clot in it. There was no history of syphilis; but the woman had been a hard drinker. Dr. THEODORE WILLIAMS inquired if the pupils were affected. He had found them affected in one-third of all cases of aortic aneurism. This only occurred when the middle of the arch furnished the aneurism. Were there any sphygmographic tracings?—Dr. LEDIARD answered both questions in the negative.—Mr. LENNOX BROWNE said that, when the heart-sounds were obscured by noisy respiration, the laryngoscope was very useful.—The CHAIRMAN remarked that, when aneurisms opened into mucous surfaces, there were several leakings usually; but that, when they opened into serous surfaces, the hole was large and the bleeding great.

Unobiterated Ductus Arteriosus.—Mr. WALSHAM showed a ductus arteriosus from a man aged 47. It was half an inch long, and a quarter of an inch in diameter at the aortic end; while it was only of the size of a crow-quill at the pulmonary end. The foramen ovale was closed. There was no other malformation. It was interesting in that it had begun to close from above downwards. There was no contraction of the pulmonary aorta.—Dr. COUPLAND asked if there were any physical signs.—Mr. WALSHAM replied that there was no account sent from the workhouse which furnished the body.—Dr. COUPLAND said a case had occurred where an anomalous murmur had been heard at the base of the heart.

Fracture of Sesamoid Bones of Horse.—Mr. ALBAN DORAN exhibited a dry preparation of both fore-feet of a horse, in which this fracture had occurred. He was an old stallion used as a funeral horse, which had been turned out to grass; and an ostler thought he would like to gallop him; he, therefore, rode him on the road, when the old horse suddenly rolled over, and was obliged to be shot. It was not an unfrequent accident in one foot. It arose from ligamentous strain.

Stricture of the Oesophagus.—Mr. T. HOLMES showed a specimen of this disease, from a single lady aged 35, whose general health was good. She had had a tumour removed from the axilla eight years ago, and had complained of some dysphagia afterwards, which soon passed away. After the lapse of years, this dysphagia returned, and it was thought to be of a nervous or hysterical nature, though the lady had a firm mind. There was no swelling in the neck, no tenderness, no sputum, and there was no emaciation. The patient could eat or drink anything, though with some little difficulty. An attempt was made to pass a bougie. It went easily for a certain distance, and then stopped absolutely. This rather shook the opinion that it was hysterical. The lady died some months afterwards.—She was in the country when she died, and was in good health to the day before her death. On that day, there was severe pain on swallowing, accompanied by fits of dyspnoea. A mass had been seen with the laryngoscope by a physician. On examination after death, a mass of warts was found growing from the thyroid, with an ulcerated surface. Dr. R. J. Lee had cut a slice, and thought it was scirrhus. Mr. Holmes rather thought it an epithelioma. The interest of the case lay in the deceptive symptoms. Solid food had been taken within two days of death, and there had never been any regurgitation of food.—Mr. WAGSTAFFE asked if the disease made a stricture, or solidified the tube.—Mr. HOLMES said it formed a solidified tube; but, owing to the defective nature of the preserving fluid, the specimen was not distinct.—Mr. BUTLIN said that scirrhus of the oesophagus was really an infiltration.—Dr. GREENFIELD said there might be infiltration with an epithelioma.—Mr. LENNOX BROWNE spoke of the use of the laryngoscope in those cases, and as to how far could be seen down the gullet with the instrument. He had once diagnosed a future epithelioma in a congested patch; and in twelve months the diagnosis was verified.—Mr. HOWSE had a case of epithelioma where there was no stricture.—Mr. HOLMES said that the dysphagia which occurred after the removal of the tumour eight years ago had disappeared in a little time, and nothing of the kind had been felt for years.

Fatty Tumour.—Mr. BUTLIN showed a fatty tumour from a girl aged 7, under the care of Mr. T. Smith. It occurred at the back of the leg, and did not affect the movements of the child, which was healthy and robust. The tumour grew gradually, but lately its growth was swifter. It was of an innocent nature, and came out with ease. It was quite encapsuled. On examination, it was found to be a fatty tumour, with a little fibre in it. A number of striated muscular fibres were found traversing the mass in various directions. The fibres were all well-developed, and no new ones were seen developing. These fibres were connected with the fibrous trabecule of the capsule. Mr. Pollock had recently exhibited a similar case.—Mr. HOLMES said Mr. Pollock's case was not congenital.—Mr. NUNN said that muscular fibres had been found running through glandular masses.—The CHAIRMAN said muscular fibres were rare in tumours.—Dr. COUPLAND said that when muscular fibres were found in parts away from muscle, it was a proof of their congenital origin.—Mr. WAGSTAFFE spoke of a connective tissue tumour which was seen to contract from muscular fibres in it.—Mr. BUTLIN said there was no contraction in this case.

Ossification of Artery.—Mr. HOWSE exhibited a specimen of actual ossification in the axillary artery following an injury. It occurred in a man aged 39, who, in September last, was driving a vehicle, when the horse ran away; as he was holding on, another vehicle came up, and the wheel went over his arm at the shoulder. There was no fracture, but a blood-tumour was found in the axilla. The first portion of the axillary artery and the subclavian could be felt pulsating, but the other portions of the axillary artery could not be so felt. There was some laceration of two fingers. The limb was wrapped up in cotton-wool and the man put to bed, to see what amount of collateral circulation might be developed. Warmth returned slowly; but there was no sensation for some time. The cords of the brachial plexus were not injured. In ten or eleven days, sensation became more general. It commenced in the musculo-spiral first. The temperature remained normal for some time and then rose; the fingers were therefore examined, and found to require amputation. The man then became delirious and squinted. He had also basal pneumonia. The brain-symptoms increased till he died. At the *post mortem* examination, there was not found any evidence of septicæmia. In the external coat of the second portion of the artery, a mass of bony material was found. On sec-

tion, it resembled cancellous tissue; the bone-corpuscles were distinct, and it resembled the callus of repairing fracture of bone. It was not the ordinary calcification found in arteries.—Mr. HOLMES said the case was one of unusual interest, and hoped that a drawing of a microscopic section would be made for the *Transactions*.—The CHAIRMAN approved of this.

Sarcoma of Thigh.—Mr. GOULD brought before the Society a sarcoma which grew in a man, aged 56, under the care of Mr. Christopher Heath. Two years ago, he felt pain on exertion. A swelling then appeared in the groin and inside of the thigh. There were large veins over the surface. He was a thin anæmic man. There was no other growth. Amputation was performed, but the man sank. On examination, the growth was found unattached to the femur. On section, it was found to consist of an outer layer, grey and firm, and an inner portion yellow and softer. It consisted of spindle-cells, many of which were full of fat-granules. Several masses of the size of peas were found in the lungs. The glands in the groin were pigmented. The system became infected by the blood-vessels rather than by the lymphatics. They had no knowledge of the lung-affection when the operation was performed. Operations should be performed early before these secondary infections occurred. Much uncertainty existed as to the malignancy of sarcomatous growths.—Dr. GREEN said that a girl had come under his notice who had previously had a tumour of the thigh removed, where there was a sarcomatous tumour of the lung and nodules on the brain.—Mr. BUTLIN said that sarcomatous tumours did, under certain circumstances, recur in glands.—Dr. COUPLAND mentioned a case where the growth recurred in the mediastinal glands. Such a case was shown to the Society last year.

Tumour of Buttock.—Mr. GOULD showed a tumour of the buttock from a female, aged 27, who fell downstairs two years ago. She suffered from recurring pain, and, in January last, some swelling showed itself; and, in September last, it had grown into a hard tumour, which was not attached to the bone apparently. On being removed by operation, it was found attached to the ischium. The sciatic nerve was involved, and about an inch of it was removed. It was a fibrous tumour.—Mr. NUNN inquired as to the state of the limb after the operation.—Mr. GOULD said it was paralysed below the knee. There was sensation in front. The wound was healing.

Brain of Microcephalic Infant.—Dr. BARLOW showed a specimen from a child six weeks old, which had suffered from jaundice. It died of asthenia. Its head was exceedingly small and pyramidal in shape. The fontanelles were closed. There were no nervous symptoms, except that the head was thrown back. On *post mortem* examination, the convolutions in the convexity of the brain were not to be seen. There were remains of convulsions on the under surface. On opening up the brain, the ventricles were found dilated. Some portions of the brain were found wanting. There was some calcification in the pia mater and elsewhere. There had been a meningitis followed by calcification and with atrophy of the cortex. The bones had joined.—Dr. FLETCHER BEACH spoke of a child's brain weighing only seven ounces, and another only four ounces.—The CHAIRMAN asked for a report of the microscopic appearances for the next meeting of the Society.

MANCHESTER MEDICAL SOCIETY.

NOVEMBER 1ST, 1876.

ARTHUR RANSOME, M.D., President, in the Chair.

Case of Lithotomy: Seven Calculi.—Mr. HEATH mentioned a case of lithotomy, with the removal of seven stones. H. B., aged 44, was admitted into the Infirmary on September 11th, with symptoms of stone. He had suffered for more than twenty years, but for the last five the pain had greatly increased. After a few days' rest in bed, what appeared to be a single calculus was found almost completely filling the evidently thickened and contracted viscus. On September 30th, the patient was examined *per rectum*, when Mr. Lund thought he could detect the presence of two calculi. The usual lateral operation was performed; and altogether seven calculi were extracted in succession. The aggregate weight of the calculi was forty ounces ten drachms and sixteen grains. The patient made a good recovery, the wound being almost closed by the end of the fourth week. The stones varied considerably in size and shape. Each of them had one rounded external surface, while the other surfaces were marked by several facets. The five largest pieces seemed to form one large stone of globular shape. On making a section of one of them, it appeared to consist of lamellæ concentrically arranged around a nucleus which was not central. The layers deposited on the inner side of the nucleus were more friable, and somewhat resembled cancellous texture.

The whole was composed of phosphate of lime. From the history of the case, its long duration, and the appearance of the calculi, it was believed that the case was an example of spontaneous fracture of a calculus within the bladder. The late Mr. Southam, in a paper read before the British Medical Association, mentioned two cases that occurred in his own practice; two are recorded by Mr. Luke and Mr. Liston; and two are deposited in the Dupuytren Museum at Paris; while two more cases are recorded by Heller in his work on *Urinary Concretions*. There is also in the Catalogue of the Museum of the College of Surgeons, in plate 7, a representation of another case, which, though described as consisting of three separate calculi, no doubt belongs to the same class. The cause of spontaneous fracture has not yet been positively made clear; but the view which Heller takes is probably correct: that the generation of gas evolved by decomposition between the layers causes, by its expansion, the separation of the stone into distinct pieces. This view is supported by the fact that, in some of the cases recorded, the fracture was limited to a portion of the calculus.

Castor-oil Soap.—Dr. LEECH showed a liquid soda-soap made from castor-oil. This soap is extensively used in bleaching establishments; and, being manufactured in large quantities, is very cheap. It readily mixes with tinctures, ammonia, and iodine, and may probably be found an useful basis for liniments.

Popliteal Aneurism.—Mr. BRADLEY related the history of a case of popliteal aneurism. The patient was admitted into the Infirmary on August 10th, with a popliteal aneurism of the size of an orange, symptoms of which had existed a few weeks only. After four days' rest and pressure by means of Carte's tourniquet, the limb was firmly bound in an Esmarch's elastic bandage, the popliteal space and knee, however, being left uncovered. At the end of an hour, the bandage was removed, when it was found that the circulation was as vigorous as before. After another week's rest in bed, the same treatment was again adopted, with a similar negative result. Mr. Bradley accordingly ligatured the femoral artery in the thigh, and the man left the hospital cured in about a fortnight. Mr. Bradley contrasted the result in this case with that obtained by Mr. Heath in a very similar case, when a cure was effected by an hour's application of Esmarch's bandage. In the successful case, however, a pad was placed over the popliteal artery, and the bandage continued, though very lightly, over the entire tumour, and Mr. Bradley was of opinion that the different result in the two cases was solely attributable to this different management of the aneurismal sac.

Double Aortic Arch.—Dr. WATSON exhibited a specimen of double aortic arch from the human subject. The right aortic arch was partially obliterated, thus resembling very closely a case reported by Dr. Allen Thomson (*Medico-Chirurgical Review*, 1862), but differing from it in the greater obliteration of the left arch. Through the arterial collar formed by the two arches, the trachea and œsophagus passed. The thoracic duct did not do so; it opened into the junction of the right subclavian and jugular veins. Dr. Watson made a few remarks on the development of the large blood-vessels to show the manner in which the usual arrangements of these is brought about in the course of development.

Removal of the Shaft of the Ulna after Necrosis.—Mr. STOCKS showed a case of complete removal of the diaphysis of the ulna after necrosis. The epiphyses were left intact, and the whole process of separation of the shaft was completed in nine months from the commencement of the case. The disease was apparently idiopathic osteitis arising without injury in a fairly healthy subject. Pronation and supination of the forearm were performed to about half the usual extent, but were gradually increasing in degree. The movements of the elbow, wrist, and fingers were but slightly interfered with.

Death from Pulmonary Hemorrhage.—Mr. CULLINGWORTH related a case of sudden death from pulmonary hemorrhage. A widow lady, aged 53, who had ceased to menstruate three years previously, and whose family history was good, was suddenly seized after a fortnight's overwork and unusual harass with an attack of hæmoptysis. During the three following days, the hemorrhage recurred on three occasions; there being no cough, dyspnoea, or derangement of the general health, and no morbid physical signs being detected. When the fourth attack supervened, the blood was poured out with such rapidity and profusion as to cause immediate death from suffocation. At the necropsy, both lungs were found to be full of fluid blood without appreciable structural lesion. The heart was imbedded in fat, and its structure had undergone fatty degeneration; the walls of the right ventricle showing an extreme degree of fatty change. The aorta was of normal calibre; the valves of the heart were natural; and no aneurism could be detected in any part of the thorax. It was suggested as a

probable explanation of extensive hæmorrhage (in the case brought forward) that the coats of the bronchial and pulmonary capillaries might have undergone fatty changes similar to those in the heart and become abnormally fragile, and that the unaccustomed exertion to which the patient had just been subjected might have precipitated their rupture.

Inflammatory Deposit in Left Auricle.—Dr. DRESCHFELD showed a heart with a peculiar tuft-like inflammatory deposit on the posterior wall of the left auricle. Some of the mitral chordæ tendineæ were ruptured, and the periodical flapping back of the free ends had set up local endocarditis, which, in its turn, gave rise to the deposition of a mass of fibrine.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

WEDNESDAY, NOVEMBER 1ST, 1876.

SAMUEL GORDON, M.B., President, in the Chair.

President's Address.—The PRESIDENT delivered a short address introductory to the Session.

New Tests for Bile-Pigment.—Dr. W. G. SMITH read an interesting paper on this subject. He showed that the principle on which the tests depended was the conversion of bilirubin into biliverdin by oxidation—a green coloration being produced by the reactions. Although the nitric acid test was depended upon in delicate physiological investigations, it was desirable to have at command some supplementary tests, which were easy of execution and free from fallacy. Four test-liquids seemed to answer to these indications, viz., tincture of iodine, ferric chloride, peroxide of hydrogen, and the acetic or phosphoric solution of peroxide of lead. The two latter liquids possessed the advantage of being colourless; and the phospho-plumbic solution especially promised well as a delicate reagent. Peroxide of lead had been utilised in experiments on bile (Maly); but peroxide of hydrogen and ferric chloride had not, so far as Dr. Smith knew, been used by other experimenters. With a fresh supply of material, he purposed to study more closely the action of the iron, lead, and hydrogen peroxide; but, as the clinical experiments had been chiefly conducted with the iodine test, he, in conclusion, mentioned the reasons which seemed to him to recommend tincture of iodine to the notice of those interested in such matters. 1. A single reagent, always easy to obtain, is alone necessary; 2. The test-liquid is not corrosive; 3. A single definite colour is produced with the bile-pigment; 4. The colour is sufficiently persistent; 5. From the less powerful chemical energy of the reagent, as compared with that of nitric acid, there is a diminished liability to error; 6. No other pigment than bile will yield the characteristic green colour; 7. The test fully equals in delicacy, possibly surpasses, the nitric acid test. The test is applied by putting about a drachm of urine in a glass test-tube and allowing one or two drops of tincture of iodine to trickle down the side of the tube so as gently to touch the surface of the urine. A stratum of bright emerald-green coloration forms at the junction of the fluids.—Dr. EMERSON REYNOLDS concurred with Dr. Smith as to the doubtful value of the nitric acid test. He had come to the conclusion that any oxidising agent would suffice for the conversion of the bilirubin, or brownish colouring matter, into biliverdin, or greenish colouring matter, as the change seemed to consist in the addition of a molecule of water and an atom of oxygen to the brown-coloured substance. Iodine, from its deep colour, he rather objected to. Ferric chloride was reduced by too many other substances to be of value. The phosphoric solution of peroxide of lead acted with extreme facility. Ozonised ether also acted well.—Dr. FINNY and Dr. FOOT had both experience of the successful use of the iodine test. Dr. Foot further suggested that the test might aid in distinguishing the etiology of hæmatogenous and of hepatogenous jaundice.

Syphilitic Phthisis.—Dr. MACSWINEY detailed a case, occurring in a man aged 36, which he concluded to be one of syphilitic phthisis from—1. The medical history; 2. The absence of any hereditary predisposition to ordinary phthisis; 3. The progressive extension of the syphilitic disease from its outset, through its various stages, to its ultimate full development; 4. The special cachexia by which the symptoms were accompanied, together with the combination of the lung-affection with other specific morbid phenomena; 5. The stage of the specific disease, viz., the tertiary, at which the pulmonary attack set in, that being the stage most frequently by far reported as the one in which syphilitic phthisis had been found to present its first manifestation. This diagnosis was subsequently in some degree confirmed by the good effect of the short course of antisyphilitic treatment. The paper concluded with a *résumé* of the bibliography of syphilitic phthisis.—Dr.

Foot said that, from a careful study of the present position of destructive diseases of the lung, he gathered that the tendency of opinion was towards holding the unity of phthisis as a disease. He would call Dr. MacSwiney's case "a case of phthisis occurring in a syphilitic person", instead of calling it syphilitic phthisis. There were, no doubt, cases of syphilis of the lung and larynx that were treated as phthisis, the larynx being the point at which, phthisis and syphilis intersected. The suspicion of the existence of syphilis introduced a hopeful element into those cases. The larynx should be examined at the early stages of a syphilitic lesions; for laryngeal phthisis, instead of being incurable, was a very manageable disease. Where the case was one of true syphilis of the lung, and not a case of pneumonia on an exhausted syphilitic constitution, the gummata were single and local, and not surrounded by a crop of fresh deposits a little less ripe; and, after they had healed, the cicatrices remained in the lung. The principal pulmonary manifestation of syphilis that was recognised was the white infiltration in infants. Syphilitic phthisis was more common in infants than in adults. Independently of any specific virus, syphilitic disease ought only to be regarded as one of many predisposing causes of phthisis. A person of syphilitic habit, after a prolonged course of mercury, was liable to low chronic pneumonia of the apex of the lung, which, amidst the other symptoms of syphilis, might not be noticed.—Dr. HENRY KENNEDY agreed in the main with Dr. Foot's view of the case detailed by Dr. MacSwiney. He believed that struma was an infinitely more common cause of destructive lung-disease than syphilis.—Dr. MACSWINEY, in reply, said that the question was, whether phthisis, arising in syphilitic patients, was to be regarded as idiopathic phthisis, or as arising from the poison of the syphilis. He believed he had adduced cogent arguments to show that pulmonary consumption was frequently due to the presence in the constitution of syphilitic virus. Fournier, one of the most eminent physicians and pathologists of the present day in France, held opinions diametrically opposite to those of Dr. Foot. He maintained that pulmonary decline was caused by syphilitic gummata; and he described the resemblances and the distinctions between the gummata and the tuberculi of consumption. Virchow had pointed out a syphilitic affection of the lungs in still-born children—a form of infiltration which he called "white pneumonia", and he subscribed to the presence in it of the syphilitic virus. Other authorities of the present day had pointed out the anatomical resemblances and distinctions between the tubercula and the gummata. There was an analogy between these, while in some respects they were different, the gummata being permeated by blood-vessels and having cicatrices after recovery had taken place.—Dr. FOOT referred Dr. MacSwiney to the articles in Wagner's *Manual of Pathology* and in Ziemssen's *Cyclopædia of Practical Medicine*, in which, while the unity of phthisis was maintained, the diversity of its etiology was also contended for.

ASSOCIATION INTELLIGENCE.

THAMES VALLEY BRANCH.

The next general meeting will be held on Thursday, December 14th, at the Griffin Hotel, Kingston, at 5 o'clock.

Papers will be read by Mr. Maunder, on Intestinal Obstruction; Dr. Price, on Salicylate of Soda in Acute Rheumatism; Dr. Atkinson, on Quinsy. Dr. Atkinson, also, will exhibit some Hydrolein or Cod-liver Oil, prepared in a new manner.

Dinner at the Griffin Hotel at 7 o'clock.

F. P. ATKINSON, M.D., *Honorary Secretary*.

Surbiton Road, Kingston-on-Thames, Dec. 7th, 1876.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

The next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, December 14th, at 4 P.M.; Dr. STRONG in the Chair.

Dinner will be provided at the Greyhound Hotel at 6 P.M. Charge, 6s., exclusive of wine.

The following papers are promised.

1. Mr. Timothy Holmes: On Pyæmia as seen in Hospitals.
2. Dr. Fredk. Taylor: On the Diagnostic Value of Apex-Murmurs.
3. Mr. Stilwell: On Four Cases of Paralysis.
4. Dr. Herbert Ilott: On a Case of Infantile Convulsions.
5. Dr. Lanchester: A Case of Foreign Body in the Trachea.
6. Dr. Strong: A Case of Fatal Hemophilia.

JOHN H. GALTON, M.D., *Honorary Secretary*.

Woodside, Anerley Road, S.E., November 25th, 1876.

SHROPSHIRE AND MID-WALES BRANCH.

A QUARTERLY meeting of the above Branch will be held at the Infirmary, Shrewsbury, on Thursday, December 14th, at 6.30 P.M.: the President, Dr. TAYLEUR GWYNN, in the Chair.

Gentlemen intending to read papers will oblige by giving notice to the Secretary.

Members of the Association wishing to join the Branch, who have not already signified their intention of doing so, are requested to communicate with the Secretary.

HENRY NELSON EDWARDS, *Honorary Secretary*.
Shrewsbury, December 4th, 1876.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting will be held in the Examination Hall of the Queen's College, on Thursday, December 14th, 1876. The Chair will be taken at 3 P.M.

The following papers are promised.

Dr. F. H. Haynes: On some of the Sequelæ of Enteric Fever.

Mr. Vose Solomon: 1. The Treatment of Staphyloma by ligaturing the Conjunctiva—a reclamation. 2. The Treatment of Orbital Tumours by the Actual Caутery. 3. Ophthalmic Oversights.

Dr. Malins: On Marriages of Consanguinity.

Members are invited to exhibit pathological specimens at the commencement of the meeting.

BALTHAZAR FOSTER, M.D. } *Honorary Secretaries*.
JAMES SAWYER, M.D. }

Birmingham, December 7th, 1876.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a special meeting of the Committee of Council, held at the office of the Association, 36, Great Queen Street, London, on Wednesday, the 8th day of November, 1876, called in accordance with resolution passed at the last meeting to consider the place of annual meeting of the Association for the year 1877: Present—Dr. R. W. FALCONER, President of the Council, in the Chair; Dr. De Bartolomé (President), Mr. Husband (Treasurer), Mr. E. C. Board, Mr. Callender, F.R.S., Dr. Alfred Carpenter, Dr. Chas. Chadwick, Dr. Andrew Davies, Dr. J. W. Eastwood, Dr. Robert Farquharson, Dr. B. Foster, Mr. G. F. Hodgson, Dr. C. Holman, Mr. Arthur Jackson, Dr. D. Leech, Mr. F. E. Manby, Dr. E. Morris, Mr. R. H. B. Nicholson, Dr. C. Parsons, Dr. Shettle, Dr. E. H. Sieveking, Dr. Thomas Underhill, Dr. W. F. Wade, Dr. Edward Waters, and Dr. Eason Wilkinson:—

Read letters of apology for non-attendance from Mr. Alfred Baker, Dr. E. L. Fox, Dr. Eyton Jones, and Mr. C. G. Wheelhouse.

The gentlemen whose names are as follows attended as a deputation from Manchester, and presented an invitation to hold the annual meeting of 1877 in that city, viz.: Dr. Eason Wilkinson, Dr. Roberts, Dr. Leech, Dr. Borchardt, Dr. Hardie, and Mr. Cullingworth.

"To the President and Members of the Committee of Council of the British Medical Association."

"We, the undersigned members of the British Medical Association resident in Manchester and the neighbourhood, have much pleasure in submitting to the Committee of Council our cordial invitation to the Association to hold the next annual meeting in 1877 in the city of Manchester.

"We promise the Association a hearty welcome, and will spare no pains to render the meeting interesting and agreeable to the members, and worthy of the resources and reputation of this large and important city.

"Eason Wilkinson, J. Dreschfeld, James Hardie, Arthur Gamgee, Louis Borchardt, D. Lloyd Roberts, F. M. Pierce, Thos. Jones, James Ross, C. O. Murphy, G. W. Mould, J. Thorburn, J. D. Bird, David Little, A. W. Stocks, Andrew Boutflower, Chas. J. Cullingworth, Henry Simpson, J. Chadwick Peatson, Arthur Ransome, D. J. Leech, E. Gumpert, J. Whitehead, M.D., Chas. Ed. Glascott, M.D., Th. Mellor, Walter Whitehead, M. Heckscher, Henry Brown, S. M. Bradley, George Bowring, Daniel Noble, Adolphe Wahlut, Robert B. Smart."

Resolved unanimously: That the profession of Manchester be thanked for their cordial invitation, and that the same be accepted; and that Dr. Eason Wilkinson be appointed President-elect.

Resolved: That the Annual Meeting of 1877 be held on the 7th, 8th, 9th, and 10th days of August next.

Resolved: That there be three addresses—viz., in Medicine, Surgery, and Obstetric Medicine.

Resolved: That Dr. William Roberts be requested to give the address in Medicine.

Resolved: That Mr. Spencer Wells be requested to give the address in Surgery.

Resolved: That Dr. Robert Barnes be requested to give the address in Obstetric Medicine.

Resolved: That there be six sections, viz.: in Medicine, Surgery, Obstetric Medicine, Public Medicine, Physiology, and Psychology.

Resolved: That the gentlemen whose names are as follows be an arrangement committee to consider the officers of sections, and the business of the meeting, viz.: The President of the Council, the President, the President-elect, the Treasurer, Mr. Alfred Baker, Dr. Borchardt, Dr. Chadwick, Mr. Callender, F.R.S., Mr. Alfred Jackson, Dr. William Roberts, Dr. Edward Waters, and Dr. Leech; Dr. Hardie and Mr. Cullingworth, the local Honorary Secretaries.

CORRESPONDENCE.

THE ABUSE OF HOSPITALS AND FREE DISPENSARIES.

SIR,—In the columns of the BRITISH MEDICAL JOURNAL, at the beginning of the year 1875, there appeared, as your readers will probably remember, the following memorial, relating to the abuse of gratuitous medical relief in the various hospitals and free dispensaries of the metropolis and of the country at large.

"To the President and Committee of Council of the British Medical Association.—We, the undersigned, members of the British Medical Association, and others, beg most respectfully to request the Committee of Council to take into its consideration the relation of the medical profession to the hospitals and free dispensaries throughout the kingdom. Your memorialists are convinced that the manner in which these institutions (with some few exceptions) are at present conducted inflicts a serious injury upon many most deserving members of our profession; while the indiscriminate (or almost indiscriminate) bestowal of gratuitous medical relief upon all applicants lowers the whole scale of our professional remuneration, is far from being a real boon to the working-classes themselves, and cannot fail, in the long run, to have a prejudicial influence upon the nation at large. The question to which we venture to draw the attention of the Committee of Council has been much discussed, of late years, both in the medical press and in the lay periodicals. It is not necessary, therefore, that we should enter into any details respecting it. We may, however, mention that there are three facts which have a very important bearing upon it, and which make the present time particularly opportune for entertaining it. These are: 1. The improvement which is now rapidly taking place in the social and political condition of the industrial classes; 2. The amendments which have lately been made in the administration of parochial medical relief; and 3. The increase, within the last few years, in the length and expense of medical education. These facts are admitted by all; and their concurrence has led, we believe, to a very general opinion among those who are conversant with the working of the free dispensaries and hospitals that some changes are necessary, in order to bring these institutions into harmony with the altered conditions of the present day. As it is desirable that any changes which may be necessary should be duly weighed by a body which fairly represents the medical profession, and should be recommended by high authority, so as to carry along with them the assent of the lay governors of the 'medical charities', your memorialists pray you to take this important subject into your consideration."

The signatures to the memorial were numerous and influential, and included those of Sir Rutherford Alcock, Mr. Erichsen, Sir William Fergusson, Sir William Gull, Dr. Hawksley, Mr. Prescott Hewett, Sir William Jenner, Dr. George Johnson, Dr. J. W. Ogle, and Dr. A. P. Stewart. Further signatures were invited, and medical men who approved of the substance of the memorial, or wished their names to be added to it, were requested to communicate with Dr. Meadows, 27, George Street, Hanover Square; or with Mr. Fairlie Clarke, 12, Mansfield Street, Cavendish Square. It seems difficult to believe that a document, supported by such illustrious professional names, and justified, if I am not misinformed, by most striking figures and facts, could be easily consigned to oblivion, or could fail to arrest considerable attention and interest, both in charitable and in medical circles. Yet,

I am unable to ascertain that it has resulted in any decisive and important action, on the part either of the British Medical Association or of the authorities of the various medical charities. Nevertheless, it appears to me that few memorials of remonstrance have been called forth by more serious abuses.

If any reliance may be placed upon a variety of statistics and calculations, which have appeared on very good authority, which have been repeatedly published and widely circulated, and which remain, as far as I have been able to discover, unchallenged in any important particular, then the abuses of our medical charities, and in especial of their out-patient departments, are of the gravest and most urgent description. Can it be generally known by the public, and in especial by the subscribers to the metropolitan hospitals, that, according to a calculation which is based upon most carefully analysed returns, which is confirmed by other calculations, independent both in their origin and method, and in which the chances of error and exaggeration appear to have been covered by the most liberal and even excessive deductions, the number of persons receiving gratuitous medical relief in London, in the year 1870, amounted to one-fourth of the entire population; and this exclusive of the large numbers who resorted to the infirmaries and dispensaries of the Poor-law, or were attended in their homes by the Poor-law doctors; and exclusive also of the patients at thirteen hospitals and dispensaries from which no return could be obtained?

Is it generally known that, in spite of improved sanitary and industrial conditions, and of great reforms in the medical system of the Poor-law, the number of persons receiving gratuitous advice or medicine from the various charitable institutions appears to be steadily on the increase; and probably, therefore, amounts at the present time to considerably more than 25 per cent. of the metropolitan population? Is it known that the number of patients assisted in this way, at eight of the principal London hospitals, has increased from 46,435, in the year 1830, to 277,891 in the year 1869; and that, at the same eight hospitals, there were in 1870 43,368 patients more than in 1869? Again, is it known that, in consequence of the excessive number of out-patients, the waiting-rooms of the principal London hospitals are often distressingly overcrowded; and that the average time which could be given to each patient by well-known physicians and surgeons, whose names have been published in connection with these calculations, has been frequently less than a minute, and, in some instances, less than forty seconds? Lastly, is it realised by the charitable public that, by the system of provident dispensaries, persons unable to pay the ordinary medical fees can not merely be prescribed for at an office, but can be attended if necessary at their homes, through the payment of a monthly subscription varying from fourpence to eightpence for adults, and from twopence to fourpence for children; and that in London, where entirely gratuitous relief is so abundantly afforded, without organisation, selection, or investigation, such institutions have been able to enrol only 25,000 members, while in Coventry, Northampton, and Leamington, they have enrolled from 12 to 14 per cent. of the population?

Unless these figures be grossly incorrect, it seems impossible to avoid the following conclusions.

Firstly, that a vast number of persons receiving gratuitous medical relief could afford to pay for it themselves, either by means of provident dispensaries, or even at the ordinary rates of medical remuneration.

Secondly, that an entirely unnecessary and unjustifiable demand is being made upon the time and energies of a profession noted for its untiring and disinterested benevolence.

Thirdly, that advice is being given at our hospitals which must often be valueless, or worse than valueless.

Fourthly, that the London hospitals are largely responsible for the unsatisfactory progress of the London provident dispensaries.

In other words, the splendid institutions for the help of the sick and destitute poor, which Englishmen regard with so much admiration and pride, are heavily punishing the members of the medical profession for their generous desire to afford relief to human suffering "without money

and without price". They are not only permitting undeserving and unsuitable persons to obtain, under false pretences, the advantages of exceptional appliances, experience, and skill, but they are also, in too many cases, allowing such persons to render those advantages useless both to themselves and to the deserving and destitute. They are making providence unpopular, just when its vital importance is being realised as it never was before. They are increasing pauperism, dependence, and impotence at a time when the intellect and philanthropy of the country are arising to combat these gigantic evils with a devotion and energy which are unprecedented.

If you will kindly afford me space in your columns for a more detailed account of the facts which I have been able to accumulate with regard to this important subject, I shall be happy to furnish them in future letters.—I am, sir, yours obediently,

A MEMBER OF THE CHARITY ORGANISATION SOCIETY.
December 7th, 1876.

THE CONJOINT SCHEME.

SIR,—Great is the power of the press, and it has never been more signally proved than by the sudden demoralisation and complete rout of the opposition party in the College of Surgeons, consequent upon the appearance of your minatory article of Friday week last; its bodily transference to the columns of the *Times*; and the evident determination of that powerful paper to take up the cudgels on the same side as you handled them, if the College persisted, notwithstanding your warnings, in upsetting a scheme framed for purposes as important to the public as to the profession.

Nevertheless, I hope you will allow me, as one of the oldest members of the Association and of the College, to say a warning word in your hour of triumph. I am entirely with you in the main issue; and indeed I think so highly of the usefulness of your extraordinary achievement that, if the JOURNAL had done nothing else in its useful career for the last ten years, it might rest content with having saved the scheme from imminent destruction by a short-sighted cabal, and the profession in England from probably another quarter of a century of chaos. But I have observed, in the minutes of the conference as to the nature of the proposed examination, a danger which you clearly under-rate, even if you regard it as at all perilous.

The board of delegates, or committee of reference, or whatever else they may be called, run a great risk of setting the "minimum examination" a great deal too high. I am old enough to remember the examinations of the previous quarter of a century—what you called, I observed lately, the pre-scientific era. Now, we may have been pre-scientific, but we were very practical. I observe that the candidates under the scheme passed by the committee of reference, of which a copy lies before me, are to be examined in a list of subjects which strikes me as overwhelming. What do practitioners for the East-end of London, or for poor agricultural and mining districts, want with "histology", "experimental physiology", and "medical jurisprudence"? They have to pass their lives in treating multitudes of poor patients for small fees, and have neither time nor need for such requirements.

A "minimum examination" should, I grant, include *medicine, surgery, and midwifery*, and all that properly belongs to their study and practice; and in striking off the *Register* in future all "debased" diplomas, you will have rendered the country an incalculable service. Crown your services by seeing that this diploma is a practical one. If we are to educate all our practitioners up to the highest pitch of scientific refinement, we shall want, as in France, a second order of doctors for poor patients and rural parishes, an order of *officiers de Santé*, a lower grade of medical practitioners; or we must leave more work than ought to be left to the "prescribing chemist". If you agree with my views, I do not ask you to publish this letter; for, as you seem to possess so much influence—may I say a little too much, I fear—I rather prefer that you should adopt and advocate them. If, however, you do not agree with me, I will nevertheless ask you to publish this letter, as the opinion of an individual of some experience, and

ONE WHO HAS GIVEN MUCH THOUGHT TO MEDICAL EDUCATION.

THE CHARING CROSS HOSPITAL.—His Royal Highness the Prince of Wales has just sent his annual present of game to the patients of this institution.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

OUTBREAK OF TYPHUS IN LEEDS.

IN Dr. Goldie's last monthly report there is an instructive account of an outbreak of typhus in the West Ward. The family first attacked became ill in the last week of September. All its members were attacked and removed to the Fever Hospital. There was no attributable cause for the disease, except a foul smelling gully in front of the house. No person was infected from the family. In West Ward, a different result followed the first death on October 17th, as an Irish wake was held over the dead body. Two days afterwards, another inmate of the house was attacked. The disease then broke out in a number of houses in different streets and courts, all of which could be traced to this wake; so that in the course of a few days as many as sixteen persons were affected. Some of the houses were overcrowded, but not to a great extent. This outbreak is important, as showing the necessity for prohibiting an assemblage of persons in infected rooms. At present, there would be some difficulty in proving that the clothes of those who attended the wake had become so infected as to justify proceedings being taken against them for wilfully exposing infected clothing; and it does not appear to come otherwise within the penal clauses of any Act. This is certainly one of the cases for which amended legislation should be obtained, as, unless the persons assembled are driven away by the fumes of burning sulphur, as was recently done, no persuasion seems powerful enough to induce them to leave. Unnecessary intercourse of all kinds between healthy and infected persons should as speedily as possible be rendered illegal.

THE RELATIONS OF MEDICAL OFFICERS OF HEALTH TO THEIR MEDICAL BRETHREN.

A CORRESPONDENCE has been laid before us which has passed between Dr. Hollis of Yarmouth, Isle of Wight, and Mr. Phelps, the local medical officer of health, which is somewhat important, as the precise duty cast upon the latter is definitely raised, as we conceive, to the prejudice of the former. It appears that, whilst Dr. Hollis was attending a case of small-pox at Yarmouth, Mr. Phelps called at the house, and, in Dr. Hollis's absence, asked to see the patient; for so we understand Mr. Phelps's question; "Can I see the patient?" He then made, according to his own showing, some remarks as to the steps to be taken for the washing and disinfection of the clothing. Mr. Phelps justifies his conduct by the following instructions contained in an order of the Local Government Board: "On receiving information of an outbreak of any contagious, infectious, or epidemic diseases of a dangerous character within the district, he shall visit the spot, and advise the persons competent to act as to the measures which may appear to him to be required to prevent the extension of the disease."

Now, any ordinary person, on reading this, will at once perceive that the minute does not refer to the person affected, but the spot in which he is living; the meaning clearly being that he is to ascertain if there be any local circumstances which may account for the outbreak, or might perpetuate or assist in spreading the disease to other persons. It was clearly never intended that a medical officer of health should ask to see the patient; but that he should, if doubtful as to the nature of the case, ascertain from the practitioner in attendance what the disease was. Of course, if he "received information" of the existence of zymotic disease in a given spot, and, on applying to the medical attendant, were refused the necessary particulars, he might be justified in seeing the patient to ascertain whether or not his information was correct. But, as he had not taken this course, we are of opinion that he was not justified in doing anything more than examining into the circumstances with which the patient was surrounded; and in ascertaining, after his recovery, that proper means had been adopted as regards disinfection, to prevent the spreading of the disease. We desire to express a strong opinion, that the sooner all medical officers of health understand that they are not justified in seeing the persons affected with zymotic diseases, in the absence of the medical attendant, the better it will be for all parties concerned. Of course, cases may occur where those infected are not provided with proper lodging and accommodation in which this rule may be broken through; but in that case, the medical officer of health would only "visit the spot," *i.e.*, the apartment, and not the patient. In this case, there does not seem any pretence for assuming that the infected person was in this position; and

we must, therefore, reiterate that we think Mr. Phelps exceeded his duty, although apparently unintentionally, and that Dr. Hollis is quite right in the position he has assumed.

SEWAGE DISPOSAL.

THE *Pall Mall Gazette* states that the Committee, appointed by the Local Government Board "to inquire into the several modes of treating town sewage", condemn the retention of sewage in any kind of receptacle in the midst of towns. The dry-earth and the pail systems they regard as mere palliatives, though they do not condemn those contrivances for detached houses, for public institutions in the country, or for villages, "provided the system is carefully carried out". The following are their more important conclusions. "As far as we have been able to ascertain, none of the existing modes of treating town-sewage by deposition and by chemicals in tanks appear to effect much change beyond the separation of the solids and the clarification of the liquid. The treatment of sewage in this manner, however, effects a considerable improvement, and, when carried to its greatest perfection, may in some cases be accepted. So far as our examinations extend, none of the manufactured manures made by manipulating towns' refuse, with or without chemicals, pay the contingent costs of such modes of treatment; neither has any mode of dealing separately with excreta, so as to defray the cost of collection and preparation by a sale of the manure, been brought under our notice. Town-sewage can best and most cheaply be disposed of and purified by the process of land irrigation for agricultural purposes, where local conditions are favourable to its application, but that the chemical value of sewage is greatly reduced to the farmer by the fact that it must be disposed of day by day throughout the entire year, and that its volume is generally greatest when it is of least service to the land." Land irrigation is not practicable everywhere, consequently "other modes of dealing with sewage must be allowed". Lastly, "towns situate on the sea-coast or on tidal estuaries may be allowed to turn sewage into the sea or estuary, below the line of low water, provided no nuisance is caused; and such mode of getting rid of sewage may be allowed and justified on the score of economy".

VACCINATION.—Mr. A. H. Martin of Evesham has received from the Local Government Board a special grant of £16:5, for the efficient performance of vaccination in his district during the last two years.—Mr. Thomas A. Roberts of Coningsby, public vaccinator for the Tattenhall district of the Horncastle Union, has received a Government grant of £7:17, for efficient vaccination during the past two years.—Mr. F. Sutton, public vaccinator of the Willingham District, Gainsborough Union, has been awarded by the Local Government Board the sum of £2:8:8 for efficient vaccination in his district.

SUBJECT asks:—Would you kindly inform me, through your answers to correspondents, if a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, being registered, can be appointed a deputy parochial medical officer and public vaccinator?

*. We are of opinion that a Licentiate of the Faculty of Physicians and Surgeons of Glasgow cannot legally hold the position of deputy parochial medical officer, unless he have also obtained a diploma in medicine, such as that of the Royal College of Physicians of Edinburgh (with which latter the Faculty of Physicians and Surgeons has been affiliated), or some cognate body, the qualification of the Faculty being a surgical one only. As regards the second query, seeing that vaccination is a surgical operation, the holder of such single qualification may be appointed a public vaccinator, provided he has obtained the necessary certificate of proficiency in vaccination from a person authorised by the Privy Council to grant the same.

POOR-LAW MEDICAL APPOINTMENTS.

CRAIL, James, M.B., elected Parochial Medical Officer for Auchtergaven, Perthshire, *vice* William Yeats, M.D., resigned.
MALLAN, H., L.R.C.P.E., appointed Medical Officer and Public Vaccinator for the Longford District of the Ashbourne Union.
TAYLOR, W. B., L.R.C.P.Ed., appointed Medical Officer to the Workhouse of the Bury Union, *vice* Daniel Taylor, M.R.C.S. Eng., deceased.
WALKER, Samuel E., M.R.C.S. Eng., appointed Medical Officer to No. 3 District of St. Neots Union, *vice* Henry Raynes, M.R.C.S. Eng., resigned.
WORGIER, T. H., M.R.C.S. Eng., appointed Medical Officer for the Kilnardsden District of the Frome Union, *vice* Joseph H. Wybrantz, L.R.C.P., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL APPOINTMENTS.

DENNETT, Surgeon William E., to the *Souinger*.
BOYKKE, Surgeon Martin E., to the *Andromeda*.
BROWN, Surgeon William, to the *Impetuable*.
CUFFE, Surgeon G. M., to the *Grewia*.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE ZOOLOGICAL STATION AT NAPLES.—Dr. Michael Foster, F.R.S., Fellow of Trinity College, has been nominated by the Board of Natural Science Studies of the University to study at the Zoological station at Naples during December and January. Members of the University who wish to avail themselves of the privilege of studying at the Zoological station at Naples, during the ensuing year, are requested to send their applications to Dr. Humphry on or before January 13th, 1877.

OBITUARY.

MARTIN LUTHER HEELAS, M.R.C.S.E.,

MEDICAL OFFICER TO THE HAVERSTOCK HILL AND MALDEN ROAD PROVIDENT DISPENSARY.

WE are sorry to record the death of a promising associate, Mr. Martin L. Heelas, at the age of thirty-four, at his residence, 25, Fellows Road, Haverstock Hill, N.W., on November 9th. He died of double pneumonia.

Mr. Heelas was a student of St. Bartholomew's, and, after completing his studies at that hospital, and spending a year at Vienna, he settled in practice in Fellows Road in 1869. He was shortly afterwards appointed one of the medical officers of the Haverstock Hill Provident Dispensary, where his labours have greatly contributed to the present flourishing state of that institution. He had a kindly and attractive manner, and was honourable and conscientious to a fault; and thus, being a general favourite, he was the selected medical attendant of a very large number of Dispensary patients. Hence the professional calls on his time, day and night, were incessant; and there can be no doubt that his exertions in the dispensary led to the early and sudden termination of his most useful career. It will, however, be some consolation to his numerous friends to know that his goodness was not unappreciated, and that his loss is deplored as that of a friend in many a humble home in the district where he laboured.

Mr. Heelas married Miss Mary Rose Duncan of Aberdeen, sister of Dr. Matthews Duncan of Edinburgh. His wife died two years ago, leaving three children, who are now deprived, by a double calamity, of both their parents' love and care. It is a sad story; and we are sure all who knew Martin Heelas will think of this ending of his honourable labours with kindly and real sorrow.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent B.S. Examination.

First Division.

Burton, Samuel Herbert, University College
Duncan, Andrew, M.D., King's College
Hunt, Joseph William, University College
Otley, Walter, University College
Pepper, Augustus Joseph, University College

Second Division.

Kidd, Walter Aubrey, Guy's Hospital
Perry, Thomas Sharp, University College

UNIVERSITY OF CAMBRIDGE.—At a Congregation held on November 23rd, the undermentioned degrees were conferred.

Doctor of Medicine.—Herbert Watney, St. John's College.

Bachelors of Medicine.—Henry Howard Murphy, St. John's; and Arthur Martin Phelps, Sidney.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BELPER UNION—Medical Officer for the Union and Workhouse. Salary, £58 per annum.

BOXTLE BOROUGH HOSPITAL—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications on or before the 12th instant.

BOURNEMOUTH GENERAL DISPENSARY—Resident Surgeon. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Testimonials, diplomas, etc., to be sent in on or before December 31st.

CENTRAL LONDON SICK ASYLUM—Assistant Medical Officer and Dispenser for the Asylum in Cleveland Street. Salary, £160 per annum, with board and residence. Applications not later than 12 o'clock noon on the 9th instant.

COSFORD UNION—Medical Officer for the Lavenham District. Salary, £49:4 per annum.

DRAYTON UNION—Medical Officer for the Fifth District. Salary, £21 per annum.

FISHERTON HOUSE ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and lodging.

FLINTSHIRE DISPENSARY—House-Surgeon. Salary, £100 per annum, with lodging, coal, and gas. Applications on or before the 19th instant.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Assistant-Physician.—Junior House-Surgeon. Salary, £50 per annum, with board and lodging. Applications on or before the 21st instant.

HOSPITAL FOR SICK CHILDREN, Manchester—Assistant Physician. Salary, £300 per annum. Applications on or before the 22nd instant.

NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—Resident Medical Officer and Registrar. Salary, £100 per annum, with board and lodging.

NORTHAMPTON GENERAL INFIRMARY—House-Surgeon. Salary, £125 per annum, with furnished apartments, board, attendance, and washing. Applications on or before the 23rd instant.

PARISH OF LISMORE AND APPIN—Medical Officer. Salary, £120 per annum. Applications on or before the 20th instant.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY—Junior House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications on or before the 23rd instant.

PRESTON UNION—Medical Officer for the Fourth District. Salary, £70 per annum.

RISBRIDGE UNION—Medical Officer for the Second District. Salary, £56 per annum.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—Resident House-Surgeon. Salary, £150 per annum, with rooms, attendance, fire, and gas. Applications on or before the 19th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BARRON, T. W., B.A., M.B. Cantab., appointed Lecturer on Materia Medica in the University of Durham College of Medicine, Newcastle-upon-Tyne.

BUCHANAN, A. M., M.A., M.D., Lecturer on Anatomy in Anderson's University, Glasgow, appointed an Examiner in Anatomy for three years to the Faculty of Physicians and Surgeons, Glasgow.

*DYSON, William, B.A., M.D., elected Physician to the Sheffield Public Hospital and Dispensary.

HEALEY, J. H., M.R.C.S. Eng., appointed Assistant House Surgeon to the West Sussex, East Hants, and Chichester Infirmary.

TRIMMELL, James, M.D., elected Consulting Physician to the Liverpool Royal Infirmary, on resigning office as Physician.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 2s. 6d., which should be forwarded in stamps with the announcement.

MARRIAGES.

DE LA COUR—TOOZE.—On November 30th, at St. Matthew's, Oakley Square, N.W., by the Rev. Edward Larkin Hopkins, senior Chaplain of King's College, Cambridge (cousin of the bridegroom), assisted by the Rev. Charles Phillips, Vicar, *George Francis De la Cour, M.D., of 282, Camden Road, N.W., to Julia Terry Southmeade, fourth daughter of the late Rev. Henry John Tooze, of Broadhembury, Devon.—No cards.

DOUGLAS—RAM.—On November 22nd, at All Saints', Notting Hill, by the Rev. George Stopford Ram, Vicar of St. Anne's, Highgate, cousin of the bride, *Justyn G. D. Douglas, Esq., M.D., C.M. Edin., of Bournemouth, Hants, to Augusta Mary, third daughter of the Rev. Stopford J. Ram, late Vicar of Pavenham, Beds.

WINN—GORDON.—On November 14th, 1876, at St. James's Cathedral, Toronto, by the very Rev. Dean Grasett, William Winn, Esq., Captain First (The Royal Scots) Regiment, son of J. M. Winn, M.D., of Harley Street, to Helen, daughter of the late Honourable James Gordon of Toronto.

DISTRIBUTION OF PRIZES AT CHARING CROSS HOSPITAL.—The prizes of the Charing Cross Medical School were distributed in the Board room of the hospital on Friday, December 1st. The Chair was taken by Sir Joseph Fayrer, K.C.S., an old pupil of the school. After some introductory remarks from the Chairman, Mr. Hird (the Dean) read his report, which was on the whole of a most satisfactory character; forty new students having been added to the school this winter session. The prizes were then distributed. The Chairman afterwards, in the course of his address, congratulated the successful candidates, and expressed his satisfaction with the great progress of the medical school, which was responded to with hearty cheering.

GUY'S HOSPITAL.—Old students of Guy's Hospital will be pleased to learn that Mr. Monson Hills, who has lately been compelled to retire from his post at that institution, is likely to have his small pension considerably augmented by a testimonial-fund which is now being raised amongst Guy's men. Subscriptions should be sent to the Treasurer of the "Monson Hills Fund", H. G. Baynes, Esq., Manager of the Southwark Branch of the London and County Bank. The Honorary Secretary to the fund is Dr. E. J. Hicks, 24, George Street, Hanover Square, London, W., to whom all communications may be addressed. The Committee trust that all Guy's men who have in their time received assistance from Mr. Hills will now show a generous appreciation of his kindness.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
- TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
- WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
- THURSDAY... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
- FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
- SATURDAY... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

- MONDAY.—Medical Society of London, 8.30 P.M. Dr. Ernest Sanson, "On Mitral Stenosis and Insufficiency"; Mr. Spencer Watson, "Polypus of the Nose: Pendulous Tumour of the Tongue"; Mr. Lennox Browne, "Warty Growth from the Uvula; Aural Polypus".
- TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Hulke, "Case of very general Teleangiectasis on the Left Half of the Body, with Abnormalities in Large Blood-vessels of Lower Limb, etc."; Dr. Wickham Legg, "Hæmophilia, complicated with Multiple Nævi—two cases".
- WEDNESDAY.—Hunterian Society, 7.30 P.M.; Council Meeting, 8 P.M.; Open Meeting, Specimens of Joint-disease by C. F. Maunder, Esq.; Cases by Warren Tay, Esq.; etc.—Epidemiological Society, 8.30 P.M. Dr. W. R. E. Smart, C.B., "On the Recent Appearances of Dengue".
- FRIDAY.—Medical Microscopical Society, 8 P.M. Mr. C. H. Golling Bird, "On Rodent Ulcer".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the *BRITISH MEDICAL JOURNAL*, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the *JOURNAL*, etc., should be addressed to the General Manager, at the Office, 35, Great Queen Street, W.C., London.

SNUFF FOR CORYZA.

F.—Dr. Ferrier's formula for a snuff for coryza consists of two grains of hydrochlorate of morphia, two drachms of acacia powder, and six drachms of subnitrate of bismuth.

H.—We are not aware of any instance in which a small infirmary and dispensary in combination have been converted to the provident principle; but there need be no special difficulty about the matter. H. had better apply for advice and assistance to the Secretary of the Charity Organisation Society, 15, Buckingham Street, Adelphi, W.C.

THE ACTION OF JABORANDI.

SIR,—In your impression of December 2nd, I find a very condensed abstract of my paper, read at the Harveian Society, On the Value of Jaborandi and Gelsemium Sempervirens as Therapeutic Agents, in which it is stated that gelsemium was a nerve sedative of some value, but of little use in diseases of the respiratory organs. This is a mistake, and I give you my own words. "There are, however, some cases of reflex excito-motor irritability where its sedative action becomes manifest and striking; and perhaps this cannot be better exemplified than where such a condition exists in the muco-respiratory tract, where the bronchial secretion is scanty, and the cough is persistent, harsh, and dry" (see *Medical Press and Circular*, November 25th and December 7th). If you will favour me by correcting this error, you will oblige your obedient servant,
THOS. DOWSE.
Upper Holloway, December 2nd, 1876.

DR. CAMPBELL.—The first enlargement of the privileges of the Honourable East India Company in Bengal was through the instrumentality of Mr. Surgeon Broughton, about 1645. He was appointed Surgeon to the Emperor, and his professional skill procured him much credit at the Mogul's Court.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

"ONLY A DOG."

THE current number of *Sunday at Home* contains a sensational story entitled "Only a Dog", which is intended to inform its readers on the subject of vivisection, and to excite their indignation against the practice. In this story the doctors fare very badly. After one or two back-handed compliments, they receive many heavy blows. Dr. Weir, who carries on a large practice in a provincial town, finds time for numerous experiments upon the brains and nerves of dogs. His friend Mr. Lightfoot, a rural practitioner, unwisely essays to defend him, but is easily overthrown in argument by "the vicar of the parish". But Dr. Weir's experiments not only harden his own heart, they also brutalise his groom, who flogs his master's horse unmercifully, drives it with a cruel bit, and braces its head with a bearing-rein. Nor does the evil influence of vivisection stop here. The little Weirs take a bird's-nest, and Mrs. Weir only says they should have left it two or three days longer. Indeed, so degraded are the whole family, that the heroine wonders "that there should be so little consideration manifested by all the inmates of that house for the lower animals, if such a description could be correctly applied to them in such a household". This is very severe. The writer, by the mouth of "the vicar of the parish", concedes the abstract right to perform experiments upon living animals if good cause can be shown, but appears to think that the clergy and the peasantry are the best judges how and when this right is to be exercised. On the whole, the doctors have not much reason to thank the editor of *Sunday at Home* for the picture which he draws of them and their families. But has he taken any pains to know whether there is a shadow of truth in the disgraceful picture which he draws? And if he has not—as we unhesitatingly assert—has he not great reason to feel ashamed for shamefully calumniating a profession which does not yield to any in personal humanity? These ill-judged attempts to bolster up an argument by personal obloquy and purely imaginative and malicious calumny are extremely discreditable; and the editor of such a journal as *Sunday at Home* should shrink from the weak, foolish, and wicked course of pursuing even an end which he may think good by spreading groundless and malicious falsehoods.

DR. E. L. JACOB.—Many thanks for the letter. We are having the subject more carefully examined, and shall presently deal with it.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

SIR,—In your report of the last meeting of the above society, it will be inferred that I totally deprecate the practice of "lancing the gums" of infants when teething. Such is not the case. The first of my remarks pointed to indiscriminate lancing, when no symptom of an erupting tooth could be found. On the other hand, I mentioned that immediate relief was frequently given by lancing when any sign of tension or inflammation could be detected. Your attention to this little error will greatly oblige, yours faithfully,
CHAS. GAINE.

DOES GENERAL DESQUAMATION OCCUR AFTER VARICELLA?

SIR,—The following case may prove of interest to your correspondent G. F. R., and perhaps throw some light on the case he reports. At any rate, it will prove that scarlatina is not the only disease in which large patches of desquamating cuticle may be seen.

On September 1st, 1876, I visited a respectable farmer, aged about 65, who was suffering from retention of urine. Wishing to do, if possible, without medical aid, his friends had given him warm hip-baths. On my visit, the parts of his body which had been immersed in the warm water were covered with a bright erythematous eruption. On the next day, well marked millary vesicles were visible in almost every region of his body. They went through their usual stages, until, after the lapse of a week, desquamation commenced, and flakes of cuticle as large as I ever saw after scarlatina came off the palms of his hands and the soles of his feet. It was rather a curious coincidence, that three years ago I attended the same patient, also for retention of urine accompanied by an eruption of the same character, which went through precisely the same stages. On inquiry, I found that since his boyhood he has frequently suffered from an eruption of the same kind, which has always been followed by desquamation.—I am, yours faithfully,
DAVID H. HADDEN, L.R.C.S.I.
Bandon, Co. Cork, November 18th, 1876.

HYDROPHOBIA (Manchester).—Chloroform has been tried several times in similar cases.

B. P. W.—The French proverb is "Poisson, goret, et cochon, vit en l'eau, mort en vin."

CONTAGIOUS DISEASES.

SIR,—A suspicious looking petition has been sent to one of the Medical Officers of Health of this neighbourhood for signature. A letter accompanies it, signed by C. Wyatt Edgell, late Vice-President of the Statistical Society. The prayer of the petition is for an extension of the prohibitive clauses of the Public Health Act, rendering it a misdemeanour to convey contagious as well as infectious diseases in any way. It is stated that three hundred and fifty physicians and surgeons have signed it; and that a similar petition was presented on July 17th last.

Now, this petition looks very much like underhand work—an attempt to render the communication of syphilis a misdemeanour. The profession appear to be unaware of what is intended by this move. Can you, sir, throw any light upon it?—I am, sir, your obedient servant,
FREDERICK J. BROWN, M.D.
Rochester, December 1st, 1876.

* * We believe that the petition has the object which is here described; but we do not understand that the object is intended to be concealed. It is an agitation to equalise the operation of the Contagious Diseases Acts by making communication of syphilis or gonorrhœa a misdemeanour.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the *BRITISH MEDICAL JOURNAL*, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

MAY A MEDICAL MAN PRESCRIBE AT A DRUGGIST'S HOUSE?

SIR,—May I take the liberty of requesting an answer to the following inquiry in your next issue?

A general practitioner of many years' standing at the age of sixty-five finds himself so crippled by rheumatism as to be unfit for night-work, and sometimes hardly able to get through the day. His circumstances forbid his voluntary retirement, and, being in good general health, he does not wish to be unemployed. It has, therefore, occurred to him to make arrangements with some respectable chemist, and to prescribe at his house during certain hours of the day. He would thus be relieved from all visiting. This would tend, so far as it went, to obviate the danger arising from unprofessional advice, and the exposure of patients who ought to be confined to their houses. *Query:* Would this arrangement be considered as opposed to medical ethics, or derogate from the position of a gentleman?—I remain, sir, your obedient servant, *QUESTOR.*

P.S. I enclose my name and address, but not for publication.

. We do not see the connection which is here assumed between consulting practice (as opposed to visiting) and the propriety of practising at a chemist's shop and presumably in trade co-operation with the chemist. We do not, indeed, see how the circumstances suggested by our correspondent at all modify the existing general rules on the subject.

JOHN LOCK.—The surgical dispute between Bromfield and Aylitt of Windsor took place in 1748. The Lock Hospital was founded in 1745 by Bromfield. See the works of Ricord and Acton.

AVA, OR KAVA KAVA.—Ava is the local name of the *piper methysticum*, a shrub about six feet high, cultivated in Viti, Tahiti, Hawaii, the Society and Tongan Islands. The root and base of the stem have been introduced into France, as a remedy for gonorrhoea, and it will probably be tried in this country ere long. According to M. Cuzent, the root contains an essential oil of a pale yellow colour, two per cent. of an acrid resin, and about one per cent. of a neutral crystalline principle called kavahin, or methysticin, which is obtained in acicular crystals by crystallisation, from a concentrated tincture. Kavahin differs from piperin and cuberin, in being coloured red by hydrochloric acid, the red colour fading on exposure to air into a bright yellow, and in being coloured by strong sulphuric acid a purplish violet colour, which passes into green. The root contains also nearly half its weight of starch. Since neither kavahin nor the resin are soluble in water, and the infusion produces the characteristic effects of the drug, it would appear probable that the active principle is yet to be separated. Kava in small doses acts as a stimulant and tonic; in large, it produces a silent and drowsy intoxication, and, if used long for this purpose, appears to cause a peculiar kind of skin-disease. — *Pharmaceutical Journal*, No. 321, p. 149.

SMALL-POX.

SIR,—Dr. Robert Bell, in writing on the above subject in last week's *JOURNAL*, says: "It is certainly a fact, that in upwards of two hundred individuals whom I vaccinated during the prevalence of small-pox in this city, and all of whom were to some extent exposed to the contagion, not one was smitten by the disease." During an epidemic which made its appearance in Bilston, Staffordshire, in 1871-72, of a most virulent character, I revaccinated many hundreds, among whom were myself, my wife, and my two servants. A very extraordinary thing happened; for, though the vaccination took well with all of us, still each one of us in turn contracted small-pox—certainly of a most abortive form, not more than a dozen spots or so appearing on any of us, but still it was small-pox. Another curious thing occurred: I attended a woman during her confinement; she was perfectly free from small-pox; three days after confinement, the infant showed a well marked small-pox rash, which became confluent, and it died. A similar case occurred in the practice of Dr. Best, I believe, the rash appearing on the fourth day instead of the third, as in my case.

I can most heartily endorse Dr. Bell in what he calls "my method of treating the disease"; and if he will kindly turn to the *Lancet*, he will there find a letter from me, dated as far back as July 30th, 1872, and appearing about that date, fully corroborating all his statements, and touching also upon a few other facts concerning it which he does not give. There is, however, this difference between us: his strongest solution of carbolic acid is one part in eleven; my almost invariable solution is one part of pure acid in eight. He dissolves his in glycerine; I mine in water. He contents himself with using his every night and morning; I use mine from four to six times in the twenty-four hours. Here you will see that my solution is stronger, and used much more frequently than his; still, I never yet saw one instance in which it gave the appearance to the urine he points out, nor in one single instance have I found it disagree in the slightest. I also much prefer water to glycerine or oils; they keep the patients in a most uncomfortably dirty condition, prevent the skin from carrying on any healthy action it might otherwise have, and are wholly useless. In every other respect I can entirely endorse Dr. Bell's remarks, and believe he has understated rather than overdrawn the good influence of carbolic acid upon small-pox cases. Whether it be he or I, I care not, so we preach (and let us hope, so the public believes); for certain am I that, next to vaccination, with which, of course, it cannot be compared, carbolic acid is by far the most useful remedy yet brought forward in the treatment of small-pox, and with its use I have no hesitation in saying the death-rate of this disease would be reduced to at least one-half, if not less; but it has failed in some hands by its not being used early enough, strong enough, freely enough, and persevered in long enough. Its influence for good will be found in its qualities as a local anæsthetic—astringent, stimulant, detergent, and disinfectant—in all of which capacities it contributes beneficial results.—I am, sir, yours faithfully,

R. G. KELLETT, L.K.Q.C.P., L.R.C.S.

Liverpool, November 28th, 1876.

PHTHIRIASIS.—The *oleum jecoris aselli* was first used in England on a large scale by Mr. Oliver Chalk, then resident medical officer of the sea-bathing Infirmary at Margate.

PELLAGRA.

SIR,—Allow me to refer Rusticus to the *Journal of Mental Science*, vol. xvii, page 579, for an account of pellagra. I have seen many cases in Italy, and inquirers should consult the literature of that country for information.—Yours, etc.,
December 4th, 1876. G. M. BACON, M.D.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

PROFESSIONAL ETIQUETTE.

THE Editor's opinion is requested on the following case.—A has attended Mrs. B. on several occasions during her residence the last fifteen months in his immediate neighbourhood, and was engaged to attend her in her confinement. C, who lives two miles away, attended her as family doctor when residing in his neighbourhood. C is sent for, in A's absence, late in the evening, to her labour, but finds the child has been born one hour on arrival; but the placenta is retained. A arrives three-quarters of an hour after C; but the husband very reluctantly asks him not to see Mrs. B. that evening, as she is very much upset, and C is then with her. The husband promises to see A in the morning after talking it over with C. Next morning, the husband sees A, and says Mrs. B. would like Mr. C. to attend this time. A receives a note the day but one afterwards from C, giving as reasons for continuing the attendance that Mrs. B. had been an old patient of his and would like him to continue, and that A. was only called in as a matter of convenience. *VERITAS.*

. C, knowing that A. was engaged to attend the case—as is here stated—should have at once resigned it into his hands.

MR. ANDREW THOMPSON, R.N.—We are glad to state that Mr. Robert M'Cormick, the surgeon and naturalist to Ross's expedition to the Arctic regions, is still alive, and a few months ago obtained the good-service pension.

We shall be much obliged if Mr. Turner (Norwich) will repeat his question.

GOUTY PSORIASIS.

SIR,—In addition to former suggestions, I would suggest that A Member may with advantage recommend the bromo-iodine water and baths of Woodhall Spa, which may be used at the patient's home. The treatment is most suitable in cases of gouty psoriasis and syphilitic psoriasis.—I am, etc., *IODINE.*

MEDICAL ARCHÆOLOGIST.—Previously to the surrender of the town of Haarlem to the Duke of Alva's son, a deputation of aged matrons waited on the Spanish general to know in what manner the women who were at the time in childbirth should be protected from molestation in case of the introduction of the soldiery. He directed that at the door of each house containing a female so situated, an appropriate token should be hung out, and promised that the house should not be troubled. The custom is still in use. A piece of lace is hung out several weeks previously to the expected birth, and hangs several weeks afterwards, a small alteration being made as soon as the sex of the child is known. During the time of this exhibition the house is exempt from all legal execution, and the husband cannot be taken to serve as a soldier.

GLYCERINE TO PREVENT CLOUDINESS IN LARYNGEAL MIRROR.

SIR,—In the *JOURNAL* for November 25th, there is a paragraph referring to *L'Union Médical* of September 23rd, in which M. Samindès had proposed as a novelty the use of glycerine to prevent cloudiness of the laryngeal mirror when placed in the mouth. Eight or ten years ago, Dr. Buzzard, in a communication to the *Lancet*, suggested the same method of preventing deposition of moisture, and stated that he had found it exceedingly useful and convenient.—Yours faithfully,
66, Princes Square, W., December 3rd, 1876. H. W. KIALLMARK.

SIR,—In your *JOURNAL* of November 25th, I noticed a paragraph under the above heading. Having since frequently tried the method there recommended, I find that the glycerine has a tendency to obscure the image; but if, after applying the glycerine, M. Samindès will allow one drop of water to fall on the mirror, or apply the same with a camel's hair-pencil, he will be delighted with the result, as the mirror will then be as clear and reflect the image as perfectly as if it were quite dry and clean, and at the same time the breath of the patient will not condense on the surface of the mirror.—Yours truly,

T. S. PITTS, M.R.C.S. Eng., L.K.C.P. & L.M. Edin.

The View, Pudsey, December 4th, 1876.

ACTION OF URANIUM.

SIR,—Could you, or any of your readers, give me any information about the medicinal or physiological action of the salts of uranium? I have a prescription, not very recent, containing the nitrate; but I can get no information about it from anyone or anywhere.—Yours, etc., *ENQUIRER.*

November 28th, 1876.

MR. J. B. A. WOOD (Strone, Argyllshire).—Many thanks. The case has no feature of novelty: it is a type of a hundred others already published.

SOME HOMŒOPATHIC REMEDIES.

A PRETTY lively discussion has been going on in the *Hahnemannian Monthly*, as to the merits or demerits of "cimex" (physically speaking, bed-bug), as a remedy. One writer declares that he does not see "the need and usefulness of triturated and diluted bed-bugs", while another writer enters warmly into the defence of the agent, and quotes an author who has "cured with the sixth, and even the twelfth dilutions, the most malignant and obstinate tertian and quartan fevers". This writer also avers that "our literature contains splendid cures" effected by bufo (bull-frog), and various spiders. The poison of hydrophobia, he says, has effected some remarkable cures; and "glanderin" (the virus of glanders) is a valuable remedy, and he pities the physician who ignores these articles. The effects of "cimex" on one subject are thus described: "At the setting in of the chilly stage, her hands become clenched, she becomes vehement, would like to tear everything to pieces, and her attendant is scarcely able to restrain her." The *Pacific Medical and Surgical Journal* says: "We confess that we can see nothing very extraordinary in such demonstrations consequent on swallowing a bed-bug."—*Pharmaceutical Advertiser.*

MR. POPE (Tring) will do good service if, by collecting the overwhelming facts as to the efficacy and value of vaccination, he can counterbalance the mischief done by such irrational and dangerous agitators as Stevens and Hume Rothery.

MEDICAL DEFENCE ASSOCIATION.

SIR,—Will you allow me to suggest to the Medical Defence Association, seeing that new branches are about to be formed, the propriety of instituting one in Glasgow. Here is, indeed, a rich field for beneficial operation. The city is teeming with quacks, practising on the simple authority of bogus American diplomas. I trust this hint will not be lost sight of.—I am, etc.,
November 16th, 1876. M.D. GLASGOW.

A QUESTION OF ETHICS.

MR. SUTHERLAND writes in the *Edinburgh Medical Journal* for November:—In this case, an important question of ethics arose, which ought to demand consideration. The husband, for reasons best known to himself, refused to allow his wife to have any further treatment. Fortunately, the patient was tidied over the crisis before this occurred; and, accordingly, it did not affect the case so much, though it might. Had he requested consultation, or the substitution of another physician, I could have understood that he had a perfect right; but the questions here are—1. Whether a husband has a right (moral or legal) to prevent, by dissuasion or otherwise, the wife under his care from receiving necessary medical treatment during an illness involving the issue of life? 2. What are the duties and responsibilities of the attending physician under such trying circumstances? The responsibility of the husband, or such person, would seem to be *nil*. The questions, I own, are beset with difficulties, but must be looked at some day. I can recollect a good many cases in general practice where I have been summoned just to see the patient die. In many of these cases, the belief was forced upon me that medical aid was purposely not sought until those in charge felt satisfied that death was certain, and then I was called upon to certify that the deceased died of natural causes. I confess that to such certificates I could have appended that death was either due to, or accelerated by, the want of suitable medical treatment.

MR. STANFIELD (Redland, Bristol).—We shall be very happy to give any further assistance in our power. Copies of the reprint from a late number of the *JOURNAL* have been issued from the Parliamentary Bills Committee of the Association to the delegates of the Branches on the Committee, with a request that they will bring them under the notice of their representatives. A meeting of the Committee is summoned for Monday, when further proceedings will be considered in aid of the case of the certifying surgeons.

OBSTINATE VOMITING IN PREGNANCY.

SIR.—I have enjoyed a midwifery practice of considerable extent during the past twenty-five years, and in it I have met with numbers of the class of cases above referred to. My almost universal remedy has been the following. R. Acid. nitric. dilut., acid. muriatic. dilut., sing. ʒi; tinct. gent. co. ʒss; and water to ʒviij. An ounce thrice daily. My confidence in it, after innumerable trials, has certainly never been disturbed in favour of any of the new remedies we have heard of, and most of which I have repeatedly and most fairly tried. In ordinary cases, I am convinced we have no better remedy, and when it has failed I have always felt certain that some unusual cause of irritation was at work. Occasionally, the patient will rebel against this medicine, especially if she happen to take it at an inconvenient moment, and throw it up again; but I have often known these very patients, after a little persuasion, take it to their benefit, and fly to the "sour medicine" on a recurrence of the trouble. This mixture was named by Dr. Rigby in his lectures, published a great number of years ago (I think in 1845), as a remedy on which he could always depend in these cases. Cerium is certainly not to be compared with it; indeed, the acids give one a "straight sailing" in this form of vomiting that we seldom meet with.

I am sorry to find any one to advocate alcohol in this or any other case in the treatment of which it is not actually called for; and to keep a woman half-drunk in her bed during four or five out of the nine months of her pregnancy, is a mistake that I trust no man will be guilty of repeating. I had quite understood that drinking amongst women, and men too, was a thing to be discouraged in every way possible; that at least a tacit arrangement had been arrived at amongst professional men to discountenance this kind of thing, especially under excuses like these. The idea of a woman lying in her bed fourteen hours out of the day a mixture of babies, of vomiting, of brandy, of beer, ale, and of semi-intoxication, is something too horrible.

I will relate, with your permission, the case of a lady whose vomiting was never staved off, never relieved, during five months that she suffered. This patient, aged 40, commenced retching immediately conception had taken place for the second time. In her first pregnancy she suffered very much; but the acid medicine, which she found of immense service then, was now of no use, though she insisted frequently upon trying it. During the third and fourth months, I had several consultations upon this case, when at least three men of good skill had opportunity, full and fair, of "trying their experience," but to no purpose. About the end of the fourth month, an eminent accoucheur saw the case, and, though urged to bring about premature labour, he thought it too soon. Three weeks afterwards he saw her again, and then thought it too late. He now instructed me to apply various remedies to the os uteri, and this I did by means of a large Ferguson's speculum. By this time the patient was so feeble that she lay helpless on her water-bed. I was amazed to find that, on withdrawing the speculum, on each occasion the vagina, in its whole length, was left patulous to the size and form of the speculum, and that no commencement of a return to its normal condition would take place for half an hour or more. I mention this as a thing entirely new to me.

Now comes the bright side of this case. I was sent for urgently one night, about the last of the fifth month of the pregnancy—two miles lay between us—to see the patient. I went immediately, though dreading the worst; but, to my relief, I found on my arrival a baby newly born. Within twenty-five minutes, two more babies tumbled into the world. The three lived about an hour. The after-birth came away quickly, and the poor patient's empty vessels lost very little, but her corpse-like condition was most painful to witness. She was, however, soon able to retain small quantities of food, and she gradually recovered all, except her memory, in about six months, but it took twelve months more to have that restored. About this time she again became *enceinte*, and had rather more than ordinary sickness, but no great harm, and in due course a fine lad was born, and he is now fifteen months old.—I am, etc., J. R. J.

MR. B. BLOWER (Liverpool) does not indicate what has roused him to indignation in the article which he forwards to us. Is he indignant at the facts? or at the view taken by the writer of the article? and what does he wish the Faculty in London to do in the matter? or how does it concern them?

CASPER'S MEDICAL JURISPRUDENCE.

SIR.—I shall feel obliged if you or any of our readers would kindly inform me if it be possible to procure Casper's *Medical Jurisprudence* (complete in four volumes). I have applied to medical publishers, but to be told that I can be supplied with vol. i, ii, and iii only; that it is necessary to become a subscriber to the New Sydenham Society to possess vol. iv, as this number is a scarcity.—Yours truly, December 5th, 1876. W. H. MASTERS, M.R.C.S., etc.,

*Our correspondent should apply to Mr. H. K. Lewis, 136, Gower Street, W.C., or Mr. Kimpton, Medical Bookseller, Holborn.

EXCESSIVE ZEAL OF A PUBLIC VACCINATOR.

SIR.—I should like the opinion of some of your readers on the following subject. The Poor-law medical officer of this union, who is also the public vaccinator, calls on patients of mine about three months after their confinement, and tells them he is sent by the Registrar (relieving officer) to vaccinate the baby, throwing out a hint that it is done free of expense. Is not this a gross breach of professional etiquette? Where one has to deal with a public vaccinator thus over-zealous in the discharge of his duties, how is one to act towards him in such a case as the above? The medical officer as well as the relieving officer are both well aware that I vaccinate the children of my own patients.—Yours faithfully, G. M.

A. L. S.—Dr. Marcet, F.R.S., practises at Cannes during the winter season.

ADMINISTRATION OF OIL OF TURPENTINE.

OIL of turpentine, like all volatile oils, can only be made into what is called a pseudo-emulsion. Forbes's plan is probably the best in the case of oil of turpentine, ether, or chloroform: this consists in introducing into the dispensing vial the proper quantity of the volatile substance, shaking it about to moisten the walls, then adding the proper amount of finely powdered acacia (about half the weight of the volatile liquid), agitating thoroughly, and gradually adding syrup in small quantities. The formula which we recommend is as follows. R. Ol. terebinth. fl. ʒss; pulv. acacie subtiliss. ʒij; syrupi q.s. ad fl. ʒiv; ol. menthae pgt. v. (A tablespoonful contains thirty minims of oil of turpentine.) To the oil of turpentine in the vial, after shaking it about add the powdered gum arabic; agitate well; then add the syrup in small portions, shaking well each time, and finally add the oil of peppermint, which will completely disguise the taste of the turpentine. To persons accustomed to liquor, it can be administered in gin, if the latter be not contraindicated. And, finally, it may be given in gelatine-capsules. *New Remedies*, September 1876.

STAFF-SURGEON.—Thomas Smollett was a surgeon in the Royal Navy. Perhaps you mean the medal founded by the late Sir Gilbert Blane.

PESSARIES.

SIR.—In answer to the letter from Mr. Smailes, asking for the best pessaries for (1) retroversion and (2) anteversion of the uterus, both of long standing, I would say, after some considerable experience, that for retroversion I find a Hodge's pessary—as I have been accustomed to modify it, by increasing the bend in each limb, a form which I have since learned is also suggested by Dr. Albert Smith of Philadelphia (*vide Thomas's Diseases of Women*, page 377)—of the greatest service. I would also recommend my father's elastic pessary, which, by the continuous action of a gentle spring, ever tends to replace the retroverted organ. For cases of obstinate anteversion, I unhesitatingly say that no form of pessary answers satisfactorily alone. In such cases, an intra-uterine stem, combined perhaps with a vaginal pessary (as Hodge's), affords the best relief, bearing in mind that intra-uterine stems have to be employed with the greatest care.—Yours faithfully, HEYWOOD SMITH.

T. H. J. had better, we think, refrain from the method of making himself known, regarding which he consults us. He will soon be known in the neighbourhood by other and more legitimate means.

POST PARTUM HÆMORRHAGE.

SIR.—The following case may be of interest to some of your readers, as instancing a method of treatment in an extreme case where means for injection are not at hand. Mrs. H. was delivered of a full-grown child at 1 A.M. after a severe labour; and, being in a state of nervous depression from domestic anxiety, hæmorrhage set in some time after the expulsion of the placenta, the uterus alternately contracting and relaxing, each relaxation being followed by a profuse gush of blood. The application of cold and the introduction of the hand to the uterus proved of no avail, gush after gush following, till the patient was *desperata*, almost pulseless, and insensible, so that nothing could be done. Being in attendance with my father, we prepared a handkerchief saturated with equal parts of vinegar and brandy, and passed it into the uterus up to the fundus. Hæmorrhage ceased; the pulse became more perceptible; the patient remained insensible for about an hour and a half, when she awoke a little, and was able to swallow some beef-tea made from Liebig's extract. The next day the plug was easily removed, having been expelled into the vagina. It was very offensive in smell; but injection of Carbolic Acid and water twice daily for a few days entirely removed all odour, and she recovered without a bad symptom.—I am, etc., December 5th, 1876. HENRY HEMSTED.

JOHN HOWARD.—The Council of the College of Surgeons does not, we are sorry to say, subscribe to any of the medical charities; although, in a report of the St. Giles-in-the-Fields' National School Building Fund, we see the handsome donation of one hundred guineas.

PRESCRIBING BY DRUGGISTS AND OTHER ILLEGAL PRACTITIONERS.

SIR.—Whatever may be thought of druggists who prescribe in simple cases, there seem to be no two opinions about the propriety of prosecuting those who they druggists, botanists, or others—who advertise themselves as curers of disease; some by adopting medical titles, and others by placing on their shop-windows "Medical Hall," and inside their shops "consulting rooms," besides the distribution of bills and pamphlets, to say nothing of the disgusting advertisements on the walls and in the windows respecting "all cases of searcy," etc. One druggist, whose advertisement I enclose, states that he is "treating daily, by letter, many extreme cases of heart-disease, barrenness, impotence, dropsy, womb-complaints, whites, sexual and nervous debility, etc.; and in remedying such cases for all time, as past experience shows," says he, "I always succeed. All letters will be treated as strictly private and confidential." No body of druggists will defend such practice as this.

As regards the licence, which is advocated by your correspondent Mr. Burton, I have only to ask that gentleman where he is going to find the legislature which will carry out his wishes? I am, etc., MEDICUS.

*Both handbills sent furnish ample ground for prosecution, and we advise the formation of a defence committee for the purpose of clearing the district.

MEDICAL PORTRAITS.—In an interesting unpublished autograph letter of the celebrated Dr. Matthew Palfrey, directed to Hogner the artist, he expresses his great surprise at the painter having allowed his portrait to be placed in the hands of an engraver, adding, "This kind of distinction has always been very disagreeable to me, and when an application has been made to me for this purpose (of which there have been several), I have uniformly refused my consent. I request, therefore, that you will be so good as to send to the engraver to put an end to the work, and that, as the picture is now finished, you will send it home as soon as you conveniently can, etc."

THE ACTION OF PHOSPHORUS.

SIR,—In your very interesting report of a meeting of the Clinical Society on Friday, November 24th, the sentence occurs, on the quoted authority of Dr. Gowers, "The known influence of phosphorus was to cause fatty degeneration." Would you or any of your correspondents be kind enough to refer me to any authority, or to the account of any observed cases, authorising this statement? It is a question of great moment to those who, on account of its observed beneficial effects in some cases, have adopted phosphorus as a remedial agent in their practice. I shall be thankful for any distinct information on the subject, and am, yours very truly,

SUBURBAN.

* * The production of fatty degeneration of the tissues by phosphorus has been described by several observers. Voit and Bauer found it in dogs on whom they made experiments. See *Journal of the Chemical Society, N.S.*, vol. ix; and *Sydenham Society's Biennial Retrospect for 1871-72*.

SALICYLIC ACID.

SIR,—I shall be thankful to you or any of your readers if you can enlighten me as to whether either salicine or salicylic acid can produce necrosis of the shaft of long bones, or cause destruction of a joint by a long continuance of its use; for recently I have been treating a case of acute rheumatism with the above drug, and necrosis of the left tibia and disease of the right ankle-joint have set in. It will be a relief to know whether this serious complication is due to the remedy employed for the rheumatism, or whether it is an uncommon sequel to rheumatic fever. I enclose my card, and remain, yours truly,

G. HERBERT LILLEY, M.R.C.P., M.R.C.S., Resident

Coventry, Dec. 5th, 1876. Medical Officer.

ERRATUM.—The meeting of the Association of Dental Surgeons reported in last week's *JOURNAL* took place on November 22nd, and not on March 22nd, as stated last week.

ABUSE OF TEA.

SIR,—The last number of the *JOURNAL* contains a letter from Mr. W. Cox, asking to be referred through means of its pages to any writings which touch on the "use" or "abuse" of tea. I have much pleasure in telling him that he will find in Dr. Stokes's book on *Diseases of the Heart* a most interesting account of the abuses of tea. If I remember rightly, it is mentioned in the chapter of Functional Diseases.—I remain, sir, faithfully yours,

WILLIAM WALTER, M.D. Dubl.

Long Eaton, near Nottingham, December 6th, 1876.

M. B. asks:—Can any of your readers tell me where I can see a report of the experiments on the ventilation of drains, undertaken by Dr. Miller for the Metropolitan Board of Works?

ELEPHANTIASIS

MR. W. T. EASTCOTT (Plymouth) forwards to us the following curious cutting from the *Panama Star and Herald*.

"There is a young man, the son of a respectable merchant living in Carthage, who for seven years had suffered from an attack of elephantiasis. He was in the last period of this terrible disease—his body full of ulcers, and the fingers ready to fall off, when a Caracas paper fell into his hands, announcing that the flesh of the turkey buzzard had been found to be a certain remedy in Cuba. He has been since living on the flesh of this 'unclean bird' for two months, and was reported almost well. The nails and the hair have been reproduced; the ulcers and protuberances have disappeared; the voice has returned; he sleeps well, and enjoys a good appetite: in fact, so well as to astonish his friends and the medical men of the city. The flesh of the gallinazo has a strong musky odour, and requires a good deal of resolution to eat it. This repugnance, however, soon wears off, and the benefit is felt from the first day of using it. The interests of humanity demand that such good news should be widely circulated, to aid in which we gladly give the facts a place in our columns, hoping the *Promoter*, from which we take the data, will continue the history of the cure of the young man in Carthage. The remedy has been tried in Panama in incipient stages of the disease with the happiest effects. The disease in Colombia and Central America has hitherto been considered incurable. This discovery will doubtless give consolation and hope to many of our South American friends. It is to be desired that the European medical journals will lend their aid to call attention to this new discovery in the popular remedies of America. A case in Panama is testified to by R. MacDowall, L.R.C.S. Edin."

MR. GLADSTONE AND VACCINATION.

SIR,—In the *Times* of November 13th, Mr. Gladstone is severely criticised for replying to two anti-vaccinationists in terms supposed to imply his doubt of the expediency of vaccination; and, if he had really done so, the reprobation of such folly, severe as it is, would have been far less severe than just. The doubt, however, the eminent statesman expressed was not that vaccination itself is expedient. What he wrote was: "I regard compulsory and penal provisions, such as those of the Vaccination Act, with mistrust and misgiving; and, were I engaged on an inquiry, I should require very clear proof of their necessity before giving them my approval"; in which hesitation many will sympathise who have not the slightest doubt of the folly of not vaccinating, for there are many things it would be very wrong not to do that it is not right to compel others to do, and some consider vaccination to be one of these. I have some doubt on the point myself. Though as perfectly convinced as all are who really know the subject that the danger from vaccination is extremely small, and the safety it secures extremely great, I do not feel quite sure of the expediency of making martyrs of the very insignificant number of pig-headed people who have what they call conscientious objections to it. Perhaps, if all such "peculiar people" were compelled to prove the sincerity of their objection by bearing one penalty, the number of children that would be left unvaccinated would be so slightly increased as not to be a serious danger to the community; and it is because the unvaccinated are liable to become causes of danger to others that is the chief justification for making vaccination compulsory. Nay, it is far from clear that, if those who will not have their children vaccinated were liable to one fine only, the number of recusants would be increased in any important degree. There is something like an appearance of heroism in setting the law at defiance and submitting to imprisonment for conscience sake; but there is little glory to be attained by forfeiting a week's wages, or doing a week's work in gaol rather than pay such penalty for refusing to adopt a sanitary precaution. Such a martyr might indeed be pitted, but it would be pity largely mingled with contempt.—I am, sir, your obedient servant,

P. H. HOLLAND, M.R.C.S.

Park Cottage, Pelham Street, S.W., November 14th, 1876.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Hull and Lincolnshire Times; The Derby Mercury; The Hull Criterion; The Whitby Times; The Suffolk Chronicle; The Exeter and Plymouth Gazette; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; The Redditch Indicator; The Dundee Evening News; The Hampshire Post; The Hull News; The Penrith Observer; The Buxton Advertiser; The Border Advertiser; The Edinburgh Courant; The Bournemouth Visitors' Directory; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Hampshire Telegraph; The Falkirk Saturday Herald; The Craven Herald; The Broad Arrow; The Fife Times; The Shield; The British Press and Jersey Times; The Elgin Courier; The Lakes Chronicle; The Tiring Telegraph; The Hexham Herald; The South Wales Daily News; The Dudley Herald; The Tunbridge Wells Gazette; The Jarrold Express; The Northampton Herald; The Liverpool Argus; The Daily Telegraph; The Greenock Advertiser; The Torquay Directory; Funch; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Robert Barnes, London; Dr. F. J. Brown, Rochester; Dr. George Johnson, London; Dr. Braidwood, Birkenhead; Dr. G. Buchanan, Glasgow; Mr. Hugh Robinson, Preston; Dr. Cassells, Glasgow; Dr. Herbert C. Major, Wakefield; Dr. Ward Cousins, Portsmouth; Sodium; Mr. Alfred Pain, London; Dr. G. F. De la Cour, London; Dr. W. Dyson, Sheffield; Dr. Mackey, London; Dr. W. R. Gowers, London; The Secretary of the Hunterian Society; Mr. E. Noble Smith, Paddockhurst; Dr. Douglas, Bournemouth; Dr. J. W. Moore, Dublin; Mr. Walter Rivington, London; Dr. Cornelius B. Fox, Chelmsford; The Secretary of Apothecaries' Hall; Dr. J. Milner Fothergill, London; The Registrar-General of England; Mr. T. M. Stone, London; Dr. Bradbury, Cambridge; Dr. Edis, London; The Registrar-General of Ireland; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. Robert Johnson, Beyton; Suburban; Mr. A. Duncan, Glasgow; Mr. J. M. Chapman, Edinburgh; Mr. S. M'Bean, Newbridge; Our Paris Correspondent; The Secretary of the Admiralty; Mr. T. Holmes, London; Mr. Kiallmark, London; Dr. C. M. Campbell, Torquay; M.D. Ed.; Dr. Balthazar Foster, Birmingham; Dr. Bacon, Fulbourn; Mr. Gaïne, Bath; Mr. J. A. Roberts, Boston; Mr. A. H. Martin, Evesham; Mr. Habgood, Eastbourne; Dr. Marshall, Nottingham; Dr. Pietra Santa, Paris; Dr. Fa irile Clarke, Southborough; Mr. R. J. Mason, Boyton; Dr. Cameron, Glasgow; An Associate; Dr. Pitts, Pudsey; Mr. Robert Johnson, Woodbridge; Medicus; Our Edinburgh Correspondent; T. H. J.; Dr. Fletcher Beach, Clapton; Mr. G. M. Stansfeld, Bristol; Dr. Tripe, Hackney; Mr. J. A. E. Stuart, Musselburgh; Dr. Bothwell, Leighton Buzzard; Dr. Ferrier, London; L.R.C.P. Ed.; Mr. J. W. Groves, London; Dr. Squire, London; Dr. Evans, London; Mr. G. H. Lilley, Coventry; Mr. D. Wardrop, Preston; Mr. S. Hague, Camberwell; Dr. R. Farquharson, London; Amblyopia; Dr. J. Fryer, Dewsbury; G. M.; Dr. Rickards, Birmingham; Mr. F. Sutton, Willingham-by-Stow; Mr. A. Philip, Lincoln; The Secretary of the Medical Microscopical Society; Dr. Jas. Gardner, Chippenham; Our Dublin Correspondent; Dr. N. Tya'ke, Chichester; The Secretary of the Epidemiological Society; W. E.; Mr. G. Eastes, London; Mr. Lennox Browne, London; Mr. H. Burdett, Greenwich; Mr. Hamilton S. Cartwright, London; Dr. James Sawyer, Birmingham; Mr. Alfred S. Gabb, Cheltenham; M.B.; Dr. Walter Long Eaton; Mr. F. W. Lowades, Liverpool; Dr. Finlayson, Glasgow; Mr. James Dickson, Bootle; Mr. F. G. Larkin, London; Non-Advertiser; Dr. Pye-Smith, London; Dr. Burdon Sanderson, London; Mr. Wright, London; Dr. Barron, Newcastle-on-Tyne; Mr. Jabez Hogg, London; Dr. Bucknill, London; Mr. T. Wiltshire, Sheffield; Dr. J. H. Scott, Newent; Dr. R. W. Falconer, Bath; Dr. R. W. Batten, Gloucester; Dr. Braidwood, Birkenhead; Mr. Whittington, Prestwich; Dr. A. Hill, Birmingham; Dr. Procter, York; Dr. Thos. Evans, Gloucester; Dr. Wm. Dyson, Sheffield; Dr. J. Cavafy, London; Mr. R. Goodall, Silverdale; Dr. Rooke, Cheltenham; Surgeon-Major H. B. Hassard, Glasgow; Dr. B. Bott, Southport; Dr. Styrap, Shrewsbury; Dr. Duffey, Dublin; Mr. R. P. Roberts, Rhyll; Mr. Husband, York; Dr. C. Parsons, Dover; Mr. W. D. Ditchett, Louth; Dr. Wm. Taylor, Edinburgh; Dr. J. Aitken, Govan; Dr. R. W. Day, Cork; etc.

BOOKS, ETC., RECEIVED.

Cyclopædia of the Practice of Medicine. By Dr. H. von Ziemssen. Vol. vii. London: Sampson Low and Co. 1876.
Water Analysis. By J. Alfred Wanklyn and Ernest Theophrastus Chapman. Rewritten by J. Alfred Wanklyn, M.R.C.S. Fourth Edition. London: Trübner and Co. 1876.
Kirkes' Handbook of Physiology. By W. Marrant Baker, F.R.C.S. Ninth Edition. London: John Murray. 1876.
A Directory for the Dissection of the Human Body. By John Cleland, M.D., F.R.S. London: Smith, Elder, and Co. 1876.
A Practical Treatise: Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M.D. New York: D. Appleton and Company. 1876.
Handbook for Attendants on the Insane. By Lyttleton S. Forbes Winslow, M.B., D.C.L. London: Baillière, Tindall, and Cox. 1877.

1877.

THE BRITISH MEDICAL ASSOCIATION.

President.—M. MARTIN DE BARTOLOMÉ, M.D., Senior Physician to the General Infirmary, Sheffield.

President-Elect.—M. A. EASON WILKINSON, M.D., F.R.C.P., Senior Physician to the Royal Infirmary, Manchester.

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Treasurer.—WILLIAM D. HUSBAND, F.R.C.S.Eng., Senior Surgeon to the County Hospital, York.

Editor of Journal.—ERNEST HART, Esq.

General Secretary.—FRANCIS FOWKE, Esq.

The ANNUAL MEETING of the Association for 1877 will be held in MANCHESTER under the Presidency of

M. A. EASON WILKINSON, M.D., F.R.C.P.

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LECTURES AND ADDRESSES on Electrolysis, by Dr. JOHN DUNCAN; on the Graphic Method in the Experimental Lectures, and its Special Application to Medicine, by M. MAREY; on Puerperal Fever, by Dr. PRIESTLEY; on the Pathology of Syphilis, by Mr. JONATHAN HUTCHINSON; on the Nursing of the Sick, by Dr. SIEVERING; on the Pathology of Syphilis, by Sir JAMES PAGET, Bart.; on the Theory of Construction of the Nervous System, by Dr. BROADBENT; on the British Medical Association, by Dr. ALLEN THOMSON (Glasgow); on Cerebral Hæmorrhage, by Dr. ALTHAUS; on Paralysis as an Effect of Brain Disease, by Dr. BROWN-SÉQUARD; on Current Topics of Medical Interest, by Mr. J. HUTCHINSON; on the Study of Medicine, by Dr. A. CLARK; on Medicine in 1876, by Dr. MORGAN (Manchester); on Anatomy, by Mr. H. MORRIS; on Army Medical Studies, by Dr. DE CHAUMONT (Netley), &c.

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ORIGINAL PAPERS, by Sir WILLIAM FERGUSSON, Bart., Sir ROBERT CHRISTISON, Bart. (Edinburgh); Dr. GEORGE JOHNSON, Dr. CORBETT, Dr. BRANTON HICKS, Dr. BROADBENT, Professor TYNDALL, Mr. LUND (Manchester); Dr. CHARLTON BASTIAN, Dr. E. COMPTON (Norwich); Dr. MACLEAN (Netley); Dr. L. S. BEALE; Mr. ANNANDALE (Edinburgh); Dr. SPENCER THOMSON (Torquay); Dr. F. N. OTIS (New York); Dr. L. YEO; Mr. G. CRITCHETT, Dr. W. ROBERTS (Manchester); Dr. GAIRDNER (Glasgow); Mr. RIVINGTON; Dr. WARDELL (Tunbridge Wells); Dr. FLEETWOOD CHURCHILL (Dublin); Mr. CADGE (Norwich); Dr. HUMPHRY (Cambridge); Surgeon-Major J. H. PORTER (Netley); Mr. C. G. WHEELHOUSE (Leeds); Dr. EADE (Norwich); Mr. CLOVER; Dr. C. J. B. WILLIAMS; M. PASTEUR (Paris); Dr. WICKHAM LEGG, Dr. WATSON (Birmingham); Dr. A. OGSTON (Aberdeen); Dr. SHINGLETON SMITH (Bristol); Inspector General SMART (Haslar); Mr. W. F. TEEVAN; Dr. OWEN REES; Mr. CHIENE (Edinburgh); Dr. BRAIDWOOD (Birkenhead); Dr. J. C. HALL (Sheffield); Dr. T. B. PEACOCK; Dr. ARLIDGE (Newcastle-under-Lyme); Dr. BEVERIDGE (Aberdeen); Dr. RUSSELL (Birmingham); Dr. JOSEPH COATS (Glasgow); Dr. WILSON (Cheltenham); Dr. LEARN (London); and numerous other contributors throughout the United Kingdom.

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CLINICAL LECTURE ON SACRO-ILIAC DISEASE.

Delivered in University College Hospital, London.

By CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery in University College, etc.

THE disease of which I am about to speak to-day, gentlemen, is one which, perhaps, is not very common; but in fact it is only of late years that it has been recognised. It may be of some interest in the history of the disease for you to know that the first systematic description of it was given in this hospital by Mr. Erichsen, in a clinical lecture, which was published in the *Lancet*, in January 1859. Since that time, of course, the attention of surgeons has been drawn to the disease; and, therefore, you will find that, in most of the modern writers, mention is made of it. I have had a few cases of sacro-iliac disease in the hospital lately.

The first case was in a man who was in the hospital last year. He was admitted in May into the medical wards, under the care of Dr. Reynolds, for sciatica; but, an abscess developing about the pelvis, I was asked to see him some weeks afterwards; and I then diagnosed that he was suffering from sacro-iliac disease, so that my notes begin from that date, and I will give you a brief sketch of the history of the case from the notes of the ward-clerk.

The patient had been a soldier, and had been to India, where he had had dysentery, dengue fever, ague, etc. While in India, he also had an abscess in the perinæum.

Present Illness.—About the end of January or the beginning of February (the patient does not recollect the exact date), he was going up stairs to bed, after having been out for a short walk, and was seized with a sudden and sharp pain at the back of the left hip, and was unable to move for some few minutes; after which time he managed to crawl up to bed, where he remained for two days. The same evening, he sent for a doctor, who gave him some medicine, and a lotion to apply, and told him on the third day that he would be better if he could get about a little. He left his bed that day, and was able to move from one place to another with the aid of two sticks.

On 5th May, 1875, he was admitted, under the care of Dr. Reynolds, with sciatica. The pain was so great that he was ordered hypodermic injections of morphia every night. The patient complained of pain at a point on a level with and behind the great trochanter. The nature of the pain was continuous, with an occasional shooting. There was great tenderness downwards in the direction of the great sciatic nerve, which tenderness reached also round the loins. The patient could not stand well on the left leg, which seemed weaker than the right. There was a slight swelling in the position of the left sacro-iliac articulation, which was first noticed on July 5th. The swelling was regular, ovoid, fluctuating, and very tender on pressure. There was a slight curvature of the lumbar spines to the left side. The patient was thin and considerably emaciated, pale, and anæmic. He lay on the right side, with the left hip flexed at a right angle, because this position was the most comfortable for him; he could, however, also lie on the left side. There was no irregularity of the spine; but on the left side, opposite the two lower lumbar vertebrae and the upper part of the sacrum, there was very great tenderness; and, immediately to the left side of this, there was a swelling extending outwards four inches and three and a half inches from above down. Fluctuation was superficial, and there was considerable tenderness over the swelling. There was distinct impulse on coughing. The tumour was dull on percussion. A very slight tap on the crest of the left ilium caused very considerable pain, which he referred to a line corresponding to the left iliac synchondrosis. No abscess could be detected in the groin along the course of the iliacus muscle. The movements of the hips were free, and caused no pain, except when extreme flexion or rotation was practised, and then the pain was referred to the side of the sacrum. Tapping the great trochanter or the heel produced pain of the same kind. There was considerable wasting of the left lower limb. The patient could stand and walk with the aid of two sticks. Standing on the right leg only could be managed without much difficulty, but it was almost impossible for the patient to stand on the left leg. On his admission into Ward I, Mr. Heath ordered a broad bandage and plaster to be applied tightly to the hips, so as to keep the pelvis firm.

On July 18th, another swelling was noticed about the size of an egg,

communicating with the other one. In this, as in the other, there was a distinct impulse on coughing.

July 24th. The swelling had increased in size. The pain in the back was still very bad.

July 27th. The patient was aspirated to-day, and about half an ounce of thick creamy pus was withdrawn. Collodion and lint were applied, and strapping.

July 30th. The swelling had increased in size, and was nearly the same as before.

August 19th. The patient was aspirated again to-day, and was discharged with a tight-fitting belt.

Now, here we have a clear history of the symptoms of the man at the time he was admitted; and let me particularly draw your attention to the fact of his being unable to stand on the affected side, though you must remember that we have other diseases which prevent the patient from standing on the affected side. He had wasting of the left hip and left limb, which was simply due to his not using the limb. Any limb will waste if you do not use it, so you must not lay too great stress upon it as a sign of the disease.

This case was, comparatively, an easy one. There was a well-marked abscess at the time when I saw the patient; and, on pressing the two ilia together, the man complained of considerable pain over the sacro-iliac joint. The abscess was aspirated more than once, and I had the man fitted with a belt, and eventually he was able to leave the hospital in a tolerably fair condition; so, although his stay in the hospital was rather a long one, he went out in a favourable condition. I have not heard anything of him since; but I dare say I should have done so if he had not gone on well.

The second case was that of a woman, who was admitted for the second time last year. She was under my care three years ago, because then she had a swelling of the *right* iliac fossa, which was aspirated and thirteen ounces of fluid withdrawn. Although I tested her for sacro-iliac disease then, I could not detect any. She went out, and remained without any particular ailment until she was readmitted. And then there is this curious point in this case, viz., there was a history of previous illness ten or twelve years ago, when she suffered from fistula and two pieces of bone were taken away.

Condition on Admission, September 26th, 1875.—In the left iliac fossa, just above Poupart's ligament and over the iliac artery, was a very hard, round swelling, of the size of a small orange. It was fixed to the iliac fossa and did not pulsate. The upper edge was distinctly rounded, and the margin could be felt all round. It was very tender. The patient complained of a sharp cutting pain over the abdomen and down the thigh. She was not anæmic, and was fairly nourished. There was no tenderness over the spine, nor at the sacro-iliac synchondrosis.

I tested her for tenderness, imagining that there was caries and abscess connected with diseased vertebrae; and I may say that the case was complicated by her having a fibrous tumour of the uterus, which I got Dr. Williams to examine.

October 21st. Outside the lump above described, there was a soft, rounded, distinctly fluctuating swelling, which had gradually increased during the last three or four days. In the afternoon, I drew off seven and a half ounces of thick greenish pus, without odour. She had some little fever after that.

November 27th. I again aspirated, and drew off about eight ounces of pus from the left iliac fossa.

December 15th. The patient complained of pain in the back; and said that, when she put her heel to the ground, she felt as if a knife were run into her over the sacro-iliac synchondrosis. This was the first time she complained of the characteristic pain of sacro-iliac mischief.

January 28th. The patient had the abscess in the left iliac fossa aspirated, and eight and a half ounces of pus, with a little blood, were withdrawn.

February 10th. Just inside the anterior superior iliac spine, on the left side, was a swelling as large as a pigeon's egg, fluctuating, becoming tense on extending, and relaxed on flexing the thigh. By pressure in the iliac fossa, the swelling was made decidedly tense. She complained of startings, pain, grating in walking, and had very little control over her limbs. After that, she had a pelvic band fitted on, consisting of two bands passing round the pelvis and fastening on a broad pad in front of the pubes, with elastic-bands passing round the thighs, and fastening to the pad in front. Subsequently, she was discharged without any further tapping, and went to Walton.

She applied here again last July, wishing to be tapped; for the abscess had refilled. Finding that I was going out of town, she said she would not come in then, but would wait till I returned. When I came back in September, she called here to tell me that the abscess had entirely disappeared; that it had discharged from the rectum. I exa-

mined her, and there was nothing to be felt. Fortunately for her, no gas found its way from the rectum to the abscess.

The third case is one that is now in the ward. She came here because she was lame, and we were told nothing more than that; and she being exceedingly deaf, it was rather difficult to make out anything at the time. I examined the patient in her clothes, and found nothing wrong with the hip-joint, and did not detect anything more then; but Mr. Gould called my attention next day to a considerable abscess in the left iliac fossa, which abscess, somewhat unusually I think, took the course down the psoas muscle. The history of this last case is rather obscure, but it is this.

Lucretia A—, aged 25, single woman, was admitted September 18th, 1876. For nearly six months past she had felt pain in her left groin, and also across her loins, especially after standing or walking for any length of time. The pain was always greatest towards evening, but was relieved by lying down. Three months ago, she noticed a swelling on the inner side of her left thigh, which increased in size towards evening. She often felt pain right down her leg, and could not bear to walk far. She said her leg became stiff when she attempted doing so. She had never had rheumatism, nor been injured in any way that she was aware of. Two years ago, she said, her abdomen and legs were very much swollen, her bowels were confined for a week, and she passed no urine for a fortnight (?). She had been out of health for the last two or three years, but she did not complain of anything in particular.

Present State.—The patient complained of constant pain just above the left ilium, which prevented her from walking. Percussion of the trochanter or heel, and forcible rotation of the femur, were said to give pain. There was distinct fullness above Poupart's ligament, and outside the line of vessels, with distinct fluctuation transmitted from this to below Poupart's ligament outside the vessels; also fluctuation was distinctly felt on the inner side from the iliac fossa to the inner side of the vessels. The hip-joint could not be placed absolutely straight, and was kept very slightly flexed. There was no prominence of any vertebra. Percussion over first and second lumbar vertebrae caused pain. She complained of pain on pressure on the ilia. There was no shortening of the limb.

October 8th. I aspirated, and about three ounces of creamy pus were withdrawn. What we have done in this case was, to fit the patient with a belt and tap the abscess. The belt which I have fitted consists of two pads pressing on the pubes, straps passing twice round the body, and then perineal bands put on, which keep it from riding.

Now we pass on to the symptoms and nature of the disease. Take a case of pain about the region of the hips, what are the symptoms which would lead you to conclude that it was sacro-iliac and not hip-disease? First, motion is limited in hip-disease, you cannot move freely the thigh because the muscles prevent it; but in sacro-iliac disease, if you take the precaution to fix the pelvis, you will find that you will be enabled to get all the movements of the hip, which shows that it is not hip-joint disease. When the patient stands, the diseased seems to be a little longer than the healthy side; and if you examine carefully, you will find that the lengthening is real lengthening; that the anterior superior spine is a little lower down than on the opposite side.

In looking over Professor Sayre's *Lectures on Orthopaedic Surgery*, I find he has given a couple of drawings of sacro-iliac disease. The point they show, as you will see, is the wasting of the buttock, and that the patient's body is thrown to the healthy side, the object of the patient being to take the weight off the affected side. There is no doubt about this, and it is important to remember that the patient throws his body to the other side.

Abscess may form either in the iliac region, or behind in the sacral region, or you may have it taking the place of psoas abscess. It is very important that you should make out the nature of the abscess at once, because of the treatment. You know you may have abscess around the cæcum—perityphlitic abscess, from inflammation about the cæcum—and this occurs only on the right side; but, on either side you may have abscess connected with the kidney, and it may be very difficult to tell by the symptoms whether it be due to sacro-iliac disease or to kidney. You may have abscess connected with hip-joint disease, and if you see the patient in the earlier stage you might mistake it for sacro-iliac disease. You may have abscess from diseased vertebrae, in the lumbar region, or disease in the iliac fossa itself; and you must not conclude, therefore, that it is sacro-iliac disease because of the abscess alone. The best diagnostic point is the pain produced by firmly pressing the innominate bones together, or striking the two iliac crests with the balls of the thumbs. The patient suffering from sacro-iliac disease complains immediately as a rule, and refers the pain to the affected joint. In some cases, however, pressing the parts

together is not sufficient, and it is well then to try and draw the bones asunder, which will almost certainly show whether there is a tender joint or not.

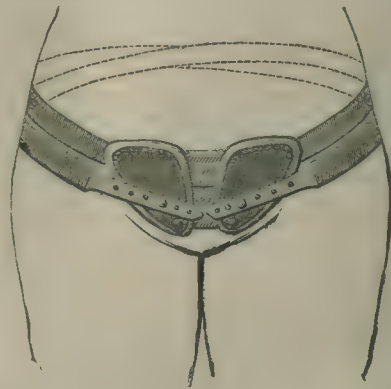
Hilton has called attention to the fact, that the obturator nerve passing from the pelvis through the obturator foramen down the thigh, may cause pain on the inner side of the thigh during sacro-iliac mischief. I mention it here, and give his authority, because I do not happen to have a case to illustrate the point.

With regard to the cause of sacro-iliac disease, I may tell you that the first case I ever saw was in a young woman who had had children very rapidly; and I believe this is a very common cause. You will find that a weak woman has a child with a large head, and there is some difficulty in the head passing at the time of birth, and the mother is ailing and lame when she begins to get about.

Another is injury. Sayre says that he has met with it in children, but I have never seen a case. You may, however, trace it sometimes to direct injury, as we found in that man who had a fall upstairs. I am quite sure I have seen pain in the joint connected with gout. Only a few weeks ago, a gentleman came to me for pain in the back, for which he had had the routine treatment for lumbago; and, as a last resource, I struck his pelvis, which caused pain. He was a very gouty subject, and I then knew that he was suffering from a little gout in that joint. I put him on alkaline remedies and gave him a belt, with complete relief.

Treatment.—The great secret, I believe, is perfect rest; and the reason I say so, because I have proved it experimentally, and because I can show you here specimens of recovery from sacro-iliac disease. If we keep the joint quiet we get ankylosis; that is, growing together of the two surfaces of the joint.

I have here some bones showing the results of the disease. Here is a joint where there is perfect ankylosis; here is another, which is not quite ankylosed; and here is a third, where the sacro-iliac joint is not only ankylosed, but there is ankylosis of the bodies of some of the vertebrae as well. Seeing that we have here a method of cure, we must assist nature by keeping the joint perfectly at rest, and the difficulty is in doing that, because you will observe that you should not keep the hip quiet, but only the pelvis. Mr. Huxley made me this instrument, which answers very well. The two pads over the pubes, and the belts going round the pelvis, keep it firm, and do not interfere



with the patient's movements, but it is generally advisable to add two perineal straps (not shown in the drawing) to keep the belt thoroughly in position. Is any operative proceeding necessary? Mr. Erichsen does not approve of operative interference, but recommends simply opening the abscess. Bryant speaks of having more than once opened the sacro-iliac joint and removed diseased bone, but I have never met with a case requiring such treatment. I see that Sayre, too, speaks somewhat in the same way. He says here: "If the disease has progressed, and suppuration becomes established, then, instead of cauterisation, lay the parts open freely, passing down until you have laid the joint bare, and, if the probe detects dead bone anywhere, follow it up by freely laying the sinuses open, or make counter openings, and gouge it out, for it must be removed before the patient can get well." He also recommends extension and counter-extension, but I do not think extension is necessary. Sayre says, "if the case is one of long standing, and there is more or less deposit in and about the joint, or if the inflammation does not readily subside, application of the actual cautery directly over the sacro-iliac articulation will be of the greatest service"; but I cannot recommend the treatment from my own experience.

I cannot but think that operating is a very serious matter in these cases. I believe the great secret of treatment is, to take the cases early, and not to treat them by extension and counterextension, but to lock the parts thoroughly together. Our object is to give the patient rest, which I do not think he will get by pulling at the limbs, for it must be remembered that we are not dealing with a joint in which the articular surfaces can be separated. I have proceeded on this plan, and I must say that our cases have done very well.

THE ESTIMATION OF THE QUALITY OF POTABLE WATERS.*

By W. LAUDER LINDSAY, M.D., F.R.S.E.,
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THE object of this paper is :

1. To draw attention to the increasing practice of analytical chemists and civil engineers in giving opinions upon the suitability of a water-supply for consumption by a human population ;
2. To show the mischief that is done by such opinions in preventing the introduction of a proper water-supply into our large towns ; and
3. To prove that the determination of the suitability of a water-supply, in relation to the public health, is exclusively a medical question—one for the physician, who has specially studied sanitary subjects.

I will confine myself to a single illustration—the water-supply of a single town. But that illustration, I think you will agree with me, is a notable and sufficient one. I refer to the present water-supply of Perth, once the capital of Scotland, but now an eighth-rate town of about 26,000 inhabitants. It is the capital of a county which is, perhaps, better supplied with natural reservoirs of water, suitable for the domestic use of towns, than any other county in Britain. These reservoirs consist of the numerous lochs (or lakes) scattered over the district, the most important of which—as it is the feeder of the Tay—is Loch Tay. This loch is fifteen miles long, one broad, one hundred to six hundred feet deep, and three hundred and fifty-five feet above the sea-level. But there are also Loch Earn, Loch Rannoch, Loch Katrine, and many others—all of them situated in the area of the Lower Silurian rocks, an area that supplies the best potable water of this country. One of these lochs (Loch Katrine) furnishes the water-supply of Glasgow ; another that of Crieff ; and they are the natural sources of supply for Perth itself, as well as for all the towns or large villages of the county.† No doubt they are at considerable distances from Perth—fifteen or twenty to fifty miles. But this is no serious objection when public health is in question ; and when we consider from what distances other towns have not hesitated to bring their water-supplies, what the old Romans thought of distance in such a matter, or how the gold-diggers of our colonies dispose of such a difficulty.

But, in addition, the county of Perth is drained by the largest river in Britain, the Tay—a river with a basin of 2,500 square miles ; receiving, above Perth, a number of important affluents, such as the Lyon, Tummell, Garry, Isla, and Almond. The river itself flows through the town of Perth, dividing it into two unequal halves.

You will naturally suppose that, with such an affluence of suitable water for domestic supply and other purposes, Perth should be the best water-supplied city in Britain ; and you will probably be astonished when I tell you that :

1. The water-supply of the town is drawn from the river after it receives the town-sewage, which consists of—(a) The excrements, fluid and solid, of 26,000 inhabitants ; (b) The excrements of domestic animals—horses, cattle, and pigs especially ; (c) The outpourings of dye-works—among the largest in the kingdom—tanneries, and other public works ; and (d) The drainage of two overcrowded graveyards. And the river contains further, the sewage of all the towns and villages on its banks, or on those of its tributaries above Perth—including Dunkeld, Aberfeldy, Coupar-Angus, and Blairgowrie ; with the refuse of the numerous public works which take advantage of the water-power of the river or its affluents.

In other words, the river Tay at Perth is a huge river-sewer ; and it is from the river-sewage, filtered naturally, that the town of Perth takes, and proposes continue taking, its water-supply.

* Being a paper prepared for the Public Health Sections of the British Medical Association meeting at Sheffield, August 1876 ; and the National Association for the Promotion of Social Science meeting at Liverpool, October 1876.

† Had it been possible for Perth and Dundee, Forfar and Brechin, and other towns of Perth and Forfarshires, so far to have forgotten their local interests, prejudices, and jealousies, as to have harmoniously co-operated for a great common good, Loch Tay might have afforded to all of them, by conjoint waterworks, an unailing, unlimited, unobjectionable, and economical water-supply.

2. This water-supply, however, is available for only a portion of the inhabitants, who have, instead of fifty gallons per head per day for all purposes, under twenty.*

3. Not only so, but there is absolute scarcity and insufficient pressure in case of fire.†

4. A large portion of the inhabitants—those who occupy the better parts of the town, its suburbs, rising to elevations of 200 to 300 feet—are dependent for their water-supply on surface or well waters—drainage-water—contaminated with the manure washed from fields, gardens, farm-yards, and roads.

5. And, in addition to bad quality, such is the scarcity in summer of this kind of water-supply that it is common for residents in the suburbs to borrow from each other ; while even whole suburbs and important public institutions therein have to resort to the cartage of water from the distant river ! In other words, there is frequent short supply for (a) drinking, (b) cooking, (c) ablution, and (d) flushing drains.

This being the case, and having been the case, to my own knowledge, for at least twenty years, with no indications of any movement for an improved water-supply, I took advantage of an opportunity offered me by a local scientific society, in February last, to draw the attention of the people of Perth to the unsatisfactory state of their water-supply in relation to public health. I described the river at Perth as virtually a common-sewer on a large scale ; and denounced all sewage-water, however diluted and filtered, as unsuitable for domestic use as a potable water—having special reference to the ease with which unobjectionable water, in any quantity, may be introduced into the town, as well as to the natural tendency of rivers, such as the Tay, to become annually more and more polluted.

The people of Perth have long laboured under the complacent and egotistical delusion that, sewage here or there, the river-water below Perth “is the finest in the kingdom for drinking use” ; and, unfortunately, they have never had any difficulty in getting analytical chemists and civil engineers to confirm them in their serious error. In order, apparently, specially to neutralise the effect of the opinions which I publicly expressed on the subject in February, the Water Commission and the citizens of Perth have lately had reports regarding the quality of the river-water—in reference to its use by the inhabitants for drinking and other domestic purposes—from an analytical chemist, Stevenson Macadam, Ph.D. of Edinburgh, and a civil engineer, James F. Bateman, C.E., of London.‡

Dr. Macadam says, as the result of a couple of analyses of bottled samples of water sent to him by the Water Commission : “I am of opinion that the waters are of wholesome quality and may be confidently employed for domestic supply, including drinking”. He describes them as “free from contamination with noxious element, either of an organic or inorganic character”.

Now, it has been abundantly proved of late years, that : 1. Chemists utterly fail to detect those matters in sewage which are most dangerous to human life, which escape filtration, are invisible to the naked eye—sometimes even to the microscope—and nevertheless produce wholesale disease in man—the germs of zymotic disease.§ And it has equally been shown that : 2. Even were chemical analysis capable of detecting what the Registrar-General of Deaths in London calls “zymads”, chemists are at irreconcilable variance among themselves|| as to their modes of analysis—some of the most eminent chemists in this country, for instance, denouncing as

* In Rome, of whose unhealthiness, real or alleged, we hear so much, there is a water-supply of no less than three hundred and seventeen gallons per day to each inhabitant, from four aqueducts alone, besides further sources, which render its water-supply “enormous”, according to Dr. Lachlan Aitken of Rome.

† This has repeatedly been pointed out by the sanitary inspector, who is also the head of the police force, Captain Welsh ; and it was, unfortunately, only too well illustrated at a fire in St. John Street in October 1876.

‡ In the belief, apparently, that my opinions must have undergone modification under the influence of Dr. Macadam's analyses and positive assertions, the said Commission applied to me by letter in July 1876, to ascertain whether and how far my opinions had undergone change. My published reply gave me the opportunity of more emphatically expressing my belief that the determination of the quality of a water-supply in relation to human health is exclusively a medical—not a chemical or engineering—question.

§ In August last, I put the question to Dr. Klein, by letter, whether he could conceive the possibility of a chemist detecting zymotic germs in water. He was kind enough to reply at once. “A chemist cannot distinguish innocuous sewage from sewage containing specific germs of disease. Even the microscope is unable to detect matters deleterious to health which may be present in water.”

|| In illustration, I need only cite two recent public trials in Scotland, which are types of accidents that are constantly occurring in all parts of the three kingdoms. I refer to—1. The Bunchrew (Inverness) bone manure case, tried before the Court of Session, Edinburgh, in March 1876 ; and 2. A crucial butter case, tried before the Sheriff's Court, Glasgow, in July and August 1876. In both of these cases, it so happened that Dr. Macadam held opinions that were pronounced erroneous by the issue of the trial ; which issue was determined by the concurrent evidence of numerous other analysts, including those employed by Government at Somerset House.

worthless such methods as are followed by Dr. Macadam.* Moreover, such a conclusion as Dr. Macadam's, as to the use of sewage-water, is diametrically opposed, not only to: 3. The testimony of the medical profession as a whole, and especially of that large section thereof whose members are connected and conversant with sanitary science and sanitary operations—the important body of medical officers of health in our large cities; but also to: 4. The emphatic conclusions of the Rivers Pollution Commissioners, in their concluding Report (in 1874) on Public Water Supply.

Inasmuch as the object of this paper is less to communicate information, or to set forth and support my own views, than to invite discussion by, and the expression of the opinions of, the members of so important a Congress as that which I have the honour to address, I cannot occupy your time with citations calculated to show how erroneous and mischievous such a conclusion as Dr. Macadam's is. It is proper, however, that I should quote one or two paragraphs from the Blue Book just alluded to [on "The Domestic Water-Supply of Great Britain"].

1. "Dangerous water is . . . river or flowing water . . . which is known, from an actual inspection of the river or stream, to receive sewage, either discharged into it directly or mingling with it as surface drainage."

2. "When any portion of the manure consists of human excrements, the organic matter, dissolved in the water, becomes not only disgusting, but also dangerous."

3. "Even when not contaminated by the actual admission into it of the sewage of towns and villages (river-water), is not of suitable quality for domestic purposes. But when it is further polluted by excremental drainage, its use for drinking and cooking becomes fraught with great risk to health."

4. "Nothing short of abandonment of the inexpressibly nasty habit of mixing human excrements with our drinking water can confer upon us immunity from the propagation of epidemics, through the medium of potable water."

5. "If fatal results had never been known to follow the domestic use of such water, the refined feeling which separates the civilised man from the savage, and which excites loathing at the bare idea of organic matter, which has formed part of a human body, being supplied for human consumption, ought here to make itself felt, and to secure the rejection of such a beverage."

6. "It is difficult to conceive anything more disgusting and dangerous to health than a populous community . . . systematically, and by an elaborate and costly arrangement of reservoirs, pumps, filters, and distributory apparatus, drinking its own filtered sewage!"

I venture to believe that these emphatic declarations of the Rivers Pollution Commissioners—among whom is one of our most eminent chemists, Professor Frankland, and which conclusions are based on an infinity of data collected alike from medical sanitarians, chemists, and civil engineers—will meet with the unanimous approval of the medical profession. And if these declarations or generalisations be correct—if they are (as I, and I hope you also, believe them to be) unassailable—it must be obvious that such opinions as Dr. Macadam's are, on such a point, worthless and misleading.

Mr. Bateman, who was asked to report on "the best means of providing an extended water-supply for Perth", went very far out of his way when he ventured on the following opinion regarding the quality of the Perth river-sewage as a potable water. He says: "I am convinced no better water could be procured anywhere. . . . It is of very great purity. . . . Notwithstanding the sewage of the city, which is poured into the river above the (filtering) island, the water is not only remarkably pure, according to chemical analysis; but, as I am informed, and as I had in part the opportunity of observing, it is bright and brilliant under all circumstances of the river." . . . (Natural filtration) "is sufficient, I imagine,† to obviate any possible objection to such pollutions as enter the river above the island."

His opinion, then, appears to be based on: 1. Dr. Macadam's ana-

lyses; 2. Hearsay evidence; and 3. The clear appearance of the filtered water.

I have endeavoured to show that no mere chemical analysis is of any value, as determining the probability or improbability of a sewage-water producing in man the zymotic or other diseases; failing, as such analysis does, to detect the germs of such diseases as typhoid fever and cholera. In this case, all opinions based on mere chemical analyses necessarily fall to the ground.

Hearsay evidence is obviously inadmissible in an opinion given by a scientific expert on a scientific question; and I confess my astonishment that Mr. Bateman should have made use of it.

The clear, sparkling, or brilliant appearance is so far from being any criterion of their innocuity that, perhaps, the finest-looking waters are those which owe their appearance to the products of human decomposition in our overcrowded city graveyards!

It is very significant that, notwithstanding Mr. Bateman's very confident opinion as to the unapproachable excellence of the Perth sewage as a drinking material, he says this: "To the superficial observer, the sewage which enters the river above the island, and the rise of tide, which dams back a portion of the sewage which enters below, are apparently grave objections. But the water, after passing through the great filtering island, is not injured; and it will cost less money to divert the sewage to a sufficient distance below the intake than to bring in pure water from a distance."

Here we have a very singular series of assertions, insinuations, and admissions. It scarcely becomes a civil engineer, who trusts to chemical analyses, hearsay evidence, and the naked-eye characters of a water to enable him to give a confident verdict as to its medical qualities, to assign to the category of "superficial observers":

1. Medical officers of health, who have made water-supply, in its bearing on the maintenance of health and the prevention of disease, a life-study;

2. All the eminent men—medical, chemical, or engineering—whose evidence is embodied in the six reports of the Rivers Pollution Commissioners;

3. The following distinguished members of our profession—all of them well known Fellows of the Royal Society: (a) The late Professor Parkes of Netley; (b) Dr. Benjamin Ward Richardson of London; and (c) Dr. Klein of the Brown Institute, London, who has made a special and most successful study of zymotic germs and their actions; these eminent authorities emphatically confirmed the propositions contained in my address on "Public Water-Supply, with special reference to the requirements of Perth".

4. The local medical men of Perth, who have been familiar for twenty or thirty years or upwards with the quality of the river water, on the one hand, and the fluctuations of disease and of health in the city on the other.

And it would appear to indicate a want of confidence in his own assurance when, after proving, or attempting to prove, that the river sewage is first-rate in quality and is "not injured" by filtration, Mr. Bateman yet refers to the diversion of the city sewage to a point below the filtering tank! Further, his allusion to bringing in "pure water from a distance" does not quite harmonise with his previous assertion as to the "very great purity" of the filtered sewage of Perth.

In short, Mr. Bateman's report on the Perth water-supply seems to me a scientific curiosity. But were this all, I would scarcely ask the attention to it of the present Congress. The practical effect, however, of such assertions as those of Dr. Macadam and Mr. Bateman—as to the purity of the filtered river-sewage of Perth—is this, that not only for the last forty years, the state of matters which I have already described, as regards scarcity of water and objectionable quality, has existed in that city, but there is a prospect* of its being perpetuated, unless it can be and is shown that the opinions of analytical chemists and civil engineers, as to the quality of potable water, are valueless beside the very opposite opinions of the whole medical profession and of the Rivers Pollution Commissioners. For, what Mr. Bateman proposes is not a gravitation supply from some of the natural reservoirs already spoken of, and which supply, at £2,000 per mile, might be introduced perhaps for £40,000 or £50,000, while it would be unfailing, unlimited, unobjectionable, and permanent; but he suggests the expenditure of £30,000 on mere extension of present works—on additional engine-pumps, reservoirs, and pipes—the water to be supplied being still the filtered sewage so emphatically denounced in the Government Blue Book of 1874.

It is a striking practical commentary on the opinions of Dr. Macadam and Mr. Bateman that, just about the period of their reports, in June last, the Registrar-General of Deaths and their Causes in Scotland

* Thus, Professor Frankland informs me (*in litt.*) that "the albuminoid ammonia method of analysing waters is quite useless for ascertaining their fitness for dietetic purposes". Dr. Mills, F.R.S., Young Professor of Technical Chemistry in the Andersonian University, Glasgow, tells me that in the Young Laboratory of Technical Chemistry, Glasgow, "the method of analysis adopted is that of Frankland, improved by myself. The results are thus obtained in the only form in which they can be compared with those of the late Rivers Commission, whose reports contain two thousand analyses of waters from all the chief strata and under all the usual conditions. With Wanklyn's method, as such, I cannot agree on chemical grounds, and therefore never use it". On the other hand, a local Scotch analytical chemist writes: "I may be permitted to say that I put no confidence in any other method of analysis of water than that I carry out myself—viz., the ammonia or Wanklyn method. . . . The latter is used over the whole civilised world; the former (the Frankland method) by not six chemists; which remark also applies to Macadam's method."

† The italics are mine.

* This prospect has been converted into something like a certainty; for a Water Bill for Perth, on the basis of Mr. Bateman's report, has been prepared for Parliament—to be passed this session.

announced that "the town which suffered most from epidemics is Perth, where 23.0 per cent. of the deaths are ascribed thereto". In February I had publicly pointed out that, if my opinions regarding the connection between the water-supply and the mortality of Perth are correct, the mortality from zymotic disease should be greatest when the river is at its lowest—the dilution of sewage therefore least; and I am only sorry to find that my vaticination was so correct.*

I trust that those who have done me the honour of listening to a history that is not, I think, of mere local interest, will now do me the further favour of freely expressing their opinions, or recording their experience—the question for discussion being: Whether or not, and what, mischief arises from analytical chemists and civil engineers usurping the place of physicians in questions which necessitate the possession of special medical knowledge and experience?

CASE OF TUMOUR OF THE SKULL, WITH HEMIPLEGIA OF THE SAME SIDE OF THE BODY.

By EDWIN RICKARDS, M.B.,
Physician to the General Hospital, Birmingham, etc.

Tumour of the Left Posterior Fossa of the Skull, causing Absorption of the Left Half of the Cerebellum, and pressing against the Pons Varolii and Medulla Oblongata: Hemiplegia of the corresponding Side of the Body.—Harriet T., aged 39, was the mother of ten children; the last four died shortly after birth. She had always been strong and well up to October 1870. Until then, she had not lost a child. From that date to her death, she was subject to headache and epileptiform fits, occurring at intervals varying from a week to two months. In July 1874, she for the first time experienced difficulty in walking straight; and one day she was accused of being intoxicated. In the following October, she noticed that the limbs on the left side were weaker than formerly. In March 1875, she had an unusually severe fit, lasting three hours. When she rallied from it, she found that she had lost so much power over her left side that she could not raise the arm or leg on that side; this loss of power was increased by subsequent fits. In January 1876, I saw her. There was paralysis of the left side of the body, though the fingers and toes could be moved slightly. The whole of the left side of the face was completely paralysed. The left eye could not be closed; its conjunctiva was insensible; its pupil was unaffected. There were complete deafness and defective vision on the left side. The sensibility of the left side (limbs and face) was greatly diminished. The face was drawn to the right side. There was no heart-disease, nor albumen nor sugar in the urine. All these symptoms persisted until her death, which occurred suddenly, as she was being carried up stairs to bed, in November 1876—her intellect remaining clear to the last. I saw her many times. Her various complaints were that she had no power or feeling in the left limbs; that she could not sit up, for she had no power in her back; that the pain in the left side of her head was constant and very severe; that she could not eat, for she had no appetite, and she could not swallow solids, as they seemed to lodge in her throat; that, though always thirsty, she had great difficulty in taking liquids, as they brought on fits of coughing; that she had great difficulty in clearing her throat of phlegm in the morning; that she could not feed herself, for, although her right hand was strong enough, it was unsteady. In April preceding her death, she had great exacerbation of the pain in her head; and, for three weeks, she lost control over her bladder and rectum, and was much troubled with cough.

POST MORTEM EXAMINATION, twenty-four hours after death.—The body was much emaciated. There was no abnormality in the vascularity of the surface of the brain, nor was there any effusion there. On section of that organ, the tissue was more tough and less vascular than usual, and had a faintly fawn-coloured tint throughout. All the ventricles were much dilated, and contained about eight ounces of clear watery fluid. A crow-quill could have been passed through the iter a tertio ad quartum ventriculorum. On raising the brain from the skull, the vessels of the base were healthy; and nothing abnormal was noticed there, until a tumour was seen projecting through the aperture in the tentorium against the pons Varolii and the medulla. On dividing the tentorium, the tumour was found to occupy the left posterior fossa of the skull, and was covered over by a thin layer of cerebellum about half an inch thick. The remainder of the left half of the cerebellum had not been displaced, but removed by absorption, as if by a spoon;

* A signal illustration is to be found, moreover, in the fact, that in September 1876, in a single industrial school for girls in Perth, of a total of seventy-three pupils, forty-three were simultaneously prostrated with typhoid fever—a fever that may be said never to be absent from Perth; the assigned cause of the said outbreak being scarcity of water for flushing drains.

it was the upper surface which remained, and this was attached by the peduncles, which were thin nervous bands. There were no adhesions between the brain and the tumour. The tumour was about the size of a hen's egg, soft but tense, and covered over with a smooth vascular membrane, doubtless altered dura mater. This membrane had to be divided before the morbid mass could be scooped out. It had eroded the temporal bone to such an extent that the thumb could be placed in that bone. The consistency of the tumour was not quite the same throughout, but for the most part resembled bacon. The tumour was fawn-coloured throughout. In the mass was a thickened cord, which was the distal end of the eroded seventh nerve. The pons Varolii and medulla on the left side were not eroded, but, by the pressure of the tumour, had been reduced one-third of the size of the right halves. The left half of the medulla felt like a bag half-filled with feathers containing a solid body, which was the olivary body. The lungs were engorged and filled the chest. The heart was empty and healthy. The other viscera were healthy. There were no signs of syphilis or tubercle. The tumour was composed entirely of fine nucleated oat-shaped cells. It was without stroma, and contained numerous vessels. Doubtless it was a sarcoma arising from the dura mater. The tumour only could be removed for examination.

REMARKS.—The facial paralysis and loss of hearing on the left side are readily explained by the facial and auditory nerves on that side being eroded through; and, from the position of the tumour, there was doubtless pressure on the fifth, eighth, and ninth nerves, which would explain other symptoms. As to the loss of power which affected the left limbs, there seem two possible explanations, viz., pressure of the tumour on the non-decussating fibres of the medulla, and the accumulation of fluid in the ventricles. Vulpian (*Moniteur des Sciences Médicales*, June 25th, 1861) records a case where a tumour, situated in the right posterior fossa of the skull, was accompanied by paralysis of the limbs of the right side; and he states that the accumulation of fluid in the left lateral ventricle was greater than that in the right; but, in the case above recorded, both ventricles seemed equally distended. The extensive damage to the cerebellum tallied with the early symptoms of loss of power of co-ordination.

EXTRACTION OF FOREIGN BODIES FROM THE EAR.

By WALTER RIVINGTON, M.S.Lond., F.R.C.S.Eng.,
Surgeon to the London Hospital, etc.

IN THE BRITISH MEDICAL JOURNAL of July 15th, there is an article by Dr. H. A. Alford Nicholls, of Dominica, West Indies, in which, whilst concurring with and commending the general rules which I ventured to offer (*BRITISH MEDICAL JOURNAL*, March 18th, 1876) for the extraction of foreign bodies from the ear, he calls in question the soundness of my belief that the ear-scoop should be banished from the surgical armamentarium. In support of this instrument, which I had the temerity to characterise as a "rude implement" and to condemn, Dr. Nicholls relates an interesting case in which he was enabled to remove the trunk of a cockroach with the ear-scoop. He did not succeed in removing it with forceps; and he did not employ syringing, because he believed that "all the syringing in the world could not have shifted the mass in the slightest degree". Unfortunately, or fortunately perhaps, I have had no experience in the removal of cockroaches, and I should hesitate to hazard an opinion on a case which I did not see; but, in the present state of my knowledge, I do not altogether perceive why a dead cockroach should not be displaced by careful syringing. Nor should I have anticipated that, with a good light, a mirror, a Toynbee's speculum, and proper forceps, any serious difficulty would be experienced in dislodging the intruder. Of course, the ear-scoop may be used successfully in some cases, and, in skilled hands, without the infliction of injury to the tympanic membrane and chain of bones; but its adaptability to the extraction of foreign bodies is essentially limited. It is, at least in my judgment, a clumsy instrument. It occupies a great deal of space; and it must be insinuated by the side of the foreign body, and reach its posterior part, to be of any service at all.

Now if, in any given case, the ear-scoop be capable of being introduced by the side of the foreign body and made to act in its rear, that foreign body cannot well be very formidable, or so block up the meatus as to offer insuperable difficulties to the more gentle influence of a stream of water. If, on the other hand, the foreign body, as it so often does, fill or nearly fill the meatus, the ear-scoop is worse than useless. When the ear-scoop has gained the rear of the foreign body, it is very liable, even in skilful hands, to do mischief. Contact with

the membrana tympani can scarcely be avoided when the foreign body is deep; and, even if no wound be inflicted, the chain of bones may be disagreeably jarred and agitated. Weighted with all these disadvantages, the ear-scoop is placed in cases of instruments as the means of extraction of foreign bodies; and the student or practitioner who has not learnt sounder practice flies to it, perhaps, as a matter of course. If it were clearly understood that it is only to be used, as Dr. Nicholls advises, in the last extremity, or after consultation with an aural surgeon had failed, I should not wish to remove it from a place among surgical instruments, for I feel convinced that its opportunities for mischief would be so curtailed as to render it unnecessary to say another word against it. Nor would I so strongly object to its employment in cases where there is so much room in the meatus that the surgeon can see precisely what he is doing and where he is placing his instrument. But to any instrument, ear-scoop or other, the conditions of whose employment necessitate risk to the membrana tympani, I am prepared to offer a very stout opposition. If Dr. Nicholls will kindly refer to my remarks in the JOURNAL of March 18th again, he will see that he has accidentally misquoted and misapprehended what I said about allowing foreign bodies to remain in the ear. He says that I advise that *in all instances* the foreign body should be allowed to remain in the ear until syringing effects its removal. I did not lay down any such doctrine, or anything resembling it. My advice about allowing a foreign body to remain in the ear had reference solely to cases, happily exceptional, in which prolonged attempts with ear-scoops, etc., had been made unsuccessfully, causing tenderness, disturbance, and disposition to bleed, so that the view of the practitioner was impeded or prevented, and the difficulty of extraction greatly increased. In such cases, and in such cases only, did I recommend delay for the purpose of allowing the parts to recover a more natural condition. Dr. Nicholls's criticism, therefore, of my supposed doctrine, having lost its objective point, need not, so far as I am concerned, be disturbed. But I may say this, that if, in a case such as I referred to, the friends disputed my advice, I should at once recommend them to seek the opinion of some practitioner in whom they had thorough confidence; and I certainly should not be personally annoyed, whatever might be my fears for the integrity of the conducting apparatus of the ear in question, if I heard that the foreign body had been extracted on the selfsame day with an ear-scoop. I am very much afraid that the surgeon, armed with the ear-scoop or other extracting instruments, and the foreign body together, are sometimes more potent for mischief to the anatomy of the ear than the foreign body by itself would prove even if allowed to remain in the meatus for a lengthened period. Every one of experience must have met with cases in which foreign bodies have so remained for weeks and months without ill effects.

With Dr. Nicholls's remarks about the necessity of care in the use of instruments I cordially agree; and I agree, though not precisely in the sense in which he wrote the passage, with the remark that, "if proper care be employed, there is no more danger of injuring the ear with an extracting instrument than there is of making a false passage with a catheter." "If proper care be employed"—this is precisely the difficulty. It is most difficult without experience to learn what proper care is. No class of cases more commonly comes under the surgeon's observation than cases of stricture complicated by false passages; and no doubt, if foreign bodies in the ear were as common as stricture, the general use of ear-scoops would be followed by a parallel prevalence of injury to the tympanic membrane. Yet in either case the operators would probably affirm with confidence, and fully believe, that proper care had been exercised. Many of the cases of stricture in which false passages are made are cases in which the immediate use of a catheter is neither necessary nor expedient—cases of retention following a drinking bout in patients who are the subjects of stricture easily permeable under ordinary circumstances. Such cases yield to warm baths, aperients, and opiates; and with such it is wiser, if it can be managed, not to interfere instrumentally until the subsidence of the congestion resulting from the festivities. Similarly, it is wiser, in my opinion, to trust to the influence of a stream of water for the removal of a foreign body from the ear, than to attempt its displacement with rigid extractors working in a space extremely contracted and with so much risk to the integrity of one of the most delicate structures in the body.

That cases not amenable to syringing may occur I do not dispute, although I have not yet met with one. In such a case, I should prefer using a suitable pair of forceps, which could be guided with the utmost precision by means of the mirror and speculum, to employing an instrument so intractable as the ear-scoop.

After all that has been said, it is satisfactory to observe that the real difference between my views and those of Dr. Nicholls is extremely small, and would probably disappear altogether if our interchange of ideas were not impeded by the distance which divides us.

CASES OF SCURVY IN THE POLAR SEAS.

By ROBERT SMITH, F.R.C.S.Ed., Heckfield, Hants.

THE cases from which the following summary has been drawn occurred under my care during a cruise in the seas to the west of Greenland, extending as far north as to the entrance of Smith's Sound. There were seven cases in all. Four very severe ones, two of less severity, and one in which the disease was very slight, but still sufficiently well marked as to leave no doubt of its nature. As the leading facts of the voyage among the ice may be of service in giving a correct appreciation of the circumstances antecedent to the outbreak of the disease, they are briefly given.

The ship reached the ice on March 27th. On the thirteenth of the following month it was beset, and, failing to force a passage to the north, two days later was frozen in, the temperature having fallen so low as to freeze the mercury. We continued thus amid frequent falls of snow until May 3rd, when, after great exertion, the crew succeeded by sawing and blasting in clearing a channel through six thousand feet of ice, by which the vessel gained the open water. Some days later a thaw set in, when it was found that the potatoes and vegetables generally had suffered to such an extent as to be useless as food. They were thrown overboard. Thus, from an early date, the most important antiscorbutic elements of diet were cut off. Rice and oatmeal were allowed *ad libitum*, with a regulated quantity of peas twice weekly. Regular rations of rum were not allowed, this being reserved for periods of exertion.

No case of scurvy showed itself during the warm summer, or while on the sheltered Greenland side of the Straits. But in the month of August, after a period of great dejection, owing to having been again beset for several days, and amid a succession of cold misty weather, during which the men were much exposed, the disease appeared in the case of a young man, careless as to cleanliness. He had not suffered from it before, but had been looked upon as a healthy sailor, always fit for duty. There was a preliminary lassitude, the spirits fell, the pulse was slow, the appetite failed, and digestion was bad, while the gait became stiff and awkward. Then a dull pain was complained of in the sural muscles, and the tendons of the knee-joint became contracted. In the month of September, there were three other cases. Two of the patients became giddy on slight exertion, one had pains in the epigastrium, and the gums in all were swollen and livid; while in two there was a darker line following the closely alveolar edge about a line from the teeth, which in these patients were loose. The breath became more or less offensive in all. Bleeding from the gums took place at first on slight provocation, latterly without any immediate cause, and in one case there was epistaxis. The man who was decidedly most affected had formerly had the disease while in the Chinese waters, and his was the third case in order of occurrence on the present occasion. With him, dark spots appeared first on the muscular space between the tibiae and the fibulae of both legs, then on the thighs; those on the fore legs gradually coalescing into large patches of a dark colour, quite flabby under the touch.

In all, the treatment was very much cramped by the absence of fresh vegetables in sufficient quantity—the quantity of preserved ones being too small to meet the cases satisfactorily. Vinegar was served with the food, and lime-juice. Owing to the low state of the circulation in some, porter was added, with a result that encouraged its addition to the rest. The cases progressed favourably except two; in these, the weakness advanced, and they were carried ashore, where, on the restoration of fresh vegetables, they were quickly restored. In one of the milder cases, citric acid was tried at first; it was of little service alone, but seemed more useful when neutralised by bicarbonate of potash or soda.

In all the cases there had been the same deprivation of vegetable food as served from the ship's stores, although rice and oatmeal has been allowed as wanted. But as some carried private supplies, and as it was impossible to ascertain who took advantage of the unlimited supply of these articles or who did not, nothing can be rightly inferred from this as to the invasion of the disease. But a careful study of the circumstances of the crew antecedent to the outbreak showed that (in addition to the primary cause, the long deprivation of succulent vegetables) there were secondary elements deserving at least consideration. First among these secondary causes, then, the long duration of cold misty weather claims a place. The snow covering the floe became wet, the floe itself soft and rotten, with holes here and there into which the men were constantly slipping. All day long they were wet to the knees, nor did the severe exertions they underwent do anything more than weaken their already overtaxed constitutions; indeed, this

appeared to be an important secondary cause of the outbreak. The men became dejected. A state of languor succeeded, after which the development of the complaint was rapid. The state of lassitude itself I should class as a symptom of the disease—as a result, not a cause. At the same time, it should not be overlooked that want of proper exercise might induce a similar state.

THERAPEUTIC MEMORANDA.

ON THE USE OF SANTONIN IN EPILEPSY.

SANTONIN is stated by Mr. Spencer Wells to cause patients to see objects either yellow or green in colour; and this fact has been confirmed by Dr. Macnamara, and attributed to the production of some cerebral disturbance. In the following cases, I was led to administer santonin, thinking that the epilepsy depended upon the presence of lumbricus in the intestines. The stools were carefully examined, but no trace of the parasites could be discovered.

CASE I.—J. P., aged 10, about three years ago had an injury to one of his fingers; and, while under the treatment of a woman bone-setter, she tore off (the father of the child says) the nail before the proper time for its removal. As the finger became worse, the father placed him under the care of a surgeon and it rapidly healed. Immediately after this, he noticed his son to suffer from slight giddiness; sometimes, in walking, appeared as if asleep for a few seconds; in running, he had been seen to stop, and, after the attack had passed, start off again. When he came under my care, six months ago, the attacks were very frequent, longer, more severe, and following in quick succession, often several in an hour; he fell anywhere, and had, as a sequence of this, a large sloughy wound five inches long, following the course of the superior curved line of the occipital bone. I gave him bromide of potassium in increasing doses alone, and afterwards combined with belladonna and sulphate of zinc, but with no good effect. I then left off the bromide mixture and gave him a grain of santonin, increased to four grains daily, for a few weeks, with the result of a complete cure.

CASE II.—T. M., aged 19, miner, consulted me, suffering from muscular twitches in the extremities, with epileptic seizures, of four years' standing. The twitches occurred several times daily, and more often in his sleep, with a fit once or twice a week, generally on rising in the morning. He took santonin in powder, five grains daily, with twenty-grain doses of bromide of potassium thrice daily, for a month, without any return of the convulsions, and the twitches were much relieved. I then left off the santonin and doubled the dose of the bromide, with the result of two fits within the week, certainly modified, but still of marked character.

May not the evident cerebral disorder set up by the administration of santonin be in some measure curative of epilepsy, and something more than mere coincidence? I do not feel that the evidence is conclusive in so few cases; but it opens out a field for clinical research.

J. F. HORNE, L.F.P.S.G., L.S.A., Barnsley.

INTERNAL ADMINISTRATION OF TAR IN PSORIASIS.

IN the JOURNAL of February 19th, Dr. R. H. Clay recorded two cases of psoriasis in which tar had been given internally unsuccessfully, but which were soon cured by the external use of the same drug. The following number of the JOURNAL contained letters from Dr. McCall Anderson and Mr. Balmanno Squire: the former confidently adhering to his previously expressed opinion, "that tar is sometimes successful after arsenic and other remedies have failed"; the latter pointing to the cases as supporting his statement, "that tar administered internally is not any assistance to outward tar in the treatment of psoriasis".

A few weeks later, March 10th, I was consulted by E. S., aged 23, with psoriasis inveterata of twelve months' standing. He stated that he had been treated by several medical men with little or no benefit, although he had taken arsenic in large doses for a considerable length of time. I therefore resolved to try tar internally without any external application, and commenced by giving him three grains of liquid pitch made into a pill with flour three times a day. On the 17th, he was ordered to take four pills daily. On the 24th, it was noted, that the eruption was, if anything, more extensive, but that the patches were not quite so elevated. I then gave him a confection composed of one part of liquid pitch and three parts of treacle. Of this he was directed to take a teaspoonful twice daily. At the end of a week, he began to take the same dose three times, and, in a fortnight, four times a day. The

four doses, containing about sixty grains of the pitch, were not well borne, producing nausea and diarrhoea, so that it was necessary to omit the drug for several days, and then give it in smaller and less frequent doses. Nevertheless, the disease was rapidly declining, and by the middle of June had quite gone. As yet (November 29th) it has not reappeared.

REMARKS.—The above case serves to illustrate what I have frequently seen in Dr. McCall Anderson's practice, and if it do not show that tar administered internally assists the outward use of the same remedy in the treatment of psoriasis, it certainly proves that the disease will disappear under its internal use without any external application whatever.

GEORGE M. HIRONS, L.R.C.P.Ed., etc., Bournemouth.

CLINICAL MEMORANDA.

THREE CASES OF INJURY TO NERVES.

SOME time since, a boy was brought to me who had, a day or two previously, received a severe blow from a stone over the right eye. The skin was contused in a small spot over the supraorbital foramen, and a large crop of vesicles had broken out on the forehead and scalp, all over the extensive area of distribution of the supraorbital nerve. This case is particularly interesting, when taken in connection with Dr. Broadbent's remarks on Herpes, in the JOURNAL of December 9th, and with the following case.

The second case is that of a labourer from one of Her Majesty's dockyards, who was under my care, at St. Mary's Hospital, two years ago. Three months previously, he had met with a severe wound of the front of the wrist from a piece of broken glass. A recent cicatrix existed over the inner side of the tendon of the flexor carpi radialis; and, on pressing the finger firmly over it—that is, against the median nerve—the patient complained of severe pain. There was impaired sensation over the anterior and outer aspect of the hand; and on the backs of the last phalanges of the outer fingers, including the radial side of the ring finger, sensation was almost completely obliterated. (Hilton on *Rest and Pain*, second edition, page 174). As the man said that he was improving, we advised no interference, although, in all probability, some small fragments of glass still lay against, or imbedded in, the nerve-trunk. While he was under observation, a copious eruption of small bullæ spread itself over the area of distribution of the median nerve in the hand. If injury to the nerves gave rise to these two conditions, herpes in the child, pemphigus in the adult, may not many of the pathological conditions of the skin which follow fracture of bones of the extremities be due to nerve-lesions?

The third case is that of a barman, who is now an out-patient of mine, suffering from abscesses on the inner side of the elbow. A year ago, he was treated for a similar affection at another hospital, when it was found necessary, he says, to make at different times no fewer than thirty incisions for the evacuation of abscesses. Many of the scars are even now clearly perceptible. One of them (rather a large one) lies over the inner side of the forearm, just below the elbow. Possibly, the gentleman who made the wound had satisfied himself that no large artery lay close by, and with the position of nerves he did not occupy himself. But, somehow or other, the unfortunate barman has now a wasting of the inner side of the forearm and of the muscles of the little finger. His metacarpal bones, now unsupported by interosseous muscles, stand up in sad relief, whilst nothing is to be found between the metacarpal bones of the thumb and of the index finger but a flabby web of tissue—a poor representative of the abductor indicis and the adductor pollicis. Sensation in the parts supplied by branches of the ulnar nerve is but slightly affected. Possibly these fibres escaped complete division. The man says that he suffers from "pins and needles" in the hand occasionally, and the skin is extensively chapped and fissured; but this latter condition obtains also in the unaffected hand, being due to the peculiarities of his trade.

EDMUND OWEN, M.B., F.R.C.S. Eng.,
Assistant-Surgeon to St. Mary's Hospital, and to the
Hospital for Sick Children.

INCUBATION-PERIODS OF SMALL-POX AND VACCINATION.

THE following notes may possess some interest, as illustrating the article in the JOURNAL of December 2nd, on Fatal Cases of Small-Pox among Vaccinated Persons.

On Thursday, October 5th, 1876, I was called to see J. K., an

unvaccinated child, aged eight years and a half. He was suffering from variola, and was removed to the hospital, where he died on the 16th. There were three other unvaccinated children in the house, each of whom I vaccinated there and then in four places. I should add that they were all in a cachectic condition, and suffering from impetiginous sores, and, but for the fact of their being exposed to the variolous contagion, I would not have vaccinated them. On Tuesday, the 10th, I again saw these children, and found each one presenting four satisfactory vesicles. On the following Sunday, the 15th, ten days after vaccination, I was summoned to see P. K., the youngest of the children, aged four years, and found him in a semi-comatose state; in short, suffering from variola maligna, with the livid eruption developed. He was removed to the hospital, where he died the same day. Neither of the other children at that time showed any symptoms of small-pox; but, two days after, viz., on the 17th, in the evening, twelve days after the performance of successful vaccination, I was again called to the house, where I found C. K., the eldest of the three, aged seven years, sparsely covered with variolous papules. He was also sent to hospital, and was discharged cured in due course.

It is not unlikely that P. K. referred to in these notes is one of the five cases of children under five years of age whom the Registrar-General reports to have died of small-pox, and to have been certified as successfully vaccinated. But it will be seen that the poison must have been in the system before vaccination, inasmuch as he was covered with the rash *ten* days after the operation. The same remark will apply to the case of C. K., who manifested the rash on the *twelfth* day after vaccination, which is well within Mr. Marson's incubation period of "thirteen times twenty-four hours".

SAMUEL HAGUE, Camberwell.

GOUTY DELIRIUM.

THE following cases are illustrative of the occasional occurrence of delirium in connection with gout.

CASE I.—A retired merchant, aged 60, lived freely, but not intemperately, and had frequent but slight attacks of gouty arthritis. In 1873, he felt strange in the head; memory failed him; he was more than usually irritable. One evening, he talked in a rambling way, and could not remember some words and names. Still, he could explain after a fashion what his condition was. An aperient was ordered. At 4 A.M., he found his way to the closet and back, after which he had, it was said, a convulsive fit. I found him muttering, incapable of answering questions; eyes closed; skin hot; pulse quick. A very large sinapism across the epigastric region relieved this state in less than an hour. Carbonate and sulphate of magnesia with colchicum were prescribed. Next morning, his urine, scanty in quantity, had deposited uric acid largely. He soon recovered, and went to the sea-side. Memory was for some months imperfect, but gradually improved. He is now an active member of a local board.

CASE II.—A retired officer, aged 82, otherwise remarkably hale in mind and body, was often gouty. His habits were temperate; he took evening grog. In March 1874, he had bronchitis, and some arthritis and urinary trouble. During treatment, delirium came on, and I then saw him. He was violent, accused his relatives of various crimes, though previously upon the most affectionate terms with them; absolutely refused medicine; and was, in fact, excessively troublesome. The pulse was bounding and regular; the delirium was active: he shouted, not muttered. It was necessary at length to force open his teeth (many of which remained) by means of a strong spoon, and to introduce upon the handle of another spoon a mixture of calomel with powdered gum, which he tried very hard to spit out, but could not. Twelve hours after this, the calomel had had no effect, the delirium was muttering, and the pulse irregular and weak; but shortly afterwards there was a large fluid offensive evacuation, and he began to amend immediately. The diet was regulated, and he was recovering quickly, when one day he talked too long with a friend, and a garrulous delirium succeeded, with insomnia. Again, he would take no medicine. He was not febrile; his bowels were clear; therefore, ten grains of chloral were given in some porter which he wished for. He then slept for several hours, and awoke free from delirium. This occurred a second time. He is now (1876) in good health for his age, but vision is impaired.

CASE III.—An innkeeper, aged 45, often gouty, at bedtime had flatulence and pain, for which alkali and ammonia mixture were ordered. Next morning, he was only half-conscious, muttered and rambled, but lay quietly in bed. Upon being loudly asked to show his tongue, he did so, but drew it back very rapidly. It was furred; his breath was

offensive. An aperient of magnesia and colchicum removed this state; he afterwards had some gouty arthritis.

CASE IV.—A retired sea-captain, aged 65, had previously had bronchitis of long duration, and some supposed gouty arthritic attacks. He ate freely, drank temperately, dined late and well. I was called to him at 1 A.M. His symptoms resembled those last described, but were less marked. A black draught acted pretty freely; next day, he was well. No other ailment followed.

I have not observed delirium in gouty patients under forty-five. The importance of discriminating between delirium depending on lithæmia and that caused by other conditions of blood or nerve-bioplasm is shown by the following cases. An innkeeper, aged 36, not very intemperate, was one evening noisy, restless, difficult to restrain; his friends thought him insane. He had been greatly depressed during the day by pecuniary troubles and threatened bankruptcy. He had never been gouty, but lived in a slightly aguish district. It was ascertained that some shivering had preceded the delirium. A single dose of quinine (six grains) was given; the delirium disappeared in less than half an hour. A gentleman, aged 70, tall, strong, and hearty, had delirium, for which no satisfactory explanation could be found. He had felt ill, and had taken some brandy. Presently, chicken-pox appeared on his skin. His granddaughter, living in the same house, was recovering from the disease, then epidemic.

T. CHURTON, M.B., Leeds.

DIVISION OF THE HAMSTRINGS: DEATH UNDER CHLOROFORM.

IN the JOURNAL of November 11th, is recorded a case of a little boy, who died after the division of the hamstrings while under the influence of chloroform. A similar case which I operated on in the Tipperary Hospital, on August 18th, with a fatal result, seems to me to suggest more than a mere coincidence.

C. S., a boy aged 13, having his left leg flexed almost at a right angle, was most anxious to have the deformity removed. The deformity had been caused by inflammation, which, attacking the knee with great severity, had left him for many months at the point of death; but, ultimately recovering, he was able to walk with crutches, and, at the time of the operation, was in excellent health. I had had a consultation about his case, and three other medical men assisted at the operation. Chloroform and ether were administered from a handkerchief alternately. The same chloroform and the same ether had been used successfully in another case. The tendons having been readily divided and the anæsthetics discontinued, the leg was apparently easily extended, but, immediately after its extension, the surgeon who was watching the case called attention to the boy's change of countenance. After a moment, it becoming evident that his respiration was failing, ammonia was applied to his nostrils, and he was placed with his head downwards. He gave one convulsive gasp, and, as the sequel proved, then died. After a little, he was again placed on the table, and artificial respiration was resorted to, and again he was placed with his head down, but all in vain; he was dead.

From a careful consideration of these two cases, from their exact similarity, from the fact of different anæsthetics having been used, from the precise moment death appeared to seize upon the little victims, the moment after extension of the leg, it strikes me as probable that death resulted rather from shock than from anæsthetics. Even when the hamstrings are cut, the sudden extension of the tissues at the back of the leg and the sudden rupturing of adhesions in the knee-joint may produce a degree of pain and consequent shock to the system quite sufficient to account for death; unless we are to assume that the brain is entirely paralysed—an assumption, I believe, not well founded. For my part, at all events, were I to do the same operation again, I should adopt for a motto—*Festina lente*.

In the case of those two boys, the plan of inverting the patient in order to restore the heart's action was utterly useless, and, indeed, it appears to me to be opposed to physiology. When the patient is inverted, the blood flows, owing to the action of gravitation, to the brain, but gravitation does not cease to act when (as we will suppose) a sufficiency of blood has reached the brain; it continues still to draw the blood to the organ, and, moreover, keeps it there. If, while the brain is thus getting an undue supply of blood and every other organ is in a position the very opposite to what Nature intended, animation be restored, it is not impertinent to inquire whether it is in consequence or in spite of the inverted position of the body. If a logical method is to be employed in investigating a mode of treatment, the instances attended by negative results should not be overlooked.

An inquest was held on the body of C. S.; but no *post mortem* examination was allowed. JEREMIAH DOWLING, M.D., Tipperary.

REPORTS OF MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

GUY'S HOSPITAL.

SYMPTOMS RESEMBLING THOSE OF PROFOUND INTOXICATION
FOLLOWING ANÆSTHESIA BY ETHER.

(Under the care of Mr. JACOBSON.)

H. P., AGED 11, was admitted into Guy's Hospital on October 14th, 1876. His family history was good; his personal history was also good up to two years ago, when the left cervical glands began to enlarge. The patient was anæmic, but otherwise healthy. Both triangles on the left side contained enlarged glands: they were especially large in the submaxillary region, displacing the larynx over to the right side. For the following reasons it was determined to attempt their removal by operations performed from time to time. The boy had attended as an out-patient for five months, had taken the usual remedies, and had been sent into the country without the slightest benefit. As there had been no previous inflammation, the glands were probably encapsulated, and not more than usually adherent to the adjacent parts. In other parts of the body they were not enlarged. The spleen appeared normal, and there was no increase in number of the white blood-corpuscles. On November 8th (a good meal having been given four hours previously), ether (æther purificatus, *B. P.*), obtained from Messrs. Morson, of Southampton Row, was administered about 2 P.M. Three ounces were given on a sponge in the inhaler recommended by Mr. Golding Bird. The patient struggled but slightly, and soon became unconscious; but, as he at this time vomited slightly, partial consciousness returned. The operation, performed antiseptically, presented nothing of particular interest. It proved, as was expected, tedious. A gland of the size of a hen's egg was first removed from below the jaw, and after this one or two smaller ones; the hæmorrhage being inconsiderable, almost entirely venous, and of the usual colour. Towards the close of the operation, the patient vomited a quantity of semimasticated food. His breathing now became very feeble, the movements of the diaphragm being markedly short and shallow; pulse 80, and very feeble. Dressings were at once applied, and the boy was placed in a warm bed close by. The breathing immediately after this appeared to cease; the pulse 60, and only just perceptible. The pupils, which had been dilated during the greater part of the operation, were now very contracted, and the conjunctiva absolutely insensitive. The whole time during which ether was given was about an hour. About nine ounces of the anæsthetic were given, quantities of half an ounce being poured into the inhaler at a time. As soon as the boy was placed in bed, artificial respiration was commenced, and continued from 3.10 up to 7.40. During this time his state was much as follows. The pulse was 60, very weak and variable; the pupils were contracted to pins' points; the surface of the body was tending to become cold and clammy; there was entire and general insensibility; some bubbling rhonchus was heard in the trachea—due, as it seemed, to increased flow of saliva, which made its way past the epiglottis, which could be felt, on sponging out the fauces, to be extremely flaccid; there was no duskiness or lividity whatever all along, but a general pallor. In addition to the artificial respiration, other means to revive the patient were employed—friction, hot flannels, ammonia to the nostrils, faradic current over the phrenic nerve in the neck and to the diaphragm, enemata of beef-tea and brandy, etc. About 8 P.M., heat was applied vigorously to the surface of the body by means of very frequently renewed hot flannels, etc., with the effect of improving considerably the pulse and respiration. He now uttered inarticulate sounds; but after a while, save that the breathing remained improved, so that artificial respiration was discontinued, he lapsed again into very much his previous condition. About 10.30, the bowels were opened, the motion smelling distinctly of ether; but it was not till 11.15 that he spoke articulately, the pupil being still much contracted, and the conjunctiva insensitive. Urine was now passed, having the same very evident odour of ether. He now was able to swallow milk and a little brandy, and has since made a slow but good recovery from the operation.

REMARKS.—This case has been brought forward as teaching a lesson that may be useful to some of those who are called upon from time to time to give ether. I do not now, of course, refer to those whose attention is constantly and especially devoted to the giving of anæsthetics. Since the giving of ether was introduced into this country from America, chiefly by the means of Dr. Bigelow and Dr. J. Jeffries, there has been an increasing tendency to trust implicitly to it. It has been thought, and justly, that while chloroform has peculiarly dangerous properties, ether has not; and I believe that I am right in saying that, while chloroform often kills suddenly, ether has nearly always allowed warning in the very few cases in which death has followed, or been attributed to, the use of this anæsthetic. All that I wish to point out, from the details given above, is, that the term "stimulant powers of ether" may be too much relied upon, and that the very powerfulness of this anæsthetic may in certain cases render it the more dangerous. Furthermore, the common belief that, if ether-inhalation destroy life at all, it does so by asphyxia and lung-symptoms, is a mistake; for, just as death may follow more or less rapidly the swallowing of alcohol, so fatal or dangerous symptoms may supervene on the inhalation of ether. In this case, ether was given on account of the firm belief that I have in its superiority over other anæsthetics; but it seems to me that one of the lessons which it teaches is, that just as alcohol would naturally be especially cumulative in the case of children, so at such an age would be the effects of ether.

If I am right in the view which I have taken of the above case, and correct in supposing that the boy was only kept alive by artificial means till the effects of the anæsthetic had passed off, it is only just that I should add that his recovery is mainly due to the trouble taken by the house-surgeons, Messrs. H. N. Smith and Burton, and my dressers, Messrs. Wolmersley, Ross, and Wells.

I am indebted to Mr. Howse for drawing my attention to a case of death from ether, published by the Americans themselves (*American Journal of Medical Sciences*, October 1876). Here the patient, aged 19, had a contracted chest and lungs, "seriously restricted by adhesions, which bound them down in all directions". Death followed about two hours after administration of ether for about twenty minutes, and was due to a collection of bronchial mucus and pulmonary and pleural serous effusion.

ST. MARY'S HOSPITAL.

CASES OF AURAL POLYPUS.

(Under the care of Mr. FIELD.)

CASE I.—S. B., aged 59, came to the hospital in May 1876. She stated that twenty-three years ago she had a polypus removed from her right ear. She was placed under chloroform during the operation, and subsequently the external meatus was filled with cotton-wool. She was told that she would never hear again in that ear, as "the fangs of the tumour had come away". For a few years after the removal, she experienced great relief, as the pain and discharge entirely ceased, but she could still hardly hear a sound on the right side. For the last two or three years, a very offensive discharge had made its appearance, and latterly she had felt great pain over the whole of the right side of the head. During the last month, the pain had been so great that she had been unable to sleep at night; and when she came to the hospital, her face was very much swollen, and she could not bear her ear to be touched. Eight leeches were ordered in front of the tragus; they gave immediate relief. When she came again, what appeared to be a large polypus was seen in the right external auditory meatus. Wilde's snare brought away a piece of the growth about the size of a pea. A hardened white substance was then removed, which proved to be the cotton-wool which had been placed in the passage twenty-three years previously. The remaining portion of the polypus was then taken away; it had evidently forced its way along the roof, hanging over and completely covering the cotton-wool at the entrance of the meatus. A weak carbolic acid and sulphate of zinc lotion was ordered, together with a quinine and iron tonic. In a month's time, the discharge ceased; and, although she had a large perforation in the membrana tympani, she could hear tolerably well.

CASE II.—G. G., a postman, aged 56, came to the hospital in June. He had had a discharge from the right ear for twenty-four years. For the last ten years, he had been deaf on that side; and at times had felt very great pain. During the last year, he said that about a teaspoonful of discharge had come from his ear daily, and that lately he had been so giddy, especially if he bent down his head to look at a letter, that he had been quite unfit for his work. A very large mucous polypus was removed. The same treatment was adopted as in the last case, with a like satisfactory result. Before leaving the hospital, he said

that he should have escaped a good many years of suffering if he had had the polypus removed earlier; but he had been constantly told "not to meddle with his ears".

These cases are of interest as showing the great length of time people will suffer pain and submit to a loathsome discharge constantly pouring from the ears, without seeking relief.

BRADFORD INFIRMARY.

CASES OF SCIATICA.

(Under the care of Dr. R. ALEXANDER.)

CASE I.—A man aged 40 applied for admission, but, from want of room in the hospital, was made an out-patient under Dr. Alexander. He had suffered from sciatica for several months, induced by lifting a heavy weight. The pain was excruciating, and prevented sleep at night. He could neither stand nor walk. Salicin in twenty-grain doses every four hours was ordered; and in three weeks he could walk to the hospital, and recovered in six weeks, flesh and strength being also restored.

CASE II.—A boy aged 14, who had been ill for some months and walked with pain and difficulty, was also treated by ten-grain doses of salicin three times a day with good result, being cured of his sciatica in a few weeks.

CASE III.—A married woman aged 36 presented herself about two months ago with rheumatoid arthritis affecting both hands and wrists, and causing distortion. Marked relief was obtained by salicin in fifteen-grain doses three times a day, whilst the patient's general health was much improved by its tonic action.

The beneficial effects of salicin are best seen in acute rheumatic fever, where the temperature is high; but the benefit which followed its use in these forms of neuralgia and rheumatism bears testimony also to its good results in some chronic cases accompanied by pain and debility.

CASE IV.—A healthy, fresh-looking farmer, aged 56, was brought in a conveyance to the hospital, suffering from obstinate sciatica, which caused so much pain that it was with difficulty that he walked into the out-patient room. He had led a temperate life, and had been very active, but lived in a close ill-ventilated house. His urine was highly acid and full of urates. A subcutaneous injection of morphia relieved at once his pain, and greatly assisted him in his home journey. A mixture containing twenty grains of bicarbonate of potash with ten grains of tincture of colchicum, in an ounce of water, thrice daily, was ordered. The following week, the patient was able to walk to the hospital; and he rapidly recovered, having been ill for many months previously.

STROUD HOSPITAL.

A TEST CASE OF THE ANTISEPTIC METHOD.

(Under the care of Mr. CUBITT.)

As pertinent to the present discussion with regard to the relative merits of the antiseptic and the non-antiseptic methods in surgery, the relation of the following case may prove of interest.

A man was admitted to this hospital last month, under the care of Mr. Cubitt, having the second toe on each foot similarly deformed, interfering with progression, and requiring amputation. It being considered that this would be an excellent opportunity for testing the antiseptic method, it was resolved to amputate one toe using antiseptic precautions—carbolic acid spray, catgut ligatures, and gauze-dressing, following Mr. Lister's method; while the other was removed without such precautions, silk ligatures and dry lint dressing being employed. In the former case, two catgut ligatures, in the latter, four silk ligatures, were required.

The wound of the former operation healed without suppuration in ten days, the patient being free from pain in that foot during the whole period. The other wound did not progress so favourably, but opened up and gave rise to a sore which proved somewhat troublesome, causing the patient considerable pain, and was not perfectly healed until four weeks after the operation, even then leaving a tender cicatrix, which caused the patient to walk lame on that foot.

It has been thought well, though the operation was in itself trifling, to put on record so remarkable a test case. The condition of both toes being alike, and both being removed from the same patient at the same time and by similar incisions, while in neither of them was any diseased action in progress, any fallacy possible had the operation been performed upon different individuals and under dissimilar circumstances would seem to have been avoided.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 12TH, 1876.

Sir JAMES PAGET, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

A CASE OF HÆMOPHILIA, COMPLICATED WITH MULTIPLE NÆVI. BY J. WICKHAM LEGG, M.D.

THE writer detailed a case of epistaxis since boyhood, with tendency to traumatic hæmorrhages in other parts, seen in a man, whose kindred were subject in like manner to bleedings. The case was farther complicated by the presence of numerous nœvi on the skin. The paper ended with a short account of another case of congenital epistaxis complicated with multiple nœvi. The author had expressed the theory that hæmophilia depended on an abnormal state of the vessels rather than of the blood.

Mr. W. SEDGWICK said that the connection of nœvus with hæmophilia in Dr. Legg's case was interesting with reference to the question whether hæmophilia depended on a congenital defect of the vessels or of the blood. Rokitansky believed that the cause lay in the blood. Mr. Sedgwick, however, in some papers published several years ago, had given reasons for believing that hæmophilia was due to a condition of the vascular system. The hæmorrhage did not take place from the skin or mucous membrane generally, but was localised; it was also, for the most part, limited as to age and to sex. The most interesting cases were those of hæmorrhage from the umbilicus, of which more than ninety had been recorded; those were generally fatal, but one case, under Mr. Sedgwick's care, recovered after the employment of pressure, and the subject of it had afterwards not been subject to hæmorrhage.—Mr. BIRKETT had seen many cases of nœvus and several of hæmophilia, but had never found the two associated. He thought, however, that the term nœvus was applied to very different conditions. In his opinion, a true nœvus consisted essentially of fibrous tissue, the vessels, however abundant, being secondary. The corpus cavernosum and corpus spongiosum were good examples of the structure. Small extravasations of blood were very common in cases of cancer, and the appearances described in Dr. Legg's case were probably of the same kind; they were not nœvi, though they might be called nœvoid.—Dr. WICKHAM LEGG was glad to find that Mr. Sedgwick agreed with him as to the pathology of hæmophilia; but he could not class the cases of umbilical hæmorrhage in the same category. The patients did not afterwards become the subjects of hæmophilia; and, on the other hand, umbilical hæmorrhage was nearly unknown in the hæmorrhagic diathesis. With regard to the structure of nœvus, many histologists of high authority denied that it had any connective tissue. He believed that it was made up of a congeries of vessels.

CASE OF GENERAL TELANGIECTASIS MOST DEVELOPED IN THE LEFT HALF OF THE BODY, ASSOCIATED WITH ABNORMALITIES OF THE LARGE BLOOD-VESSELS OF THE LEFT LOWER LIMB AND IN THE NECK. BY J. W. HULKE, F.R.S.

The case was chiefly remarkable for the extent of the nœvoid disorders and abnormalities in the largest blood-vessels. E. L., an infant a few weeks old, was in 1866 brought to the Middlesex Hospital with intertrigo in the groins and crease of the thighs, which disappeared under simple treatment, and a few nœvoid specks. In 1870, she was again brought by her mother on account of painfulness of the left leg, which was swollen; the left half of the body being mottled with dull red nœvoid spots (port-wine stains) running together in the foot and on the face in larger blotches. The skin in the intervals was traversed by dilated veinlets; and in the left groin, the nœvoid tissue formed a prominent purplish spongy mass, covered by a thin epidermis. On the right side, there were also a few small nœvoid marks. The left lower limb was considerably larger than the right. The mother said that in cold weather the child became blue, and suffered more. It was concluded that the left leg, from its vascularity, was warmer than the right; but, in testing with the thermometer, the opposite was proved to be the case. She was again admitted on January 3rd, 1871, having lost much blood the day before, as also in the previous summer of 1870 and early in December, which the mother had thought to be from the bowel. A fresh hæmorrhage occurring, the house-surgeon traced it to rupture of small bunches of the large spongy mass. The nœvoid condition of the surface continued to advance and become almost confluent, the intermediate veinlets to become more numerous and distended, and the enlargement of the left lower limb greater. The child was in much pain and very feverish; and, in subsequent feverish attacks, had obstinate

retching. On February 5th, 1871, when she went home, the girth of the right thigh was ten inches and one-eighth; and of the left, eleven inches and five-eighths; in May, the mother reported another hæmorrhage; and in October 1872, she was readmitted with glandular abscesses in both groins, which closed slowly. In August 1874, she had erysipelas of the left lower limb and superficial ulcers in the thigh; and, when discharged convalescent in September 1874, the girth of the right thigh was nine inches and a half, and the left eleven. In August 1875, she was readmitted with intense vascular engorgement of the left limb attended with troublesome retching; the patches became gangrenous; and the eschars were very slowly thrown off. Three successive attacks of erysipelas followed in October and November; and, on the last occasion, screaming delirium set in; and death took place twenty-four hours after the beginning of the attack. Dr. Sidney Coupland, who made the *post mortem* inspection, found that the abdominal aorta was much diminished below the coeliac and superior mesenteric branches; the left carotid and iliac arteries were smaller than those of the right side; and the external iliac and femoral veins were replaced by a plexus of veinlets, which, with others, formed a "rete mirabile" intercalated between the cava inferior and left common iliac above, and the pelvis and lower limb below. The left internal jugular vein was less than half the size of the right. The bulk of the left limb was greatly increased at the top of the thigh to sixteen inches and a half, the right leg being ten inches and three-quarters only. The limb was very cedematous, and the nævoid tissue was restricted to the skin and subcutaneous tissue, not invading the muscles. The microscope revealed a cavernous arrangement of the vessels, and an abundant cell-proliferation in, and thickening of, the connective tissues. The author considered that the excessive vascularity was not due solely to inordinate dilatation of pre-existing vessels, but that, no doubt, there was a considerable evolution of new vascular tissue. A striking feature was the gradual spread of the vascular disorder over the whole surface from a few specks in the left groin at birth. The inordinate development of peripheral vessels would be attended with a corresponding disproportional increase of their collective sectional area over that of the feeding artery, and would favour the accumulation of blood in the capillaries, increased by the narrowness of the common iliac; the sluggishness of the current would favour the stagnation and clotting and promote the retention of effete matters in the limb, and thus occasion plugging of vessels, and induce the repeated attacks of erysipelas; the overgrowth of the bones being an instance of the hypertrophy which is daily seen wherever overfeeding is induced by an increased afflux of blood from any cause, as the presence of a sequestrum, etc.

Mr. BARWELL had some years since seen a case of telangiectasis of the left limb. The lower limb was remarkably shrivelled and weak; although the vessels at the groin could be felt pulsating over more than twice the extent of those on the right side. The left side was almost a mass of nævus, while the right was quite free. There was no special tendency to bleeding; a slight operation performed on the right side was not followed by any hæmorrhage of importance. He asked Mr. Hulke whether he would connect the condition observed with the arterial or with the venous system.—Mr. HULKE could not answer the question, as he had seen only one case, and was not aware of any other in which the condition of the vessels had been described.

A CASE OF SPASMODIC CONTRACTION OF THE MUSCLES OF THE FORE-ARM AND HAND TREATED BY EXCISION OF PORTIONS OF THE MEDIAN AND ULNAR NERVES.
BY W. SPENCER WATSON, F.R.C.S.

A young lady, aged 19, was the subject, when nine months old, of so-called infantile paralysis. The right arm and right leg had ever since been contracted at the wrist and ankle, and the hand and arm had recently been subject to violent spasmodic movements, rendering the limb useless. Sleepless nights and consequent exhaustion had produced a state of great general debility, with occasional outbreaks of hysterical paroxysms. An attempt was made, in the first instance, to limit the force and frequency of the contractions by dividing the flexor tendons of the biceps, the flexor carpi radialis, flexor carpi ulnaris, palmaris longus, and the prominent muscular fibres of the pronator teres. In consequence of the continued straining efforts of the remaining flexors and the consequent pain, no splints could be adopted, and the only effect of the tenotomy was to prevent the patient from forcing her forearm behind her back, a position which had recently given her much discomfort, from the friction of the arm against the skin. With the consent of Sir William Gull, who was consulted, a portion of the median nerve was excised; this had the effect of very much controlling the spasmodic contractions, and of reducing the temperature of the limb, which had been previously higher by 2 deg. than that of the sound arm. Still, however, the deep adductors and deep flexors remained subject

to frequent spasm, and kept the wrist forcibly and permanently flexed. Mr. Watson, therefore, with Sir William Gull's sanction, excised a portion of the ulnar nerve behind the internal condyle of the humerus. This had the effect of absolutely releasing the contracted muscles, and setting free the thumb and little fingers. The total effect had been to relieve the patient considerably of great distress, to place the limb in a more slightly and manageable position, and to improve the general health by stopping the exhausting and constant spasms. The temperature of the limb, as tested in the axilla and hand, was still further reduced after the excision of the ulnar nerve, and, when last tested, the right arm was half a degree only in excess of the left. More than a year has elapsed since the ulnar nerve was divided, and there has been a steady improvement in the general health of the patient ever since, in spite of much pain still referred to the part of the arm the sensation of which is now paralysed. There is also still great distress occasionally from the spasmodic movements of the muscles of the shoulder and side of the neck. The operations of tenotomy and neurotomy, in this case, were undertaken on the hypothesis that the original lesion, though central, was, by constant peripheral irritation, becoming secondarily aggravated. The primary mischief was central; the peripheral irritation reacted upon the centre. A vicious circle of cumulative nerve-irritation was thus established; the object of the operations was to break the continuity of that circle.

Mr. NUNN thought he would have been satisfied with simply dividing the nerves.—Mr. HULKE said that if the object were to destroy for a time the conductivity of the nerve, this could have been effected by stretching the nerve.—Mr. BARWELL had some time ago under his care an old soldier, whose leg had been amputated in India, and now was subject to epilepsy. He cut down on the mass of nerve-tissue in the stump and stretched the nerves; and the man had not since had an epileptic fit. The operation was done fifteen months ago. He thought that in Mr. Watson's case the right hand could not be now of much value. It was a question also whether the malady would not have worn itself out, and whether the irritation was not kept up by the operation.—Mr. T. SMITH said that, in some cases of the kind at least, simple measures might be adopted. He had seen contraction of muscles relieved by injecting water hypodermically so as to produce distension, the patient imagining that morphia was being used.—Sir JAMES PAGET did not think that the disease in Mr. Watson's case could have been relieved by hypodermic injections of cold water or of anything else. The division of the nerves was no doubt necessary. Dr. Weir Mitchell had published a large number of cases, of which Sir James Paget had seen some, in which division of nerves had been performed for the relief of muscular spasms. In some cases, the disorder returned after division of the nerves. He had met with a case in which fracture of the lower end of the radius was followed by painful contraction of the wrist and fingers. Removal of a part of the ulnar nerve gave relief for a time only. After some time, the radius of the other arm was broken at the lower third, and the same symptoms were appearing, and were only prevented by carefully keeping the arm on a splint. A year ago, he stretched the radial nerve of the arm first affected, with great relief.—Mr. SPENCER WATSON, in his reply, said that he thought that the utility of the operation was shown in the reduction in the excess of temperature of the affected limb.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 8TH, 1876.

Sir WILLIAM JENNER, Bart., M.D., D.C.L., F.R.S., President, in the Chair.

ADJOURNED DEBATE ON THE TREATMENT OF LEUCOCYTHÆMIA AND LYMPHADENOMA BY PHOSPHORUS.

Dr. GREENHOW thought the cases cited at the previous meeting had pretty well exploded the idea that phosphorus was of use in leucocythæmia; and, looking upon that point as settled, he proceeded to dwell upon certain facts in the clinical history of the disease, notably the pigmentation of the skin, and the pyrexial attacks which occurred in the course of many cases. He quoted one of several cases attended by him in illustration of the above points.

Dr. BROADBENT would give the whole of his experience of this class of diseases since he had first used phosphorus. The first case was that already reported in the *Practitioner*, in which recovery took place, and the patient remained apparently well for some time; but, when last heard of, was suffering from an acute attack of an illness supposed to be pneumonia, and from which, he believed, the boy had died. A second case went out of hospital within a week, alarmed by the attention given to his case. In the third case, there were, combined with enlargement of spleen and liver, a history of intermittent hæmaturia and the appear-

ances characteristic of essential anæmia. Phosphorus apparently caused inflammation of the spleen, pain in the stomach, and diarrhoea; and the man refused to remain in the hospital, being worse on going out than on admission. In his case, rest in bed, etc., were tried for a fortnight, and then phosphorus was given for about ten days before his departure. These were the only cases of splenic leucocythæmia which had been under the speaker's care since 1874. Dr. Broadbent had also tried phosphorus in lymphadenoma. In one case, symmetrical enlargement of the glands of the neck, with anæmia, shortness of breath, continued to increase for some months, in spite of the usual remedies, with change of air. The glands in the axilla had also begun to enlarge. Under phosphorus, complete recovery took place, for the glands entirely disappeared, and the patient completely regained her strength. In a second case, the phosphorus was given, but without any expectation of good results, as the patient was reduced to a skeleton, and all her glands were enormously enlarged. She died in the hospital. In a third case, few would have questioned the diagnosis of lymphadenoma. There was enlargement of the glands in the neck, axilla, and groins. Dr. Broadbent had hoped to exhibit the patient, but unfortunately she did not appear. The case, being a chronic one, was treated with phosphorus as an out-patient. The effect on the disease itself was remarkable; and the improvement in the general health was equally good. Unfortunately, she carried the treatment too far; for, in spite of some sharp attacks of sickness and diarrhoea, she still went on with the remedy. She was thereby weakened and made ill; still, the glands diminished in a great degree. This case Dr. Broadbent still hoped at some future day to bring before the Society. The only other case of the kind which he had seen was one in which a large mass of glands was wedged in behind the sternum, entered the spinal canal, and pressed the cord. Dr. Broadbent had met with one other case of anæmia since the publication in the *Practitioner* of his report upon such cases treated with phosphorus. In that case, the morning temperature was 103 deg.; whilst the evening temperature was 104 deg. The case seemed at first sight to be one of typhoid fever as well, but the appearance of the stools at once showed that no enteric fever was present; and the patient died, after being in hospital for a week, of pernicious anæmia only. Phosphorus was not given in this case. He would be inclined to class with those cases those of intermittent hæmaturia. He had treated a case of this kind with phosphorus, but without more improvement than might be expected from the change to the hospital ward and the freedom from cold. These were the only cases he had treated with phosphorus. But he would class with these cases the cases of Addison's disease; the symptoms of which were remarkably similar. There were the same exacerbations of temperature, vomitings, and excessive debility. Then, not only in Addison's disease and splenic leucocythæmia, but also in essential anæmia, the pigmentation of the skin was often excessive. Especially was it marked upon the brow and back of the neck in one of his cases of essential anæmia. The accumulation of the white corpuscles in the spleen and the marrow of the bones did not constitute the essence of the disease; there was an anterior cause, which, Dr. Broadbent had hypothetically considered, might be some mutual failure of the essential relationship existing between the blood and the tissues or the blood and the glands. On these grounds, he had first used phosphorus for the treatment of these diseases. He thought one of the most remarkable facts in experimental pathology was the immense granular degeneration of all structures in the body produced by phosphorus. Its ally, arsenic, had the same effect on the glands and muscles, in which it caused the same rapid degeneration. It was, however, as everyone knew, a remedy capable, when properly applied in appropriate cases, of an immense amount of good. There was the same pathological and therapeutical analogy between these two drugs. In many cases of skin-disease, phosphorus was better than arsenic. In a case of a child suffering from inveterate psoriasis, and treated for six months elsewhere, an immense improvement after the administration of phosphorus for a week was already discernible. He had never said phosphorus was a specific, but he believed that in many cases of leucocythæmia splenica, lymphadenoma, and essential anæmia, it unquestionably had done much good. Nor were the unfavourable instances recorded sufficient to destroy his confidence in the remedy. Arsenic also was found to benefit some of these cases. But, these three forms of disease being so very fatal, one might ask for a further trial of phosphorus in their treatment. The remedy, however, must be used cautiously, as being capable of doing great harm, if carelessly employed. As to the form in which to administer the remedy, he trusted nothing but the capsules. He had had all kinds of phosphorus pills sent to him for trial, and had usually found that they emerged from the rectum unaltered. Phosphorus underwent extremely rapid oxidation, and, unless it had a chance of being absorbed from the stomach at once as phosphorus (unoxidised), it could do no good.

Dr. WILSON FOX, being responsible, secondarily to Dr. Broadbent, for the treatment of leucocythæmia by phosphorus, would make some remarks upon the subject, but would confine himself to facts. In the case which he had published in the *Lancet*, supporting Dr. Broadbent's case, he regretted to say the subsequent progress had not been favourable. The man came to the hospital in November 1874 and left in May 1875, cured; during the remainder of that year, he seemed to be well. His spleen, however, was then enlarged, though less so than formerly. In the spring of this year, he had been again admitted into the hospital under another physician, suffering from acute rheumatism, and had since died in Devonshire with a "bursting of the spleen", as it had been reported by the man's relatives to Dr. Fox two days only before that meeting. Now, one of two things must have happened in the early stage of that patient's illness. Either he (Dr. Fox) must have made a great mistake in diagnosis in stating it to be a case of leukaemia, which could hardly be the fact, seeing that the man's blood exhibited twenty or thirty white corpuscles in the field of a Hartnack microscope magnifying about four hundred diameters: * an observation which was not Dr. Fox's alone, but had been made by two other gentlemen acting quite independently of one another and of Dr. Fox. Then, again, the man had lost nearly thirty pounds of his original weight; he had pyrexial attacks; his spleen was enlarged and the splenic notch could be easily felt; and he was clearly going down hill; in fact, he was scarcely expected to live long when phosphorus was begun. Under this treatment, he regained strength, colour, appetite, and the normal condition of his blood. Either, therefore, the case was one of mistaken diagnosis, which was scarcely possible, or it was one of spontaneous cure of the disease just when the phosphorus, which, as a remedy, was either useful, useless, or injurious, was given on Dr. Broadbent's recommendation. Evidently, the cure was only temporary, but it was none the less distinct whilst it lasted. Was it, then, worth while making any further trial of phosphorus in leukaemia? or must they fall back on the old armamentarium and relegate leukaemia to the class of incurable maladies? They must remember in Virchow's work there was one case mentioned in which recovery had ensued, the treatment not being stated. There were also four cases related in Mosler's work in which there was a good recovery. Two at least were malarial. In relation to the result which had happened in Dr. Gowers's case, he (Dr. Fox) had had a patient, a man, who suffered with enlarged spleen, multiple increase of the lymphatic glands, albuminuria with lardaceous kidney, and in his lungs some evidence of tuberculosis or leukaemic growth. Dr. Fox felt uncertain which. There were now, at any rate, sufficient cases of the kind on record and of other cases of other forms of disease which had been treated with phosphorus, to enable one to reject the fear that phosphorus medicinally administered in moderate doses frequently caused fatty kidneys. And other gentlemen who might have seen more cases of the kind than himself would probably be of his opinion. There seemed to be much confusion about the characters and distinctions of these diseases. It was almost a truism to observe that Virchow first recognised two kinds of leukaemia, lymphatic and splenic. Lately, statements had been made to the effect that Hodgkin's disease was occasionally associated with increase of white corpuscles. Dr. Fox thought that this disease of enlarged lymphatics without such alteration formed a distinct clinical group, and that the distinction between it and leukaemia, as based upon the condition of the blood, had better be maintained.

Mr. CALLENDER said it was now some years since his colleague Dr. Andrew had drawn his attention to a paper in which the treatment of leucocythæmia by transfusion was recommended. A child, a patient in St. Bartholomew's Hospital, being then under observation, transfusion was twice performed upon it with apparently great benefit. The blood which was used was first defibrinated. The former objections to transfusion would probably for the future be overcome by Dr. Roussel's very ingenious method of performing transfusion. He thought other members might have had more experience than himself of this method of treatment.

Dr. MOXON having learned, in reply to a question addressed to Dr. Wilson Fox, that the microscopic power used on the occasion, when twenty or thirty white corpuscles were counted in the field, was about one-quarter inch objective, said that, this being so, the mere statement of the fact was quite sufficient to array authorities against Dr. Fox in his diagnosis of leukaemia. Dr. Moxon was under the impression that Trousseau had said that twenty or thirty corpuscles in such a field did not constitute leukaemia; at any rate, it was even generally held that a proportion of one white to twenty red corpuscles was required to constitute

* Dr. Wilson Fox wishes us to give the exact statement as originally published by him in the *Lancet* for July 10th, 1875. It runs thus:—"The corpuscles were nearly twenty times their usual number, from thirty to forty-five being seen in the field."

leukæmia; and a well characterised case would have two thousand rather than twenty white corpuscles in the field. In cases of cancer of the abdomen, it was customary to find a large increase of white corpuscles. Dr. Moxon had seen one to twenty red in such a case; and he had recently doubted this fact as a means of diagnosis, in a case where it seemed at first doubtful whether he was dealing with idiopathic anæmia or with gastric cancer. There being no increase of white corpuscles in the case, the diagnosis was of anæmia; and this was confirmed when the patient died, as he did in a manner quite in point for the present discussion, sinking abruptly under the use of phosphorus, although the drug at first was followed by apparent improvement. In so dying, this patient was not any exception to the rule of invariable ill success which had marked the use of phosphorus in those cases (about thirty in all) in which Dr. Moxon had tried it. He would say that with only twenty or thirty white corpuscles in a quarter-inch field, one would not be dealing with a case of leukæmia; and as Dr. Fox's case, which thus seemed very doubtful, and which ended miserably in a burst spleen at last, was the only one distinctly benefited by the phosphorus, the evidence adduced for that remedy was certainly feeble. As to Dr. Broadbent's cases of leukæmia treated by phosphorus, they formed a very sad catalogue—quite a satire on his hopeful advocacy of the drug; so much so, that Dr. Broadbent had fallen back upon a rather less dismal list of cases of lymphadenoma, which was an entirely distinct disease. In some of these cases, temporary diminution of the tumours had followed the use of phosphorus. As to this, however, Dr. Moxon wished to draw attention to the curious variation in size, which he believed to be a very frequent clinical feature of lymphadenoma. He related a case wherein Mr. Cock had brought him a large mass of glands which had been removed after death from the neck of a boy; Mr. Cock remarking that thrice the boy's neck had swelled up and the swelling subsided, twice raising delusive expectations of cure. Such hopes were at the present time buoying up the patient in a case now under Dr. Moxon's care, in which the variations in size in the cervical tumour had been very remarkable, and had occurred under the use of several different drugs. He had seen another case of lymphadenoma four years ago, under Dr. Rees, in Addison Ward, Guy's Hospital, in which the glands, from the mediastinum upwards, had enlarged and compressed the trachea, so that choking was imminently threatened; yet the patient, after taking bromide of potassium, left the hospital nearly free from the swellings. Therefore, he did not think very highly of the evidence for phosphorus in lymphadenoma. He had, in the early part of this year, brought forward two cases of true splenic leukæmia treated unsuccessfully with phosphorus, and he endeavoured in that paper to show that there was no reason to suppose that any such thing as lymphatic leukæmia existed. He had searched through the records of cases as far as he could find them; but as the results were embodied in a paper in the Society's *Transactions*, he would not now repeat them, but only ask the Society to suspend its judgment and seek facts before sanctioning the continuance of the myth lymphatic leukæmia. In reply to Sir William Jenner, Dr. Moxon said that he had not intended to say that all his cases treated by phosphorus had died suddenly, but that they were not benefited by it.

Dr. BASTIAN remarked that the precise relationship of splenic leukæmia to glandular and lymphatic disorders was questionable. He did not think there was a good means of distinguishing the two classes of cases. In cases in which the spleen was enlarged, leucocythæmia was more frequently observed. In Dr. Wilson Fox's case, the leucocythæmic element was not very marked. He thought Dr. Broadbent's view was the correct one—that leucocythæmia was not a disease *per se*, but a something superadded in the course of other diseases, especially of the spleen, more than of the other glands. He related the case of a man with enlarged glands in the neck and groin, but without leucocythæmia, who improved immensely under iodide of potassium.

Dr. A. S. DONKIN thought this the most puzzling discussion to which he had ever listened. A number of different terms were used to describe the same condition, whilst leucocythæmia was used to describe the condition of the blood in this affection. Sufficient attention had not yet been directed to the diseases which were anterior to the disease of the blood. We apparently might prescribe phosphorus or any other remedy, but we could do very little good. During the last twenty-five years, attention had been directed to anatomical conditions, and the forces which had brought them about had been altogether left out of consideration. We ought to investigate general states, and not confine ourselves to the local conditions.

Sir W. JENNER said he was in hopes more members would have been able to contribute facts to the meeting. As regarded the observations made by Dr. Broadbent concerning the value of phosphorus in psoriasis, they were of importance, as proving that the drug had a real and important action on nutrition. After some further remarks on the

value of the facts brought forward by Dr. Gowers, Dr. Broadbent, and Dr. Wilson Fox, he called on Dr. Gowers for reply.

Dr. GOWERS had received a note from Dr. Dyce Duckworth (who was unable to be present), in which that gentleman said that he had prescribed phosphorus for leukæmia and chronic nervous diseases, without meeting with albuminuria, and in leukæmia without benefit. He (Dr. Gowers) had suggested the question, whether the phosphorus had any effect in producing the fatty degeneration of the kidney, etc., in his case. Albuminuria was usually present in non-fatal cases of acute phosphorus-poisoning; and one case was on record in which phosphorus, prescribed by the late Dr. Anstie in medicinal doses, produced albuminuria. A gentleman took one-thirtieth part of a grain thrice daily; and, after a week, blood and albumen appeared in the urine, and disappeared directly upon the remedy being discontinued. If the phosphorus caused the degeneration of the kidney, then surely the degeneration in the new growth in glands and liver should be ascribed, at least in part, to the influence of the drug. The effect on the blood was most marked; the proportion of white to red corpuscles was, at first, as one to four; it steadily decreased, and became, before death, as one to twenty. The observations in Dr. Fox's case were, he believed, made with the same microscope and lens as in his own case; if so, one to twelve would have been the proportion of the white to the red corpuscles in Dr. Fox's case, whilst any permanent proportion of white to red greater than one to twenty was usually regarded as conclusive of leucocythæmia. He had remarked that, in his own case, there was reason to believe that the glands were the chief source of the excess of white corpuscles; and the leucocythæmia, therefore, lymphatic. He thought some of the cases of lymphatic leucocythæmia on record established the occasional occurrence of such a condition. The phosphorus in his case was given in combination with common resin, the compound being powdered and made into pills with tragacanth. Might not Dr. Goodhart's interesting case, brought forward at the previous meeting, in which the proportion of white corpuscles varied considerably on different days, be explained upon the ground of an intermitting supply, rather than upon that of an intermittent formation of those corpuscles? They might be kept back in the spleen by intermitting pressure of enlarged lymphatic glands upon the splenic vein, at one time; and, at another, diminution of the pressure might allow them to pass in greater quantity into the blood.

Dr. A. S. DONKIN wished to know if there was any relationship between leucocythæmia and disease of the kidneys?

Sir W. JENNER thought, from what he had heard during the discussion, that phosphorus might be of use in lymphadenoma, although it was apparently useless in splenic leucocythæmia.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, NOVEMBER 15TH, 1876.

J. D. GILLESPIE, M.D., President, in the Chair.

THE PRESIDENT alluded to the fact of the Society having changed its place of meeting. It had been found the hall in which the members formerly met was inconvenient in some respects. It was too large, was cold in winter, and ill-suited both for speaking in and for hearing. He hoped that, by the present change, these inconveniences would be avoided, and that the meetings would have more of a family party nature than hitherto.

Tumour of Cerebellum.—Dr. JAMES CARMICHAEL exhibited a tumour of the cerebellum from a patient who had died suddenly. The growth was osseous. It was situated in the posterior fossa of the skull, and was attached to the dura mater on the left side, immediately beneath the tentorium cerebelli, in the angle between it and the descending part of the membrane. Anteriorly, the tumour was firmly bound to the membranes covering the left lobe of the cerebellum, in the posterior part of which it had produced, by pressure, a distinct hollow. The growth was irregular in shape, and somewhat nodular, about two inches in length, and varied in thickness at different points from half an inch to three-quarters of an inch; it was exceedingly hard and bony in texture. The interest in the case was the sudden death of the patient, who had previously been in apparent good health, and exhibited no symptoms of cerebellar or other disease. He had gone to bed apparently in his usual health, and died comatose about four hours afterwards. Possibly, during sleep, he was seized with an epileptic convulsion, from which he never rallied. This entirely accorded with the termination of cases of eclampsia, recorded by many observers, as Cruveilhier, Louis, Abercrombie, and others, and found to depend on organic lesions.

Loose Cartilage in Knee-joint.—Mr. JOSEPH BELL showed a specimen of loose cartilage removed by him from the knee-joint. The

patient was a gentleman, aged 38, who suffered from severe attacks of acute synovitis in his knee. Mr. Bell felt, on a third search, a loose cartilage, and removed it by direct incision into the joint under antiseptic precautions, taking care to fix the loose body before the chloroform had been fully administered. The knee-joint was found to be inflamed and to contain serum, but no pus. A drainage-tube was inserted for the first three days. The patient was quite well in less than a fortnight. During the progress of the case, no rise of temperature nor any disagreeable symptom was experienced; although, previously to the operation, the temperature was 101 deg. Fahr. The interesting point in the case was the performance of the operation on a joint inflamed and on the point of suppuration. The loose body was composed partly of cartilage and partly of bone.

Excision of the Joint between the Astragalus and the Os Calcis.—Mr. ANNANDALE read a paper on this subject. He first alluded to the progress that of late had been made in the conservative surgery of the foot. The objections to such partial operations were then given, viz.: risk of inflammation, and uncertainty in curing disease, as well as the possibility of not getting an useful foot. But, by carefully selecting cases, and especially by the use of antiseptics and the bloodless method of operating, such risks could, he believed, be avoided. Mr. Annandale then pointed out that this particular joint was often diseased without any of the other tarsal articulations being involved. Authorities on this point, viz., Syme, Holmes, and others, were quoted; and it was shown that hitherto no one had proposed excision of this joint alone as a plan of cure. His method of operating was by two incisions, external and internal, made as follows. The external incision began about one inch above the tip of the external malleolus, and extended down to the joint between the cuboid and os calcis. The inner margin of the peroneus brevis was, therefore, the guide. In this way, access was got to the posterior part of the articulation. To expose the anterior part, the incision was begun at the tip of the internal malleolus and extended down along the tibialis anticus tendon to the prominence of the scaphoid. In each incision, the first cut was only skin-deep. Then the tendons were recognised; and, these being held aside, the incision was continued down to the periosteum. The soft parts were then scraped off, and, by means of chisel and hammer, the articular surfaces were removed without injury to any of the important structures in relation to the joint. One case in which he had so operated was detailed, and the patient shown. There was ability to walk, with good mobility of the foot.—Mr. JOSEPH BELL remarked that, had such a paper been read fifteen years ago, he felt sure that most would have been of opinion that the operation was one difficult, unlikely to be repeated, and promising no very good result. Now-a-days, however, the use of antiseptics and such instruments as the gouge, chisel, and hammer had changed all that. Many similar operations had been done in tarsal joints; but Mr. Annandale had been the first to do it on this particular one. Mr. Bell had himself performed similar operations, such as subperiosteal resection of the os calcis, with excellent results. By the use of Esmarch's bandage, the parts unobserved could be seen; and in the chisel and hammer afforded efficient and accurate help. He did not, however, think that there would be many cases in which this operation would be feasible; as the disease would be probably more widely spread. But, by getting cases early, making an accurate diagnosis soon, and operating neatly, good results would be obtained.—The PRESIDENT was of opinion that cases where this joint alone was implicated would be few. The patient whose case was described had met with an accident; but in other cases, without such a cause, the disease, though at first localised in that joint, would tend to spread. He felt sure that such a partial excision in a scrofulous patient would not prevent the disease from spreading. The operation was an admirable one; and, in the case shown, the result was very good. The amount of motion was wonderful; and he had no doubt that in a few months the patient would be able to walk well.—Mr. ANNANDALE said that the only point he disputed with Dr. Gillespie and Mr. Bell was as to the frequency of similar cases. They seemed to think such cases rare; but, perhaps, this error arose from their not thoroughly knowing Mr. Syme's opinion on this point. He would, therefore, quote it again. "Caries is frequently situated in the articular surfaces of the joint between the astragalus and os calcis" (*Observations on Clinical Surgery*, page 39). As he understood these words, Syme had found disease of that particular joint common. He had himself, in dissecting some of the feet (about twenty in number) amputated at the ankle by Mr. Syme, found disease located in this joint alone in several of the cases. In fact, he was at the time led to hope that, in the future, some less severe operation than amputation at the ankle would be found suitable in cases where the disease was so limited.

Treatment of Pityriasis Versicolor.—Dr. JAMES RITCHIE said that, three years ago, he had noticed that the fungus *microsporon furfur* could

not be kept as a microscopic specimen when glycerine jelly was employed as the mounting agent, as its spores shrivelled up. He found out that this was due to the acetic acid in the glycerine jelly; and it therefore occurred to him that it might thus be of use in curing this disease. In this opinion, experience had confirmed him, and he now recommended its use in this skin-disease as follows. The skin should be washed with soap and water, and then a mixture of acetic acid and glycerine applied. Dr. Ritchie then gave a short *résumé* of other methods of treatment, and concluded by giving some cases.—Dr. ANGUS MACDONALD said that the affection did not threaten life, but rendered it uncomfortable to the patient. As yet, nothing had been done in the way of treatment. In illustration of the risk there is in reporting cures of skin-disease at a too early date, Dr. Macdonald here mentioned a case of cure of psoriasis by juniper tar oil, which had been reported prematurely by a late very eminent authority on the subject.—Dr. P. YOUNG had been in the habit of swabbing parasitic diseases with glacial acetic acid, and then using corrosive sublimate ointment. He had found most parasitic diseases yield to this.—Dr. ANDREW had for many years used glacial acetic acid for tinea.—The PRESIDENT asked those gentlemen who used the glacial acetic acid to state on how much surface they would act at a time, as he had always thought that it was a strong escharotic.—Dr. YOUNG generally applied it to an area about the size of half-a-crown at a time.—Dr. ANDREW had in some cases swabbed the whole scalp with it.

CAMBRIDGE PHILOSOPHICAL SOCIETY.

OCTOBER 30TH, 1876.

The Primary Elements of the Skull.—An account was given by Mr. BETTANY of some of the conclusions arrived at by Professor W. K. Parker and himself, in the preparation of a forthcoming work on the *Morphology of the Skull*. The detailed comparison, for the first time, of the whole of the developmental histories of skulls which had been hitherto investigated, including some very recent researches, had led to some important modifications of view. The questions dealt with in this paper referred to the cranial elements which appear earliest. It was sought to discover what parts are axial and what appendicular, whether indeed the axis of the body ceases at the middle of the base of the skull, and the latter has to annex properly appendicular structures in order to become complete. There was much difficulty in determining these points, because in many of the higher forms the earlier stages of development were passed through with great rapidity, and because in other cases the adaptation of the adult form to its special conditions of life more or less affected the course of development, and disguised the real relationships. The author argued that the development of no one type afforded an absolute guide to principles; only when the whole of the facts became known, could adequate generalisations be arrived at. Professors Huxley and Parker had some years ago been led to view the *trabeculae cranii*, the primary elements underlying the base of the forepart of the brain, as not axial, but as comparable in effect to the visceral arches, or mandibular, hyoidian, and branchial series. Some of their main reasons appeared to be, that the trabeculae in several types arose distinct from the axial parts, at the hinder part of the skull; that, in the early flexure of the forepart of the brain, about the end of the notochord or dorsal axis, the trabeculae became correspondingly down-bent so as to be more or less parallel with the visceral arches; and that a very constant distribution of a branch of the great trigeminal nerve seemed to be analogous to the distribution of nerves on the facial arches. But many considerations now induced Professor Parker and Mr. Bettany to abandon that view, and rather to regard the trabeculae as proper axial elements. Some of these were, that the trabeculae arise in tissue immediately underlying the cerebral cavity, just as the vertebrae arise in tissue beneath the spinal canal; that the temporary mesocephalic flexure does not make this tissue other than axial, while the proper axial position is early resumed; that every relation of the trabeculae proper is to the nervous centres, and that cartilaginous growths continuous with them bound the cranium laterally, just like the formation of the lateral occipital or vertebral regions. Further, it was sought to show that, reckoning the trabeculae as axial elements, they probably possessed their own appendicular parts in the prenasal and antorbital regions. It was contended that, in the face of these facts, it was in the highest degree undesirable to consider the forepart of the skull as a mere modification of facial appendicular parts, and that there were strong reasons for a recurrence to the earlier, more natural, and simpler conception, that the most important part of the skeleton had its own proper axis, and did not borrow it from without.—Professor HUMPHRY was glad to find that Mr. Bettany was associated with Mr. Parker in producing, in a collected form, the results of the labours of that admir-

able and indefatigable investigator of cranial morphology. He was also glad to learn that Mr. Parker had modified certain of his views. Much light was doubtless shed upon the higher animal forms by researches into the lower; but it was sometimes forgotten that the converse was also true, and that much light respecting the significance or potentiality of the lower forms was shed upon them by observation of higher types. To his mind, in spite of all that had been recently said on the subject, the segmental or vertebral theory of the skull was one of the most assured of morphological views. He thought it impossible to make even a cursory examination of the mammalian skull without being convinced, with Goethe, that it was a continuation of the vertebral series, and that in its anterior or trabecular part it was like the rest of the skeleton, planned in conformity with the principle of transverse segmentation. The divergence of the trabeculae, caused apparently by the presence of the structure from which the pituitary body is formed, led to the view of their appertaining to the visceral arch, or appendicular elements; but their horizontal position and relation to the cranial cavity pointed to their axial character. At any rate, he could not doubt that the osseous centres formed from them, or in connection with them—the basi-sphenoidal, the basi-presphenoidal, and the basi-ethmoidal—were axial segments. He would throw out the suggestion that the trabeculae might be both axial and appendicular elements, forming the bases of the axial centres just mentioned, and being continued forwards and downwards in the median plane, as a visceral structure, constituting the *septum narium*.—Mr. BALFOUR attempted to show that, in the present state of our knowledge, it was not possible to assign their true value to the various views on the morphological elements of the skull derived from the facts of embryology; and urged that, in spite of the great advantages which had resulted from the researches of Professor Parker, the time had not yet arrived when definite opinions could be maintained with reference to the trabeculae. He further pointed out that, in forming his conclusions, Mr. Bettany had overlooked certain facts of development which tended towards a different view of the nature of the trabeculae from that contained in his paper. He stated that, in the general term parachordal cartilage, two distinct elements were included: a central impaired element forming the immediate investment of the notochord, and equivalent to a continuation of the vertebral bodies; and a second element forming the lateral parts of the parachordal cartilages, and equivalent to the tissue which formed the arches of the vertebra. He maintained that the trabeculae were continuations of the lateral parts of the parachordal cartilages only, and could not, therefore, be strictly regarded as continuations of the axial skeleton which was formed by the vertebral bodies.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, NOVEMBER 25TH, 1876.

HENRY KENNEDY, M.B., President, in the Chair.

Myxoma of Labium.—Dr. LOMBE ATTHILL exhibited a large myxomatous tumour which he had removed from the left labium of a young healthy married woman, mother of three children. About a year ago, a tumour of the size of a walnut appeared in the left labium, which became swollen. Ultimately the growth caused the woman much uneasiness, so that Dr. Atthill removed it. The deepness to which it penetrated was remarkable, even to the ramus of the ischium. It was of very large size, encapsuled, and poorly supplied with blood. The microscopical characters were those of myxoma.

Extensive Laceration, with Subsequent Compression of Brain from Secondary Hemorrhage.—Dr. BOYD presented the brain of a man who fell on his head a height of eight or ten feet, and was rendered insensible. He received a lacerated wound over the frontal eminence on the right side. The unconsciousness passed off, and he became apparently quite well. On the tenth day, pain in the head and a tendency to sleep heavily excited apprehensions as to his state. Next day, symptoms of compression appeared, and he died on the evening of the twelfth day. The internal table of the frontal bone was driven in and pressed on the dura mater. The orbital plate of the frontal bone was fractured, and an extensive laceration of the brain existed in the neighbourhood. The compression was caused by secondary hæmorrhage.

Bursal Tumour, with Peculiar Organised Trabeculae.—Dr. THOMSON showed these specimens, which he had removed from the gluteal region of an army pensioner. The tumour consisted of a mass of fibrous tissue, and the bursal cyst was remarkable from the presence of peculiar macaroni-like cords or bands, which were attached to its wall by both their extremities. These trabeculae were possibly composed originally of hypertrophied bands of areolar tissue.

Vesical Catarrh dependent on Stricture.—Mr. H. G. CROLY showed the genito-urinary organs of a man, aged 79, who suffered from retention of urine due to a close stricture of the urethra, with enlarged prostate. There was advanced vesical catarrh, and an abscess was found between the bladder and the rectum. The ureters were dilated. An abscess also existed in the substance of the right kidney.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

LEUKÆMIA WITH SPLENIC HYPERTROPHY CURED BY HYPODERMIC INJECTIONS OF ERGOTINE.—In the *American Journal of Medical Science* for July 1876, Dr. R. CROCKETT publishes an interesting case of leukæmia with considerable hypertrophy of the spleen, muffled, weak, and rapid heart-beats, rapid and quiet respiration, anasarca, and albuminuria. Dr. Crockett had resort to perchloride of iron and ergotine. Perchloride of iron was given in doses of twenty drops daily in sugared water. The ergotine was administered in hypodermic injections—four grains of ergotine in fifteen minims of distilled water and glycerine. Two injections were made on alternate days. The hypertrophy of the spleen diminished after the third injection, and the condition of the patient was greatly improved.

PERUVIAN BALSAM AS A DRESSING FOR WOUNDS.—At a recent meeting of the Berlin Medical Society, Dr. WISS read a paper in which he advocated the use of Peruvian balsam as a dressing for wounds of all kinds. He had found it highly useful in gunshot and lacerated wounds, in wounds with loss of substance, and suppurating wounds. Its application produces a momentary burning pain, which soon, however, ceases even in wounds of the most severe and painful character. It produces neither inflammation nor suppuration; and, if these be present, they soon cease after its application. He had met with no case in which wounds treated with the balsam underwent septic infection, even in the most unfavourable local and climatic conditions. In all the cases in which he had used it, healing took place by the first intention. He had found it to repress exuberant granulation. The antiseptiv property of Peruvian balsam reminded him that it had been recommended by Marcus in chronic pulmonary catarrh; and he had used it in two cases, in the form of an emulsion (one tablespoonful of a mixture containing 4 parts in 120), with good result.—*Berliner Klinische Wochenschrift*, November 27th.

THERAPEUTIC USES OF SALICYLATE OF SODA.—Dr. C. KUNZE (*Deutsche Zeitschr. für prakt. Med.*, No. 28) recommends salicylate of soda as a means of rapidly relieving the pain of gout. In two cases of gout of the foot, a single dose of one drachm was followed in three hours by complete cessation of the pain; the swelling, however, remained ten days longer. In a case of gout in the hand, the pain ceased after the use of forty-five grains of the salicylate daily for eight days, the hand recovering its utility. Dr. BODE (*Allgemeine Med. Central-Zeitung*, No. 61) states that he found salicylate of soda to relieve pain in a case of mastitis and in one of rheumatic fever. Dr. L. HOFFMANN (*Berliner Klin. Wochenschrift*, No. 34) has found it remarkably efficacious in gout of the hands and feet, and relates successful cases of its use in sciatica, tic douloureux, and intercostal neuralgia. He recommends seven grains and a half to be taken in a gelatine capsule every hour. Dr. ABELIN of Stockholm (*Nordiskt Med. Arkiv*, Band vii) prefers salicylate of soda to salicylic acid as a remedy for children. It is more easily tolerated; its antipyretic action is certain, though of brief duration; but it has little effect on the course of the disease.

PATHOLOGY.

ANEURISM OF THE RIGHT GASTRO-EPIPLOIC ARTERY.—A case of death from this cause is related by Dr. POFICK in Virchow's *Archiv*, Band lxvii. The subject was a corpulent woman, who for some months before death had felt severe pain somewhere beneath the lower ribs on the right side. One morning, she felt as if something had been ruptured in her abdomen, and died of collapse in the evening. At the necropsy, there were found fatty degeneration of the heart, mitral insufficiency, narrowing of the left venous orifice, and atheroma of the aorta. The abdomen contained a large quantity of blood. This was found to have proceeded from an aneurism of the right gastro-epiploic artery, of the size of a pigeon's egg. Two smaller aneurisms were also found in the left coronaria ventriculi and superior mesenteric arteries. Their walls were formed of adventitious tissue.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 16TH, 1876.

THE USE OF PHOSPHORUS IN LEUCOCYTHÆMIA AND ALLIED DISEASE.

THIS discussion, which extended over a second evening at the Clinical Society of London, has added somewhat, and that mainly of a negative character, to our knowledge of the treatment of a very intractable form of disease. The conditions under which an increase in the number of white blood-corpuscles is brought about are now being generally recognised, if not yet quite understood. There is a positive increase in the number of white corpuscles and a decrease in the number of red ones. This condition is one which has for long been regarded as almost, if not entirely, beyond the reach of treatment, until Dr. Broadbent published several cases more or less successfully treated by phosphorus. In one of these cases, the effects of the administration of phosphorus were very remarkable. The enlarged glands were reduced to their normal size, and the patient quite recovered her strength. Other cases were less satisfactory. Dr. Wilson Fox shortly afterwards published a case, in which temporary improvement at least was induced by phosphorus.

Three papers on the subject were read at the meeting of the Clinical Society on November 24th. The first paper, by Dr. Gowers, gave an account of a case in which there was extensive enlargement of the glands, including the spleen, and a temperature several degrees above the normal. The administration of phosphorus was followed by diminution in the size of the glands, while the anæmia became less pronounced; nevertheless, the patient died. Dr. Greenfield followed, with an account of a case where there was also enlargement of the glands, with increase in the number of white blood-corpuscles, and a heightened temperature. Here the administration of phosphorus was not productive of such satisfactory results, for the number of white corpuscles rose till they reached the proportion of one to fifteen red ones. The glands continued to enlarge, and the pyrexia, with perspirations, remained unabated. Dr. Goodhart's case presented many of the features of the preceding cases, only here the temperature remained normal. The administration of phosphorus was followed by fluctuations in the condition of the blood. At one time, the number of white corpuscles was scarcely above the normal; at other times, they amounted to one-tenth and even one-fourth of the whole. The general health improved, while the glands enlarged, the liver and spleen remaining unaffected. As to the exact morbid changes in this case, no certainty exists, as the patient is still living. Sir William Jenner sent notes of three cases of splenic leucocythæmia, in which phosphorus had been administered. In the first case, the rise of temperature only occurred in the evening. Phosphorus capsules, containing one-thirtieth of a grain, were taken two or three times a day for four months, without appreciable benefit to the patient. The patient then came under Dr. Broadbent's care; and, though the phosphorus had been continued, no improvement could be said to have resulted therefrom. In the second case, the temperature was not high, and the spleen was much enlarged. Here the symptoms were aggravated. In the third case, the patient grew steadily worse, and died in rather more than two months after the treatment was commenced.

The debate was adjourned till the meeting of the Society on December 8th, and was opened by Dr. Greenfield, who gave it a

opinion that the use of phosphorus in cases of leucocythæmia and lymphadenoma was of no avail and gave no relief. Dr. Broadbent followed, and gave the results of his experience. His first case had recovered under the use of the drug, and had remained apparently well for some time, till carried off by an attack of acute intercurrent disease. In the second case, the patient had left the hospital too soon to give any results; while, in the third case, the drug distinctly disagreed with the patient. Such was his experience in splenic leucocythæmia. In lymphadenoma, phosphorus had produced complete recovery in the first case, was of no avail in the second case, while the third improved at first, but ultimately the position was nearly a stationary one. Dr. Wilson Fox's first case also had improved the most of all he had seen. Under the use of phosphorus, the blood regained its normal characters, while the general health was restored. Dr. Moxon's experience was of the most cheerless character, as in no one of thirty cases had any good resulted from the use of phosphorus.

The results of this discussion are, therefore, very unsatisfactory as regards any treatment for these cases. Whatever may be the relations of the enlarged glands to the increase of white corpuscles, and the causal relations of the rise of temperature, it does not appear that any perceptible influence can be exercised by remedial agents, except in a small proportion of the cases. In leukaemia, the glands are irregularly involved; in some cases, the glands generally seem affected, while in others the spleen is the part most distinctly involved. Sometimes, the increase of white corpuscles is accompanied by a more striking diminution of the red corpuscles than at others. Pigmentation of the skin was also found, but its development is of rather an irregular character. The accumulation of white corpuscles in the spleen and the marrow of the bones is also a peculiar feature of these cases. Dr. Broadbent was led, by a consideration of these facts, to hold that the essence of the disease lay in the altered relationships of the blood and the tissues or the blood and the glands. He started from the fact of the rapid degeneration of all structures of the body under the influence of phosphorus, and reasoned that it would be likely to reduce the glandular enlargement. In this action, phosphorus is allied to arsenic, which produces rapid degeneration of the glands and muscles. Indeed, in the experiments of Salkowski, the fatty degeneration of the liver produced by arsenic was more pronounced than in phosphorus-poisoning; while the tubules of the kidney were choked with fat-globules. The ingenious application of this knowledge of the effects of phosphorus by Dr. Broadbent has at least opened up a new subject, if it have not formed a very substantial addition to our means of dealing with a complex condition. In some cases, it evidently does much good, but, in a much larger proportion, it either entirely fails, or the good effected is but transient. Seeing how intractable these cases are to every form of treatment, the slight success achieved by phosphorus may warrant further trials of the drug. As to the form in which to administer it, Dr. Broadbent held the capsules alone to be trustworthy. Different forms of phosphorus pills have been tried, but they all were found commonly to emerge from the rectum unchanged. If phosphorus were not at once absorbed by the stomach, it became oxidised, and then was useless.

The effects of phosphorus upon the kidneys was observed in Dr. Gowers's case, and demonstrates how the different actions of a drug are inseparable, and that what is useful in one direction may be deleterious in another. The tendency of the discussion, it must be admitted, is not towards increasing the confidence to be placed in remedial agents in the treatment of conditions of anæmia with glandular enlargement. The further investigation of the disease may, however, reveal some indications for successful treatment; but, at present, we are scarcely warranted in believing that any line of treatment holds out hopeful prospects, except in a very small proportion of cases. The malady, or group of maladies, belongs to that class in which increased pathological knowledge must precede therapeutic advance; and our pathological knowledge must extend beyond the mere observation of the morbid changes before it is likely to afford any useful indications.

THE SALE OF VERMIN-KILLERS.

At a trial which took place recently at the Central Criminal Court, a man was convicted of the murder of the woman who passed as his wife by secretly administering to her strychnia under the well-known form of vermin-killer. There was no doubt, from the general and scientific evidence, that the prisoner had put the poison into some medicine. This was taken by the woman, and the usual tetanic symptoms followed. Death took place after some hours, so that, owing to absorption, none of the poison could be detected in the stomach, and only a minute trace in the liver.

One of the experts for the prosecution, Dr. Bernays, described the constituents of vermin-killers, and coupled his description with the remark that such compounds should not be allowed to be sold to the public at all. Upon this, the learned judge who tried the case observed "that persons who were pestered with rats and mice might entertain a different opinion".

We have no hesitation in stating that these strychnia vermin-killers, bearing the names of Battle and Butler, are answerable for a large number of murders and suicides by poison in this country. In spite of the stringent regulations of the Pharmacy Act, strychnia in this form is too easily procurable. Persons who are pestered with rats and mice have it in their power to employ other means of ridding themselves of the nuisance, than that which leads to the encouragement of free trade in strychnia and of secret murder by poison. Grocers and oilmen do not deal in strychnia or other alkaloids; but they sell it under the form of vermin-killer, and at so cheap a rate that twopence or threepence will suffice to purchase enough to destroy life. They sell it to nursemaids, girls of fourteen years of age; and we have known one instance in which three children were thus successively destroyed by a young nurse. She had easily procured the vermin-killer at a village grocer's; and, as the children had given her some trouble, she took this means of quieting them—assigning their deaths to "fits".

It is highly to the credit of the Pharmaceutical Society that, whenever they can procure sufficient evidence, they invariably prosecute to conviction, any person who sells poisonous compounds, and who is at the same time not a registered member of their Society or licensed to sell poisons. A case occurred last year at the Durham Assizes, in which a grocer had sold, as usual, vermin-powder, and this had been secretly used by a woman for the purpose of murdering her uncle. The mere threat of prosecution brought the penalty to the Society, the grocer thus escaping by a payment of five pounds. The woman was convicted of the murder and sentenced to death.

We pause to ask whether this is sufficient for the safety of the public. We think not. It should be held to be a *criminal* act on the part of any non-registered person to sell to another a poison which can be so easily employed for the destruction of life. If the Durham grocer, instead of escaping by a payment of five pounds, had been sentenced to a year's imprisonment and hard labour, there would be something like a repression of this dangerous practice. It is true that registered persons would still have the power of selling such poisons; but then this sale could only take place under certain strong restrictions defined by an Act of Parliament, and the neglect of these would lead to severe penalties.

HEALTH OF CUSTOMS OFFICERS.

THE annual Blue Book of the Commissioners of Her Majesty's Customs contains, as usual, the medical inspector's report on the health of the officers of the port of London. From this we learn, that the number of the force was nearly one thousand, from twenty to seventy years of age, with a mean age of about forty years; that the mean number disabled daily by sickness or accident was $3\frac{1}{2}$ per cent.; that the annual ratio of admissions to strength was 66 per cent.; that the mean duration of each case was twenty days; and that the time lost to the service per man throughout the year has been, including Sundays, thirteen days. Deaths occurred in the proportion of $7\frac{1}{2}$ per 1,000;

but, as one death was accidental, from drowning, the mortality rate from disease was $6\frac{1}{2}$ per 1,000. This is little more than half the ordinary mortality of the force which, computed from many years' experience, is about 12 per 1,000. Invaliding or superannuation on medical certificate was in the proportion of $6\frac{1}{2}$ per 1,000, which is very nearly the normal rate.

The combined rate of death and invaliding has, therefore, been 13 per 1,000, which is considerably below the estimated mean rate of 17 per 1,000. Previously to 1862, the combined mean rate was 24 per 1,000; there has, therefore, been the same marked progressive improvement in the health of this department as has obtained in the army and navy, and in the civil population at large. Premature retirement by reason of physical disability appears to be far more prevalent in the military than in the civil service; the combined rate of death and invaliding during the last ten years on the home station having been 38 per 1,000 in the army and 34 per 1,000 in the navy. Although differing so widely in age and other circumstances, the medical statistics of these bodies of men are all kept on the same plan, and present some interesting points of comparison.

The medical inspector has devoted much attention to the proportion of the various classes of disease and the incidence of sickness in relation to work and weather, and these ratios are found to be remarkably uniform through a long series of years. In 1875, diseases of the lungs, including consumption, furnished 28 per cent. of the whole time lost by sickness; rheumatism, 9 per cent.; gout, 5 per cent.; diseases of the digestive organs, 12 per cent.; of the nervous system, 5 per cent.; while zymotic diseases yield only $3\frac{1}{2}$ per cent. Surgical cases, diseases of the skin, etc., and accidents, constitute about 25 per cent. of the whole time lost. The proportion of zymotic diseases is always small, and this year is remarkably low. The cases of disease which terminated in death and invaliding were nearly all of a chronic and irremediable character—phthisis, disease of the heart and lungs, and other organic maladies incident to advanced life; the mean age of those who died being fifty-two years, and of those invalided fifty-one years. The rates of sickness and mortality do not always correspond. Last year, like many others, was notable for a large amount of sickness of severe character coinciding with an exceptionally small mortality.

Dr. Dickson has annexed a summary giving the aggregate results of eighteen years' observations, which demonstrates that, out of the whole mortality occurring in that period, 31 per cent. was due to phthisis, 24 per cent. to other diseases of the lungs and heart; nervous and digestive diseases yield each 9 per cent.; zymotic diseases, 7 per cent.; and accidental deaths, 10 per cent. of the whole. Premature superannuation or invaliding is chiefly caused by rheumatism and gout (32 per cent. of the entire amount of invaliding), by pulmonary disease (27 per cent.), and by disorders of the nervous system (20 per cent.), one half of which terminated in insanity.

These statistical results are of considerable value, as the outcome of a long series of carefully kept records of the sanitary condition of a body of men who may be fairly considered a good example of the adult male population resident in the metropolis.

DR. ROBERT J. LEE is a candidate for the office of Assistant-Physician to St. George's Hospital, vacant by the resignation of Dr. Ogle.

SINCE the organisation of night medical succour under the direction of the police in Paris, which was begun on January 1st, 12,768 persons have claimed assistance. A very large proportion have reimbursed the expenses.

THE well known scientific periodical published in Germany under the name of Dubois-Reymond and Reichert's *Archiv*, and formerly as Meckel's and subsequently as Müller's *Archiv*, is to be divided into two parts. One is to be devoted to Physiology, and will be edited by Dubois-Reymond and Ludwig; the other to Anatomy, under the management of Braune and His.

MR. WILLIAM HARVEY, the well-known aurist and author of the "Banting system", has died from the exhausting effects of carbuncle. Mr. Harvey was seventy years of age, but, till lately, hale and active.

AMONG the nominations recently made to the Senate of the Kingdom of Italy are the names of four members of the profession, two of whom—Signori Mantegazza and Moleschott—are well known in the scientific world. The others are Dr. Verga and Dr. Berti.

DR. BISET of Paris, who attended Dr. Regnault, whose death from diphtheria we recorded last week, has now died from the same malady. Nearly all the individuals who were about the child have already succumbed to the contagion.

THE Local Government Board have appointed Mr. Robert Rawlinson, C.B., C.E., and Dr. Robert Angus Smith, F.R.S., to be inspectors for the purpose of granting certificates under the Rivers Pollution Prevention Act, 1876.

AT a meeting of the Hospital Sunday Fund Committee, held at the Mansion House on Wednesday, under the presidency of the Lord Mayor, it was resolved that Sunday, the 17th of June next, should be the day for making the usual collections throughout the metropolis.

THE nine members of the Keighley Board of Guardians who were lately released from prison by the judges of the Queen's Bench, have sent in their resignation, on the ground that they were returned upon the understanding that the vaccination laws were not to be put into force by them.

A SERIOUS epidemic of small-pox prevails in Liverpool, but active steps are being taken to stay its progress. It was announced on Saturday that a serious outbreak of small-pox had taken place at the Children's Infirmary, and that the out-door department of the institution was consequently closed *pro tem*.

DR. ANGUS MACKINTOSH, who has from time to time issued some useful forms of Bills for public announcements, and precautions for the protection of public health in the Chesterfield Union, has collected and republished them with laudatory notices of the press, in a little brochure issued by J. Barker of Chesterfield.

AT the quarterly meeting of the Sheffield Town Council on Wednesday, it was announced that the Duke of Norfolk had decided to appropriate three pieces of ground, each about ten acres in extent, for the purposes of public recreation. The spaces are to be enclosed by low walls, but to remain in every sense thoroughly open recreation grounds. Being in the vicinity of some of the largest works, they will be a great boon to the working population.

THE *Pharmaceutical Journal* still continues to argue that the adulteration of "milk of sulphur" with seventy per cent. of sulphate of lime is a very venial offence; indeed that, being an "old established usage", it ought not to be considered an offence at all; and referring to a recent conviction of a chemist, it considers the present liability to prosecution to be "an unmitigated evil". If, however, it be true, as is suggested, that some persons prefer to mix plaster of Paris in such large proportions with sulphur before dosing themselves with it, it might still be as well that the two should be sold separately, and that individuals who have this peculiar fancy should indulge it consciously and voluntarily, and be permitted, or even invited, to mix the ingredients themselves. The medicinal properties of gypsum as an internal remedy are not highly appreciated by the medical profession, and we doubt whether the public have that passion for it which is alleged. If they have, they may as well take it *unadulterated with sulphur*.

DR. PEACOCK'S DONATION TO THE HUNTERIAN MUSEUM.

AT a meeting of the Council of the Royal College of Surgeons of England on the 14th instant, the honorary gold medal, which had been

unanimously awarded to Dr. Peacock at a previous meeting of the Council, was presented to that gentleman. This handsome medal has on the obverse the armorial bearings, crest, supporters, and motto of the College; and on the reverse, Galen contemplating a human skeleton; round the legend, the following: "Awarded to Thomas Beville Peacock, M.D., 1876." The leading considerations in awarding this distinction are, for "liberal acts, or distinguished labours, researches, and discoveries, eminently conducive to the improvement of natural knowledge and of the healing art". Accompanying the medal was a record in the following terms, handsomely written on vellum. "Royal College of Surgeons of England. At a meeting of the Council holden at the College on the ninth day of November, 1876—present (here follow the names of the President, Vice-Presidents, and Council)—the honorary medal of the College was unanimously decreed to Thomas Beville Peacock, Doctor of Medicine, of 20, Finsbury Circus, as a mark of the appreciation of the Council of his liberal and extremely valuable donation of pathological specimens to the museum of the College. (Signed) Edward Trimmer, Secretary." This was accompanied with a letter from the President, Mr. Prescott Hewett. The following gentlemen have been recipients of this honourable collegiate recognition; viz.: 1800, James Wilson; 1822, James Parkinson; 1825, Joseph Swain; 1834, George Bennett; 1869, William Lodewyk Crawther; and this year, as stated above.

HOMICIDAL INSANITY.

A RESPITE has been granted in the case of William Drant, a convict under sentence of death at Lincoln for murder, to whose case we first directed attention, on the ground that at the time when the crime was committed he was suffering under an attack of insanity caused by epilepsy. Dr. Bucknill has received the following reply from the Home Office to a letter in which he had called the attention of Mr. Secretary Cross to the case.

Whitehall, December 9th, 1876.

Sir,—I am directed by Mr. Secretary Cross to acquaint you that, having carefully considered the case of William Drant, he has felt justified, under the circumstances, in advising her Majesty as unvaccinated and 16 as vaccinated; in the remaining 15 cases, the medical certificates did not furnish any information as to vaccination. There is no decline, however, in the prevalence of the epidemic. The three Small-pox Hospitals at Homerton, Stockwell, and Hampstead contained 586 patients on Saturday last, against numbers increasing steadily from 185 to 529 in the six preceding weeks. The total number of deaths registered in London last week was 1,446 and of births 2,410. Allowing for increase of population, the births exceeded by 94, whereas the deaths were 338 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two previous weeks had been equal to 22.5 and 23.3 per 1,000, declined last week to 21.6. The deaths included, besides the 50 from small-pox, 24 from measles, 42 from scarlet fever, 8 from diphtheria, 28 from whooping-cough, 30 from different forms of fever, and 15 from diarrhoea; thus to the seven principal diseases of the zymotic class 197 deaths were referred, against 184 and 219 in the two preceding weeks. These 197 deaths were 89 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 2.9 per 1,000. The 30 deaths referred to fever were 17 below the corrected average; 24 were certified as enteric or typhoid, and 6 as simple continued or low fever. Five deaths were caused by horses or vehicles in the streets. In Greater London, 2,896 births and 1,689 deaths were registered,

A. F. O. LIDDELL.

J. C. Bucknill, Esq., M.D., 39, Wimpole Street, W.

THE PUBLIC HEALTH.

THERE was a decline last week in the mortality from small-pox in the metropolis. The deaths, which had been 43 and 67 in the two preceding weeks, were 50 last week, of which 19 were certified as unvaccinated and 16 as vaccinated; in the remaining 15 cases, the medical certificates did not furnish any information as to vaccination. There is no decline, however, in the prevalence of the epidemic. The three Small-pox Hospitals at Homerton, Stockwell, and Hampstead contained 586 patients on Saturday last, against numbers increasing steadily from 185 to 529 in the six preceding weeks. The total number of deaths registered in London last week was 1,446 and of births 2,410. Allowing for increase of population, the births exceeded by 94, whereas the deaths were 338 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two previous weeks had been equal to 22.5 and 23.3 per 1,000, declined last week to 21.6. The deaths included, besides the 50 from small-pox, 24 from measles, 42 from scarlet fever, 8 from diphtheria, 28 from whooping-cough, 30 from different forms of fever, and 15 from diarrhoea; thus to the seven principal diseases of the zymotic class 197 deaths were referred, against 184 and 219 in the two preceding weeks. These 197 deaths were 89 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 2.9 per 1,000. The 30 deaths referred to fever were 17 below the corrected average; 24 were certified as enteric or typhoid, and 6 as simple continued or low fever. Five deaths were caused by horses or vehicles in the streets. In Greater London, 2,896 births and 1,689 deaths were registered,

equal to annual rates of 35.3 and 20.6 per 1,000 of the population. In the Outer Ring, the death-rate from all causes, and from the seven principal zymotic diseases, was 15.9 and 2.0 per 1,000 respectively, against 21.6 and 2.9 in Inner London.

THE ABUSE OF MEDICAL SERVICE.

WE are very glad to find that the first letter on the Abuse of Hospitals, by "A Member of the Charity Organisation Society", which we published last week, has at once arrested attention. We shall publish next week a second letter. We would especially to-day direct attention to the letter on a kindred subject which appears in our small-type columns from Mr. Robert Johnson, of Boyton, Woodbridge, Suffolk. It is very satisfactory to find able and public-spirited men not belonging to the medical profession fully impressed with the evils of the abuse of gratuitous medical service, and determined to take in hand the means of remedying them. We hope much from the energetic co-operation of men such as Mr. Johnson, and from the efforts of the Charity Organisation Society.

SCARLET FEVER AT PORTSMOUTH.

AN influential meeting of members of the medical profession was held at Portsmouth on Monday last, under the chairmanship of Mr. W. H. Garrington, the coroner for the borough. The following resolutions, after considerable discussion, were eventually passed. "That this meeting is glad to state that there has been a marked decline during the past two or three weeks in the prevalence of scarlet fever in this town, but it still urges upon all classes of the community to aid in extinguishing the disease." "That this meeting suggests to the Sanitary Authority of Portsmouth the necessity of providing at once a hospital or temporary place for the reception of cases of infectious disease, and of providing suitable carriages for the conveyance of the sick. Moreover, this meeting recommends that plain directions both of precaution and protection be circulated throughout the town; that extra officers be appointed, if necessary, to visit from house to house in those localities where special investigation appears necessary, for the purpose of directing sanitary measures, detecting fresh outbreaks of fever, and seeing that proper precautions are taken during the period of convalescence." In speaking to this resolution, Mr. Turner, the medical officer of health for the borough, gave a detailed account of the precautions taken by the sanitary authority to prevent the spread of the disease, and of the difficulties they encountered in enforcing these precautions among the poorer classes of the community. The third resolution passed was as follows. "That the medical practitioners of Portsmouth be requested to assist the medical officer of the sanitary authority by all means in their power, particularly by acquainting him of fresh cases of infectious diseases, and also of deficient household sanitary arrangements." The fourth resolution ran thus: "That this meeting earnestly suggests that both parents and superintendents of public elementary schools should take special care that children do not return to school for at least one month after complete recovery." It was also resolved, "That Dr. Cousins be appointed Honorary Secretary to the meeting"; and, "That the Honorary Secretary be directed to communicate with the Mayor, and ask him to receive a deputation of the medical profession". A vote of confidence in the medical officer of health, and of thanks to the chairman for presiding, were also carried.

DR. KLEIN'S RESEARCHES ON SHEEP-POX.

A SHORT note by Dr. Klein in the *Proceedings of the Royal Society*, vol. xxx, No. 174, corroborates the opinion expressed by Dr. Creighton, to which we recently referred, that the supposed mycelium of sheep-pox does not exist. Dr. Klein's explanation of the appearances that simulated so closely those which are characteristic of minute organisms is, that blood-corpuscles, or only portions of them, become fused, so as to form longer or shorter thread-like structures, and that this takes place especially in inflamed tissues. Similar effects are produced by

the coagulation of blood-plasma containing globulin or parts of blood-corpuscles in the lymphatic vessels or in the lymph-spaces. In the case of variola ovina, therefore, Dr. Klein thinks it probable that the supposed mycelium in the lymphatics is due to coagulation of some substance directly connected with blood. Whether the appearances found in the pustules are produced in the same manner, or are due to the presence of certain mucous substances, is a subject which he promises to investigate further. It is hardly to be doubted that many of the appearances which have been described by continental observers during the last few years as micrococci and bacteria are similar in their nature to those seen by Dr. Klein. The identification of these minute organisms is attended with great difficulty. Dr. Arnold Hiller of Berlin has pointed this out very forcibly in a memoir entitled "On the Diagnosis and Recognition of Bacteria", in the sixty-second volume of Virchow's *Archiv*. The recognition of minute fat-molecules by ether, alcohol, and chloroform is shown, for example, to be an untrustworthy method, as these reagents produce coagulation in the albumen of the serum, which thus comes between the molecule and the solvent. He gives the following method as trustworthy. Let a few drops of a solution of one part of iodine in twenty-five of alcohol fall on a drop of fluid which contains bacteria. The excess of iodine after a few minutes evaporates and leaves the bacteria coloured in a colourless fluid. The method is only available in diluted albuminous fluids. The important pathological questions that depend on our ability to distinguish organisms with certainty render it necessary that studies such as those pursued by Dr. Hiller should be actively pursued; and, if Dr. Klein's experience in the study of sheep-pox have induced him to go into the matter more deeply, we may confidently expect that he will contribute some valuable additions to our knowledge of this difficult subject.

MILITARY AND NAVAL MEDICAL LITERATURE.

UNDER the title *Bibliotheca Medicinæ Militaris et Navalis*, Staff-Surgeon Dr. Friedrich Fränkel of Glogau has undertaken a praiseworthy and most arduous task. His object is to form a systematically arranged index to the literature of military and naval medicine. The subjects are to be arranged under the heads of Bibliography, Biography, History, Organisation, Recruiting and Invaliding, Hygiene, etc. The first part, which has lately been published, contains all the dissertations and programmes on military and naval therapeutics which have come to the author's knowledge, arranged alphabetically according to the names of the authors, with a table of contents of subjects. Dr. Fränkel appeals to military booksellers and others, having works coming within the scope of his design, to favour him with copies, which, he says, will be returned.

DEATH OF VON BAER.

THE German journals report the death of the well known naturalist, Karl Ernst von Baer, at Dorpat, on November 28th. Von Baer was by birth a Russian subject, having been born in Esthonia in 1792. He studied medicine for some years at Dorpat and afterwards in Germany; and, in 1817, was appointed Professor of Zoology in the University of Königsberg. In 1834, he returned to St. Petersburg; and, in 1837, by order of the Czar, explored the northern shores of Russia, and published a minute description of them, and of their animals and plants, in the records of the Academy of St. Petersburg. To British readers he is best known for his researches in embryology—a subject to the knowledge of which he made valuable contributions.

NEGLECT IN A HOSPITAL.

CASES of poisoning by carbolic acid have been of such frequent occurrence in hospitals, that it would appear imperatively necessary that more stringent measures than those in ordinary use should be enforced to avoid them. The inquiry into the misadventure last week at the Hampstead Small-Pox Hospital reveals faults of administration so palpable, that it is difficult to conceive how accidents of the type referred to could have been possible. That wines and spirits kept in the

wards for immediate use should be habitually found in reckless proximity with such a deadly poison as crude carbolic acid, with no distinguishing feature in the vessels containing them by which a nurse could recognise one from the other, is inexcusable in the arrangements of any hospital, and merits the severest condemnation. There is no earthly reason why carbolic acid in its undiluted form should ever leave the pharmaceutical stores of the hospital. For no purpose is it necessary to have a stronger solution in the wards than that which contains 5 per cent. of acid; and in the vast majority of instances in which the agent is employed, a much weaker solution will suffice; yet, in all the deaths reported, it would appear that the nurses had free access to the crude acid, and had mistaken it for wine or medicine. It is not easy to understand how the dark brown, viscid, and strong smelling poison can be mistaken for port wine or black draught; but unless more intelligent action be taken by those who possess authoritative supervision in such matters, we must anticipate a repetition of similar accidents. If we are to believe the newspaper reports of the inquest, the sympathies of the jury in the case were wholly confined to the unfortunate sister who administered the poison, and who, by a singular logical sequence, was absolved from all blame, while no reference was made to the rule of the establishment which permitted such a reprehensible practice as we have indicated. We have no desire to bear hardly on the nurse, but we are entitled to seek the assurance of the Chairman of the hospital, who was present at the inquiry, that he will see that proper measures are enforced rendering it impossible for such an accident to take place in future. A sense of justice to the sick, and the voice of the public, alike demand it.

SCARLET FEVER IN BRIGHTON.

WE have it on the best authority, that the rumours relating to the alleged prevalence of scarlet fever in Brighton are much exaggerated. There is an epidemic of scarlet fever in Brighton at the present time, it is true, but not a severe one; the mortality for the three weeks preceding last week only amounted to six or seven.

THE SCHOOL-SHIP "CORNWALL".

WE last week reported an outbreak of "typhoid fever" on board this vessel. During the present week, many fresh cases of fever have occurred, and the medical men who have seen the cases are divided in opinion as to the precise nature of the outbreak. Thus some believe the fever to be typhoid, whilst others are of opinion that, at any rate, many of the boys are suffering from scarlatina. Each case presents certain special features; for, whereas one boy is first attacked with sore-throat previously to the appearance of any rash, another has simple catarrhal symptoms with slight fever, and, in all the cases, there is an absence of diarrhoea or intestinal disturbance. Of the rash, it may be said that, although in one or two cases suspicious spots, resembling those usually seen in typhoid fever, have been observed on the abdomen, in a few of the boys a blush has been noticed about the chest, which would seem to point to scarlatina. In the majority of cases, however, no rash or blush of any kind has yet been observed. All the boys who have been attacked are or have been suffering from sore-throat, and this is an early symptom in every boy attacked. The temperature, so far, is of little assistance, as in no single case has it been characteristic. On examination, the urine has yielded no albumen and is in other respects normal also. The anorexia has been of short duration, and not of that depressing nature usually present in typhoid cases. One boy only has shown any symptoms of desquamation. At first, a few of the boys were thought to have pneumonia; but it passed off very rapidly. Altogether, between twenty and thirty boys have so far shown signs of fever, and active measures are being taken by the authorities to prevent the outbreak from extending. We are informed that some of the boys have been placed in a small hospital adjoining the ship at Grays, others have been or are about to be sent to St. Bartholomew's Hospital, while the majority are under treatment at the Seamen's Hospital, Greenwich. A few invalids are still kept on

board the *Cornwall*. Altogether, this outbreak resembles in its character the epidemic of scarlet fever which we recently reported as having broken out at the Uppingham School since its removal to Borth. It seems probable that the boys are suffering from scarlet fever, which has been somewhat obscured, owing to imperfect sanitary arrangements and exposure to damp and cold. As we suggested last week, if the Committee of the *Cornwall* are wise, they will petition the Admiralty to grant them the use of another vessel without delay.

THE QUEEN'S VISIT TO OSBORNE.

IN reference to the postponement of the Queen's visit to Osborne, in consequence of the prevalence of scarlet fever at Cowes, we are enabled to state that scarlatina, which had been prevalent on the other side of the Solent during the past year, and smouldering at East and West Cowes during the summer months, assumed an epidemic form in September, and was apparently subsiding, when last week there were some fresh cases on both sides of the Medina. The five cases that occurred on the Osborne estate were the result of direct infection, happily so far limited to two houses; and more than a month has elapsed since the last case.

A CONTRAST.

It was this week announced that "a ship has recently arrived in the London Docks from Bassein with two severe cases of scurvy. The Board of Trade have directed their medical adviser to hold an inquiry as to the cause of the outbreak." This affords rather a strong contrast to the course pursued by the Admiralty, who, on the arrival recently at Portsmouth of two ships of the Royal Navy in which nearly every man—except the officers—had been crippled with scurvy, and two had died, immediately proceeded to promote the officers without further inquiry; and when, a fortnight afterwards, they asked the head of their Medical Department for a report, took especial care not to publish it, and have since persistently refused to produce it.

TRANSFUSION AT THE LONDON HOSPITAL.

AN interesting case of transfusion was witnessed last Saturday in the operating-theatre of the London Hospital. Amputation at the hip-joint was being performed by Mr. James Adams on a boy who had suffered from chronic osteo-myelitis of the whole femur for several years, and who had amyloid degeneration of the liver and other organs. Very little blood was lost (Lister's abdominal tourniquet and Esmarch's bandage being used); but, after the removal of the limb and the ligaturing of a few vessels, the pulse became almost imperceptible. Dr. Roussel being present with his transfusion-apparatus, Mr. Adams determined to try the effect of introducing some blood at once. Mr. Adams yielded his own blood. The ingenious instrument answered most perfectly, and eight ounces were quickly introduced with most marked benefit. Much more would have been transfused, but, unfortunately, a dresser, in moving the right hand of the patient, knocked the instrument off Mr. Adams's arm, occasioning a considerable waste of blood. The operator, having had his arm bandaged, continued the tying up of the vessels in the flap. The boy appeared to bear the operation afterwards fairly well for thirty hours; but at that time vomiting came on, and he gradually sank at 11 A.M. on Monday. Mr. Adams thinks that the instrument of Dr. Roussel makes an unnecessarily large opening in the vein, but in other respects is perfect. The nozzle of the instrument was introduced into one of the veins of the flap.

EAST AND WEST.

THE Rev. Harry Jones, Rector of St. George's-in-the-East, in his recent work *East and West*, after referring to the professional dole-seekers who hang about every church and consume the time and energies of the parson, makes the following remarks.

"The same sort of people apply daily for letters to the dispensary or hospital, when, in many cases, all they want is a twopenny powder for the baby or a pill to correct the disagreeable effects of too much gin.

Every parish, too, has its share of floating semi-paupers, who beg wherever they see a chance of netting a shilling or a ticket, and who are never radically bettered by the alms they manage to get. True, these alms occasionally serve to quench the hunger or warm the flesh of some poor body, and so shed a few rays of physical comfort on a miserable life, but they do not raise that life into a higher level. It is, however, very painful to adopt an attitude of constant resistance towards these dull suppliants, and to refer them to the relieving officer. It is, on the other hand, distressing to spend so much time year after year in blocking the weak balls that they bowl at the wicket of 'charity'. It is also depressing to submit to their importunity, and, after having been thanked thousands of times, to find that part of the procession which is under your eye become, perhaps, a shade more importunate and shabby, while you are conscious that, as it disappears, another—I can hardly call it 'fresh'—squad is moving into notice, inheriting apparently the very clothes and difficulties of the first."

A stricter system of out-patient relief would be a good tonic for these feeble seekers after "charity".

TYPHOID FEVER AT WHITE LODGE, RICHMOND PARK.

PRINCE ADOLPHUS, aged 8, the eldest son of the Duke and Duchess of Teck, has been for the last three weeks suffering from typhoid fever. The illness commenced on Monday, November 20th, in the ordinary way, with headache, etc.; and, on Monday last, the crisis occurred; the temperature sinking on that day from 102 deg. to less than 98 deg. The temperature in the earlier stages of the illness was high both morning and evening, often reaching to 105 deg. No blood was at any time passed in the stools. The young prince has been throughout under the constant care of Dr. Duncan and Dr. Wadd of Richmond, and has been also seen by Sir William Jenner and Sir William Gull. After the occurrence of the crisis, the prostration was extreme; but we are pleased to learn that on Wednesday last reaction was gradually coming on. The young prince had been staying at White Lodge continuously for weeks before his illness began; and, upon inquiry, we learn that typhoid fever has been rare in Richmond during the present autumn, and that there has certainly been no other case of the disease at White Lodge. The water-supply to the Lodge comes from two sources. That used for drinking and culinary purposes comes from a spring in Sidmouth Game Preserve, one of the highest points in the park. The other supply, for washing purposes, etc., is Thames water, taken from opposite Isleworth, filtered at Kew Gardens, and pumped into a reservoir near Pembroke Lodge in the park. Specimens from these two sources have been analysed by Professor Frankland, who states that the nitrogen contained as nitrates and nitrites in the specimen from the Sidmouth spring is .009 in 100,000 parts; whilst in that pumped from Kew it is *nil*. There is also no previous sewage or animal contamination in either specimen. The suspicion against the Sidmouth spring-water is not strong; but, as Professor Frankland writes, "if the animal matter can be traced to a human source, the water ought to be condemned". The milk-supply of White Lodge comes from cows kept in the park. The milk has been analysed, and found to be quite pure. The sewage from White Lodge runs by a sewer which has no junctions into Beverley Brook. The source of the illness of Prince Adolphus is thus so far enveloped in mystery. It is, at any rate, a remarkable fact that he is now the fourth member of the Royal Family attacked in England with typhoid fever during the last fifteen years.

SMALL-POX IN LONDON.

THE Local Government Board have addressed a letter to the boards of guardians in the metropolis, stating that the increase of small-pox within the last few weeks has rendered the accommodation at the disposal of the managers of the Metropolitan Asylums District inadequate to meet the requirements, and that it is necessary to specially draw the attention of boards of guardians to the subject. Referring to the action of the guardians of the Westminster Union in opposing the use by the Asylums Board of their hospital at Battersea, the Board remark that, on the occasion of the small-pox epidemic in 1870, many of the boards of

guardians in the metropolis rendered very valuable service in supplementing the efforts of the managers. It appears to the Board that similar efforts may be made with great advantage on the present occasion.

THE HARVEIAN LECTURES.

THE first of the two Harveian lectures for this year was delivered by Mr. James Lane, on Thursday, December 7th, at the rooms of the Harveian Society, before a full audience of the members of the Harveian Society and visitors. The lecturer chose for his subject "Syphilis", and gave a most interesting historical review of the different views which have been and are now held respecting the nature of this and kindred diseases. The second and concluding lecture will be delivered on Thursday evening next.

SUBJECTS FOR DISSECTION.

AT the meeting of the Bristol Board of Guardians on Saturday last, a letter was read from the lecturer on anatomy at the Bristol Medical School, stating that there were forty-six pupils at the school requiring subjects for dissection, and asking if the guardians would supply their wants by furnishing them with some unclaimed bodies. The chairman informed the board that there was a standing order upon the books that the medical school should have any unclaimed bodies, upon payment of half-a-guinea each as interment expenses.

THE ANTIVIVISECTIONISTS.

MR. GEORGE R. JESSE, honorary secretary to the Society for the Abolition of Vivisection, recently wrote to the Home Secretary to inquire how many licences had been applied for, and what number granted by Her Majesty's Government under the Cruelty to Animals Act, 39 and 40 Victoria, chapter 77; also, to whom such licences had been granted, and whether the names of such persons were, or would be, published in the *London Gazette* or elsewhere. He has received the following reply: "Whitehall, Nov. 28, 1876.—Sir, I am directed by the Secretary of State to acknowledge the receipt of your letter of the 23rd instant, and to acquaint you in reply, for the information of the society on behalf of whom you write, that he must decline to furnish the statement requested as to the carrying out of the Act 39 and 40 Victoria, chapter 77, to private applicants. I am to add that the names of holders of licences under that act will not be published in the *London Gazette*.—I am, etc., A. F. O. LIDDELL."

MEDICINE IN BURMAH.

IN his newly published work, entitled *Our Trip to Burmah*, published by Baillière, Tindall, and Co., Surgeon-General C. A. Gordon has an interesting note on the medical profession in Burmah. It appears that surgeons and surgical operations are unknown there; but physicians are divided into three orders—those who use mineral or vegetable medicines; those who attribute all disease to some derangement of the elements which constitute health, and trust chiefly to the effect of diet; and, thirdly, the "witch-doctors", who proceed by spells and incantations. Fees range from eight annas to five rupees a visit; or sometimes the patient adopts the principle of payment for results, when a successful cure often brings a large reward.

THE SENSATION OF SOUND.

"NATURE" reports that, at a recent meeting of the Vienna Medical Society, a paper was communicated by Dr. Isidor Hein "On the Relations between Perceptions of Touch and of Hearing". His conclusions are these. 1. The sound produced by striking a solid body is always accompanied by a sensation of touch, which, like the sound, differs according to the nature of the body. If the sound be different in different parts of a body, there goes along with the variation of the sound a variation in the touch-sensation; and if the surface be divided into several sections according to differences in sound, a congruent division may be made on the basis of touch. 2. On bringing a struck body towards a reflecting wall, the sound and touch-perception show similar

variations. 3. To the touch-perception in question correspond vibratory motions of the exterior body, produced even with the weakest striking, whereas sound only begins to be perceived with impacts of a certain intensity. 4. The sense of touch is capable of perceiving vibrations and comparing the differences of these. It brings hereby to consciousness a special quality of touch-sensation, which is to be distinguished from sensation of pressure. 5. This distinguishing power of the organ of touch, not sufficiently appreciated hitherto, offers practical medicine a peculiar mode of investigation, which greatly enlarges the doctrine of the physical symptoms of the human organism, and for which the author suggests the (German) name of "Erschütterungspalpatation".

SCOTLAND.

AT a meeting of the Managers of the Royal Infirmary last week, Dr. David J. Brakenridge was appointed Senior, and Dr. John Wyllie Junior, Assistant-Physician to the institution.

THE Perth Police Board have, by the casting vote of the Lord Provost, reversed their former decision, and resolved not to proceed further with the Water Bill originally promoted by a committee of the citizens.

DEATH OF DR. JOHN GAIRDNER.

DR. JOHN GAIRDNER, for many years the able and respected Treasurer of the Royal College of Surgeons, Edinburgh, and some time President of the College, died at his residence, 45, Northumberland Street, Edinburgh, on Thursday, at the age of 86.

BEQUESTS.

THE late Mr. William Baillie of Falahill, W.S., has bequeathed to the Edinburgh Royal Infirmary his estate at Fallahill and also a half of the free residue of his estate. Mr. Baillie's agent reports that the value of the gift will be over £30,000. Besides numerous legacies to friends, Mr. Baillie has remembered various other institutions and charities, having bequeathed £1,000 to the Fund of the Aged and Infirm Ministers of the Free Church, and a similar sum to the corresponding fund in the United Presbyterian Church; £200 to the Destitute Sick Society in Edinburgh, £200 to the Edinburgh Sick Children's Hospital, £200 to the Royal Blind Asylum, £300 to the original Ragged Schools, and several more, all free of legacy duty and government taxes. The other half of the free residue of his estate—several thousand pounds—is left to the Sustentation Fund of the Free Church of Scotland.

DEATH OF DR. SANDERSON.

DR. SANDERSON of Musselburgh has died, after a painful illness of some months' duration. He was born at Musselburgh in 1793, and took the M.R.C.S. of London about the year 1811. Several years of his life were spent in the Navy on the South American Station; and he took part in an engagement with a Danish fleet in Mardoe Bay, for which service he obtained a medal. He afterwards settled in Musselburgh, where he practised for over fifty years. In 1865, he was made Provost of the burgh, which office he held for six years, and filled it in a very efficient manner. Dr. Sanderson leaves three sons. The eldest surviving son has been in practice in Musselburgh for thirty years.

TYPHOID FEVER AT LINLITHGOW.

THE epidemic of typhoid fever which lately showed itself so formidable at Linlithgow Bridge has now been eradicated, thanks to the vigorous action of the authorities and their medical officer. An interesting and elaborate account of the outbreak was read at the last meeting of the Edinburgh Medico-Chirurgical Society by Dr. Hunter of Linlithgow. It was a remarkable fact, that the first case which occurred happened in a villa residence, the largest and most important house in the village, with modern accommodations and a separate and

pure well of its own. From this, it spread rapidly to a neighbouring dairy and to the rest of the village. Dr. Hunter found salicylic acid of much value in reducing the temperature and modifying the course of the fever in many cases. There were seven deaths in all.

REGISTRAR-GENERAL'S REPORT.

IN the Registrar-General's report for the month of November, it is remarked that, in the eight principal towns, the zymotic diseases have caused 367 deaths, or 16.8 per cent. of the whole mortality; this being both the lowest number and the lowest proportion of deaths from this class of diseases during any month of November since 1855, when the Registration Act came into operation. The towns that suffered most from epidemics were, Aberdeen (20.8 per cent.), from the prevalence of measles, and Greenock (24.3 per cent.), from that of scarlatina and diphtheria. Scarlet fever was the most fatal of the epidemics, having caused 67 deaths, or 3 per cent. of the whole mortality.

HEALTH OF EDINBURGH.

FROM the medical officer's monthly report, it appears that in October the health of the city of Edinburgh was very satisfactory, only 240 deaths being registered, as against 354 in the same month of 1875, and 353 in 1874. The rates of mortality indicated by these figures are: for 1876, 13.62; for 1875, 20.37; and for 1874, 20.59 per 1,000. During the month reported on, the city remained free from any unusual mortality from infectious diseases. For the last three months there had been no death from what used to be the great scourge of Edinburgh, typhus fever.

IRELAND.

A FEMALE graduate (M.D. of Zurich) has obtained permission from the authorities of the College of Physicians to be examined for the licence in Medicine of the College. She will not be examined this month, but most probably about next February.

DURING the past year the consumption of liquors in the South Dublin workhouse has been restricted, the restriction being brought about by attention being called to the very large annual expenditure in intoxicating stimulants. It was announced at a recent meeting of the guardians that the expenditure during the above period had been reduced by over £1,000.

TWO additional deaths from small-pox have taken place in the Mater Misericordiae Hospital, Dublin. One, a female not vaccinated, died from malignant small-pox of six days' duration; and the other, a man, also died from the confluent form, the disease in his case lasting ten days. There was no trace of vaccination.

PHARMACEUTICAL SOCIETY OF IRELAND.

A DEPUTATION of pharmaceutical chemists waited on the Council of this Society last week for the purpose of ascertaining the intention of the Council in cases of infringement of the Pharmacy Act. After discussing the matter, the deputation were informed that it was not the intention of the Society to act as a prosecuting body.

DUBLIN HOSPITAL SUNDAY FUND.

THE amount of collections paid into the fund up to the 9th instant reaches the sum of £3,503. About thirty churches have not yet sent in the contributions obtained; but so far the collection this year promises to be an improvement on that of last year.

BELFAST ROYAL HOSPITAL.

THE bazaar held in the Ulster Hall last week for the benefit of this institution was a great success, the entire proceeds for the three days' sale amounting to upwards of £1,290. This does not include the sums previously contributed towards the bazaar fund, which reached £1,000, thus making a total exceeding £2,290.

FEVER IN LURGAN AND PORTADOWN.

THE Local Government Board having requested information respecting the present fever epidemic in the Lurgan Union, the guardians had a recent meeting, at which communications were received from the sanitary officers of Lurgan and Portadown in reference to the subject. Dr. Stewart stated that fever prevailed in a portion of Portadown where the sanitary arrangements were very bad; and, although he had drawn attention to the sanitary defects on numerous occasions within the past two years, nothing had been done by the Town Commissioners. Dr. Russell attributed the prevalence of the epidemic in Lurgan to filthy middens, imperfect sewerage, and an insufficient supply of water.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS.

AT the December meeting of this Society, nine additional members were admitted, the voting being by ballot. They were admitted under a recent alteration of the rules of the Society, which permits Graduates in Medicine of an University of the United Kingdom, Fellows or Members of the Colleges of Physicians of London or Edinburgh, and Fellows of the Colleges of Surgeons of England, Ireland, or Scotland, to become candidates for membership. It is, however, expressly stated that practitioners who keep open shop for the sale of medicine are not eligible to be proposed as members of the Society.

OPENING OF STEPHEN'S GREEN AS A PUBLIC PARK.

WE were afraid that the antagonism which existed between the Commissioners of the Green and the Corporation of Dublin would have had the effect of causing considerable litigation, and perhaps have ultimately prevented the place being utilised for the use of the citizens; but we are happy to be enabled to state that all differences between the conflicting bodies have been amicably settled, the following arrangements having been determined. The Corporation will not proceed with the Bill in Parliament that they had promoted for the opening of the Green; will give up the rent hitherto paid them by the Commissioners; and, lastly, will supply without charge the necessary water for the ornamental fountains which are proposed to be erected. The Commissioners, on their side, have agreed to surrender all their rights and privileges, and withdraw the proceedings they had taken against the Corporation in the Court of Chancery. A Bill will be introduced by the city members to carry out all the necessary arrangements, converting the Green into a public park for the enjoyment of the inhabitants of Dublin, which will be under the control of the Government. Sir Arthur Guinness has renewed his former generous offer, and will expend a large sum of money in ornamenting and beautifying the Green.

THE FORTIETH SECTION OF THE MEDICAL ACT.

DR. JOHN HAMILTON of Oxford Street, on Wednesday last, appeared at the Marlborough Street Police-court, in answer to a summons taken out by the East London Medical Defence Association, on a charge of having unlawfully pretended to be a doctor of medicine. The defendant's diploma was an American one, which, according to the complainants, was of no value in this country; but Mr. Knox, having taken time to consider the matter, dismissed the summons, on the ground that he used only a foreign diploma, publicly displayed it, and did not pretend that it was registrable or that he was registered. The defendant had called himself a New York doctor, and nothing else. The summons, he regretted to say, must be dismissed. A second summons against a person named Lewis, who goes by the name of Dr. Bell of Wardour Street, was proceeded with. After considerable evidence, a number of legal points were raised, and Mr. Knox said he would consider them before giving his decision. Mr. Knox's decision was in strict accordance with former decisions of the judges, and emphasises the importance of that amendment of the fortieth section of the Medical Act which has been agreed to by the Government and the

profession, and which, as we last week pointed out, the Medical Reform Committee of our Association would confer a boon on the profession and the public by embodying in a short Bill for next session.

THE INTERNATIONAL MEDICAL CONGRESS IN PHILADELPHIA.*

SECTION OF BIOLOGY.

Microscopy of the Blood.—Dr. CHRISTOPHER JOHNSTON read a paper on this subject, in which he inquired into the original source of blood in vertebrates; and the elements of blood in them. He discussed the genesis of corpuscles; the form of coloured corpuscles, and their structure; leucocytes; the size of coloured corpuscles and their enumeration, and the relation of the coloured blood-corpuscles to medical jurisprudence. He held that it was impossible to identify by their size the red discs of human blood from those of other mammals nearly related in size.

Excretory Function of the Liver: Cholesterin.—Dr. AUSTIN FLINT, Jr. (New York) addressed the Section on this subject. It was an interesting restatement of his well-known views, that cholesterin is an excrementitious substance, bearing the same relation to the liver that urea bears to the kidneys; that it is discharged in the bile into the small intestine; is transformed during digestion into another substance (stercorine), and, as stercorine, exists in the fæces. The following conclusions of Dr. Flint were adopted by the Section. 1. Cholesterin exists in health in the bile, blood, and nervous matter; also in the crystalline lens, the spleen, and meconium. 2. Cholesterin is formed for the most part in the nervous matter, from which it is passed into the blood. The blood gains cholesterin in its passage through the brain. Its formation is constant, and it is always found in the blood. 3. Cholesterin is separated from the blood by the liver, and discharged with the bile. It pre-exists in the blood, serves there no useful purpose, and, if allowed to accumulate, blood-poisoning results. 4. The bile has two separate and distinct functions, one connected with nutrition, to which the so-called biliary salts, glycocholate and taurocholate of soda, contribute; these do not exist preformed in the blood, but are products of secretion. The second function of the bile is excretion, connected with depuration or excretion; this is accomplished by the removal of the cholesterin which it obtains from the blood. 5. Normal fæces do not contain cholesterin. The latter substance is represented by stercorin, formerly called serolin, into which it is converted in its passage down the intestine. The conversion of cholesterin into stercorin does not, however, take place when digestion is arrested or when it is not necessary, as is shown by the presence of cholesterin in its own form in the fæces during fasting, and in the meconium. 6. The difference between the two varieties of jaundice, one mild and the other severe, is dependent on obstruction of the bile-ducts in one instance, with reabsorption of the biliary colouring matters, while in the other there is retention of cholesterin in the blood in consequence of destruction of the parenchyma of the liver. 7. That condition of the blood dependent upon the presence of cholesterin in the blood is called *cholesteræmia*. It is characterised by symptoms referable to the brain, and may or may not be attended with jaundice. 8. Cholesteræmia does not occur in every disorder of the liver, because, even when a part of the organ is disorganised, there may remain a part still capable of performing the functions of excreting cholesterin. 9. In cases of simple jaundice, even when fæces are decolorised, there is no accumulation of cholesterin in the blood. 10. Cholesterin bears the same relation to the liver as urea does to the kidneys.

Prevention of Fungous Growths.—Dr. JOSEPH G. RICHARDSON read a paper on fungous growths in solutions for hypodermic medication, and their prevention by salicylic acid. He stated that the atoxic property of salicylic acid, superior to most powerful antiseptics, suggested its employment to prevent growth of tufts of fungi in morphia solutions; and, in order to test its precise value, he devised a series of experiments, in which different quantities of salicylic acid were added to the usual Magendie's solution, other portions of the same fluid being allowed to remain unprotected for sake of comparison. His results showed that even in summer morphia solution remained for over a month almost free from fungous growths, when it contained one grain of salicylic acid to the ounce of liquid; when the quantity of acid was doubled, the fluid was preserved entirely clear of fungi. He also proposed the use of salicylic acid as a preservative for medicinal solutions of other alkaloids or salines, and for vegetable infusions. Although he had repeatedly injected his own arm with solutions containing fungi,

* Continued from p. 731 of number for December 2nd.

he had never experienced any inconvenience, either by formation of abscess, or by general symptoms attributable to it.

Mechanism of Joints.—Professor HARRISON ALLEN read a paper on the mechanism of joints. 1. Starting with the idea that joints are of dynamic and static values, it was shown that in most movable joints the ball-and-socket arrangement predominates. When the ball is supported by the socket, as at the occipito-atloid articulation, *rest* is suggested; but when the ball is suspended from the socket, as at the temporo-maxillary articulation, *motion* is suggested. He illustrated the etiology of fracture and dislocation by reference to this method of study. 2. It was premised that articular surfaces are of three kinds; *axial*, *actinic*, and *lateral*. The *axial* or primary surfaces are those situated upon proximal and distal ends of a bone in the line of its longitudinal axis. The *actinic* or secondary (rarely seen) are those placed in a line which is deflected from the longitudinal axis. The *lateral* or tertiary are those situated upon the sides of the shaft or body of a bone, and serve for articulation with corresponding surfaces of other bones. *E.g.* The outer femoral condyle is axial, since it is placed in the line of the longitudinal axis of the femur. The internal femoral condyle is *actinic*, since its line intersects the long axis of the femur, from which it may be said to be deflected. The *lateral* facets of the metatarsal or tarsal bones serve to illustrate the lateral kind. 3. Axial surfaces, it is believed, are static; actinic surfaces are dynamic; while lateral surfaces have subordinate degrees of value, some of them being adventitious. The outer femoral condyle is active in extension—static; the inner femoral condyle is active in flexion—dynamic; but the lateral facets have no independent action. 4. Joints are fixed or locked at extremes of flexion and extension, and are most relaxed at the intervals between these extremes. An application of these premises was made to the etiology of dislocation. 5. When a facet is actively employed it enters into a combination with which the entire limb is in harmony. Hence in the study of any one facet its relations to all others of its kind, as well as to the bones, muscles, and fasciæ of its limb, becomes essential. 6. It was shown in conclusion that a correct knowledge of the symptomatology and treatment of diseases of the joints is dependent upon a true conception of the complex nature of articular surfaces. The conclusions of the author were accepted by the Section.

SECTION OF SANITARY SCIENCE.

Disease-Germs.—A paper on this subject was read by Dr. T. E. SATTERTHWAITE (New York). It presented in a concise way, the vegetable germ-theory, the bioplasm theory, and the physico-chemical theory. The author recounted his own experiments and those of Dr. Edward Curtis of New York, and presented diagrams of the various appearances under the microscope, and specimens of vacuum-tube experiments. Emphasis was laid upon the point that motion does not always indicate life. Fluids were shown still to be poisonous after such filtration as would separate vegetable organisms. The Section adopted the conclusions proposed by Dr. Satterthwaite after slightly modifying them, and the paper was recommended for publication. The conclusions were as follows. 1. So far as inquiry has been made into the nature of the active principles in infective diseases, it is probable that in a certain number the matter is *particulate* or *molecular* in form, and, in the instances named, in no sense a soluble substance. 2. In regard to the *causes* of septicæmia, pyæmia, puerperal fever, erysipelas, and hospital gangrene; and in cholera, small-pox, the carbuncular diseases of men and animals, typhoid, relapsing fevers, and diphtheria, there is not satisfactory proof that they are necessarily connected with minute vegetable organisms. 3. The real nature of these causes is still uncertain.

Hospital Construction and Ventilation.—A paper of Dr. STEPHEN SMITH of New York was designed to show the very advanced position of the art at the close of the century 1776, the comparatively little progress made during the century 1876, and the present status of hospital reform. The position of the art in 1776 was illustrated by: *First*. The New York Hospital, a pavilion hospital, then recently destroyed by fire, which had been built according to plans brought from England by Dr. John Jones, and has not been surpassed in its essential features, especially in regard to the separation of the sick by large surface and cubical areas. *Second*. The report of the Committee of the French Academy of Sciences, 1788, on rebuilding the Hôtel Dieu, giving in much detail the pavilion plan. These embodied in its highest state of perfection what is now recognised as the pavilion hospital. Little progress was made during the nineteenth century, except the building of the Lariboisière, of Paris, on the pavilion plan, until the Crimean war, when the pavilion system was revived by Miss Nightingale.—Dr. BILLINGS, after a lucid explanation of the plans of the Johns Hopkins Hospital, compared at length the different plans of ventilation, and showed why the fan was often more available and

more adapted for combination with natural modes than the aspirating method.—Considerable discussion ensued, after which Dr. Smith's paper was referred to the Congress for publication, without formal adoption of its conclusions.

Quarantine.—A paper on quarantine, with particular reference to cholera and yellow fever, was read by Dr. WOODWORTH. The following conclusions of the author were adopted by the Section. 1. The supervision of ocean travel ought to be directed to securing good sanitary condition of vessels at all times, out of as well as in port. 2. A system of *port sanitation* should be adopted and administered for each country or place, separately, modified in particular cases by taking into account the liability of the port to infection, the period of incubation of the disease, the length of time consumed in the voyage, and the measures enforced by the vessel *en route*. 3. In some countries, the detention of passengers and crews of ships hailing from infected ports is warranted, but for such time only as is necessary to complete the period of incubation of cholera or yellow fever, counting from the date of departure from an infected port or landing from an infected vessel; but in no instance should passengers or sailors be held for observation on board an infected vessel, and such vessel should not be detained beyond the period required for inspection and thorough disinfection and cleansing. 4. Recognising the fact that the modifications of infectious diseases may sometimes elude the most vigilant sanitary supervision of shipping, the importance of wisely directed internal sanitary measures can scarcely be overestimated. 5. So far as America is concerned, it is desirable that prompt and authoritative information should be had of the shipment of passengers or goods from cholera and yellow fever infected districts, thereby insuring the thorough disinfection of infected articles. 6. It is believed that the endemic forms of cholera and yellow fever are the fields which give the greatest promise of satisfactory results to well-directed and energetic sanitary measures, and to this end an international sentiment should be awakened, so strong as to compel the careless and offending people to employ rational means of prevention.

Disposal of Sewage.—Dr. HENRY HARTSHORNE read a paper setting forth the various plans for this object, giving preference to the water method and to soil filtration through drained land, so that the value to crops and perfect conveyance to water-courses could be secured. The following conclusions were adopted by the Section. 1. Every plan for the laying out or extension of a city or town should have as an indispensable part of it a corresponding and co-extensive plan for the continuance or substitution of the natural drainage of the locality, and for the proper construction of a system of sewers. 2. The question in regard to the removal of waste and impurities from towns is not as to the maintenance of sewers, but as to whether they should be depended upon alone, or should be supplemented more or less largely by other means of conservancy. 3. Every sewer not supplied with a sufficient flow of water to secure the transportation of its contents is a nuisance, intensifying the evils it ought to remove. Ventilation of sewers will mitigate but not entirely correct such evils. 4. Conditions sufficient for sanitary security are afforded by the discharge of sewage, at a considerable distance from a town, into the sea, or into a large and rapid river, whose water, at least for many miles below the exit of the sewers, is not used for drinking. 5. The earth-closet method of removal of excreta is, theoretically and practically, satisfactory in a sanitary aspect; the obstacles to its general adoption belonging only to economy and convenience. A supplementary proposition, affirming that the sewage-irrigation of arable land, well underdrained, is, where practicable, the most economical method of disposal of sewage, and is free from well-grounded sanitary objections, was not concurred in by the Section, which declined to express an opinion upon that subject, as still open to investigation.

Papers were also read in this Section on an Universal Pharmacopœia, by Dr. SQUIBB of Brooklyn; by Dr. HUNT of New Jersey, on the Evils arising from Separation of Pharmacy and Medicine; by Dr. SQUIBB, on the Metrical System of Weights and Measures; and by Dr. KERR of China on Medical Missions.

[To be concluded.]

HASTINGS.—The annual proportion of births to population during the quarter ending September 30th, in the town of Hastings, was 31.52, whilst the deaths were only 13.26 per 1,000, the decennial average for England being 22.2. This very favourable death-rate was due chiefly to the unusually small number of deaths from diarrhoea and of the aged. The total number of deaths was 113, including 20 visitors; and there were 30 deaths of infants under one year, which is not a large proportion of the 268 births. Mr. Ashenden concludes by observing that the sanitary work had progressed as usual, and that the general sanitary condition of the town was very satisfactory.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Dr. Magnan.—M. Sée on his Predecessors.—M. Sée's Practical Views.—Typhoid Fever in Paris.

DR. MAGNAN, well-known for his scientific researches on the influence of alcohol on the system, has brought out a work, entitled *Recherches sur les Centres Nerveux (Pathologie et Physiologie Pathologique)*, which is a carefully revised and rewritten compilation of the papers published by him in the various Parisian medical journals. It contains also a *résumé* of his inaugural thesis on the morbid anatomy of general paralysis, and of his well-known work on the comparative action of alcohol and absinthe, for which the Academy of Sciences awarded him the Montyon prize in 1874. The work is divided into four parts. The first treats of the physiologico-pathological anatomy of general paralysis. The author shows that, in the seat of the lesion in general paralysis, inflammation occupies, not only the periphery of the brain, but also the walls of the ventricles, thus constituting two foci, one peripheric, the other central, which gradually extend to the entire substance of the encephalon. In other words, the anatomical lesion in general paralysis consists of chronic diffuse or interstitial encephalitis; and this has been confirmed by the author's histological researches. Moreover, in his clinical development of the subject, Dr. Magnan points out the intimate connection between the lesions of the brain and certain lesions of the spinal cord and nerves. The second part of the work treats of the toxic effects of alcohol and wormwood in the liquor called "absinthe", and the part that each of these substances plays in the production of alcoholism. In this part is also fully developed the subject of hemianesthesia and the alterations of sensibility that take place in chronic alcoholism. This part is completed by some practical considerations as to the propriety, or otherwise, of employing force or restraint in the treatment of the insane. Dr. Magnan is not in favour of the no-restraint system; not that he does not approve of it, but he finds it almost generally impracticable, at least in France. Many means and appliances have been devised, both in this country and elsewhere, for effecting the restraint which sometimes becomes necessary, but all, according to our author, are more or less defective, and far from fulfilling the purposes for which they were intended; they have been found not only to exasperate the patient, but actually to inflict severe bodily injury. Dr. Magnan condemns the strait-jacket in general use, and has substituted for it an apparel of his own invention, which amply fulfils the object in view without having the inconveniences of the ordinary strait-jacket. The "maillot", as he designates the apparel referred to, is fully described in his work, and is that adopted in the Asile Sainte-Anne, of which he is a physician, and in some of the other lunatic asylums throughout the country. The volume concludes by a third section, in which the author furnishes some interesting statistical details which serve to demonstrate the influence that the incidents of the late war and of the Commune had in the production of insanity.

In a recent letter, I mentioned that Professor Germain Sée was appointed Professor of Clinical Medicine at the Hôtel Dieu, in the room of Professor Béhier, deceased. In his opening lecture for the winter session, Dr. Sée paid a just tribute respectively to the memories of his predecessors at the hospital—Chomel, Rostan, Trousseau, Grisolles, and Béhier. In speaking of Chomel, he said that this "great clinician" was a staunch opponent of Broussais and his doctrine, and terminated his career in quarrelling with Bouillaud on the subject of the intimate connection between heart-disease and rheumatism, one of the most important discoveries in medicine, and which alone is sufficient to immortalise the name of the discoverer. Chomel would not admit the connection between the two diseases, but looked upon it as a simple coincidence, as he was brought up with the erroneous doctrine of what is termed "metastasis". His principal pupil was Grisolles, who, as a matter of course, was imbued with the ideas of his master, which he faithfully transmitted to the then rising generation of physicians. Grisolles was also a pupil of Louis, whose "numerism" he carried out even to greater excess than his master; and M. Sée reproaches him with having sacrificed therapeutics for numerism. Rostan was a "localisateur", in every sense of the term. Trousseau, a genius *par excellence*, and, above all, intelligent, used to say, in speaking of himself, that he was a reasoning empiric; but, adds M. Sée, "one cannot reason on a hazard. Hazard brought out the discovery of quinine and

mercury. It is impossible to reason on these facts. Trousseau had more value in him than he pretended to. His book on *Clinical Medicine* is irreproachable, with however one exception, and that is his description of 'modern maladies' (cerebro-spinal affections), which is somewhat defective; but this is owing to the imperfect notions he had of physiology." In speaking of M. Béhier, his immediate predecessor, Dr. Sée described him as a man of superior intelligence, and, like himself, a self-taught man. He was somewhat "brusque" in his manner, but this M. Sée attributed rather to a morbid influence than to his natural disposition; but with all his *brusquerie*, adds M. Sée, he was a true friend, and ever ready to give a helping hand to those who required his services. M. Béhier was a great clinician; but, as regards doctrines, his position was intermediate between Rostan and Trousseau. Though he was a great admirer of English medical authors, yet he was very sceptical as to their theory of certain diseases, such as Addison's and Basedow's diseases. His therapeutics resembled those of Trousseau. The latter made tracheotomy and thoracentesis common, which Béhier continued, for, like Trousseau, he also was somewhat of an operator. M. Sée then proceeded to announce the programme he intended to follow this session at his "clinique". Although he has a weakness for therapeutics and physiology, he assured his audience he will not lose sight of his duty as a clinical teacher. Symptomatology and diagnosis will be studied at the bedside, from which will be deduced the pathogeny of disease; and from all three the moral or conclusion, that is to say, therapeutics founded on physiology. He, nevertheless, continues to deliver dogmatical lectures, and the subject he has selected for the session is diseases of the stomach.

M. Sée is a great enemy to rule-of-thumb practice in medicine, or, as he terms it, "systems", in the treatment of disease. Although somewhat sceptical himself, he never refuses to give any new remedy or invention a fair trial; but he is very severe in his criticisms, and woe be to him who falls under his wrath, for he will show him no mercy. It is thus that he condemns the use of the cold bath, so much in vogue in the treatment of typhoid fever. According to his own experience, and that of many other physicians, it is not only an useless remedy, but absolutely dangerous in the treatment of this affection. Though the use of the cold bath in fevers is not a new remedy, but an old one revived, many physicians, out of despair for something better, gladly availed themselves of it; but soon found, to their cost, or rather to their patients', that it was a most treacherous remedy, at least in the treatment of typhoid fever. It is true, that it reduces the high temperature of fevers; but this effect is only temporary, and often the reaction is so great as to raise the temperature higher than it was before the bath. In addition to this, the cold bath in typhoid fever not only increases the tendency to intestinal hæmorrhage, but it has been found to produce hæmoptysis and metrorrhagia, as lately shown by Dr. Moutard-Martin and others at a meeting of the Medical Society of Paris. M. Sée suggests that there are other means by which the temperature of the body may be reduced: sponging the body with vinegar and water, cold or tepid, is equally efficacious, and attended with less danger and inconvenience; but quinine, according to him, is *the* remedy, and ought to be more extensively employed than it generally is, as he knows of no agent, except perhaps alcohol, that more effectually lowers the abnormal temperature of the body, whether of man or of the lower animals.

With reference to remarks in the JOURNAL of December 2nd, and to my note dated September 30th, on the prevalence of typhoid fever in Paris, I may bring to your notice another characteristic feature of the disease as it has presented itself. While, in some cases, "the eruption has been more than usually abundant and marked", in others it has been altogether absent; in others, again, the eruption appeared unusually early, about the third or fourth day instead of about the eighth. The great and rapid fatality of the disease has also been observed, and in many cases without the occurrence of any symptoms that would help to prognosticate a fatal issue. The epidemic, I am glad to say, is on the decline; for, instead of 105 deaths for the week before last, the mortuary report for the week ending December 7th shows a mortality of 86 from typhoid fever. That from other diseases has also been considerably reduced; and, indeed, the sanitary condition of Paris may be considered exceptionally good for the time of the year.

For some months past, great local interest has been excited by the proposed union of the Redcar Local Board and the parish of Kirkleatham. An inquiry was held at Coatham (which is all within the parish) last summer, by Mr. Arnold Taylor, a Local Government Board inspector, and he reported in favour of the union, because Redcar and Coatham practically formed one town; but before coming to a decision the Local Government Board wished to ascertain the views of the owners and ratepayers. Meetings of them have accordingly been held, and in both places they have voted against the proposed union.

ASSOCIATION INTELLIGENCE.

GLOUCESTERSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting was held on Tuesday, November 21st, at Gloucester; the President, Dr. WRIGHT, in the Chair.

President-elect.—Dr. T. M. ROOKE of Cheltenham was elected President for the year 1877.

The late Dr. Rumsey.—The following resolution was proposed by Dr. WRIGHT, and seconded by Dr. WILSON, and unanimously adopted; and the Secretary was requested to forward it to the General Secretary, in order that he might bring it before the Council of the Association.

"At the meeting of the Gloucestershire Branch of the British Medical Association, held at Gloucester November 21st, 1876, it was resolved that the General Council of the Association should be requested to take steps to bring before her Majesty's Government the claims of the widow of the late H. W. Rumsey, M.D., F.R.S., to have continued to her the pension awarded to her late husband, but which he only enjoyed for a few months."

Information of Infectious Disease.—Dr. WRIGHT brought before the Branch the subject of the sources of information for the officer of health, stating that his own feeling was in favour of a clause compelling the head of the house to give notice to the sanitary medical officer of all infectious diseases occurring in that house.

Diabetes.—Dr. WILSON of Cheltenham read a paper on diabetes, especially with regard to its treatment by skimmed milk, and endeavoured to show what particular cases of that disease were likely to derive benefit from that treatment.

Spectroscopes.—Mr. HOLLAND exhibited spectroscopes. He showed the spectra of various metals, and pointed out how the instrument might be serviceable in the detection of sewage contamination in drinking-water and in other cases of interest to the profession.

MIDLAND BRANCH: MONTHLY MEETING.

THE second monthly meeting of this Branch was held on December 1st at the house of the President, JOSEPH WHITE, Esq.

Notice of Meetings.—Mr. BAKER of Derby proposed, and Mr. MICKLEY seconded, "That monthly meetings should be announced through the JOURNAL only; and, at the same time, the list of communications to be made should appear also."

Communications.—The following communications were made.

1. A successful Case of Cæsarean Section, by W. WALTER, M.B.
2. Is Rheumatism a Blood or a Nerve Disorder? by J. BROOKHOUSE, M.D.
3. Notes on a Case of Tubercular Meningitis, and one of Cerebro-Spinal Fever, by R. C. CHICKEN, F.R.C.S.
4. Mr. CHICKEN showed a Morbid Specimen of Cancer of the Pylorus.

Vote of Thanks.—The meeting concluded with a vote of thanks, proposed by Mr. STANGER, and seconded by Mr. BAKER, to those gentlemen who had contributed matter for discussion.

SOUTH OF IRELAND BRANCH: ANNUAL MEETING.

A GENERAL meeting of the South of Ireland Branch of the British Medical Association was held at the Royal Cork Institution on November 4th; Dr. JACKSON CUMMINS, President, occupied the chair. Letters of apology were received from several members.

Report of Council.—Dr. ATKINS, Honorary Secretary, read the Report, which was as follows.

"The Council have to report that during the past session, extending from November 1875 to April 1876, twelve general meetings, including the opening one, were held for the exhibition of pathological specimens and the discussion of medical and allied topics. In accordance with a resolution unanimously adopted, one debate, opened by Dr. H. M. Jones, was concluded, and a second was opened by the President, Dr. Cummins. Abstracts of the proceedings of these meetings have from time to time been published in the JOURNAL of the Association. In commencing this session, the Council would suggest the substitution of monthly meetings for the hitherto fortnightly ones, or the holding of meetings at no fixed period, but according as the secretary has material on hand. In throwing out this suggestion, the Council are desirous that it should be freely discussed by the members present; and

whatever arrangement regarding the holding of the meetings may be come to, they trust that each and every member, both city and county, will do their utmost in the coming session to further the objects of the Branch, by supplying specimens, papers, and cases, and by attending, as far as possible, the meetings which may be held, and thus adding to their interest by the increased scope of the discussions which will necessarily follow. Some little time since a movement was set on foot to inquire into the possibility of inviting the Association to hold its annual meeting for 1877 in Cork; but, on mature deliberation, the project was found at present to be impracticable, but a hope exists that at a future date the profession in the South of Ireland may be in a position to receive the Association in a suitable manner."

Address of President.—The PRESIDENT then said: Gentlemen, the time has now arrived for me to lay aside the office of President; and it is with pleasure that I hand over my place to Dr. Jones, the originator and first secretary of the South of Ireland Branch of the British Medical Association. The session over which I have had the honour to preside has been successful in at least one point of view; as each meeting has been rich in material of great interest, and the few members who attended regularly exhibited an amount of zeal, energy, and industry which to some extent compensated for lack of numbers. This Branch has been only two years in existence, and now numbers thirty-three county and eighteen city members. It has been the first Branch of the British Medical Association established in Ireland, and we hope for the credit of our city that it will succeed. Cork has been ever foremost in advancing every work of utility and progress, and the Irish Branch of the medical profession has always fully held its own in medical literature and has often led the van in medical progress. In times gone by, a vast amount of the practical knowledge gleaned at the bedside by intelligent physicians and surgeons was lost to medical literature, and passed away with the lives of many who had acquired the power to benefit their suffering fellow-creatures: but a new era dawned on the profession when medical societies were first founded, and now the *disjecta membra medicinae* are cemented together by such discussions as have lately taken place in London, where all the knowledge of the day has been made to converge upon certain disputed points in pathology and therapeutics, and each subject has been thoroughly sifted in order to separate truth from error. But especially has the Association, of which we are the first Irish Branch, done good service to the public in drawing together at its annual meetings, from London and the provinces, from Ireland and Scotland, from America and the Continent of Europe, the most distinguished authorities of the day to discuss medical topics. No wonder that the *Times* and other leading public journals have fully recognised the all-importance of such gatherings of medical men; for the gleaming from such a vast field must produce a rich harvest, of which the public will reap the fruit. Notwithstanding the great increase of towns in the British islands, and the increased causation of mortality which follows upon density of population, the advance of medical and sanitary knowledge has reduced mortality most creditably. I quote from an address by the Right Honourable Lyon Playfair the following table. The mortality in London per thousand was, between 1660-70, 80.0; between 1681-90, 42.1; between 1746-55, 35.1; between 1846-55, 24.9; and in 1871, 22.6. These are striking figures, but we want to decrease the mortality still further. We want to remove all preventable causes of death from among the people; and, as guardians of public health, it is incumbent on us to bestir ourselves and consult together in our societies, not only for the advancement of our profession and ourselves, but for the benefit of our fellow-creatures. The leading medical men in Cork, and especially the staffs of the hospitals, owe it to the South of Ireland to draw together the large amount of medical talent and medical experience which lies unnoticed and unrecorded around them; and there is no reason why we should not erect our Branch into such a position as to enable us to invite the members of the Association to hold one of their annual meetings in Cork. As we are at present, I for one would shrink from the responsibility of doing so; but a very little energy and a great deal of combined effort among ourselves would place us in such a position as to ensure a most successful meeting of the Association in our city.

Dr. Cummins then vacated the chair, which was taken by Dr. H. Macnaughten Jones, President for this year.

Officers and Council.—On the motion of Dr. ATKINS, seconded by Dr. GREGG, Dr. J. G. Curtis was unanimously elected President-elect for the ensuing year.—On the motion of Dr. CUMMINS, Dr. Berry (Mallow) and Dr. Cremen (Cork) were unanimously elected Vice-Presidents.—Drs. R. Atkins and A. O'Connor were unanimously re-elected Secretary and Treasurer respectively.—The following gentlemen were elected members of the Council: Dr. Gregg, Cork; Dr. Cummins, Cork; Dr. Golding, Cork; Dr. Ronayne, Youghal; Dr.

O'Reilly, Lismore; Dr. Hobart, Cork; Dr. White, Carrignavar; Dr. Cronin, Queenstown; Dr. Eames, Cork; Dr. Scott, Queenstown; Dr. M'Donogh, Killarney; Dr. Hayes, Tralee; Dr. Griffin, Killarney; Dr. W. Belcher, Bandon; Dr. Hadden, Bandon.

Financial Statement.—Dr. A. O'CONNOR, Treasurer, read the financial statement, which appeared most satisfactory. There were now, he said, fifty-one members in the Branch.

Monthly Meetings.—It was resolved to hold monthly meetings in the evenings; these meetings to be for the transaction of scientific business, and to take place on Saturdays; other special meetings to be held when sufficient material was accumulated, at which it was hoped the county members would be able to be present.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE second ordinary meeting of the session was held November 9th, 1876, at the Queen's College, Birmingham: present, Dr. G. F. BODINGTON, President, in the Chair, and thirty-eight members and visitors.

Specimens.—Mr. SAMPSON GAMGEE showed a specimen of Thrombosis of the Innominate Artery.

Mr. JOLLY exhibited an example of Cancer of the Breast.

Mr. LAWSON TAIT brought forward a specimen of Cauliflower Excrescence.

Papers.—Dr. HARRISON read a paper on Cases of Embolism, three of them Puerperal.

Mr. WILDERS read a paper on the Treatment of Constitutional Syphilis.

SOUTH-EASTERN BRANCH: EAST AND WEST KENT DISTRICTS.

A CONJOINT meeting of the above Districts was held at St. Bartholomew's Hospital, Rochester, on Friday, November 24th; Dr. MONCKTON, the President of the Branch, in the Chair. Sixty-five members and their friends attended.

Dr. William Gunn, Deputy Inspector-General of Hospitals, was duly proposed as a member of the Association.

Communications.—The following communications were read.

Mr. ADAMS narrated two cases of Intraventricular Hæmorrhage, and exhibited one of the patients.

Mr. RIGDEN read notes of a case of Hydrophobia.

Mr. NANKIVELL brought forward notes of a case of Penile Fistula.

Dr. THOMAS EASTES read an interesting case of Intussusception treated successfully by Inflation.

Mr. TEEVAN introduced notes of four typical cases of Retention of Urine.

Dr. C. E. HOAR narrated a case of Pleural Effusion treated by Aspiration.

The Thanks of the meeting were unanimously voted to the Treasurer of the Hospital for his kindness in giving the use of the board-room, and for the excellence of the arrangements.

Dinner.—The members and their friends, to the number of forty-eight, afterwards dined together at the Bull Hotel, under the presidency of Dr. Monckton.

STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE first ordinary meeting of this Session was held at the North Staffordshire Hotel, Stoke-on-Trent, on Thursday, November 30th, 1876: present, Dr. MILLINGTON, President, in the Chair, and thirty-nine members.

New Members.—The following members of the Association were duly elected members of the Branch: Dr. Frederick Mortimer Hawkins, Dr. Warrington, and Mr. William A. Frost.

Pathological Specimens.—Dr. J. H. TYLECOTE exhibited the Specimens, and read the Notes of a Case, of Carcinoma of the Left Kidney and Liver.

Communications.—1. Mr. GARNER read a Paper proposing the Use of Split Tendon Fibre for Surgical Ligatures.

2. Mr. C. ORTON read Notes of a Case of Dislocation of the Neck from a Blow.

3. Mr. ALCOCK related the History of a Case of Cæsarean Section, in which both mother and child were saved.

CORRESPONDENCE.

MILITIA SURGEONS.

SIR,—Permit me to remind those surgeons who have not sent in their returns, that it will be impossible for the Committee to make out a correct statement to lay before the Secretary for War, should they not comply with the resolution passed at the general meeting. At present, only one-half the number of forms have been returned; and it must be obvious that, unless we are all of one mind in assisting in getting up as complete a case as possible, our cause will fail in obtaining that outside support to which it is entitled. We have at present many promises from members of Parliament, and I trust, with a good case to lay before them, the support of very many more. Isolated attacks on the authorities have hitherto only led to slaughter in detail; therefore, in this, which is probably our last advance, "let us move forward shoulder to shoulder".—I am, sir, your obedient servant,

MEMBER OF THE MILITIA SURGICAL SOCIETY.

December 11th, 1876.

THE ABUSE OF HOSPITALS.

SIR,—Your correspondent, "A Member of the Charity Organisation Society", alludes to the memorial upon the abuse of hospitals and free dispensaries which we promoted last year, and expresses surprise that it should have failed to arrest attention both in charitable and in medical circles. Will you kindly allow us to mention that the Committee of Council appointed a day last July for the consideration of the memorial, and invited us to be present? But, unfortunately, professional engagements prevented both of us from attending the meeting, and the memorial was set aside.

Since then, we have been unable to follow up the subject. Though the experience we gained while the memorial was in circulation leads us to believe that the opinions therein contained are held by a large number of the most influential members of the profession, yet the growth of public opinion and the introduction of reforms must be a work of time. We are glad, therefore, to see that your correspondent, "A Member of the Charity Organisation Society", proposes to deal with the subject in a series of letters.

We are, sir, your obedient servants,

December 12th, 1876.

ALFRED MEADOWS.

WM. FAIRLIE CLARKE.

SIR,—I am much pleased to see in the BRITISH MEDICAL JOURNAL of December 9th, at page 769, the letter of "A Member of the Charity Organisation Society on the Abuse of Hospitals and Free Dispensaries". I can only say that, if I did not, in the beginning of 1875, send my name to Dr. Meadows, it was on account of pressure of business. Besides, I cannot recollect any previous reference to this subject of such vast importance.

As a former dispensary house-surgeon, I claim my right to say a word on the subject. The Malvern Conference of Guardians have decided that, to entitle families to medical or general relief, their united earnings must not exceed three shillings per head per week. Other public bodies should see that the guardians discharge their duties towards families receiving no more than three shillings per head every week. Then from this point provident dispensaries, hospitals, clubs, etc., should start their work. There should be a medical board in each township to decide, especially in chronic cases, whether special pauper cases require hospital treatment.

The profession understand that the fracture and dislocation cases are kept at home, and the district medical officer receives the fees according to Glen's Poor-law. This is not so. The guardians, by paying ten guineas a year, save themselves forty or fifty pounds at the doctor's expense, besides saving the keep of the pauper in the hospital at the expense of the charity. They thus get rid of the pauper's keep, while the house-surgeon has an extra and useless burden thrown upon him. The dispensary house-surgeon, by the system of indiscriminate relief, has to do much work really belonging to the Poor-law. Men, therefore, hesitate to accept such appointments, on account of the mass of work carelessly done of necessity under such circumstances. Moreover, there is a

premium on drunkenness in this manner. The bread-winner, if a drunkard, can plead want of means as his excuse for medical and other relief. This deprives charities and the Poor-law of their proper use, while medical men and other tradesmen are at a loss.

In order to check druggists' depredations, let an L.S.A. be invited to co-operate with the medical men of a district.

I am, sir, yours obediently, MARASMUS.

ALCOHOL AND THE LATE CÆSAREAN SECTION.

SIR,—In your annotation, at page 760, with reference to the recent discussion, at the Medical Society of London, upon the case which I was permitted to report, you say: "The subject of the non-alcoholic treatment of the case was but slightly touched upon, the patient being a bright lively Alsatian, for whom no stimulants were required."

Certainly, it is true that the patient was "a bright lively Alsatian", and that "no stimulants were required" is obviously also true. But, other data not being at the same time stated, the sentence is likely to put upon record that, in your judgment, the exclusion of alcohol from the treatment of this case ought not to bear upon the general views which are held as to the use of alcohol in surgery. May I, therefore, add the following facts.

1. The splendid health of this patient, when presented at the London Medical Society, was ascribable to the fact that she had spontaneously continued to feed herself upon the diet detailed in my report; and, on Saturday last, she volunteered to me that, she being so much better, her sister and also her husband had taken to the porridge and milk. I think that her family attendant would bear me out in the opinion that her present health is very much better than her health when labour commenced. Certainly my other colleagues in the case, who saw her just before the operation, would concur with me in describing her as then much in the condition of an exhausted blood-horse, and that she must soon have been in a hopeless state had more delay occurred. As I understand the views now held to be the soundest as to the administration of alcohol, such a state is the very condition for which it is most useful. Yet I venture, as a matter of personal conviction, to say that, had it not been for the exclusion of alcohol, and the particular management to which this patient was subjected by my colleagues and myself, her splendid recovery would not have taken place; and I am, of course, desirous to submit a protest against her fine physical condition, seven weeks after the operation, being so viewed as to nullify a most practical point in the case.

2. The subject of my former Cæsarean operation was a phlegmatic middle-aged English woman, in her sixth confinement, and suffering from advanced cancerous obstruction in the pelvis, from which, indeed, she subsequently died in the Cancer Hospital. Here was a patient, antithetic at all points to the bright lively Alsatian lady, yet she recovered just as perfectly; and, although alcohol was not excluded so formally, yet practically, and to the great concern of my medical friends, it was excluded. Indeed, in the report of this case published in the *Lancet* of January 5th, 1861, I find the following remarks.

"Excepting a single anodyne, no drugs were administered; no brandy on the one hand, and no mercury on the other. I thought these great incisions more likely to be healed by nature in her own way than by nature under the influence of either mercury or brandy."

The treatment and operation in both cases were practically identical. The first patient was up on the sofa suckling her baby on the tenth day; and in her also the abdominal incision healed up by direct adhesion. Probably these details will convince your readers that the two cases, taken together, do show that, under very various circumstances, the exclusion of alcohol has been accompanied by results so satisfactory that its more general-disuse may be safely ventured upon.

3. These two Cæsarean operations are not a whit stronger than the whole current of results, both medical and surgical, which we have had at the London Temperance Hospital; and in which, so far as my share of the work goes, I have only carried out the views which have for many years governed me in my own private practice.

I need hardly add that I no more doubt the value of alcohol as a specific drug than I doubt the value of opium, ether, or chloroform; and that, in the treatment of those under our care at the hospital, my colleagues and myself are under no restrictions as to what we prescribe for our patients. But if I administer alcohol, it is as a narcotic and for its paralyzing influence upon the inhibitory nerves. This view, and the arguments which, in my opinion, substantiated it, were fully stated and published in a lecture delivered by me on February 21st, 1867, to the Manchester Church of England Temperance Society. They were again stated in my paper on Alcohol, read at the annual meeting of the British Medical Association in King's College, London. So far as

I can see, the views upon alcohol since adopted and published by my friend Dr. B. W. Richardson are exactly those which had been set out in my Manchester lecture (Heywood and Co.; Manchester, 1867).—Your obedient servant,

5, Savile Row, W., December 11th, 1876. JAMES EDMUNDS.

MEDICAL DEFENCE.

SIR,—I learn with much satisfaction that the subject of "medical defence", as it is called, is being taken up warmly by the various Branches of our Association throughout the country. It is one of great importance, not only in a selfish point of view as affecting the interests of the profession, but also, and much more emphatically, in its relation to the welfare of the public generally. It is said, with truth I believe, that it is the duty of the various public bodies, such as the General Medical Council, the Colleges, and other licensing bodies, to look after the interests of their members and licensees by doing all in their power to check illegal practice. It is the duty also, I maintain, of the British Medical Association, the third item of whose "Memorandum of Association" states that one of the "objects for which it is established" is "the maintenance of the honour and interests of the medical profession", to do the same thing. The failure of the former to do their duty can be no valid excuse for the latter. If the Council and Colleges will not stir, let us, the medical profession, arouse ourselves and take the matter into our own hands. And how can we act so properly or so efficiently as through our Association, established for this very object, among others?

I am fully aware that there are difficulties in the way, but I am quite sure that they are not insurmountable. It is vexing and disappointing to find that, even at head-quarters, in our very Council itself, there is a strong disposition to knock under and give up without making an attempt to conquer them. But I am not disposed for one, and I believe that the great majority of the members of our Association are not disposed, to be so faint-hearted.

One objection raised to the proposal is, that there is no machinery for the purpose of working up the cases and prosecuting offending parties. But I am utterly at a loss to understand the meaning or the force of it. There is a central council with its solicitor; there are the Branch Councils all over the country; there are in most, if not in all, "district meetings"; and there are the individual members in every town and village throughout the length and breadth of the land. The course of events would be somewhat as follows. The last-named would originate the action by reporting to the Branch Council the fact of an illegal practitioner carrying on in a certain place. The Defence, or, as I should prefer to call it, the Vigilance Committee of the Branch Council would investigate the case; and, if satisfied, *prima facie*, that it should be further prosecuted, the Branch Council would report to the Central Council, who would refer it to their solicitor for final action, or not, as he thought best after a full consideration of the case. It seems to me rather that the machinery exists and in perfect order, and simply requires to be set in motion.

Then, another undoubted difficulty is as to funds. It is quite true that there are no funds available, but they may be raised. One shilling per head from each member (our number is about six thousand) would produce £300 *per annum*—a sum amply sufficient for the work, and a capitation fee that I feel certain would cheerfully be paid by all.

I learn that some are disposed to hold back and look shyly upon the proposed new work of the Association, because they say it savours of "trades-unionism". But nothing can be more erroneous than such an idea. Even granting for a moment (which I do not allow) that the illegal practice of unqualified persons does take away something from the pockets of the profession, I still take much higher ground than the *£ s. d.* question in advocating their being put down. My object is to protect the public; they are the chief sufferers, not only in pocket, but also in health and life. They have no means of distinguishing qualified from unqualified practitioners, and I hold that it is our duty to help them, and to take care that they can only consult those who are legally qualified to treat them.

I am, sir, your obedient servant, WILLIAM HOAR.
Maidstone, December 11th, 1876.

THE Cardiff Town Council have increased the salary of the public analyst from £50 *per annum* and fees to £100 *per annum* without fees.

THE parish of Cannock is to be constituted a Sanitary District; but the Local Government Board state that they must defer issuing their order until a further local inquiry has been held as to the division of the district into wards.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MEDICAL OFFICER OF HEALTH FOR ASHBOURNE.

AT the monthly meeting of the Ashbourne Local Board, on Monday, a letter was read from the Local Government Board, requesting to be informed of the reasons of the authority for appointing Mr. Henry Greaves as Medical Officer of Health, he not being qualified pursuant to the General Order of November 1872. The clerk was directed to state, in reply, that the local board adhered to their decision notwithstanding the General Order, because Mr. Greaves had been medical officer for the Ashbourne Poor-law District for twenty-five years, and had had every opportunity of being conversant with the sanitary condition of the lower classes of the town, and was, consequently, in a much better position than the other medical gentlemen could be to give the board information on such matters.

SANITARY ARRANGEMENTS AT ST. IVES IN CORNWALL.

A CORRESPONDENT, who writes to us under the signature E. M. F., draws our attention to the somewhat anomalous condition of the sanitary organisation of St. Ives. It appears that, in consequence of the medical officer of health having left the neighbourhood nine months ago, the post became vacant. After a delay of six months, the town council invited the resident medical practitioners to tender their services; but, as they received no response to their invitation, they applied to the neighbouring sanitary officers of Hayle and Phillack, but with what result we are not informed. The reason for the unwillingness of the local practitioners to undertake the office appears to be not merely that the salary offered was only £10, but that the condition was expressly indicated "that the office was a sinecure, that no work was needed to be done, and that an active man would be objectionable". Our correspondent is justly very indignant both at the slight thus offered to the medical profession in inviting them to compete for a post which, to say the least, would involve, even under the most favourable circumstances, a certain amount of responsibility, but to which so paltry a salary was attached; and also at the actual dereliction of duty on the part of the town council which such a course indicates. St. Ives is a town of seven thousand inhabitants, with one police-constable, open street-drains which daily expose both animal and vegetable refuse, and a system of scavenging which is represented by the hebdomadal visitation of a solitary cart. Under such a *régime* as this, it would be no wonder if its statistics of death and sickness from preventable disease were much more serious than they are. Fortunately for it, the conditions in which it is placed—almost surrounded by the sea, and on hilly slopes that give a ready outlet to its drainage—have hitherto enabled it to show a better face to the world outside than the state of things above indicated might lead one to expect. This appearance of healthiness cannot, however, be supported indefinitely. If the town desire to maintain its good reputation as a health-resort, it must at once set its house in order, clean its streets, construct proper drains, and do whatever else is necessary to protect the health both of its permanent population and visitors from the attacks of preventable disease. The first step in this direction will be for the town council to secure for themselves the services of a competent medical man as a medical officer of health. If they appoint a really competent man, they may be assured that he will not urge them to incur any expenditure for the undertaking of which he will not be able to give ample justification. It is a mistake to suppose that an efficient officer of health has any motive to advise useless expense. His policy lies, indeed, quite in the opposite direction. Under any circumstances, he has no power of compelling such expenditure; and, as that function is performed solely by the Local Government Board, the Town Council of St. Ives may rest quite satisfied that it will not be enforced upon them unless very sufficient reason can be shown for doing so. We are glad to hear that the medical men of the town have exhibited such a wise unanimity in declining the ill-judged and niggardly offer of the town council; and we trust that their brethren at Hayle and Phillack will have too much respect for themselves, their profession, and the cause of sanitary progress, to be any parties to so unworthy a proposal. The duties of the post are such as to require in the public interest to be properly remunerated. If the Town Council of St. Ives be in any doubt as to what that remuneration should be, they can easily inform

themselves on the point by inquiring amongst other towns of a similar size, or by consulting the Local Government Board. Meantime, we apprehend that there is no prospect of that Board approving of the appointment of any one to the post under a condition which, whether tacit or avowed, is a plain attempt to escape the responsibility which the legislature has imposed upon the Town Council, and, as such, is deserving of the severest public reprobation.

TYPHOID FEVER AND SEWAGE-VENTILATION.

SIR;—In your publication of December 9th, p. 759, you report that, "at the last meeting of the Carmarthen Town Council, the medical officer attributed the existence of typhoid fever in the town to the exhalations from the sewer-ventilators"; and you further infer that "this must, we imagine, be due to defective construction of the sewers and imperfection, and probably insufficiency of the sewers, since efficient ventilation of sewers is more likely to prevent than to cause typhoid fever". I think it right to inform you that I never made the statement referred to above as to the fever being caused by the exhalations from the sewers; but, on the contrary, asserted the impossibility of its having been so caused. I am glad to say that this town has been thoroughly sewered, and that all the sewers are very perfectly ventilated. With a population of about eight thousand in the town itself, we have spent on sewerage and waterworks about £18,000; and it would be very desirable that every town were as well provided with efficient sewers and as ample a supply of good water as we are.

During the year, there have been a few cases of typhoid fever, and four deaths from the disease. In two of these latter, at least, the patients were brought here from infected districts; one was brought here in the disease and the other was taken ill very shortly after his arrival.—I am, sir, your obedient servant,

JOHN HUGHES, F.R.C.S.,
Carmarthen, Dec. 9th, 1876. Medical Officer for Carmarthen.

VACCINATION.—Dr. Roden of Kidderminster has received for the fourth time an award for meritorious vaccination in the Kidderminster District. The amount on this occasion was £45:14.

POOR-LAW MEDICAL APPOINTMENTS.

MONCKTON, Marshall, L.F.P.S.Glasg., appointed Medical Officer to the N. District of the Tunbridge Union, *vice* W. C. Satchell, M.R.C.S. Eng., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

DAVLISH, R. R., appointed Medical Officer of Health to the Romney Marsh Rural Sanitary District.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL APPOINTMENTS.

LUTHER, Surgeon Edward W., to the *Midge*.
MACMARTHY, Surgeon R. V., to the *Revenge*.
SANLYN, Surgeon William C., to the *Hornet*.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE THRUSTON SPEECH.—Dr. Bradbury has been appointed by the Master and Senior Fellows of Gonville and Caius College to deliver the Thruston Speech on the progress of Medicine since the time of Dr. Caius at Dr. Caius' commemoration, on May 11th, 1877.

UNIVERSITY OF EDINBURGH.

MATRICULATED STUDENTS.—The matriculation for the session 1876-7 shows a large increase over that of past years, and now has reached the highest number that has been registered on the books of the University at any time since its foundation. The important changes in the administration of the University, effected by the ordinances of the Scottish Universities Commission in 1858-61, were speedily followed by encouraging results, especially in the number of matriculating students, which has been continued in an increasing ratio up to the present time. In the session 1861-2, the matriculated students in the several Faculties numbered 1,509; in 1866-7, there were 1,525; in 1871-2, they increased to 1,854; and in 1876-7, the present year, there are 2,069 already registered, while the average number of late entries

and entries for the summer session (judging from past years) amounts to from 200 to 250, which will together bring up the aggregate number of matriculated students to about 2,300 for the present academic year. Not only has the number of students increased, but the greater facilities of intercommunication and of travel, of late years, have largely widened the range of supply, and have given quite a marked and special character to the University—well-nigh all our Colonies, together with many foreign countries, being represented on its books. An analysis of the register shows that, of the 2,069 already matriculated for the current session, 1,434 come from different parts of Scotland, 370 from England and Wales, 30 from Ireland, 71 from India, 127 from different Colonies, and 37 from foreign countries. This is more marked in the medical than in the other faculties. Of the 828 students already registered in this Faculty, 353 are from Scotland, 291 from England and Wales, 21 from Ireland, 48 from India, 95 from the Colonies, and 20 from foreign countries.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of the candidates who have passed the recent M.D. and M.S. Examinations.—M.D. Examination.

Batterbury, George Henry, King's College
Benham, Henry James, University College
Dukes, Clement, B.S., St. Thomas's Hospital
*Duncan, Peter Thomas, B.S., University College
Garlick, George, University College
Harris, Vincent Dormer, St. Bartholomew's Hospital
Houghton, Walter Benoni, B.S., University College and Charing Cross Hospital
Hullard, Jean Arthur, B.S., B.Sc., University College
Leech, Daniel John, Owens College
Lowe, Walter George, St. Bartholomew's Hospital
Verco, Joseph Cooke (Gold Medal), St. Bartholomew's Hospital

Logic and Moral Philosophy only.

Batterbury, Richard Legg, King's College
Brown, Robert Charles, King's College
Petch, Richard, King's College

M.S. Examination.

Gould, Alfred Pearce, University College

Logic and Moral Philosophy only.

Jameson, Leander Starr, University College

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having undergone the necessary examinations for the Fellowship, were reported to have acquitted themselves to the satisfaction of the Court of Examiners; and, at a meeting of the Council on the 14th instant, were admitted Fellows of the College.

Messrs. George Jackson, L.R.C.P. and L.S.A. Lond., St. George's Terrace, Plymouth, diploma of membership dated November 15th, 1864; Charles W. S. Deakin, L.S.A., of H.M. Bengal Army, May 14th, 1872; John Appleyard, M.B., and L.R.C.P. Lond., Bradford, Yorkshire, July 24th, 1872; Edward G. Whittle, M.B. Lond., Brighton, November 19th, 1873; and Francis J. Davies, Newport, Monmouthshire, April 18th, 1876, students of University College.—William Odell, L.S.A., Hertford, November 13th, 1872; and Jonathan F. C. H. Macready, Cheltenham, July 28th, 1874, of St. Bartholomew's Hospital.—Frederic R. Fisher, L.S.A., Grosvenor Street, April 26th, 1867, of St. George's Hospital.—Henry W. Verdon, L.S.A., Eccles, Manchester, July 23rd, 1873, of St. Thomas's Hospital; and William J. Tyson, L.R.C.P. Lond., Folkestone, April 23rd, 1874, of Guy's Hospital.

Another candidate from University College passed his examination, but cannot be admitted a Fellow until qualified in Medicine; and four candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months.

At the same meeting of the Council, Mr. James Reid, L.S.A., of Canterbury, having been elected a Fellow of the College at a previous meeting, was admitted as such; his diploma of membership bearing date August 4th, 1843.—The following gentlemen were elected members of the Board of Examiners in the vacancies occasioned by the resignation of Messrs. Luther Holden and J. Cooper Forster—viz., Mr. Arthur E. Durham, Surgeon and Lecturer on Surgery at Guy's Hospital, and Mr. T. Pickering Pick, Assistant-Surgeon and Lecturer on Anatomy at St. George's Hospital.—The retiring members of the Board were re-elected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 30th, 1876.

Trewman, George Turner, Stafford Place, S.W.
White, Robert Godfrey, St. Alban's

* Obtained the number of marks qualifying for the Medal.

The following gentlemen also on the same day passed their primary professional examination.

Appleton, Thomas Alfred, St. George's Hospital
Bryden, Richard Joseph, Guy's Hospital
Davy, David Henry, London Hospital
Gardiner, Bruce Herbert John, London Hospital
Jefferson, Arthur John, St. Thomas's Hospital
Lawson, Robert Lockhart, Guy's Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 7th, 1876.

Brumwell, Ernest, Kendal, Westmorland
Parry, George Hales, Docking, Norfolk

The following gentlemen also on the same day passed their primary professional examination.

Good, William Ernest, University College
Hepburn, Alfred, St. Bartholomew's Hospital
MacGeagh, Thomas Edwin, University College
Satchell, William Morris, St. George's Hospital

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, November 14th, 15th, and 16th, 1876, the following candidates obtained the Licence to practise Medicine, and also the Licence to practise Midwifery.

Beatty, John William Cummins, Henry Royle
O'Reilly, Peter

MEDICAL VACANCIES.

The following vacancies are announced:—

BOURNEMOUTH GENERAL DISPENSARY—Resident Surgeon. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Testimonials, diplomas, etc., to be sent in on or before December 31st.
FISHERTON HOUSE ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and lodging.
FLINTSHIRE DISPENSARY—House-Surgeon. Salary, £100 per annum, with lodging, coal, and gas. Applications on or before the 19th instant.
GLAMORGAN COUNTY ASYLUM, Bridgend—Assistant Medical Officer. Salary, £125 per annum, with board, lodging, attendance, and washing. Applications on or before January 1st.
GREAT NORTHERN HOSPITAL, Caledonian Road—House-Surgeon. Salary, 60 guineas per annum, with board and lodging. Applications on or before the 30th instant.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Assistant-Physician.—Junior House-Surgeon. Salary, £50 per annum, with board and lodging. Applications on or before the 21st instant.
HOSPITAL FOR SICK CHILDREN, Manchester—Assistant Physician. Salary, £300 per annum. Applications on or before the 22nd instant.
NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.
NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Resident Medical Officer and Registrar. Salary, £100 per annum, with board and lodging.
NORTHAMPTON GENERAL INFIRMARY—House-Surgeon. Salary, £125 per annum, with furnished apartments, board, attendance, and washing. Applications on or before the 23rd instant.
PARISH OF LISMORE and APPIN—Medical Officer. Salary, £120 per annum. Applications on or before the 20th instant.
PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY—Junior House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications on or before the 23rd instant.
QUEEN'S HOSPITAL, Birmingham—Honorary Physician.—Resident Physician. Salary, £50 per annum, with board, rooms, and washing. Applications on or before the 30th instant.
WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—Resident House-Surgeon. Salary, £150 per annum, with rooms, attendance, fire, and gas. Applications on or before the 19th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*CARTER, Alfred H., M.D., appointed Physician to the Queen's Hospital, Birmingham, vice *E. Mackey, M.D., resigned.
HART, Neville, M.B., appointed House-Physician to St. Bartholomew's Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BOOKLESS.—On the 4th instant, at 12, Mansel Villas, Wimbledon, the wife of James Pitcairn Bookless, M.D., of a daughter.
LLOYD.—On December 7th, at Tynnycoed, Barmouth, the wife of *H. J. Lloyd, L.R.C.P., etc., of a son.

MARRIAGE.

GRIFFITH—ROBERTS.—On December 5th, at Soar Chapel, Penygroes, Carnarvon, by the Rev. C. Herbert Evans, assisted by the Rev. J. Celsey Jones, John Thomas Griffith, L.R.C.P. Ed., of Llwyn-onn, to Laura Jane, daughter of Owen Roberts, Esq., Penygroes.

DEATH.

BYWATER.—On December 12th, at Lanehead, Coniston, aged 19, Elizabeth Marian Bywater, second daughter of the late Robert Turner Bywater, M.R.C.S. Eng.
GAIRDNER, John, M.D., at Northumberland Street, Edinburgh, aged 86, on December 14th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—	Medical Society of London, 8.30 P.M. Mr. J. Astley Bloxam, "A Man (Case of Lupus) on whom the Indian Operation for making a New Nose has been performed"; Dr. Broadbent, "On Warburg's Tincture, with Therapeutical Comments".
TUESDAY.—	Pathological Society of London, 8.30 P.M. Dr. Coupland (for Mr. Balding): Sequel to Case of Tumour of Sciatic Nerve. Dr. Coupland: Biliary Calculi encysted in Peritoneal Adhesions. Dr. Goodhart (for Dr. Lewis Marshall): Aneurysm of Aorta. Dr. Ord: Spontaneously fractured Vesical Calculi. Mr. Gould: Valvular Disease of the Heart. Mr. Gould: Recovery from Pyopericardium. Dr. Mahomed: Adenoma Hepatitis, two cases. Dr. Pye Smith: Xanthelasma. Dr. Gowers: Mitral Disease. Dr. Goodhart: Cerebral Aneurysm from Embolism. Dr. Goodhart: Cerebral Tumour.
WEDNESDAY.—	Association of Surgeons Practising Dental Surgery, 7.30 P.M.: Council Meeting, 8.30 P.M.: Mr. Hamilton Cartwright, "The Position of Dental Surgery in its Social and Ethical Aspects".
THURSDAY.—	Harveian Society of London, 8 P.M. Harveian Lecture. Mr. James Lane, "On Syphilis".
FRIDAY.—	Quekett Microscopical Club (University College, Gower Street), 8 P.M. Ordinary Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

DR. LLEWELYN THOMAS and DR. EDMUNDS's communications have been received and forwarded to the JOURNAL OFFICE. Correspondents are particularly requested to forward communications intended for the JOURNAL to the Office, 37, Great Queen Street, and not to the private house of the Editor.

MIDWIFERY FEE.

SIR,—A. leaves his practice for a few weeks to the care of B., who is no accoucheur. B. has to attend a difficult labour, and, instead of attending, sends for C., to whom the entire charge of the case is given. C. attends the confinement, delivering with forceps, and also attends during a tedious convalescence, supplying all medicine, and charging two guineas altogether. Is C. to keep the fee, or any part of it?—Yours, etc., A MEMBER.

* * As the case is stated here, C. appears to be entitled to the fee.

SIR,—I am anxious to join a society that would grant me a pension in my old age, and a subsistence for my wife and children in the event of my death. Would you be so kind as to name such a society, and let me know in an early issue of the JOURNAL to whom I should apply for regulations and conditions?—I am, sir, your obedient servant, AN ANXIOUS INQUIRER.
Paris, December 12th, 1876.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

MEDICAL ATTENDANCE DEPARTMENT OF FRIENDLY SOCIETIES.

SIR,—May I, although a layman, invite your attention to what I conceive to be an abuse of friendly societies? The ordinary friendly society consists of two departments—first, sick pay; secondly, the doctor. The first is of the nature of an ordinary insurance. For a certain contribution, based upon well understood averages of sickness, a society accepts the risk of making to the assured a weekly allowance when ill. It is quite clear that, provided the assured be a "good life", and his occupation and habits not unhealthy, it matters not whether he be a labourer, squire, peer of the realm, or Pope of Rome, the agreement between him and the society is purely a self-supporting commercial contract, by which for a certain payment an equivalent is guaranteed. But the case is far different when we come to consider the second part of the insurance, "the doctor". In most of the friendly societies with which I am acquainted, the attendance of "the doctor" is secured for a nominal fee of 3s. 6d. to 5s. per member *per annum*. Now, it is self-evident that such an inadequate remuneration can only be accepted by the doctors as somewhat "better than nothing". It is not pretended by any one that it is a fair equivalent for services rendered. In time gone by, the great British workman expected the parish to find him with a doctor. He has now taken one step in advance of pauperism by offering the doctor a nominal fee for medical attendance. I readily admit that many a workman would find it difficult to pay a doctor's bill; and it is better that in such a case he should be encouraged to preserve his self-respect by the payment of even this nominal sum than that he should be branded as a pauper. No one complains of the poor working man because he claims medical attendance for his four or five shillings a year. But the case is far otherwise when the flourishing tradesman with his hundreds or thousands of pounds takes advantage of his club-membership, and not only draws his sick-pay (to which, as I have said, he is justly entitled), but also is not ashamed to accept or compel the attendance of the doctor through long illnesses for the same miserable remuneration. It may be said the doctor has the remedy in his own hands; let him refuse to "pass" such men for admission into the club. He can seldom do this, unless he be in a very independent position. More frequently he finds himself bound either to pass them or to refuse attendance to the whole club. This in the case of a struggling practitioner might involve too great a sacrifice of popularity. Besides this, he feels that however unjust to himself it may be that such a man should be admitted to the club for medical attendance, he scarcely likes to take the responsibility of refusing him admission, and thus preventing him from insuring for sick pay, to which there could be no objection. The result is, that in nine cases out of ten the doctor grumbles and gives way. The whole difficulty arises from this: that with the insurance for sick pay is usually coupled the condition that the insured must employ the club-doctor; and, what is worse, the doctor is, on his part, obliged to attend all the club members (among whom may be many who could afford to remunerate him properly) for the nominal fee of 3s. 6d. to 5s. a year.

I venture to suggest a remedy—separate "sick pay" from "doctor" altogether. Let any one, be he labourer, artisan, tradesman, or private gentleman, insure, if he wish, for sick pay (subject, of course, to the usual doctor's certificate). Then, alongside of the society, but independent of it, let there be a medical club for such of the members of the society as the doctor may be fairly expected to attend for 5s. a year. I suggest that no man should be allowed to enter this "medical attendance" club who is not prepared to swear that his income from all sources is not above a certain sum (say 18s. or £1 a week on the average of the year). By this plan, the thrifty artisan or tradesman or clerk (say the man earning from £70 to £300 a year; but whose earnings are precarious) would still be able to enter for sick-pay insurance, while the injustice to the doctor which is now so common would be avoided. There is an argument used by those who object to this plan, which I am almost ashamed to repeat. It is, "that when a doctor is obliged to attend a man for 5s. a year, he will for his own sake cure him as quickly as possible, whereas no such motive exists if the benefit member be a private patient of the doctor". To state such an argument is to dismiss it with indignation. I admit that the prosperity of a friendly society depends much upon the conscientious strictness of the doctor; that is all the more reason why he should be treated at least with fairness, even if from the nature of the case it be difficult to treat him with liberality.

This question may not be of much importance to the successful men of the profession, but in the interest of many an over-worked and badly paid country doctor I venture to ask you to give it publicity.—I am, sir, your faithful servant,
Boyton, Woodbridge, December 1876. ROBERT JOHNSON.

DR. HUGHLINGS JACKSON's article on the Pathology of Chorea shall appear next week.

MORTALITY FROM HEART-DISEASE.

SIR,—I should feel much obliged for any information (editorial or from correspondents) on the statistics of heart-diseases; viz., death-rate per population, percentage of heart-affections, treated in hospitals or elsewhere.—I am, sir, your obedient servant. X.

* * X. should consult Haviland's Map and Commentary on the Distribution of Heart-Disease, and the annual reports of the Registrar-General.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to **Mr. FOWKE**, not later than *Thursday*, twelve o'clock.

REGISTRATION OF HONORARY DEGREES.

SIR,—In reference to the paragraph in the *JOURNAL* of the 9th inst. respecting the refusal of the Branch Medical Council to register the M.D. degree of Surgeon Eustace, I cannot see the ground on which they refuse. The qualifications of F.R.C.S. Eng. (by election), and F.R.C.S. Ed. and F. and M.R.C.P. Ed., all of which are conferred by election, and not after examination, are already registered. How, then, can they refuse to register Dr. Eustace's degree? I presume he has other legal qualifications, otherwise he could not be a Surgeon R.N. It would be satisfactory to hear a distinct statement of the grounds on which the refusal is based.—I remain your obediently,

W. DOUGLAS HENNING, M.R.C.S. Eng.

26, Notting Hill Terrace, W., December 13th.

Q. (Cardiff).—We do not know precisely what is implied in the question: possibly the question might be more appropriately asked of a banker or a trade-protection society; but, so far as the question can have any professional bearing, we can say that all the facts with which we are acquainted warrant a highly favourable reply.

PHYSIOLOGICAL ACTION OF URANIUM.

SIR,—In reply to the inquiry in the *BRITISH MEDICAL JOURNAL*, I can supply a publication on nitrate of uranium. Chap. 1. Chemistry and Natural History; 2. Chemical Literature and Sources of Knowledge; 3. Experiments on Animals; 4. Summary of Pathological Action; 5. Proving on the Human Subject; 6. Summary of Physiological Action, with Therapeutics; 8. Mode of Preparation, Dose, etc. Price 2s. 6d.—Yours, etc.,

JOHN W. HAYWARD.

117, Grove Street, Liverpool, December 12th, 1876.

TREGUNTER, being registered a M.R.C.S. and L.S.A., is not bound to register any additional titles; and non-registration does not prevent him from using them.

ABUSE OF TEA.

SIR,—Your correspondent Mr. W. Cox will, I think, find some interesting and valuable notes on the Abuse of Tea in Dr. Beddoe's *Hygeia: or, Essays Moral and Medical* (Essay 3), published in London in 1802 by Phillips, St. Paul's Church Yard.—I remain, sir, your obedient servant,

JOHN HOLM.

CONSULTING MEDICAL OFFICERS.

SIR,—Will you kindly give your opinion on the following case? A. and B., both general practitioners, are medical officers to a dispensary. A. has held the appointment for twenty years; B. for about three years. A. sends in his resignation, and the Committee propose to appoint him as "consulting medical officer." B. objects to the term "consulting", on the ground that all the practitioners in the town—a small watering place of about five thousand inhabitants—are general practitioners, and that the appointment of A. as such would raise him above them, to the detriment of their practice. A. and the Committee yield to B., who threatens to resign if the appointment be made, and the title is altered to "honorary medical officer." Would A. have committed a breach of professional etiquette if he had accepted the appointment of consulting medical officer? I enclose my card, and remain, sir, yours truly,

M.R.C.S.

* * Certainly not. It is a customary and usual compliment to a retiring medical officer of a charity after long and good service, and cannot prejudice the position of any one else.

POISONING FROM ARSENICAL WALL-PAPER.

SIR,—Some short time since a young gentleman called on me, complaining of irritation of the eyelids and pain over the temples, and radiating over the back of the head. The pain was most severe about an hour after the lamp was lighted. He said he had been ailing for the last couple of months. As I could discover no organic lesion, and as he had always enjoyed good health, I suspected some form of metallic poisoning. In reply, he stated his office was lately painted a very pale green (emerald). Accordingly I attributed the symptoms to arsenic. Time passed, and he remained away from his office; yet the symptoms continued, so I inquired about the paper at his house. He said the paper was simple, and did not contain any colouring. On asking him to let me have a piece, I found it coloured with a small green leaf, and had no difficulty in detecting arsenic in considerable quantity. What makes the case of some interest is, that the father and mother and three sisters lived in the same sitting-room, and none complained of any illness, so my suggestion of arsenic in the paper was considered most improbable—more so, as the landlord had assured them there was no arsenic, only simple colouring. Now, since the arsenic has been discovered, the father says he sometimes has a huskiness in his throat; and the mother, that she has had a headache for some time. The symptoms were attributed to every cause but the real one. The room was papered some nine months since, and it was only as the days became short, and the lamp was lit for some time, that the symptoms manifested themselves. It is also noteworthy that the chief lesion was connected with the nerves in the region of the eyes. There was little or no gastric complication. May not the fact of the son using his eyes in study more than the others account for the locality of the affection, the poison coming into direct contact with the eyes?—I am, etc.,

J. F. B.

Brighton, December 6th, 1876.

MR. W. J. BROWN (Newcastle-upon-Tyne).—The letter was duly received, and we believe, acknowledged. We published three letters on the subject, which seemed to suffice to state the case.

HYPNOTISM.

SIR,—Some years since, Dr. Braid of Manchester employed in his practice an influence which he named "neurohypnotism, or nervous sleep." The results obtained were, if as reported, on apparently good authority, of great value and worthy of study. Can any of your readers inform me whether the state is employed in practice in England now, and if so, by whom and where? This "hypnotism" is used, I am told, in France, under the title of "Braidism." Possibly some of the members of our Association may aid me by information on the subject. I am, dear sir, very faithfully yours,

D. D'UNSON-MORA, F.R.C.S., etc.

Manchester, December 9th, 1876.

MR. HARAM WOOD'S suggestion is one to which it would probably be very difficult to give practical effect. The best way to meet it in the first instance would probably be to raise a discussion on the subject at a branch meeting.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Whitby Times; The Suffolk Chronicle; The Exeter and Plymouth Gazette; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Penrith Observer; The Buxton Advertiser; The Border Advertiser; The Edinburgh Courier; The Bournemouth Visitors' Director; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Hampshire Telegraph; The Falkirk Saturday Herald; The Craven Herald; The Broad Arrow; The Fife Times; The Shield; The British Press and Jersey Times; The Elgin Courier; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Hull and Lincolnshire Times; The Derby Mercury; The Hull Criterion; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; The Redditch Indicator; The Dundee Evening News; The Hampshire Post; The Hull News; The Lakes Chronicle; The Tring Telegraph; The Hexham Herald; The South Wales Daily News; The Dudley Herald; The Tunbridge Wells Gazette; The Jarrow Express; The Northampton Herald; The Liverpool Argus; The Daily Telegraph; The Greenock Advertiser; The Torquay Directory; Punch; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Christopher Heath, London; Dr. Balthazar Foster, Birmingham; Dr. J. W. Moore, Dublin; Dr. Joseph Bell, Edinburgh; Dr. W. R. Gowers, London; Dr. Jukes Styrup, Shrewsbury; Dr. Cornelius B. Fox, Chelmsford; Dr. George Johnson, London; Dr. Churton, Leeds; Mr. J. F. Boyes, Brighton; Dr. Roden, Kidderminster; Dr. W. Bernard, Londonderry; Dr. A. Cooper Key, London; Dr. Maule Sutton, Oldham; Mr. R. M. Fawcett, Cambridge; Mr. A. W. Mayo Robson, Leeds; Mr. Neville Hart, London; Dr. Dowling, Tipperary; Mr. R. W. Soper, Dartmouth; Mr. David Russell, Neston; Nemo; Dr. Sawyer, Birmingham; Dr. Urban Pritchard, London; The Registrar-General of England; Dr. J. Milner Fothergill, London; Mr. T. Holmes, London; The Secretary of Apothecaries' Hall; Dr. Douglas Powell, London; Mr. T. M. Stone, London; Dr. Braidwood, Birkenhead; The Registrar-General of Ireland; Mr. G. Eastes, London; M.B.; The Secretary of the Royal Medical and Chirurgical Society; Dr. Edis, London; Dr. A. S. Taylor, London; Mr. A. H. Blake, London; Our Paris Correspondent; Mr. John Abbey, Oxford; Mr. John Liddle, London; Dr. F. J. Brown, Rochester; Mr. A. W. Stocks, Salford; Mr. John Hughes, Carmarthen; M.R.C.S.; Dr. Fairlie Clarke, Southborough; Marasmus; Mr. Robert Johnson, Boyton; Dr. R. J. Cooper, London; Dr. Finlayson, Glasgow; Mr. E. Bellamy, London; Dr. W. Lauder Lindsay, Perth; Mr. W. J. Harris, Worthing; Dr. Mackey, London; Mr. H. Sewill, London; Dr. G. de Borequer Griffith, London; Mr. Sherry, Leeds; Mr. Hamilton S. Cartwright, London; Mr. T. Vincent Jackson, Wolverhampton; Mr. W. J. H. Wood, Boston; Mr. Edmund Owen, London; Our Edinburgh Correspondent; Mr. J. E. Ingpen, London; Mr. W. J. Brown, Newcastle-upon-Tyne; Dr. Broadbent, London; Mr. Diego d'Ushon-Mora, Manchester; Mr. J. Charlton Jones, Liverpool; Dr. Hitchcock, Lewisham; Dr. Corfield, London; Mr. William Hoar, Maidstone; Dr. Renshaw, Beech Hurst; The Secretary of the Harveian Society; M.D.; Mr. Richard Davy, London; Dr. Llewelyn Thomas, London; Dr. F. Munds, London; Mr. W. Spencer Watson, London; Dr. Burney Yeo, London; Our Dublin Correspondent; Mr. J. B. Austen, London; Mr. J. B. Tinsley, London; Q.; Dr. Holman, Reigate; Dr. Leech, Manchester; Dr. Hardie, Manchester; Mr. C. J. Cullingworth, Manchester; J. T.; Dr. A. Morrison, London; Dr. Goodchild, Leamington; X.; Dr. A. Meadows, London; Dr. Parsons, Dover; An Anxious Inquirer; Dr. Deas, Macclesfield; Dr. Klein, London; Dr. Duffey, Dublin; Mr. George Brown, London; Dr. Lindsay, Anerley; Mr. Hayward, Liverpool; Mr. Balmano Squire, London; Dr. W. M. Ord, London; Dr. Foulis, Glasgow; Dr. Charlton Bastian, London; Mr. Nettleship, London; Mr. John Croft, London; Dr. Priestley, London; Dr. Habershon, London; Mr. Otho Salgey, St. Vincent; Mr. J. T. Griffith, Pen-y-groes; Mr. Hugh Robinson, Preston; Dr. Hoffmeister, Cowes; Dr. Roden, Kidderminster; Mr. Douglas Hemming, London; A Member; Dr. Hughlings Jackson, London; Professor Wilson, Edinburgh; Mr. S. Harley Kough, Church Stretton; Mr. H. Burdett, Greenwich; Mr. R. Johnson, Woodbridge; Mr. John Holm, London; etc.

BOOKS, ETC., RECEIVED.

Histological Demonstrations; a Guide to the Microscopical Examinations of the Animal Tissues in Health and in Disease: being the substance of Lectures delivered by George Harley, M.D., F.R.S. Edited by George T. Brown, M.R.C.S. Second Edition. London: Longman, Green, and Co. 1876.

Micro-Photographs in Histology, Normal and Pathological. In Five Numbers. Vol. I. By Carl Seiler, M.D.; in conjunction with J. Gibbons Hunt, M.D., and J. Richardson, M.D. London: Macmillan and Co. 1876.

Practitioner's Handbook of Treatment. By J. Milner Fothergill, M.D. London: Macmillan and Co. 1876.

The Germ-Theory of Disease: "the Specific Fevers." By T. MacLagan, M.D. London: Macmillan and Co. 1876.

NOTE

ON

THE "EMBOLIC THEORY" OF CHOREA.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,

Physician to the London Hospital, and to the Hospital for the Epileptic and Paralysed.

DR. BARNES writes, in this JOURNAL, December 9th, "The comparison of cases of chorea complicating pregnancy with chorea independent of that condition enabled me to disprove the embolic theory of the cause of the disease: a theory since destroyed on other evidence by Ogle and Dickinson, and rejected by Bristowe."

Many of the readers of this JOURNAL will doubtless feel inclined to adopt Dr. Barnes's opinion; for, so far from this hypothesis being, as Dr. Dickinson says, "somewhat attractive", it has, to the best of my observation, been considered by most medical men of little worth; many of those also who have some interest in it, will easily have their little faith destroyed by the rejection of it by such justly esteemed authorities as Ogle, Barnes, Wilks, Dickinson, and Bristowe.

As, next to Parkes, I am the earliest propounder of the hypothesis (*London Hospital Reports*, 1864,* vol. i, p. 459, *Lancet*,† November 26th, 1864, p. 606), I wish to say something in favour of it. It may be that I labour under twelve years of prejudice. I ask that Dr. Barnes's opinion as to the destruction of the embolic theory by Dr. Dickinson's researches should be accepted only after reading Dr. Dickinson's account of the pathological changes he found. It is right to grant that Dr. Dickinson has carefully distinguished the morbid changes after death from chorea from changes found in the brains of persons who have died of non-nervous diseases.‡ It shall be granted that they are, as Dr. Dickinson supposes, the real pathological changes causative of chorea; he points out, however, that "it is not possible but to connect them with those of a large group of nervous disorders, and prominently with those of diabetes". There are, he tells us, differences in the seats of the changes in chorea and in diabetes. Strange as it may seem, I think, as I said at the meeting after the reading of his paper, that the changes, "remarkably constant in kind and place" which he describes, are not unlike those admitted to result from the process of embolism. I would now say that they seem to me to be very like. Dr. Dickinson writes (*Med.-Chir. Trans.*, vol. 59, p. 15) of what he found in all his cases, that "they were all connected with vascular disturbance". This is a very important statement, in general harmony with the hypothesis of embolism, especially when what he says on localisation of the changes (*vide infra*) is taken into consideration.

Dr. Dickinson continues: "The injection was general to all the vessels; most marked in the arteries. When the sources of hæmorrhage could be determined, they were always arterial; the degenerations were usually periarterial, and the spots of sclerosis§ similarly placed." He goes on to say, "the first visible change would seem to be the injection or distension of the arteries, succeeded by extrusion of their contents to the irritation and injury of the surrounding tissue". Now, is not this considerably like the description of the effects of embolism as the process is stated by other physicians and pathologists? The usual descriptions, it must be borne in mind, are of cases in which blocking of large arterial branches has occurred; but the supporters of the embolic hypothesis of chorea suppose only the small arteries or capillaries to be the seats of emboli. In my earliest statement of the hypothesis (1864), I wrote: "I think, from many circumstances, that embolism is a frequent cause of chorea. I do not say plugging

of the trunk of the middle cerebral, but probably of some of its ramuscles, which supply convolutions near to the corpus striatum (*Lond. Hosp. Reports*, vol. i, p. 459).* Hence, on this hypothesis, we should expect there to be marked differences of degree betwixt the appearances Dr. Dickinson has noted and those stated in text-books to be most characteristic of embolism. But in general the descriptions are much alike; there is, in each, increased quantity of blood in the vessels, "succeeded by extrusion of their contents". The vascular and periarterial changes of Dickinson seem to me to be like ordinary "red-softening" of the brain in miniature.

It is agreed on by all pathologists that cerebral embolism and embolism in other organs whose arteries are "terminal" leads nearly always to increased quantity of blood in the vascular district on the peripheral side the plugs. Wilks and Moxon write as follows: "The mechanical effects of the embolus are not quite what you would at first expect. One naturally thinks that if the artery of a part is stopped up, the blood-supply will be shut off, and the part become bloodless. But, when a part of an organ is embolised, the effect is that its vessels become congested—that is, if time be allowed" (*Lectures on Pathological Anatomy*, p. 172). I did not know this when, in 1864, and again in 1868, I stated the hypothesis of embolism in explanation of the clinical facts of chorea. I made the necessary corrections, *Med. Times and Gazette*, March 6th, 1869.

That hyperæmia occurs from blocking of vessels is now an accepted doctrine. The facts and theories of the process were first stated, I believe, in this country, by Bastian, with regard to "red softening", in his article on Softening of the Brain in Reynolds's *System*. Prevost and Cotard's experimental researches on red softening are known now to everybody. The hæmorrhagic part of the process of embolism can, as Wilks and Moxon have said, be occasionally seen in the eye. Some years ago, Brudenell Carter showed a well marked case of this kind at the Medical Society of London, by the aid of his demonstrating ophthalmoscope. After the reading of Dr. Dickinson's paper, I handed round a drawing by Knapp, in which were depicted hæmorrhages in the field of an obstructed branch of the arteria centralis retinae, and along with it another drawing from Prevost and Cotard's work, showing extravasations in a dog's brain following artificial embolism by tobacco-seeds.

The following is from *Lectures on Pathological Anatomy*, by Wilks and Moxon, p. 172. It is from the part where they are not speaking of embolism of any particular organ, but of the embolic process in general; it is to be read in connection with the former quotation from their work. "The stagnation of the blood sufficiently explains its inability to maintain the contractility of the vessel. But it is not only the wall of the vessel that suffers, there is a general lowering of the nutrition of the part; the overgorged dilated vessels allow the escape of serum, or by bursting, or by transudation, allow blood-corpuscles to escape, and thus arises œdema or apoplexy of the part."

Of course, no medical man would suppose that the irregular movements in chorea depend on hæmorrhages or on "sclerosis" (disintegrated nerve-tissue). No one supposes that epileptiform seizures in cases of tumours of the brain are the direct results of the tumours, or of the disintegrated brain round about them. All movements, healthy or morbid, must depend on nervous discharges. Disintegrated nerve-tissue cannot discharge, for really the disintegrated matter has ceased to be nerve-tissue. I suppose the excessive movements occurring either in chorea or in epilepsy or epileptiform seizures are produced by discharges of grey matter, which, except for great instability from over-nutrition (not better nutrition), is healthy. There are discoverable two conditions of the motor organs in most cases of chorea: a negative one, paresis; a positive one, over-movement. The "sclerosis" which Dr. Dickinson speaks of (which is "disintegrated nerve-tissue") may account for the paresis of the parts which are the subjects of the choreal movements; but these points of sclerosis can only, I submit, be indirect evidence of the seats of the unstable cells on discharges of which the irregular movements themselves depend. We cannot expect to discover, with our present means of research, the alterations in grey matter on which excessive discharges depend. "Experience teaches us," says Niemeyer, "that the lesions from which abnormally active impulses proceed are insusceptible of anatomical demonstration." Abnormally increased expenditure of energy, at any rate, implies an abnormally increased "storing up" of energy; that is, in the case before us, abnormally increased nutrition of nerve-cells by some pathological process bringing more nutrient material.† My opinion is, that the direct pathological state leading to instability of grey matter pro-

* Soon afterwards (1865), Dr. Broadbent arrived quite independently at the same conclusion. Kirkes's hypothesis has had strong support also from Dr. Tuckwell, Dr. Russell of Birmingham, and a few other physicians.

† I refer to the remarks reported in the *Lancet* to take the opportunity of once more drawing attention to a clerical error therein: for "limited to softening of the brain", read "limited softening of the brain". See other parts of the present article for qualification of this amended statement.

‡ Wilks and Moxon write (*Lectures on Pathological Anatomy*, p. 614): "After thus enumerating the minute changes which have been described as associated with insanity, we must warn you that there is nothing peculiar in their kind. There is no one of these changes which may not be found in ordinary brains after middle age, or even younger" (italics in original). I quote this to show that we must be careful how to attach special importance to microscopical changes in the brain.

§ Dr. Dickinson does not, he tells us, mean to imply by "sclerosis" induration from increase of connective tissue, but a condition "which is apparently one of degeneration of the nervous elements rather than increase of the connective". This sclerosis is, indeed, miniature cerebral softening.

* I there quoted a summary of Dr. Kirkes's opinions from Dr. Handfield Jones's *Report of Medicine in the New Sydenham Society's Year-Book* for 1863.

† Reynolds, in his work on *Epilepsy*, writes: "The proximate cause of convulsion is an abnormal increase in the nutritive changes of the nervous centres."

ducing choreal movements is increased quantity of blood in the periphery of the capillary district embolised. The local periarterial softening or sclerosis account for the choreal paresis. Of course, this opinion as to the nature of the change in unstable cells is hypothetical; but so is every one's opinion as to the nature of "lesions insusceptible of anatomical demonstration".

Let me state Dr. Dickinson's opinion on the relations he supposes to exist betwixt the "muscular excitations" and the changes he discovered. (I italicise some words.) "The result chiefly in muscular excitement, rather than in paralysis or loss of sensation (though it is to be observed that a lesser degree of both is frequently present), may be associated with the character of the lesions, which are points of irritation rather than planes of section, and as such calculated to produce irritative rather than paralytic effects; not so much to cut off as unnaturally to excite nervous function."

The localisation of the changes has an important bearing on the interpretation of their pathology. Dr. Dickinson found them in the spinal cord; that is, in a part which those who hold the hypothesis of embolism believe to be unconcerned in the production of the irregular movements of chorea. So far, it will be supposed that Dr. Dickinson has the best of the argument. But disease of any kind in the cord cannot account for the movements of the face. The elaborateness of the movements in chorea is, I submit, strong warrant for the inference that the changes causing them must be seated higher up. As previously stated from the very first, I thought their seat as high as the convolutions.† But it may be said that, whilst the lesions in the cord account for some of the movements, the lesions Dr. Dickinson discovered in the brain also account for the others. It has been said by one writer, as bearing on the seats of changes causing chorea, that there are centres of co-ordination all along the cerebro-spinal system. But the various choreal movements, very unlike in that different parts of the body are affected, are alike in the character of great elaborateness. No one denies that every motor nervous centre is a centre for the co-ordination of movements; but nervous centres, besides differing in combining different kinds of impressions and movements, differ also in the degree of complexity to which (be the movements of what part of the body they may) the process of co-ordination reaches. The question, then, is, Do such elaborate movements as those of chorea imply abnormal developments, of co-ordination effected by the spinal cord?

But, as regards the brain, Dr. Dickinson discovered the changes he describes mostly in that region which, on the embolic theory, is believed to be the part to blame for the irregular movements—I suppose the convolutions near the corpus striatum (see quotation already given from *London Hospital Reports*); the corpus striatum and optic thalamus, according to Broadbent.

Dr. Dickinson writes: "The lesions are, indeed, determined in position by the course of arteries in the brain, notably by the middle cerebral—*favourite routes of emboli*—and the perforating branches which pass from these to the corpora *lenticula*." (No italics in original.)

But it remains that Dr. Dickinson discovered no plugs in the arteries; and this will very justly appear to most medical men strong evidence against the hypothesis which I and a few other physicians endeavour to prove; for, even if it be admitted that the changes resemble those produced by embolism, many will agree with Dr. Dickinson that they arise from some non-mechanical cause. Dr. Dickinson thinks they are "produced by causes mainly of two kinds: one a morbid, probably a humoral, influence, which may affect the nervous centres as it affects other organs and tissues; the other, irritation in some mode, usually mental, but sometimes what is called reflex, which especially belongs to and disturbs the nervous system, and affects persons differently according to the inherent mobility of their nature." (*Op. cit.*, p. 38.)

I have myself stated prominently that embola were not discovered by Gowers and Ferrier in some brains from choreal patients examined for me. I believe too strongly that most evidence is in favour of the hypothesis to wish to conceal any facts which may be thought to decide against it. The damaging observations of two men who are equally eminent as physicians and pathologists must not be concealed. Wilks and Moxon, who have examined many fatal cases of chorea, have never seen any microscopic embola; and in one case, in which hemiplegia from embolism had occurred, there were no "discoverable emboli in the small vessels". They have discovered no constant

morbid appearances in the nervous system after death from chorea. But Dr. Dickinson has discovered constant morbid appearances, and appearances not very unlike those producible by embola, regard being had to size of arteries plugged. Then we must remember that others have found embola. Tuckwell has found them. Bastian found plugging in three cases by, he believes, the process of thrombosis. It may be, I would admit here, that the hypothesis of embolism will be displaced by Bastian's hypothesis of thrombosis as an explanation of many cases of chorea. Dr. Bastian does not give it as the pathology of all cases of chorea.

I hope to be able soon to gather together the observations I have made since 1864 on this disease, and then I will as faithfully as I can consider in detail the arguments of Barnes, Dickinson, Bristowe, and others, against the views which I and some other physicians take.

COINCIDENCE OR CORRELATION? A NOTE ON THE EMBOLIC THEORY OF CHOREA.

By STEPHEN MACKENZIE, M.D.,
Assistant-Physician to the London Hospital.

I HAVE at the present time under my care in the London Hospital a little girl ten years of age, suffering from chorea. The circumstances of her case are sufficiently remarkable to be deserving of special consideration. They seem to me to have an important bearing on the embolic theory of chorea.

The little patient's mother had been under my care for two or three years on account of a valvular affection of the heart—mitral stenosis. She was a stock case with me to point out to students the distinguishing characteristics of a presystolic mitral murmur. It was an exceedingly well marked example of this murmur; and, being combined with a systolic murmur at the same spot, it enabled me not only to point out the means of discriminating between it and the latter, but to prove that the so-called presystolic murmur did in fact precede the systole. The presystolic murmur was accompanied by a characteristic thrill which ended abruptly with the ventricular impulse. After ebbing and flowing for some time, the mother was suddenly stricken down. I was called to see her two or three days after her seizure, and found her semicomatose and completely paralysed on the right side of her body. I gave a most unfavourable prognosis as to her recovery, and warned her relatives that, if she regained consciousness, she would very likely be speechless. Six days from the time of her seizure, the mother died. Previous to death, she regained a certain degree of consciousness, so as to give some slight signs of recognition to those about her; and she moved the left arm and leg. She never spoke or uttered any intelligible sound. She was a Jewess, and no *post mortem* examination could be obtained.

As to the cause of the hemiplegia, although there was no necropsy, I think there could be no reasonable doubt. The age of the patient (she was thirty-one years old), the fact that her tissues showed no degenerative changes, the existence of valvular disease of the heart, and the sudden accession of the cerebral symptoms, all point in the clearest manner to embolism. The presence of right-sided palsy showed that the embolon had plugged the middle cerebral artery. The severity of the symptoms would make it equally clear that the embolon detached from the diseased mitral valve was of such size as to plug the trunk of the artery.

Ten days after the mother's death, her daughter, the patient now under my care, was observed to have some twitches of her face and limbs. A few days later, she was brought to me. She is a bright intelligent little girl, of dark olive complexion, and of a Spanish-gipsy type. In appearance, she is a miniature portrait of her mother. So striking is the likeness, that several gentlemen in the habit of attending my class immediately recognised her parentage. I found she had choreal movements of the left half of her body. The face, arm, and leg were affected. There were no movements of the right side. On examining her chest, I detected a *bruit* over the mitral region. The heart's action was so rapid and irregular that the murmur could not be accurately timed by the carotid pulse; but, from its character, I judged it to be presystolic. A few days later, when the child had been resting quietly in bed, the following notes were dictated. "The cardiac impulse not distinctly visible, but it is felt in the fourth and fifth interspaces, unaccompanied by any thrill. Cardiac dulness bounded by a line just internal to the left nipple, by right margin of sternum and by third rib. An inch below and just internal to the nipple-line are two murmurs. As timed by the carotid pulse, they are presystolic and systolic. The systolic murmur is conducted slightly towards the axilla, but the presystolic is easily lost." At another

* About ten years before I stated my opinion as to localisation in chorea, Dr. Russell Reynolds had fixed on the corpus striatum as the seat of the disease in chorea; so, then, I have not to establish any claims to priority. As to the pathology, Kirkes came before me, and recently, as to localisation, Reynolds. Having regard to the great elaborateness of the movements in chorea, I still think it most probable that the convolutions are the parts diseased.

† Hitzig and Ferrier's conclusions are in harmony with that opinion.

visit, the murmur was less distinct. I now found that the daughter had had rheumatic fever at the age of five. No history of rheumatism could be elicited in the case of the mother; but she might readily have had it at as early an age as her daughter without retaining any recollection of the occurrence. Thus the mother not only transmitted to her daughter her marked physiognomical peculiarities, but, in all probability, also a temperament or diathesis predisposing her to rheumatic fever and its resultant endocarditis. I think it was something more than coincidence, that the daughter's valvular disease took precisely the same form as that of her mother. The chorea for which the child was admitted, and which I subsequently found was not a first attack, was never of any severity, and has now almost subsided. All that remains is slight irregular movement of the left arm, thus conforming to the general rule that, though the first to suffer, the arm is the last to recover.

Reviewing the facts of these two cases, we find mother and daughter suffering from valvular disease of the heart, supervening on which they each have an affection of the nervous system: further, that the nervous disease is strictly limited to one lateral half of the body. In the mother's case, there is loss of motion of the right half of the body—hemiplegia; in the daughter's case, there is irregular or disorderly movement of the left half of the body—hemichorea. In each, the muscular region is the same; in other words, the range of the disease is identical. There is a motor affection of the face, arm, and leg of the same side of the body. In the mother's case, in spite of Dr. Brown-Séquard's recently promulgated views, the right hemiplegia would, by common assent, be assigned to disease of the left corpus striatum, or of some part of the brain within the area of distribution of the left middle cerebral artery. Is it not a reasonable inference that, in the daughter's case, the disorderly movements affecting the same muscular range must be due to disease in a corresponding portion of the brain, on the side opposite to that on which the movements occur—namely, within the area of distribution of the right middle cerebral artery? This anatomical localisation of chorea was first enunciated in 1864 by Dr. Hughlings Jackson, who, at the same time, attributed to embolism the rôle of initiating the disorderly movements. Dr. Jackson said: "For I think it is clear that, in chorea, there is frequently disease of that part of the brain which superintends the movements of the tongue in uttering syllables; and, again, the frequent one-sided nature of the movements of the limbs, and their often dying out into definite hemiplegia, point to disease of, or at least near to, the corpus striatum." [Dr. Hughlings Jackson quotes from the New Sydenham Society's *Year-Book of 1863* a short summary, by Dr. Handfield Jones, of Kirkes's opinions.] "Again, I think, from many circumstances, that embolism is a frequent cause of chorea. I do not say plugging of the trunk of the middle cerebral artery, but probably some of its ramuscles, which supply convolutions near the corpus striatum. There is no more difficulty in supposing that there are certain convolutions superintending those delicate movements of the hands, which are under the control of the mind, than that there is one, as Broca suggests, for movements of the tongue in purely mental operations."* Shortly afterwards, Dr. Broadbent, who had independently arrived at closely similar conclusions, brought forward evidence of clinical and physiological nature which supported and strengthened these views.† Experimental research in the hands of Fritz and Hitzig, Cayville, and Duret, Nothnagel, and last, but the reverse of least, Dr. Ferrier,‡ has given to the doctrine of localisation that support which alone is capable of carrying conviction to the minds of many.

The point, to which I wish to draw attention, however, is not so much the anatomical localisation of chorea, though this has necessarily to be taken into consideration, but its pathology—the local internal change by which the irregular movements are brought about. I think the two cases I have related, considered together, help us to a correct solution.

In the mother's case, I think all would concede that the cause of the hemiplegia was embolism—embolism of the middle cerebral artery. Can it reasonably be doubted that the daughter's chorea was also due to embolism? She had all the conditions which favour the occurrence of embolism. She has valvular disease of the heart of precisely the same kind as her mother, and of the kind, moreover, which is relatively most frequently attended with the production of embolism.§ In her mother's death, she had a disturbing influence likely to produce much vascular excitement; for she is an emotional child of Jewish race,

a people which make loud weeping and lamentations at the death of one of their co-religionists. Nothing more likely than that the vascular disturbance produced by the circumstances attending her mother's death should cause vegetations and coagula of fibrine to be detached from the mitral valve and washed into the circulation. It is thus, I suppose, that the fright which so frequently precedes, and perhaps determines an attack of chorea acts. Dr. Tuckwell most accurately describes how likely embolisms are to occur, in the following passage.—"Anyone who will take one of these choreic hearts and, with a camel-hair brush or the tip of the finger, lightly brush the little beads on the valve, will find them separate with the greatest ease; so easily, that they can scarcely fail to be swept onwards from time to time by the rush of the blood over them from the auricle into the ventricle."¶ I think all the circumstances of her case show that embolism would be a possible, and indeed a very probable, occurrence. Now if, instead of having disorderly movements of one lateral half of the body (hemichorea), she had been seized with loss of movement of one lateral half of the body (hemiplegia), no one would have hesitated to attribute the nervous affection to embolism. It must be remembered, moreover, that cases of chorea occur in which the movements are followed by paralysis; that is, that chorea passes into hemiplegia; and, in such cases, when the chorea has been unilateral, the paralysis has affected the face, arm, and leg, which had previously been in a state of spasm, as in hemiplegia from organic diseases of the brain: a fact long ago observed by Dr. Todd.† The clearest distinction must be drawn between such a condition and the independent supervention of hemiplegia in a choreic person. This occurrence of hemiplegia is of greater value as regards the localisation than the pathology, but it has an important bearing on the latter; for, if hemiplegia result, as no one would deny, from embolism, so may hemichorea.

Dr. Todd says: "In a large proportion of cases of chorea, as I have often remarked to you, the choreic movements occur more on one side, than on the other, and sometimes they will be altogether confined to one side; the child being hemiplegically affected in a very exact manner." In another lecture, after relating an exceptional case, *i.e.*, of the two sides being equally choreic, Todd says: "Chorea is very much a 'one-sided disease'; that is, it affects one side more than the other; sometimes one side only is affected; hence it may be classed with cerebral affections in which the morbid state of one side of the brain will extend to the opposite side of the body." (Page 431.) Again, speaking of a particular case, he says (Lecture XIX): "Much the same symptoms were present in this as in the other cases; the choreic movements were strictly limited to the left side, and the case afforded a striking illustration of the one-sided character which the disease is so apt to assume, the right side being wholly free."

Drs. Wilks and Moxon say: "We have met with one case of hemiplegia from embolism during chorea; a similar incident happened to Dr. Murchison." It is only fair to add, for it is antagonistic to what considerations would lead one to expect, that the authors go on to say, "but there were no discoverable emboli in the small vessels": a carefully guarded statement, which shows that these most trustworthy pathologists would not deny the possibility of a lesion which might escape their vigilance.

In addition, however, to having all the factors favouring the production of embolism, my patient has all the other factors which, on the occurrence of embolism in a particular part, would be likely to result in an attack of chorea. She is of an age, sex, and temperament which especially predispose to chorea. A certain condition of the nervous system is an important factor in the production of chorea, and this condition, though not confined to, is most commonly found in young females of nervous temperament.§ Thus, my little patient has not only all the circumstances which favour the genesis of embolism; but, embolism having occurred, she has that condition of the nervous system which would be especially likely to eventuate in chorea.

I have previously drawn attention to the fact that the muscular area affected by the choreic movements was the same as that affected by the mother's paralysis; namely, the area of distribution of the middle cerebral artery. I have shown also that the mother's hemiplegia was due to embolism of the middle cerebral artery.

But it may be asked, "How is it, as the result of embolism of the same artery, there is in the one case hemiplegia, in the other chorea?" The answer is, I think, simple and intelligible. In the one case, the trunk or some large branch of the artery is plugged, and the nutrition of the nervous matter so seriously affected as to completely deprive it of its function. In the other case, it is only smaller branches or

* *London Hospital Reports*, 1864, vol. i, p. 459. See also *Lancet*, November 26th, 1864, p. 606.

† *Medical Society*, 1865-66, and *BRITISH MEDICAL JOURNAL*, vol. i, pp. 345-369.

‡ *The Functions of the Brain*, by David Ferrier, M.D.; 1876.

§ On the Murmurs attendant upon Mitral Constriction, by C. Hilton Fagge, M.D. (*Guy's Hospital Reports*, 1871, p. 321).

¶ *St. Bartholomew's Hospital Reports*, 1869, p. 66.

† *Clinical Lectures*. Lecture xix (xlvii, 2nd ed.).

‡ *Lectures on Pathological Anatomy*, 2nd ed., p. 609.

§ See *London Hospital Medical Registrar's Reports*, 1875, p. 44.

arterioles which are blocked, whereby there occurs not necrosis of a large mass of nervous matter, but an impaired or disturbed nutrition of the part. In the one, as Dr. Hughlings Jackson would say, there is destruction of nerve-tissue and, as its result, paralysis; in the other, there is an unstable condition of grey matter and, as its result, spasm. "Now, significantly, the process of embolism was one which led to increased afflux of blood in those organs (brain, retina, etc.) which had what Cohnheim calls 'terminal' arteries. This is accepted doctrine. Every physician knows that, in their first stage, renal, splenic, and pulmonary infarcts are red, and embolism or thrombosis is the accepted explanation of ordinary 'red softening' of the brain. There was, indeed, from blocking of arteries, not simple hyperæmia, but also extravasation of blood."

I am aware that the morbid anatomy of chorea is not considered to lend much support to what has been termed "the attractive hypothesis of embolism". But, acknowledging the fact, this only amounts to clinical observation and experimental research being in advance of pathology. There are many problems besides this which pathological-histology has yet to elucidate. Cases are recorded where embolisms have been found in the middle cerebral arteries in chorea, as in those recorded by Dr. Tuckwell of Oxford.[†] Dr. Tuckwell, in two most interesting papers, gives the *post mortem* appearances of two fatal cases of chorea. In these, vegetations were found on the auricular surfaces of the mitral valve, and patches of red softening in the brain, the result of embolism. Dr. Tuckwell's articles are worthy of careful perusal, for he enters very fully into the pathology of chorea, and contests Dr. Ogle's and Dr. Barnes's views. His first article appeared in the *British and Foreign Medico-Chirurgical Review*, page 506. Dr. Broadbent's[‡] and other cases where capillary embolisms are found are few compared with the numerous observations in which no embolisms were discoverable. Drs. Wilks and Moxon only represent general experience when they say:§ "We have seen no microscopic emboli." Quite recently, Dr. Howship Dickinson|| has given, what has been thought by many, the death-blow to the embolic theory. I hope to show, on some future occasion, that Dr. Dickinson's observations have not that antagonism to the theory of embolism which he and others suppose. It seems scarcely fair to place theories in opposition to observation; but acknowledging, as all would who believe in the embolic origin of chorea, the value of Dr. Dickinson's researches; yet the changes found by, and the pathology of, Dr. Dickinson have not met with the acceptance of the acknowledged holders of the embolic theory, for the reason that they do not explain all the phenomena of chorea. For the present, at least, the pathological histology is too uncertain to decide the issue of the nature of chorea. In experimental research and in clinical observations, we may find the clue to the problem. It is this that has induced me to make these remarks.

I cannot regard the occurrence of my patient's chorea and her mother's hemiplegia as mere coincidence, for both had a cause in operation which would satisfactorily account for the nervous disorder. The cause was the same in each case; and the results, though not identical, were analogous and parallel. I hope it will not be thought that I have attempted to strain the circumstance, either with regard to the patients being mother and child, or in regard to a nervous affection happening in two persons the subjects of heart disease. Nothing could be further from my wish. That two persons having a valvular lesion of the heart, whether they were strangers or related, should fall down and break the same leg, would be a coincidence and nothing else; for, though the heart-disease might lead to faintness, causing the patient to fall, there would be no intelligible explanation of why they should break the same sided leg, or how the relationship conducted to the result. But the cases are quite distinct. The relationship in my cases shows that the mother may have transmitted to her daughter a temperament or diathesis, by which the latter became affected with endocarditis, causing a valvular lesion similar to that from which she herself suffered. The heart-disease in each case will account for the occurrence of embolism; the embolism will account alike for the hemiplegia and the hemichorea. The relationship between the two patients is more interesting than important to the argument. The fact is striking, and naturally leads a thoughtful person to inquire into the circumstances under which mother and daughter, affected with the same form of valvular disease, are attacked with what is generally regarded as a nervous disorder. And I have endeavoured to show that the most reasonable explanation of the

daughter's chorea is that which suffices for the mother's hemiplegia—namely, embolisms in the area of distribution of the middle cerebral artery. The relation between the heart-disease and the hemiplegia of the one, and the hemichorea of the other, must be regarded as causal, not casual. The range of the nervous affection—its unilateral distribution—points to the anatomical alliance of the two diseases.

In conclusion, I am aware that I have brought forward no arguments or facts which have not been adduced more ably before. The non-acceptance of these must be my excuse. Iteration has occasionally its uses.

OBSERVATIONS ON DR. LEARED'S REPLY TO DR. WILLIAMS ON THE MECHANISM OF THE SOUNDS OF THE HEART.

By W. H. BROADBENT, M.D., F.R.C.P.,
Physician to St. Mary's Hospital, etc.

1. IN contradiction to Dr. Leared's statement that "it is *absolutely impossible* to distinguish the sound caused by friction of the heart's surface against the end of the stethoscope from any allied sound—i. e., in this case, muscular sound—I maintain, from large experience of auscultation of the naked heart, when assisting Dr. Sibson in his experiments, that it is both possible and easy; that the sound heard during the contraction of the empty heart is not frictional, but muscular; and that, consequently, whether there is sound produced by collision of blood or not, there is sound from sudden tension of the heart-walls. I do not understand Dr. Leared to deny that sudden tension of membranous valves and tendinous cords must be attended with the production of sound. There are thus two inevitable sounds in systole; and the introduction of a third cause of sound—collision of blood—were the conditions of its production present (which with Dr. Williams I do not admit to be the case), would not extinguish the other two.

2. I reply to Dr. Leared's question, to which he attaches capital importance—"Why is it that, in anæmia, the first sound of the heart only, and the second never, becomes replaced by a murmur?"—by disputing the fact. The first sound is not replaced under these circumstances, but accompanied by a murmur. I am supposing that Dr. Leared has in mind the basic aortic and pulmonic murmurs common in anæmia; but my statement applies to the cases in which the systolic murmur is apical and mitral.

This fact, if established, will be admitted by Dr. Leared to take much of the ground on which he relies from under him. I repeat, therefore, that a systolic murmur and a first sound may coexist. It is the rule for this to be the case when the murmurs are of anæmic origin; and it is very common in the course of acute rheumatism—not unknown even in chronic disease of the mitral valve. I have long been in the habit of noting the occasional presence of a first sound together with a systolic mitral murmur as a favourable element in prognosis.

It may, perhaps, save trouble to say that I am aware that there are two first sounds, and that I speak distinctly of the coexistence of a murmur and sound both of left-ventricular origin.

I may now put a series of questions. It is possible that some of these may have been answered in Dr. Leared's original paper, but this I have not at hand at the moment. I read it carefully, however, when it first appeared, and rejected his conclusions on account of difficulties which will be found embodied in the questions.

1. Any sound due to collision of the blood set in motion by the ventricles with the stationary blood in the great vessels must be produced at the aortic and pulmonic orifices. How is it, then, that the first sound is better heard over the ventricles, and even at the apex, than at the base and over the great vessels? The first and second sounds would, under Dr. Leared's hypothesis, be originated at the same point, and ought to be heard over the same area.

2. Among the signs of high tension in the systemic arterial system pointed out by my late colleague Dr. Sibson, one is, that the first sound is enfeebled or absent in the aortic area. No one will, I think, question Dr. Sibson's authority on a matter of simple observation such as this, and my personal testimony to the accuracy of his statement is unnecessary. We have, then, in the increased resistance to onward motion in the arterial system, which is the meaning of high arterial tension, and in increased propulsive power in the left ventricle, the concomitant of this—the conditions of an increase in the violence of the collision between the ventricular and aortic blood, and yet the first sound near the seat of this collision, its supposed cause, is enfeebled. Will Dr. Leared explain this?

3. There are two first sounds, usually heard together, but sometimes

* Dr. Hughlings Jackson: Debate following Dr. Dickinson's paper on the Pathology of Chorea (Royal Medical and Chirurgical Society, *Medical Times and Gazette*, 1875, p. 481).

† St. Bartholomew's Hospital Reports, 1869, p. 86.

‡ *Medical Times and Gazette*, 1875, p. 482.

§ *Op. cit.*, p. 609.

|| *Medico-Chirurgical Transactions*, vol. lix, 1876, p. 15.

distinct—one produced by the left, the other by the right ventricle. Well recognised differences in character between them are recognised. How does Dr. Leared explain these, if the sounds be the product of collision of the blood, and not of tension of the ventricular walls and valves?

4. The first sound undergoes remarkable modifications—(a) in dilatation of the ventricles; still more (b) in stenosis of the mitral orifice. It is not weaker, and is indeed often louder, than usual; but it is short and sharp, like the second sound. This is easily explained in the case of dilatation, if the ventricular walls and valves are supposed to be the origin of the sound. An explanation on the hypothesis of collision of moving ventricular and standing aortic blood is requested.

5. In dilatation of the ascending aorta, and in aneurism, the aortic second sound is not only louder than in the normal state, but greatly changed in tone. The increased and modified resonance is easily understood, and is, indeed, strikingly suggestive of the change in the walls of the vessel, if the sound result from the tension and vibration of the enlarged area of resonant membrane, but could scarcely be the effect of increase in the size of the column of blood.

NOTES OF A CASE OF CYSTINE CALCULUS DIAGNOSED BEFORE OPERATION.

By F. A. SOUTHAM, B.A.Oxon, M.R.C.S.,
Physician's Assistant, Manchester Royal Infirmary.

THE rare occurrence of cystine calculi, and the few recorded instances of any examination of urine containing these calculi, followed by operation for their removal, have induced me to publish the following notes of a case which came under the care of my father, the late Mr. George Southam.

T. M., a parish sexton, aged 57, married, consulted my father in May 1874, suffering from the usual symptoms of calculus vesicæ. On sounding the bladder, a stone was readily detected; and, on my father's recommendation, he entered the Manchester Royal Infirmary in the following month to undergo an operation for its removal, as he was anxious to obtain relief from the symptoms from which he was then suffering.

Previous History.—The patient was a robust healthy-looking man, and, though in his occupation as sexton he had been exposed to damp and all kinds of weather, he had enjoyed good health all his life, except that, on four different occasions (the first occurring when he was twenty years of age), he has been laid up for a few weeks at a time with attacks of inflammation of the kidneys. On the last occasion, about Christmas 1872, he was confined to bed for nearly six weeks. From this attack he completely recovered, and was quite well up to the following July, when he began to be troubled with a feeling of irritation about the bladder. He consulted a medical man, who examined his urine, but found nothing abnormal. He was told that he was suffering from "liver-complaint", and was treated for some derangement of that organ.

During the following winter, he suffered considerably from symptoms referable to the bladder, and, in the spring of 1874, these increased in severity, becoming so well marked, that he himself became convinced that a calculus was present. He, however, was able to follow his occupation as usual all through the winter, working up to the day of his admission into the hospital. He had never noticed the presence of gravel, or anything abnormal about his urine, except that, during the last few months, blood had been frequently present, especially after much exertion. During the last few winters, he had suffered slightly from bronchitis. He had had six children, three of whom are now alive and healthy, the eldest twenty-six, the youngest ten years of age. One daughter, since dead, when fourteen months old, suffered from an attack of inflammation of the bladder, and passed gravel in the urine for some time. He had one brother and several sisters here all alive and healthy. No other member of his family had ever suffered from calculus, or, as far as he was aware, from any affection of the urinary organs. He was accordingly admitted into the hospital as an in-patient, under my father, on June 15th; and, on examination a few days later, the calculus was again distinctly felt. On this occasion, a lithotrite was used. The diameter of the stone was made out to be a little over one inch. From the dull sound obtained on striking it, it was evident that it was of a soft nature externally; but no suspicion as to its real structure was entertained until a few days later, when, on examination of the urine, I found that it presented the following characteristics. It was of specific gravity 1020, of a pale amber colour, with peculiar aromatic odour; acid; it deposited a whitish sediment

after standing a short time. On heating and on addition of nitric acid, a small quantity of albumen was found to be present. Microscopical examination revealed the presence of numerous crystals mixed with pus-cells and a few red blood-cells; no casts. The crystals were in the form of colourless transparent hexagonal plates, varying in size and thickness; in some cases, forming perfect hexagons; in other cases, having their sides and angles unequal. Mixed with these were a very few prismatic crystals. The hexagonal form of these crystals was characterised by cystine; but, as uric acid is occasionally deposited in the shape of six-sided plates, the following chemical tests were employed to render the diagnosis certain. 1. On the addition of strong nitric or hydrochloric acid, the crystals all disappeared; 2. On the addition of acetic acid, no change took place, except that, after standing some time, the crystals appeared to be more numerous; 3. On the addition of a little nitric acid to some urine in a watch-glass, and allowing it to stand for twelve hours, the hexagonal crystals all disappeared, while numerous crystals of uric acid were present in the form of lozenges, and rhombic tablets of a brownish-yellow colour; 4. On the addition of liquor ammoniæ, the crystals all readily disappeared. Upon spontaneous evaporation of the ammoniacal solution, the cystine again appeared in its original form of six-sided plates. 5. On heating a little urine with liquor potassæ and lead oxide, a dark-coloured precipitate of lead sulphide was formed. This reaction was characteristic of cystine, as indicating the presence of sulphur; but it was here probably also in part due to the sulphur contained in the albumen, which was present in small quantity in the urine. 6. The transparency, absence of colour, and constant shape of the crystals, were also characteristic points as distinguishing from uric acid. 7. After standing forty-eight hours, the urine became quite neutral, with a strong disagreeable odour, and contained numerous crystals of triple phosphate and phosphate of lime. The cystine had almost all disappeared, a few perfect crystals, however, being still present, while others were seen to be gradually dissolving, becoming irregular in shape, with serrated margins. A few hours later, the crystals had all entirely disappeared, and addition of acetic acid was not followed by their reappearance. The examination of the urine, both chemical and microscopical, clearly indicated the presence of a cystine calculus; and, as the bladder was apparently healthy and capable of retaining a considerable quantity of urine, the stone of moderate dimensions, and, being cystine, consequently of soft consistence, the patient strong and of sound constitution, the case was considered one favourable for the performance of lithotripsy.

July 14th. Lithotripsy was performed, the patient having been put under the influence of chloroform. The stone was readily seized, and very little force was required to crush it, showing it to be of soft consistence. This having been repeated three times, the bladder was washed out with a Clover's bottle, several small pieces of calculus coming away at the same time and being caught in the glass receiver. These consisted of a soft yellow waxy-looking substance, having all the appearance of cystine. Microscopical examination showed the presence of the characteristic hexagonal crystals, and thus the diagnosis previously made as to the character of the calculus was at once confirmed. The operation was followed by slight irritability of the bladder, micturition being rendered more frequent and attended with some pain. The urine contained a quantity of detritus, pus, and mucus, but very little blood, and, on the following day, it had become alkaline, with an ammoniacal odour.

July 17th. The patient was a little feverish and perspiring a good deal; suffering from bronchitis, with a feeling of oppression about the chest; cough troublesome and accompanied with a considerable quantity of thick tenacious expectoration. Micturition was still painful, and he complained of pain over the region of the bladder, which was washed out daily.

July 21st. He was better as regarded the bronchitis and cough, expectoration being diminished. There was less irritability about the bladder.

July 24th. Lithotripsy was performed again to-day for the second time. Four pieces of calculus were successively seized and crushed.

July 26th. The second crushing had been followed by considerable relief, the irritation and pain about the bladder being much diminished. It was noticed that his breath had a sweetish odour, like that often present in diabetes; and, on examination of the urine, it was found to contain a slight trace of sugar; the specific gravity was 1012. It was strongly alkaline, with ammoniacal odour; it contained a small quantity of albumen, numerous crystals of triple phosphate, pus-cells, and a few blood-corpuscles. No cystine or casts were present.

July 29th. The bladder was washed out again to-day, a considerable quantity of detritus coming away. He felt much easier since the

second operation. The cough was very troublesome again, with considerable expectoration. The urine presented the same condition as before, and the addition of acetic acid did not show the presence of cystine. The saliva, sputa, and sweat were examined for cystine, in each case by adding acetic acid, but no evidence of its presence could be found.

August 1st. From this date, the bronchitic symptoms gradually increased in severity, becoming of a more acute character and attended with a sense of great weakness. Along with these symptoms, there was no increased irritability or pain about the bladder. Signs of adynamia and deficient aëration of the blood set in, followed by coma, and the patient gradually sinking, died on August 8th.

Post Mortem Examination.—Both lungs were much congested; the bronchi were dilated and filled with mucus. On the left side, there were some old pleuritic adhesions. The aortic valves allowed regurgitation, and had calcareous plates at their bases; the other valves were healthy. The kidneys were surrounded by a large quantity of fat, which was abnormally adherent to their capsules; both contained numerous abscesses, the lining membrane of the pelvis being, too, inflamed and suppurating. The capsules were thickened and adherent. The ureters were thickened and dilated. The bladder was thickened and fasciculated.

Nature of Calculus.—The fragments passed with the urine during life consisted of yellow waxy-looking particles, varying in size (the largest being about the size of a pea), readily breaking down and crumbling on slight pressure. The weight was seventy-seven grains. The fragments removed from the bladder after death were six in number; the largest portion was a little over one inch in length and about three-fourths of an inch in thickness; the other particles varying in size. Their external surface was rounded, but rough and somewhat tuberculated, of a dull yellow colour, and glistening in places as though studded with minute crystals. The fractured surface of the fragments showed a radiated structure, somewhat transparent, crystalline, and glistening. There was no trace of any nucleus or development of concentric layers, the structure being perfectly homogeneous throughout. On scraping with a knife, it readily crumbled, forming a white powder.

Though two years have elapsed since the removal of the calculus, none of the particles show the pale green colour which is commonly described as appearing after a time. If a small portion be treated with liquor ammoniac, it readily dissolves, and, on evaporation, the characteristic six-sided crystals are deposited. The weight of the fragments was one hundred and eighteen grains. The total weight of the calculus was, therefore, one hundred and ninety-five grains, and it appears to have been egg-shaped and in size about one inch by one inch and a quarter.

REMARKS.—It is strange that, with such extensive organic disease of the kidneys, evidently of long standing, so little evidence was present during life; for the amount of irritability about the bladder and the quantity of pus and albumen present in the urine were no greater than the presence of the stone would explain. The condition of the bladder and kidneys, as revealed after death, were certainly not favourable for the performance of lithotomy, as the introduction of instruments and the presence of the fragments of calculi would be calculated to increase the mischief in these organs. The slight amount of irritation excited by the operation may, perhaps, be accounted for by the soft and light character of the calculus and the absence of any sharp angles or spicula in the broken fragments. The condition of the kidneys that existed has probably no special relation to the presence of cystine in the system, although it is notable that, in a case of Mr. Luke of the London Hospital, extensive disorganisation of the kidneys was found associated with a cystine calculus.

Of the pathological conditions of the system which give rise to the formation of cystine, very little is known; Dr. Golding Bird believes that there is strong evidence of its connection with the scrofulous diathesis; but, in the present case, there was not the slightest evidence of such a condition either in the deceased himself or in any member of his family. The close resemblance in chemical composition between cystine and taurine, both substances containing about 26 per cent. of sulphur, suggest that the liver is the seat of its formation; and Scherer has, in fact, demonstrated its presence in this organ; while taurine has also been detected in the urine. It is, perhaps, worthy of notice that, in this case, before there was any evidence of the existence of a calculus, deceased was treated by the medical man whom he consulted for some hepatic derangement. In the majority of cases where cystine has been found in the urine, the general health and nutrition of the patient have been bad; but, up to the last, deceased was robust and well nourished, following the duties of his laborious occupation with more than ordinary energy up to his admission into the hospital. One of the most interesting circumstances in the history of cystine is its

hereditary character and its tendency to be present in several members of the same family. Out of twenty-two cases collected by Poland, ten occurred in four families. Mr. T. Priddin Teale has described its presence in three members of the same family, and Dr. G. Bird has recorded a case where it was found in three successive generations. I have lately examined the urine of the three surviving children and also of a brother of deceased, in each case adding acetic acid and allowing the urine to stand for twenty-four hours, but in no instance have I been able to detect any evidence of the presence of cystine. In one instance (viz., in the brother of deceased), the urine was of low specific gravity, neutral, pale amber colour, peculiar odour, depositing a whitish sediment of mucus and triple phosphates, and readily decomposing. Microscopical examination did not, however, show the presence of any hexagonal crystals, and in no case was the addition of acetic acid followed by their precipitation, its action being simply to cause a copious deposit of crystals of uric acid.

A COLD AND ITS CURE.

By W. J. HARAM WOOD, L.R.C.P. Ed.

It was with great pleasure that I read an article in the JOURNAL of December 9th headed "A Cold and its Cure," by Dr. Jukes Styrax, as I have a personal and peculiar interest in this subject, having been considerably plagued, and that frequently with coryza. The antimony and morphia treatment was not unknown to me; it is clearly laid down in Sir T. Watson's *Lectures*, and is undoubtedly very good—perhaps the best that can be followed when dealing with private patients, who can be nursed in the house if necessary. I have several times tried it myself—certainly with some relief; but I cannot say that I have found it to shorten or cure the attack, though I am far from denying that it may do so in many individuals. It is, however, a method peculiarly unfitted for medical men and others who cannot remain indoors for a few days, and perhaps would not if they could, and its chief weakness is shown in Dr. Styrax's words, "Confinement to the house for a day or two should be insisted on whenever practicable". Exposed as we are to night-work and sudden changes of temperature, it will not do to be sipping morphia and antimony. What we really require is a method of cure sure and speedy, during which our usual daily work and exposure can be gone through without incurring fresh danger; and such a desideratum has certainly been described by Dr. C. J. B. Williams. It may be widely known, but I fear it is not so extensively appreciated, and practised as it deserves. It has been called the *dry plan*, and consists simply in abstinence from drink of any kind until a cure is effected. The theory upon which it is based cannot be better expressed than in the words of Sir T. Watson. "The principle here concerned is that of cutting off the supply of watery materials to the blood. The wants of the system exhaust from the circulating fluid all that can be spared for the sustentation of the tissues, or for the natural evacuations, and there is nothing left to feed the unnatural secretion from the inflamed mucous membrane. Its capillary vessels cease to be congested; the morbid flux is diverted, and the inflammation starved away."

For several years I have made personal trial of this method, and have the highest opinion of its efficacy. The only drawback is the great thirst, which is at times distressing; but this is felt more, I believe, during the first twenty-four hours than subsequently, when one seems to become accustomed to it; and really it is as nothing, compared with the advantages of a diminishing defluxion, a freedom to follow one's occupation, and a certainty (I believe) of cure. But the chief advantage of the *dry method* has yet to be stated, and that is, it almost never leaves even a trace of bronchial irritation or cough of any kind; and I think this result is rarely attained by any other plan, especially where there is a tendency to anything of the sort.

Good as the method is, I think it may be made more complete and satisfactory by observing the following simple directions.

1. Begin with a sharp aperient in the solid form of pills, swallowing them with as little water as possible.

2. The food should be rather less in quantity and more digestible than usual, and at first should be dry; later on, the moister forms of food are more easily swallowed and digested.

3. As much exercise as possible should be taken in warm clothing, to promote the action of skin and bowels.

The thirst often keeps one awake at night, but this may be prevented by taking a small opiate or fifteen minims of chlorodyne, if necessary; and it is probable that the cold is also benefited by such a dose, but with this difference, that, when the dry treatment has been carried so far as to produce great thirst, it is almost certain that opium will not

produce diaphoresis, and therefore does not render exposure more dangerous.

How long must the abstinence from drink be continued? No fixed number of hours will apply to every case. "Until a cure is effected" is a good indication whereby to be guided. Imagine a sharp diarrhoea setting in, and probably the time required would be much shorter; and that is my reason for holding an apartment to the treatment.

As a rule, I think it will be found that twenty-four hours give immense relief; thirty-six or forty-eight hours effect a cure; and sixty hours make it sure and certain. But, during the latter part of the time, I do not think the treatment is at all interfered with by a few teaspoonfuls of water taken with food; and in all cases the return to drink must be very gradual, commencing with small quantities of fluid, which, I need scarcely say, must be simple and non-stimulating.

I cannot but express a fear that my *dry* subject has taken up too much of the space of the JOURNAL, but I hope other practitioners will have something to say upon "A Cold and its Cure".

SURGICAL MEMORANDA.

AURAL THERAPEUTICS.

IN the report of the aural *clinique* at Guy's Hospital, which appeared in the JOURNAL for December 9th, among others, two points are dwelt upon; viz., the use of rectified spirits of wine in cases of perforation of the membrana tympani with a thickened mucous membrane in the middle ear, and the employment of Siegle's pneumatic speculum for the reposition of adherent and retracted membranes. That lotions, etc., containing rectified spirits in varying percentage are in use at Guy's is sufficient evidence of their utility in appropriate cases; but that alcohol should always be employed with caution seems to be indicated by the following case, which I briefly relate. After the removal of a polypus from the right ear of a boy aged nine years, a small granulating surface continued to sprout. The mother of the patient was, therefore, recommended by an aural surgeon to drop a little undiluted rectified spirits of wine into the affected ear at regular intervals. This she continued to do for five weeks, during which time the patient was seen by the surgeon on two occasions, when the condition of the ear was reported to be steadily improving. On the evening of a day on which the spirit (always undiluted) had been dropped into the ear, the boy complained of rather more pain than usually followed that operation. The pain greatly increased, a purulent discharge escaped from the ear, the mastoid process became painful on pressure and then boggy; rigors, convulsive twitching of the right side of the face; and occasionally general convulsions, were followed in a short time by stupor and death. There seemed to be no doubt in the mind of the medical attendant of the patient as to the origin and its results being directly due to the undiluted spirits of wine.

With reference to the employment of Siegle's speculum, I merely wish to remark that I have for some time used a modification of that instrument (see woodcut) for the purpose aforesaid. This is



simply a miniature Brunton's speculum with an exhausting tube having an ivory mouth-piece attached. Near the point where the elastic tubing joins the speculum, there is a small valve which closes on respiration, thus preventing the breath from dimming the reflector. The advantage of this modification is, that, on account of the reflecting mirror in the speculum, and because of the observer looking directly on to the membrane through a lens placed parallel with the surface of the eye, the membrane can be more easily inspected than by direct light and through the obliquely placed eye-piece of Siegle's original speculum. The instrument was constructed by Arnold and Sons of West Smithfield.

ALEXANDER MORISON, M.B., Canonbury, N.

CASE OF COMPLETE DISLOCATION OF HEAD OF TIBIA FORWARDS.

THE following case is of interest, on account of its rarity, and also as showing the complete recovery, without a single bad symptom, from a severe injury of the knee-joint. Mrs. G., aged about 40, a stout healthy-looking woman, sent for me on the morning of September 7th, 1875. She stated that, the evening before, her right leg slipped through a hole in the floor of her sitting-room, and that, in stretching forward to grasp a table for support, she fell and violently wrenched the right knee. On examination, the limb was found to be considerably shortened. The knee-joint was increased in its antero-posterior measurement; the lower end of the femur projecting into the ham and the articular surface of the head of the tibia was distinctly felt beneath the patella. The head of the tibia formed a prominent anterior tumour, with a depression above it; and the condyles of the femur, with their intervening sulcus, were evident posteriorly. The integument on the outer and back part of the joint was of a dusky red colour, from the pressure of the external condyle of the femur, which projected sharply beneath the skin. The anterior surface of the patella was directed upwards, and the joint could be moved in any direction. Pulsation in the blood-vessels below the knee was arrested, but returned on the reduction of the dislocation. Forcible extension of the joint, followed by semiflexion, quickly reduced the deformity, the bones slipping into their places with a loud snap. A straight back splint was applied to the limb, and evaporating lotions used regularly. A month after the accident, the patient was able to walk about on crutches, and she has long since recovered the perfect use of the limb.

OTHO GARGY, L.R.C.S.I., etc., St. Vincent, W.I.

THERAPEUTIC MEMORANDA.

TREATMENT OF PSORIASIS BY AN OINTMENT OF CHRYSPHANIC ACID.

GOA POWDER was recently advocated by Sir J. Fayrer (*Medical Times and Gazette*, October 24th, 1874) as an Indian remedy for ringworm, which deserve an investigation of its therapeutical properties in England. So far as I know, such limited use as has since then been made of it here has been exclusively as a remedy for ringworm. A short time ago, a patient from Hong Kong affected with ringed psoriasis (lepra vulgaris), which he took for ringworm, told me that he had often cured different patches of it whilst in China by the use of Goa-powder. This led me to try it in other cases of psoriasis. Professor Atfield, of the Pharmaceutical Society, has, since Dr. Fayrer's paper, analysed Goa-powder, and finds it to consist chiefly (namely, to the extent of 85 per cent.) of chrysophanic acid, although he would not be sure that chrysophanic acid was the most important ingredient therapeutically (*Pharmaceutical Journal*, March 13th, 1875). I thought I would try whether it would prove itself so; and accordingly have employed it in the form of ointment of the strength of two drachms of the acid to an ounce of lard. The views I hold as to the proper mode of preparing this ointment have been described by me in another place (*Pharmaceutical Journal*, December 16th, 1876). A couple of examples will suffice to show the capabilities of this preparation.

A clergyman, aged 53, had for a long series of years had to appear in the pulpit exhibiting over the greater part of his countenance a grotesque white mass of scaly incrustation accentuated by a ruddy complexion. He presented patches of psoriasis on other parts of his body also; namely, a good many on his scalp and his legs, as well as a few small patches on his body, his arms and forearms, and his thighs. As I was a little shy of my new remedy, not as yet knowing much about it, I limited my operation to his face, the region about which he was chiefly solicitous. I gave him no arsenic or other medicine of any kind. I used only chrysophanic acid ointment, and that only to his face. He has now, within the space of twenty days, and after exactly six applications of ointment of chrysophanic acid, become, so far as he or I can perceive, perfectly cured of his disease so far as his face is concerned. He tells me that he has never before experienced so speedy and satisfactory a result from treatment of any kind, and I believe him to be a fair judge. His psoriasis has affected his face, in a greater or less degree, ever since he was twenty-three years of age. He has had at various times several courses of arsenic, always with temporary, almost complete, success, but never so as to get as clear of the eruption on his face as he is now. He has had a good course of Harrogate. He has tried Aix-la-Chapelle and various other sulphurous watering-places, but he has never before succeeded in clearing his complexion. Emboldened by his success, he has for the last week under-

taken the treatment of his other patches by the same means, and they, too, are rapidly disappearing.

Chrysophanic acid makes an ointment of a light golden yellow colour, which is without smell, and so is a more acceptable preparation than the sticky dark-coloured and strongly smelling tar-ointment; while, at the same time, according to my experience, it is infinitely more efficacious as a remedy in psoriasis.

A woman, aged 30, from Suffolk, was admitted as an in-patient of the British Hospital for Diseases of the Skin under my charge at the beginning of this month. She had been affected with psoriasis from the age of 18, since when it had never completely left her. On her admission, she was pretty generally sprinkled over with patches of psoriasis of various sizes, excepting on the body above the waist and on the face. She had had treatment of various kinds ever since she was first affected. On her admission, she was directed to rub into all of the patches, every morning and every evening, a strong ointment of Goa-powder. Now, this, from the identity of its effect on the skin, is, I feel assured, therapeutically nothing more than an impure chrysophanic acid ointment. After a week's use of the remedy in this way, without other treatment of any kind, she has got completely rid of almost every one of her patches, and the few that remain have become very much faded and are obviously disappearing. But the remedy in this case was pushed rather hard. The strength of the ointment, instead of being (as used in the tropics) a scruple of powder to the ounce of lard, was here nine times that strength; namely, three drachms of the powder to the ounce of lard. No discomfort, however, was occasioned until after exactly seven days' use of it, twice in the day, when a burning sensation of the skin began to arise, which has caused me to suspend the use of the remedy for a few days. This patient also has never experienced so speedy an improvement from any of the various other means that she has from time to time employed. She has now discontinued treatment of any kind for five days, and resembles very closely the appearance of a person extensively affected with leucoderma. All of the patches of psoriasis that recently existed are now quite white and smooth, *i.e.*, have reverted completely to the natural condition of the skin, while the surrounding skin is stained of a dark colour, which (as in leucoderma) is darkest immediately around the margin of the white patches. This piebald appearance, as I have found from observation of other cases, will wear off and disappear completely in a few days, leaving the patient perfectly cured. BALMANNO SQUIRE, M.B.,

Surgeon to the British Hospital for Diseases of the Skin.

CLINICAL MEMORANDA.

ACTION OF SALICYLIC ACID ON BONE.

IN the JOURNAL for December 9th, Mr. G. H. Lilley asks "whether either salicin or salicylic acid can produce necrosis of the shaft of long bones, or cause destruction of a joint by a long continuance of its use"; necrosis of the left tibia and disease of the right ankle-joint having set in in a case of acute rheumatism treated by him with the above drug. As bearing upon this important question, I may refer Mr. Lilley to the *Berliner Klin. Wochenschrift*, July 3rd, 1876, in which he will find reported the results of Professor Koster's experiments on the action of salicylic acid on the osseous system. According to an extract in the *New York Medical Record*, October 14th, from which my information is derived, pieces of spongy bone become soft as leather in a few days when placed in a half per cent. solution of salicylic acid, while compact bone-tissue is very slowly softened. The enamel of the teeth is very slightly affected by it, but the dentine where it is exposed by caries is rapidly destroyed. Dentists have already recognised the evil effects of salicylic acid on the teeth. The increased amount of the salts of lime in the urine soon after salicylic acid has been taken shows that the acid deprives living as well as dead bone of its lime-salts. According to Professor Binz, the acid is entirely harmless when given for a short time in the proper (?) way. The neutral salt of soda produces the same effects as the acid. GEORGE F. DUFFEY, M.D.,

Physician to Mercer's Hospital, Dublin.

REMARKS ON A CASE OF INTRACRANIAL ABSCESS, WITH OTORRHOEA, CAUSING ATROPHY OF OPTIC NERVE: RELIEVED BY TREPHINING.

IN the JOURNAL of December 2nd, the report appears of a most interesting and pathologically instructive case, the history of which was read before the Aberdeen Branch. I must apologise for criticising a case so ably related, on the grounds that it suggests to me more than

is implied by the existence of the intracranial abscess. The man, whilst in India, became suddenly sick, giddy, and unconscious, these symptoms being apparently attributed to sun-stroke; but he had previously suffered from "deafness on the right side, with slight discharge". Subsequently, an abscess pointed on the posterior angle of the right parietal bone, which was opened; and, during four years, he experienced attacks of insensibility and diminished motor, mental, and visual powers. On admission into the Royal Infirmary, both pupils were dilated, the right being wholly insensible to light; both discs were very pale and slightly diminished in size; their margins were distinct; the retinal arteries small, and the veins tortuous and swollen. He could only move his eyelids slowly. Sight was much worse in the right eye than in the left, and he could scarcely count the fingers. The left membrana tympani was perfect; the right had a large perforation, from which granulations protruded. The scalp over the right parietal bone was swollen, bare bone was discovered, and, on pressure, pus escaped from the ear, and a probe introduced through the former opening passed into the skull. Paroxysms of pain and vomiting occurred, which were temporarily relieved by free incisions into the scalp, and subsequently the bone was trephined, when much pus escaped, and a large cavity was discovered between the bone and dura mater. After this, the man's sight and condition improved in every way; but, after some months, the right disc still remained white and contracted, the retinal arteries small, and the veins large and tortuous.

The remarks appended to this case appear to me to admit of some criticism.

d. "The only complaint on admission was weak sight; but, on close questioning, otorrhoea on the right side was disclosed, at first supposed to be unconnected with the condition of vision, but afterwards discovered to arise from the same cause—as the loss of sight."

Now, if the report be here correct, it seems most extraordinary to attribute the otorrhoea to the intracranial abscess, as the history of this case and pathology generally would point out the chronic tympanic ulceration as the primary cause of the abscess.

b. "The brain-symptoms were slight compared with what might have been expected from the large quantity of pus in the cavity." The fact is overlooked that this abscess had gradually been establishing itself during a period of four years, and that the cerebrum had accustomed itself to the slowly increasing pressure, and a most important factor of relief was obtained in the existence of exits for the pus through the perforated drum-head, the necrosed parietal bone, and probably also through diseased mastoid cells.

c. "The success of the trephining was greater than could have been expected, the patient being able to work, the sight having improved in both eyes, and there being no pain in the head." I most heartily congratulate the operator on the success attending his surgical skill, as it may prove a most valuable guide in future cases; but I think a favourable result might have been anticipated with considerable confidence, as the whole of the symptoms pointed to mechanical causes, and not to any actual cerebral lesion. There existed slowly progressing inflammation of the dura mater, with probably conservative effusion of plastic matter effectually protecting the brain-substance from destruction; the symptoms indicated pressure on the contents of the cavernous groove, possibly involving the optic commissure. The orbital nerves, the sympathetic, and the cavernous sinus were certainly implicated; the ophthalmic artery may have been only affected secondarily; and these causes would fully account for the impaired nutrition of the retina.

In the discussion which followed on this case, allusion was only made to injuries of the brain, though probably here no direct brain-injury existed, and the primary cause of the abscess does not appear to have attracted attention. If, at the outset of this case, it had been recognised that the man was suffering from meningitis extending from a diseased tympanum, he would probably never have drifted into such a critical condition. In all cases of pain and giddiness, or stupor, arising in connection with otorrhoea, it is certain that the membranes or the mastoid cells are becoming affected; and active, and not expectant, treatment should be adopted. The tympanum should be inflated by the Eustachian tubes to remove any obstruction to the exit of pus, and, if the slightest tenderness or puffiness exist over the mastoid process, an incision should be made down to the bone; this incision I consider imperative, and it is almost universally followed by beneficial results, if done sufficiently early. It is by no means necessary that pus over the mastoid should exist, though there may be a most deceptive feeling of fluctuation; a slight flow of serum probably follows the incision, which, though deep, need not be extensive, provided it divides the periosteum; the relief is almost immediate, and the patient will probably have a good night's rest, though he may have been in sleepless agonies for some days past.

The incision, if made with a fine tenotomy-knife, is followed by but slight bleeding, and causes far less pain than that produced by the injurious and empirical practice of blistering. Granulations, polypi, or even exostoses, are generally present in these cases of extension of tympanic inflammation due to interference with the free exit of pus; and their removal should only be very carefully and gently attempted during the presence of the acute symptoms, as any rough handling causes excruciating pain, and may easily induce fatal results, whilst a temporary passage past them may be generally obtained by inflation.

LEWELYN THOMAS, M.D., Surgeon to the Central Throat and Ear Hospital and the Royal Academy of Music.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

KING'S COLLEGE HOSPITAL.

Treatment of Disease by Milk.—Dr. George Johnson continues to make frequent use of this plan of treatment. We had an opportunity of seeing two cases of acute albuminuria, one of them being scarlatinal, and both doing very well, with an allowance of about six pints of milk daily. In the latter case, albumen became again present in the urine, when fish, and again, when mutton was allowed; and under such circumstances, solid diet was again omitted. (We have found the same treatment highly thought of in the wards of Dr. H. Weber, Dr. Duffin, and others.) A drawback to the milk-diet is the constipation induced; but this, again, becomes very useful in the management of dysentery. We noticed one case of nearly three years' duration, apparently almost cured by a month of milk-treatment and bed, without any medicine. It should be observed, however, that as the diet is absolutely without solid, some patients tire of it, so that they refuse to remain in hospital under it.*

Pneumonia: Venesection.—A man, on the fifth day of a pneumonia, having the left lung completely blocked, and some engorgement of the right heart, was suffering from urgent dyspnoea; and, becoming cyanotic—temperature 103 degs., pulse 126, respirations 64—he was ordered to be bled at once, and half a pint having been withdrawn from the arm, breathing was relieved. The secretion of urine was scanty and full of urates, but this did not prevent his allowance of brandy from being increased from six to nine ounces *per diem*. Dr. Johnson observed, that tactile vibration over solid lung might be either increased, abolished, or unaltered, and this without our being able to give a satisfactory explanation. The pulse, etc., never rose to the same height again. A crisis occurred favourably on the eighth day, and the patient did well. The amount of brandy was reduced to six ounces; the medicine continued the same throughout (ammonia with ether).

Pericarditis: Leeching.—In an acute case with the ordinary physical signs, six leeches had been applied the day before our visit, and Dr. Johnson said that he had great faith in this plan of treatment. The signs were said to be certainly less marked at this visit, and the patient better.

Reduplication of Heart-Sounds.—In a case of albuminuria, with hypertrophy of the left side of the heart, the first sound was markedly doubled. Dr. Johnson had every reason to believe correct the explanation given in detail by him, in a lecture published in May last; namely, that the first division of the double sound is the result of the systole of a dilated or hypertrophied auricle, for the contraction of such an auricle becomes sonorous; the double sound is heard best in the third left interspace, over the junction with the ventricle. The cardiac change consequent on old emphysema, and still more on Bright's disease and emphysema co-existent, caused a similar result; in the latter case, the double sound was heard over a much wider area. Dr. Johnson had verified its presence, also, in cases of simple dilatation of the cardiac cavities.

Albuminuria: Etiology.—In the case of a man with aortic disease, single pneumonia, and a large quantity of albumen in the urine, Dr.

Duffin remarked that it was necessary to distinguish between albuminuria arising from obstruction to the circulation within the chest, and that from organic renal disease. In the former condition, the urine is scanty, and contains a quantity of lithates, perhaps free blood, and the specific gravity is high, and the amount of albumen directly proportionate to it and to the amount of lithates; in the latter condition, lithates do not appear, and the specific gravity remains relatively low, even in the presence of a large quantity of albumen. In the present case, the specific gravity is 1020, there are no lithates, and the amount of urine is fair. It is true that no casts have been found, but that does not forbid the diagnosis of contracted kidney.

Cirrhosis of Liver v. Cancer.—The question of diagnosis between these two maladies was raised in the case of a man, aged 67, having jaundice of four weeks' duration, pain, emaciation, anorexia, and hiccup; nodules could be felt in the liver, and the diagnosis of cancer was further confirmed by the absence of dropsy. With regard to cirrhosis, Dr. Duffin remembered a case where Dr. Brinton had been led to diagnose it by the presence of a circumscribed belt of oedema over the hepatic region. Bamberger had noticed this condition, and had explained it by the circumstance that in some persons the communication between the portal and umbilical veins was not quite obliterated, and became in cirrhosis reopened, leading to distension of veins in the thoracic wall, and consequent oedema; this would not be likely to occur in cancer unless very extensive indeed. Primary cancer is rare in the liver, and when it occurs, invades the whole substance of the organ (Oppolzer). When there are only scattered nodules, the disease is invariably secondary, though it may have origin in the structures within the fossa.

Epilepsy from Lead-Poisoning.—Dr. Duffin had seen several instances of this; the attacks occurred at long intervals, and were to be distinguished from albuminuric eclampsia.

Dilatation of Stomach: Idiopathic.—In a female patient the stomach extended to the level of the umbilicus, and the longest bougie passed by the mouth did not reach the lower curvature, yet there was no evidence of previous ulceration or obstruction of any kind. For about two years there had been occasional vomiting, and, for the last six weeks this had been of sarnious character, and occurring every two or three days to the amount of several pints at a time. Cases of simple dilatation, independent of stricture, in Irish patients, living mostly on potatoes, had been published by Dr. Todd; similar cases had been recorded in natives of India taking mainly rice for food, and a minor degree of the same condition was not infrequent in diabetics. The treatment consisted of the use of the syphon stomach-pump, to wash out the cavity with dilute sulphurous acid (half a drachm to one ounce), and to inject nutrient fluids, with pepsine and mineral acids. The result was very satisfactory.

Anosmia, etc.: Pathology.—With Dr. Ferrier we saw one of the cases alluded to in his recent work *On the Functions of the Brain*, p. 190. A man, aged 54, was thrown from a horse four years ago and pitched on the upper and back part of his head; he lost consciousness for a time, and, a few days afterwards, found that he had lost both smell and taste. About eighteen months ago, his taste returned when under the influence of iodide of potassium; and, later, some sense of smell returned. He considered himself well, but relapsed about three months ago; he states that he is again improving under bromide of potassium. Dr. Ferrier remarked, that the nerve-centres for smell and taste were contiguous to each other at the tip of the temporo-sphenoidal lobe, the end of the olfactory tract (subiculum cornu ammonis). It was difficult to test the sense of smell in animals, but acetic acid was, perhaps, the best substance for the purpose, and torsion of the lip and partial closure of the nostril evidenced their perception. As the result of blows or falls on the head, it was highly improbable that the olfactory, gustatory, and glosso-pharyngeal nerves should all be injured at once; and Dr. W. Ogle had, no doubt, correctly suggested that the loss of the special senses was produced by *contre-coup*; but this, he supposed, ruptured the olfactory nerve in its course through the ethmoid bone, and the loss of taste followed of necessity the loss of smell. Dr. Ferrier, however, whilst agreeing that the injury was produced by *contre-coup*, argued that it was through derangement of, or hæmorrhage in, the centres already mentioned; for this would allow partial recovery, as in the present instance, whilst rupture of an olfactory nerve would lead to permanent loss of smell. Moreover, the patient recovered the two senses in question at different times, and could distinguish sweet from bitter—tastes which are quite independent of smell. The confirmation of the localisation of these centres was furnished by cases of unilateral anosmia, with aphasia and right hemiplegia, recorded by Ogle, H. Jackson (*London Hospital Reports*, vol. i), and others. An unilateral lesion did not abolish the senses on both sides. When smell was lost, the reflex effect of lacrymation might

* Since this note was written, Dr. Johnson has published a lecture on the subject (*Lancet*, December 16th).

still be produced by a strong stimulant to the nostril. This was through branches of the fifth nerve; and the integrity of that nerve was essential to the sensibility of the nostril and to the due functional activity of the olfactory nerve-region proper.

NEWCASTLE-UPON-TYNE INFIRMARY.

CARCINOMA HEPATIS.

(Under the care of Dr. PHILIPSON.)

JAMES S., a labourer in a chemical manufactory, married, aged 39, was admitted May 11th, 1876. He stated that he had been unable to follow his employment for one month; that he had not felt well for three months; and that he had been under treatment at the Gateshead-upon-Tyne Dispensary for two months. He complained of a sharp burning pain in the right hypochondrium, which was increased by pressure, percussion, or any movement. He was intensely jaundiced; the skin, conjunctivæ, and mucous membrane of the mouth and palate being of a deep saffron-yellow hue. The skin was dry, and the temperature in the axillæ was 101 deg. Fahr. The pulse was 120. The urine was of a dark porter-colour; of specific gravity 1023, strongly acid; and, upon being tested with nitric acid, it exhibited the play of colours, from brown to green, blue, violet, and red. Upon the addition of strong sulphuric acid and sugar, a distinct purpling at the junction of the acid and urine was observed. The motions were clay-coloured.

Upon careful palpation and percussion, the size of the liver was mapped out, three inches in the middle lobe, and five inches and a quarter in the right nipple line. The lower edge did not extend beyond the boundary of the chest.

Upon careful interrogation, it was elicited that the pain in the right hypochondrium was continuous, and had never been paroxysmal; further, that he had not previously suffered from jaundice, and that he had always been careful and regular in his mode of life. It was also gathered that he had been losing flesh. His parents had both lived to old age, and he was not aware of any member of his family having died of cancer.

It was conjectured that the case was one of jaundice from reabsorption of bile, and not one from suppressed secretion. This supposition was arrived at from the reaction of the urine with the sulphuric acid and sugar; the presence of biliary acids in the urine being thereby established. It was further surmised that the cause of the obstruction was seated in the bile-ducts, and was dependent upon inspissation of bile; the probability of the existence of gall-stones having been excluded by the consideration that the pain was continuous and of a burning character, but never agonising and paroxysmal. The statement of the patient, that he had been losing flesh, pointed to carcinomatous disease; and the possibility of such being present was duly considered, but the existence was not entertained at this time because of the age of the patient, the length of time he had been ill, and of the intensity of the jaundice. For carcinomatous disease of the liver is very rare under forty years of age, and is not generally associated with intense jaundice.

Upon the supposition that the jaundice was dependent upon inspissated bile obstructing the ducts, purgatives were administered, namely, the calomel and colocynth pill, and the mixture of carbonate and sulphate of magnesia. He was also ordered to have a hot water bath of the temperature of 100 deg. Fahr., and warm fomentations to be applied to the right side.

May 14th. The condition was unchanged, although the bowels had been freely acted upon. He was much distressed by the intolerable itching of the skin.

May 21st. He complained greatly of tenderness; and, as no mitigation of the condition had occurred, he was ordered to have a fly-blister applied to the region of the liver.

June 3rd. The jaundice was intense, the skin and conjunctivæ being of a green hue. The motions were white, clay-coloured; and the urine was intensely dark. As he complained greatly of the pain in the right side, right shoulder, and right hip, morphia was ordered to be injected hypodermically, iodide of potassium to be taken internally, and tincture of iodine to be painted freely over the right hypochondrium. Such treatment was employed, still upon the supposition that the jaundice was dependent upon obstruction of the ducts from inspissated bile.

July 8th. It was noted, for the first time, that his feet and ankles were oedematous. It was apparent also that he was rapidly losing flesh and becoming weaker. Petechiæ were observed in the lower extremities; and blood was noticed in the alvine evacuations, which were still

clay-coloured. Upon careful palpation and percussion of the abdomen, it was found that the liver had increased, in the middle line one inch, and in the right nipple line one inch and a half. The lower border of the organ was now distinctly felt beyond the ribs, and was noted to be hard, uneven, and indented, the depressions being umbilicated. It was now that the diagnosis was reconsidered, and the supposition that the jaundice was non-organic abandoned; and the belief was entertained that the physical signs indicated the presence of carcinomatous disease. This was founded on the presence of the following symptoms and signs; the continuous character of the pain, the great increase in size of the liver, the unevenness of its surface, the hardness of its edge, and the rapidity and extent of the loss of flesh.

He gradually became weaker, and died exhausted July 18th, 1876.

NECROPSY, sixteen hours after death.—The tissues and fluids of the body were deeply tinged with bile. The pericardium and the heart were unaltered. The liver weighed seven and a half pounds, nearly double the weight of the healthy organ. The upper surface was firmly adherent to the parietal peritoneum at the epigastrium, and its lower margin to the transverse colon. In form it was, on the whole, not much altered. The surface generally was of a dark green colour, and was studded with yellowish white nodules, varying in size from a cherry to a walnut. These nodules were depressed in the centre. On section, the hepatic parenchyma was deeply jaundiced, of a greenish black hue, and studded throughout with yellowish white nodules, which were largest in the central parts of the organ. Many of the nodules were clearly defined and sharp in outline, while others were irregularly indented at the periphery. The tissue surrounding the nodules was highly vascular. Upon microscopic examination of the nodules, the characters of cancer were typically displayed; cells of large size and multiform in shape, caudate, unipolar, multipolar, stellate, and asymmetrical. The glands in the transverse fissure of the liver and in the mesentery were infiltrated with cancerous matter to a moderate extent. The ductus communis choledochus was obliterated. The bile-ducts were much dilated. The cystic duct was occluded. The gall-bladder was distended, and its posterior wall presented a deposit of cancer. The duodenum was firmly connected to the gall-bladder and to the lower surface of the liver, more particularly the transverse fissure. The spleen was large, the capsule was thickened, and the parenchyma was deeply stained with bile. The stomach presented numerous ecchymoses, the small intestine was much contracted, and the mucous membrane of the cæcum was tumid. The pancreas and the postperitoneal glands were infiltrated with cancer. The kidneys were of normal size; but, on section, were of a deep yellow colour.

REMARKS.—The chief points of interest in this well characterised case may be referred to certain exceptional points in the etiology, an ambiguity in the diagnosis, and a peculiarity in the symptoms. First, respecting the age of the patient, thirty-nine. Hepatic carcinoma is very rare before forty. It is most common between the ages of fifty and seventy. Two-thirds of the total number of deaths occur within the latter periods.

Concerning the diagnosis, and especially taking into account the age, the duration of the illness, and the symptoms, principally to jaundice, nothing more definite could be conjectured, than the statement that reabsorption of bile from obstruction to its flow in the bile-ducts was the explanation of the jaundice, as long as the liver was beneath the ribs. When, however, it was clearly ascertained that the liver had undergone enlargement, and that its surface was uneven and indented, the indentations being umbilicated, and that this change in size was associated with loss of flesh and strength, with persistent tenderness upon pressure, the diagnosis of hepatic carcinoma was established.

The presence of and the intensity of the jaundice are deserving of consideration. As a symptom of carcinoma, jaundice is of little value, for it is absent in the majority of cases. The jaundice of hepatic carcinoma never disappears, remaining until the end, for it is the result of organic obstruction of the bile-ducts. In this respect, jaundice in hepatic cancer is different from forms of jaundice consequent upon causes of a more incidental character, which are liable to supervene in consequence of catarrh of the ducts or temporary obstruction of the bile-ducts from gall-stones. As an aid, therefore, in the diagnosis of cases of ambiguity, this character of the jaundice may be of value in clearing up the difficulty. The hæmorrhages which supervened and accelerated the exhaustion were partly resultant upon obstruction of the venæ portæ, and in part upon the change in the quality of the blood. From the appearances disclosed at the necropsy, and in the main from the extent of the cancerous disease, it was evident that the disease was situated in the liver primarily; and, spreading by contiguity along the lower omentum, had secondarily affected the adjacent organs, notably the pancreas and duodenum.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 19TH, 1876.

G. D. POLLOCK, F.R.C.S., President, in the Chair.

The Report of the Morbid Growths Committee on Mr. Walker's specimen of scirrhus was read. It was found on the upper and under surfaces of the diaphragm, but more extensively on the peritoneal surface. It did not extend into the muscle, which, however, was diminished by its pressure. It was a hard carcinoma. It was not a secondary cancerous infiltration.

Transposition of Viscera.—Dr. LEES exhibited a pale and fair boy aged 8, in whom the viscera were transposed. He had been wasting for some time. The apex-beat was distinct on the right side; and the liver lay on the left. The right testicle hung lower than the left one. —Dr. GREENE inquired if persons in whom the viscera were transposed lived as long as other people. —Dr. DOUGLAS POWELL said that he had seen a case in a boy aged 12. He saw no reason why these persons should not live as long as other people. They were not commonly left-handed. The spleen was difficult to define in these cases, as it was usually cleft into several divisions. —Dr. IRYNE said that, in an examination which he had made of a baby, the viscera were transposed with anatomical precision. —Mr. WAGSTAFFE inquired if there was an abnormality in the blood-vessels going to the head and brain in these cases. —Dr. ORD asked if any modification in the nerves had been detected. —Dr. GREENFIELD said that left-handedness was found with normal vessels. In these persons, aphasia was found with left-side paralysis. —Dr. PYE-SMITH said that Hyrtl's views had not been borne out by facts. —Dr. LEES replied that these persons lived to be adults; and one case, at least, was found in an old woman.

Removal of Tongue.—A patient was shown, whose entire tongue, with much of the surrounding structures, had been removed by Mr. CHRISTOPHER HEATH. The patient, previously to operation, had been shown to the Society on November 2nd, 1875. The man is now in perfectly good health, and there has been no recurrence.

Cancer of Sciatic Nerve.—Dr. COUPLAND exhibited for Mr. BALDING the sequelæ of a tumour of the sciatic nerve, which had been removed and exhibited previously (last year). The patient lived two years and a half after the removal of the original tumour. The growth recurred in the nerve, and a secondary mass of enormous size formed in the mediastinum. The recurrent growth extended from the cleatrix of the operation, eight inches down the sciatic nerve. It was a spindle-shaped growth, and the fibres of the sciatic were spread over its exterior. The glands in the groin were not affected. The mediastinal growth occupied the whole pleural cavity. It was a lobulated mass. There was infiltration of the costal pleura and mediastinal glands. —Mr. BALDING said the mother of this patient had a large tumour in her back, extending downwards from her neck till it touched the bed as she sat on it. It had dragged the scalp down with it till it was partially off the head. The mass had been growing twenty-five years. She ultimately died of cancer of the right breast. No *post mortem* examination was permitted.

Gall-Stones in Peritoneal Adhesions.—Dr. COUPLAND exhibited a specimen from a man aged 40, where there were liver-adhesions, in which were small orange-coloured biliary calculi. The gall-bladder was full of small calculi. It was obvious from this that small calculi may escape from the gall-bladder without giving rise to fatal peritonitis.

Aneurism of Abdominal Aorta.—Dr. GOODHART exhibited for Dr. L. MARSHALL an abdominal aneurism, which sprang from immediately under the pillars of the diaphragm. The coeliac axis and the renal arteries were dilated. It occurred in a man aged 33, who complained only of pains in his left side, chiefly in the leg. The sac ruptured into the left pleural cavity.

Vesical Calculi Spontaneously Fractured.—Dr. ORD brought a small trayful of pieces of vesical calculi. They were a few of a large number passed by an old gentleman aged 80. He suffered no pain, and had no hæmaturia. The pieces were segmental fragments of larger calculi. The sections showed parallel lines round a central cavity. The bulk of each fragment consisted of urates of dull red colour, over which was a thin covering of paler colour, consisting of friable alkalies and urates of ammonia. The fragments were broken up in the bladder, and then covered with this new material. At first,

the urine was acid, and then became alkaline. This patient, for the last fifteen years, had led a very quiet life. There was no history of spasm, so that these calculi were not fractured by contraction of the bladder. The hypotheses which could explain the bursting of the calculi were the formation of gas in their interior, or the swelling of mucoid material in the calculi.

Carbonate of Lime Calculi.—Dr. ORD drew the attention of the Society to three small calculi, which consisted of two-thirds of carbonate of lime and one-third of phosphate. They were passed after symptoms of prostatic irritation. They were prostatic in their origin, and formed out of the path of the urine. Two other calculi were from the horse. One, a large white calculus, came from the bladder. The other, a small, hard, dark-coloured mass, came from the kidney. The organic matter in this latter one transformed crystals into spheres, and these again into laminæ. —Mr. WAGSTAFFE had some years ago exhibited before the Society a calculus which had at that time been pronounced to consist of carbonate of lime; but this had since been questioned. He would like to have it referred to the Chemical Committee.

Valvular Disease of the Heart.—Mr. GOULD showed a heart, with very general valvular disease, from a female aged 42, who had been ill for two years with dyspnoea, bronchitis, and dropsy. There was no history of rheumatic fever. The apex-beat was irregular. There were a left presystolic thrill, a systolic murmur at both apices and at the base of the heart. The jugular veins were full. Thrice the patient improved, but ultimately sank. The right auricle was much dilated. The three segments of the tricuspid valve were soldered together, so that the ostium would only admit the tip of the little finger. The pulmonary valves were normal. The mitral valve was also stenosed, and the valves adherent till the ostium was but a chink. The aortic valves were also a good deal diseased. Such narrowing of the tricuspid valve is rare, and only found along with similar mitral disease. —Dr. GREENFIELD had exhibited a similar case last year.

Recovery from Pyopericardium.—Mr. GOULD showed a case where suppuration of the pericardium had been survived. It occurred in a man who died of cancer of the liver. He had never been ill, and for ten years complained only of pain in stooping. The sounds of the heart were difficult to make out; but there was no further indication of anything wrong with it. On *post mortem* examination, a chalky mass was found at one part of the pericardium, while, at the back, the two layers were united, and formed a calcareous plate. The valves were healthy; the ventricles were hypertrophied, but not dilated. —Dr. GOODHART had seen a case last year, where the pyopericardium was the end of an hydatid cyst.

Diphtheritic Membrane.—Dr. GREENFIELD exhibited sections of fresh diphtheritic membrane. There were two noticeable points. One was, that the tissues were not involved; the other, that it was a transformation of the epithelium, and, when it was separated from the mucous membrane, that membrane was not eroded. The structure was refractile and homogeneous, and made up of cells. They were seen in transition stages, from catarrhal cells onwards. There was inflammation in the tissues around. The specimen had not been frozen. —Dr. BARLOW had made an examination of a fresh diphtheritic membrane lately, with conclusions of much the same kind. In his case, there were thin patches on the fauces, starting in the mucous glands, forming little cups. The formation of the membrane commences in the glandular elements.

Adenoma of Liver.—Dr. MAHOMED showed a specimen of this disease from a female, aged 35, who died of an aneurism of the right ventricle. The liver was nutmeggy and fatty. There was an encapsulated growth on it, without any puckering around it. The growth was lobulated and paler than the liver. It consisted of cells like liver-cells, but in disorderly array. It was surrounded by a dense fibrous capsule, from which extended bands severing the growth into lobules; they sprang from all parts of the capsule, and formed a fine network. Many large cells were found in these trabeculae, and fat could be squeezed out by pressure. The blood-vessels in the growth were few, and there were no bile ducts. It was not true liver tissue. It was not an extra lobe. There was no malignancy, and no other growth. A second case came from a soldier, who had had syphilis. He was deeply jaundiced, and had a vesicular eruption. He was subject to vomiting. He became feverish and had diarrhoea. The skin became lighter in colour as he grew worse. The body was of olive hue, and emitted a putrid stench. The liver-growth was not examined till long after death, and was thought at the time to be an encephaloid mass. It much resembled encephaloid cancer, but was really an adenoma. The mass consisted of lobules, with a fibrous stroma. There were no secondary deposits elsewhere. These growths commenced in normal tissues, and passed on to great malignancy.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 6TH, 1876.

WILLIAM O. PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

Idiots.—Dr. WILTSHIRE exhibited two children, both of whom were idiots. Both were first children, and both boys. In the first case, the mother had been three days in labour, but was delivered without the aid of instruments or ergot. There was a perfectly healthy family history. The idiocy seemed due to prolonged parturition. In the second case, there was a history of a long and difficult labour. Craniotomy was performed in a subsequent lying-in and induction of labour, with turning on the third occasion. Both the children exhibited were microcephalic.

Direct Transfusion from Vein to Vein.—Dr. ROUSSEL of Geneva demonstrated on the living subject the application of his apparatus for this purpose. The object of it was to prevent coagulation of the blood that was drawn, and so avoid the necessity of defibrination. The apparatus was constructed entirely of hardened pure caoutchouc, which has no influence on the blood. It consisted in principle of a Higginson's syringe, with numerous ingenious devices, such as have been recently described in the various journals. Dr. Roussel stated that he had operated in over fifty cases. Eight or ten ounces of blood were generally sufficient.—The PRESIDENT congratulated Dr. Roussel on the perfection of his instrument; and conveyed to him the thanks of the Society for his instructive demonstration.

Cæsarean Section.—Dr. GALABIN showed a specimen of an uterus and the adjoining parts, where the whole circumference of the cervix was the seat of malignant degeneration. A long history of the case was read. Both mother and child were lost.—Dr. ROGERS alluded to the cases he had seen recover where no sutures to the uterus had been used.—Dr. BARNES cautioned against accepting the conclusion to which Dr. Rogers's statement pointed. The bare facts that in certain cases the uterus had been stitched up and death followed, whilst in certain other cases no sutures were used, and recovery followed, did not warrant the inference that the sutures had anything to do with the result. Cases that did not require sutures were those in which the uterus closed naturally by contraction. These cases were just those which were most likely to recover. On the other hand, the cases that required stitching were those in which no contractile power existed, and were, therefore, cases which were likely to prove fatal under any mode of treatment.—Dr. ROUTH asked how long the wound in the uterus had been kept open before it was closed. In Dr. Edmunds's case, three-quarters of an hour were allowed; the uterus being irritated all the while by the fingers until firm contraction ensued, and then no ligatures were needed.—Dr. GALABIN, in reply, stated that iron had been applied when death from hæmorrhage seemed imminent. Only a small amount of watery fluid was found in the peritoneal cavity post mortem.

Extreme Hypertrophic Elongation of the Cervix.—Dr. BARNES exhibited the uterus of a woman, who had died after premature labour. The os externum had protruded beyond the vulva, with complete eversion of the vagina. The patient died of pyæmia, connected possibly with the injuries sustained during the labour by the abnormal state of the canal the child had to pass through. The specimen was another illustration of this form of dystocia, which was described in the *Obstetrical Transactions* for 1874 by Dr. Roper.

Monstrosity.—Dr. ROPER exhibited a foetus, born at the seventh month, which lived for half an hour. The right thigh was entirely wanting. The left leg below the knee terminating in a spike. Both thumbs were absent, as also apparently the radius of both arms.

The Obstetrical Aspects of Idiocy.—Dr. J. LANGDON DOWN read a most interesting paper on this subject. His observations extended over eighteen years, and included over 2,000 cases. Primogeniture seemed to play an important part, no less than 24 per cent. of all the idiot children observed being primiparous. No doubt, this might largely be attributed to the exalted emotional life of the mother, not forgetting the anxiety inseparable from marriage of the male parent, but increased difficulties in parturition seemed to be an important factor. Suspended animation occurred in no less than 20 per cent., and apparently exerted much influence in the production of idiocy. As to the effect of the instruments, in only 3 per cent. of the cases had forceps been employed. Prolonged labour was more compromising to the life-prospects of the child than a judicious and timely application of the forceps. Only 2 per cent. of the last thousand cases were twins. A very potential cause in the production of idiocy was the physical health of the mother during gestation, especially prolonged sickness, fright, intense anxiety, and great emotional excitement. A marked preponderance in the number of male over female idiots existed, more than twice as many, due probably to the larger size of the cranium, giving rise to prolonged and

difficult parturition, continued pressure, and suspended animation, as well as the greater tendency to infantile convulsions among male children. The data for judging of the influence of ergot during parturition were not sufficiently full or reliable to enable any deduction to be drawn. The diagnosis and prognosis of idiocy were then entered into, *developmental* cases being distinguished from those of *accidental* origin. Congenital idiocy was more amenable to training than post congenital, an ill-developed brain being more hopeful to deal with than a damaged brain. The prognosis being inversely as the child was comely, fair to look upon and winsome.—Dr. F. C. CORY remarked that, in a practice extending over twenty-five years, he had noticed no ill-effect upon the intellect of the child from the employment of ergot during labour.—Dr. J. BRAXTON HICKS thought the paper most interesting, and of exceeding importance to obstetricians, not merely collaterally, but directly.—Dr. R. BARNES regarded the paper as an able statement of a very interesting question by one thoroughly competent to deal with the question. He considered much further investigation and cross-examination were required before we could accept the conclusions pointed out, that obstructed labour attended by suspended animation of the child was an important cause of idiocy. His own experience included many such cases, but he could not call to mind any facts to show that idiocy was traceable to obstructed labour. Dr. Little, in a paper read before the Society some years since, had advanced similar opinions to those advocated by Dr. Down.—The PRESIDENT thought suspended animation must not be regarded too exclusively as produced either, on the one hand, by the pressure of a too prolonged labour, or, on the other, by the compression of the forceps when they had been employed. Suspended animation was likely to occur whenever a child was born with an imperfectly developed nervous organisation; and it was well-known that small feeble children expelled with great ease from the maternal passages were often difficult to resuscitate. Referring to one of the idiot children shown by Dr. Wiltshire, it would be well not to attach too much importance to its difficult delivery as a cause of its mental weakness, because it was obvious that the mother, who stood by, was an imperfectly developed creature in every respect, and, according to the theory of natural selection for healthy progeny, should never have been a mother at all.—Dr. FLETCHER BEACH remarked that his experience at the Clapton Idiot Asylum, to a great extent, bore out the remarks made by Dr. Down.—Dr. J. BEVERIDGE SPENCE stated that he had noticed at Earlwood that cases associated with tedious birth and suspended animation manifested great improvement in their mental state during their residence at the asylum, and were generally capable of receiving and benefiting to a considerable extent by the instruction imparted to them. Well marked choreic movements were generally observed.—Dr. WESTMACOTT inquired whether drunkenness in the parents was not a frequent cause of idiocy.—Dr. J. BRUNTON would like to ask the experts how soon after birth they could discover the presence of imbecility in an infant. Children born healthy, but subject to artificial and improper feeding, suffered from diarrhoea, and convulsions often ensued, suspended animation with disturbance of the cerebral functions resulted, and imbecility as a consequence.—Dr. HAYES thought a more minute classification was requisite. No safe conclusions as regards prolonged or obstructed labour, instrumental interference or non-interference could be arrived at without this.—Dr. ROUTH inquired as to the degree of consanguinity among the parents. In America, the influence of this had been noticed.—Dr. GRAILY HEWITT considered Dr. Down's facts and suggestions most valuable and interesting; but they needed confirmation. In regard to the connection between obstructed labour with pressure arising therefrom and idiocy of the offspring, we must examine the facts attentively before admitting that such a connection subsists. He could hardly believe that, if obstructed labour had a distinct effect of this kind, it would so long have escaped the attention of obstetric practitioners.—Dr. EDMUNDS thought that the statistics were worked out into a fallacious form; the numbers of first-born, second-born, etc., formed a rapidly decreasing series. Taking the average number of children in a family at four, there would obviously be in the community 25 per cent. of first-born children, a proportion practically identical with those shown as first-born among these 2,000 idiots. As to the influence of pressure upon the foetal head as a cause of idiocy, he had never noticed this; and yet he had observed 2,500 cases.—Dr. LANGDON DOWN, in reply, said he was much gratified by the discussion which his paper had called forth. He regarded Dr. Little's paper, referred to by Dr. Barnes, as a valuable corroboration of his own researches. There were generally several factors in the production of idiocy. Given a neurotic tendency, the tedious labour and suspended animation might determine the catastrophe. He had on this occasion adopted the classification he considered most practical, viz., accidental and develop-

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, NOVEMBER 28TH, 1876.

JOSEPH COATS, M.D., President, in the Chair.

Crutch-Palsy.—Dr. HECTOR CAMERON showed a man suffering from a paralytic affection of both hands, due to the use of crutches. The extensor muscles were those principally affected. The man had been under Dr. Cameron's care in the Royal Infirmary on account of a compound fracture of the leg. He was dismissed, walking with the aid of crutches, and returned in about five weeks with a condition of complete drop-wrist affecting both limbs. Some improvement was taking place under the use of galvanism.—Dr. FINLAYSON called attention to the fact that the supinator longus was paralysed along with the other muscles in this case, indicating it as a point in connection with the diagnosis of drop-wrist from lead-poisoning.

Spinal Curvature.—Dr. RENFREW showed a boy, six years of age, with a spinal curvature of a somewhat rare form, viz., a strong incurvation in the lumbar region, described in books as lordosis or saddleback. In consequence of the curvature, the belly and buttocks were very prominent, and the gait of the child peculiar.

Multilocular Ovarian Cyst.—Dr. GEORGE BUCHANAN showed a multilocular ovarian cyst, removed lately from a patient aged 64, who made a good recovery. The cyst contained ten pounds of clear limpid fluid, of specific gravity 1018. The diagnosis of ovarian cyst (as opposed to parovarian cyst) was confirmed by the high specific gravity of the fluid and by the presence of several small cysts, of the size of white currants, on the inner wall of the larger cyst, which at first seemed to be the only one.—Dr. JOSEPH COATS remarked, as further points bearing on the diagnosis, the absence of any separate peritoneal coating in this cyst, and the fact that the parovarium had been removed with the cyst and could be clearly made out, with an aberrant tubule in the form of a long stalk with a minute knot at the end of it. The Fallopian tube also was not stretched over the cyst, as occurs frequently in parovarian cysts.—Dr. DAVID FOULIS showed a companion specimen to the preceding, in the form of a smaller ovarian cyst, over which the Fallopian tube was elongated and stretched. The specimen was removed after death, and it was chiefly interesting as illustrating this point. Last session, a Committee had reported on a similar cyst; and, from examination of it and other ovarian cysts in the museum of the Infirmary, had come to the conclusion that the Fallopian tube is sometimes found stretched and elongated over ovarian cysts. This occurred from a comparatively early period in their growth, and before adhesions were formed; and it could not, therefore, be regarded as distinctive.

Miliary Cerebral Aneurisms.—Dr. JOSEPH COATS showed specimens of miliary aneurisms from a case of cerebral hæmorrhage. There had been repeated hæmorrhages in various parts of the brain; the fatal one being very extensive. The patient suffered from chronic Bright's disease (interstitial nephritis), and consequent enlargement of the left ventricle of the heart. The association of hypertrophy of the heart with miliary aneurisms in the brain must have specially conducted to hæmorrhage.

Giant-Cellled Sarcoma of Jaw.—Dr. COATS showed a giant-celled sarcoma of the jaw (epulis). He referred to the structure as shown under the microscope, consisting of giant or myeloid cells and spindle-shaped cells. In the part shown, some of the former were isolated, and the projecting arms or claws could be seen. The tumour was about the size of a small walnut, and had grown from the alveolar arch. At the sides, it was covered with mucous membrane; but, at the summit, the tissue of the tumour replaced the mucous membrane, without, however, any distinct ulceration.

Ganglion on Knee.—Dr. GEORGE BUCHANAN showed a ganglion-cyst of the size of a hen's egg, which he had excised from the outer aspect of the knee-joint. It seemed to spring from the synovial sheath connected with the tendon of the biceps muscle. The connection, however, was by so narrow a neck that only a drop of the gelatinous-looking contents escaped while it was being cut away. The wound healed in a few days.

Ununited Fracture.—Dr. WILLIAM MACEWEN showed macerated bones from a case of ununited fracture. The patient was a man forty years of age, who was admitted to the Royal Infirmary. He had sustained a compound fracture of the lower third of the femur seven months before admission. When seen by Dr. Macewen, the limb below the fracture was twisted, lying on its inner side; and it was wasted. Voluntary motion in it was quite lost; sensibility was impaired. At the seat of fracture, the thigh was ulcerated on its outer and under aspects, and several sinuses discharging fetid pus led down to the bared ends of the bone. These ends were not apposed, having interposed between them a band of muscular tissue. The only operation which

promised a good result was amputation; and this was performed by Dr. Macewen in the middle third; the wound closed in a month. After amputation, a thick layer of the rectus was found to lie between the ends of the bone; the layer of muscle was coated with gelatinous-looking tissue.—Dr. FOULIS adverted to the contrast presented by the bones above and below the fracture; above the fracture, the shaft was filled up by thin dense plates of bone parallel with the axis of the femur; below the fracture, the whole of the bone-tissue was exceedingly delicate, and every part of it rarefied so as to be quite fragile. The bones of the leg and foot were even more porous than the lower end of the femur.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 9TH, 1876.

THOMAS HAYDEN, F.R.C.S.P., President, in the Chair.

Excision of Knee-Joint.—Mr. TYRRELL presented a cast of the limb before operation, and the bony structures removed on October 4th, 1876, by excision, from the knee of a lad aged 16½. The specimen illustrated Volkmann's remark as to the development of the cartilage of the tibial surface of the articulation in disease of the knee-joint. Although a portion of the shaft of the femur had been accidentally stripped of its epithelium, the bone did not die; and the patient made a most satisfactory recovery.

Aneurism bursting into the Pericardium.—Surgeon-Major JACKSON, C.B., showed the pericardium and heart of J. A., shoeing-smith, Royal Horse Artillery, aged 29, who complained some months ago of difficulty of breathing. The area of præcordial dulness was increased, and a systolic apex bruit was heard. On November 29th, 1876, he said he felt that something had gone, like the crack of a whip, in him. After this, he sprang up and fell on the floor. Vomiting succeeded; and he died suddenly the next morning. There were extensive pleuritic adhesions on the left side. The lungs were healthy. The pericardium was, for the most part, adherent to the heart, except where an extravasation of blood amounting to twelve ounces existed. The hæmorrhage had taken place from an aneurism springing from the sinus of Valsalva, above the right anterior aortic valve, which was thickened and lax. The other valves and the mitral opening were healthy. The aorta was atheromatous. The sac of the aneurism contained recent non-laminated fibrin; it surrounded the right auricle, and enveloped the last inch of the superior cava, which it had dissected out. The aortic valves were incompetent. The liver and kidneys were healthy.

Fracture of Skull: Laceration and Contusion of Brain-Substance.—

Dr. BARTON exhibited the calvarium and brain of a man, who had fallen into an area four feet and a half deep while drunk. Twenty hours later, he was admitted to hospital in a semicomatose state. A scalp wound was found over the right parietal eminence. The pupils were sluggish; pulse 80. Rigid contraction of the muscles of the right hand and dysphagia appeared the next day. On the fourth day, epileptiform convulsions, paralysis of the right arm, and partial paralysis of the right leg set in. The fits became frequent; but, after some days, the patient seemed to improve. This favourable change was but temporary, for he became aphasic, and died on December 7th, with symptoms of high fever. An effusion of blood was discovered under the scalp in the neighbourhood of the external wound over the right parietal eminence. An extensive fracture of the skull radiated from the left parietal eminence. An effusion of blood had occurred between the internal surface of the calvarium and the dura mater in this situation. There was also an extensive hæmorrhage into the arachnoid and over the left hemisphere of the cerebrum. The points worthy of note were—1. The fact that the fracture was on the opposite side to the external wound; 2. The existence of paralysis on the opposite side to the brain-lesion, although, judging by the external wound, it was apparently on the same side; 3. The presence of Sanson's symptoms of laceration and contusion of the brain, viz., tonic muscular contraction and extreme restlessness; and 4. The cause of death, which was most probably destructive secondary inflammation of the brain.

Embolic Pyæmia.—Mr. F. W. WARREN showed the viscera of a pet monkey, which had died after a fortnight's illness. An abscess formed in the right iliac region from irritation of a girth round the animal's loins. Some days afterwards, attacks of insensibility with clonic convulsions set in. There was also transitory blindness. Twenty-four hours after death, an examination revealed abscesses in the abdominal wall, liver, both kidneys, right lateral lobe of the thyroid gland, and under surface of the right posterior lobe of the cerebrum. There was no icterus. The joints were free from effusions of pus. Numerous hæmorrhagic infarctions studded the lungs. The case was evidently one of embolic pyæmia, or "embolhæmia" of Weber, going on to

pyæmia multiplex of Heuter, or the formation of metastatic abscesses in remote organs. The hæmorrhagic infarctions were caused by embolic plugging of the pulmonary capillaries, and would have finally caused abscess.

STAFFORDSHIRE BRANCH.

NOVEMBER 30TH, 1876.

W. MILLINGTON, M.D., President, in the Chair.

On the Use of Split Tendon-Fibre for Surgical Ligatures.—Mr. GARNER read a short paper proposing the use of tendon-fibre for surgical ligatures. For some purposes, he thought that even the common silkworm or fisherman's gut might be preferable to catgut. The former is said to be made in Spain from the silk-sees of the worms, of such as, from some cause or other, refuse to spin. It is more soluble than silk in alkaline fluid. Catgut, we are told, is made in Italy from the gut of the sheep, afterwards purified by exposure to burning sulphur, and rounded by being drawn through a hole in a metal thimble. Such as the surgeon uses may be seen, by untwisting after maceration, to be formed of a narrow strip of membrane. It is admitted that catgut has faults; and the principal object of the communication was to show that tendon-fibre is preferable, at least, in some respects and for some purposes. Of all animal substances, tendon (as of the deer or ox) is the strongest, and will, by splitting up, afford ligatures of great strength. It dissolves, but not too soon. A vast number of ligatures may be made by splitting one or two tendons of the long flexors of a ruminant. They may be kept flexible and ready for use in a little spirit and carbolic acid, the plan to be preferred; or, if twisted and dried, they may be made very fine and extremely strong, or they may be simply dried. They may be obtained a foot or more in length. The tie or knot does not slip, and they appear to answer in practice. They swell up like catgut when steeped in alkaline solution, but it is the component cellular tissue only which does so, and it might be possible and interesting to separate it in this manner from the fine glistening and strong tendinous fibres.

Dislocation of the Neck from a Blow.—Mr. C. ORTON narrated the result of a *post mortem* examination which, by direction of the coroner, he had made upon the body of a man who had instantly died after he had received a blow upon his neck. At the time, the deceased was standing forwards, with his chin slightly turned to his left, and the blow was given under the right angle of the lower jaw by the right fist of his opponent, who was partially behind and sideways to the deceased. The head could be moved easily in any direction; and, when the body was face downwards, the head fell forwards on raising the shoulders. Dissection revealed a dislocation between the atlas and the axis, the former being thrown forwards; the odontoid process of the latter pressing on the front of the spinal cord and causing instant death. There was rupture of the posterior and other ligaments between the atlas and axis and the axis and occipital bone; but there was no fracture anywhere, and no rupture of the transverse ligament of the atlas.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

NOVEMBER 30TH, 1876.

Outbreaks of Diphtheria in the Brighton District.—Dr. FUSSELL gave some notes on the various outbreaks of diphtheria which he had witnessed during the last three years, chiefly in the cottages of the labouring classes; amongst them, he had frequently seen this disease attack successively in their confined dwellings all the members of the family. He was constantly reminded of the truth of the opinion which he had long since formed of this and some other complaints, viz., that contagion and infection acquire a peculiar virulency in such abodes, and that a disease, barely deemed contagious in the houses of the well-to-do, assumed often quite a different aspect in this respect amongst the poor. In a semi-detached cottage in an isolated situation, all the children (eight) were attacked; one was dangerously ill, rapidly improved under treatment, but died in six weeks of paralysis of the muscles of the throat. A month since, at a village, diphtheria broke out simultaneously in two families; the children of which attended the same school. A child died in each family. In the cottage, the two remaining children and the mother suffered from the same complaint. At the well-to-do house, where the father and mother were living as servants, neither the remaining child or any of the domestics caught the disease. It was quite correct that the disease was chiefly confined to children. Twelve months ago, a most virulent form of diphtheria occurred in the house of a gamekeeper; three out of four children died; the nurses

(who were the father and mother) escaped. Last May twelve months, diphtheria broke out suddenly at an infant school in a town of about two thousand inhabitants, and disappeared almost as quickly, partly owing, he hoped, to the restrictions which had been enforced. In the cottages visited, almost every child was attacked. About fifty cases came under his observation; and, of these, only three were adults, nearly all the rest were under twelve years of age. There were eleven deaths. In this remarkable outbreak, which arose most probably from some "sanitary defects" at the school, he noted: its sudden onset; the large number of cases; its very infectious and contagious character; its malignancy, therefore its high mortality; lastly, the state of the throat in the most severe cases; the exudation was of no consistence, the fauces were rapidly covered with a mass of slough, and there was great enlargement of the glands. In these attacks, the urine was loaded with albumen. If the social circumstances of patients had a definite relation to the spread of contagion, they were equally important in respect to the mode of treatment; the latter fact especially had not, he thought, been sufficiently, if at all, commented upon by authors. The knowledge acquired of treating disease when accompanied by pauperism in remote country districts was, perhaps, a redeeming point in the old apprenticeship system. The treatment adopted for the enlightened and well-to-do must be considerably modified for the poor and ignorant. With the former, we may prescribe external warm applications, constant syringing of the parts, inhalations of steam, gargles, insufflations of alum, medicine every two hours, and make three visits a day; with the latter, our treatment must be prompt, and at once to the purpose. He had no faith in powders "left for the mother to apply." In his own hands, and amongst others, he had seen the best results ensue from a solution of the tincture of perchloride of iron, or a strong solution of nitrate of silver, thoroughly and properly applied to the whole of the throat by the medical attendant. He briefly alluded to many other favourite applications mentioned by authors, but he preferred those he had named. All were agreed that general treatment by the internal administration of tonics and stimulants was necessary; but it was, to him, strange to observe that amongst many there was an utter disbelief in the remedial potency of topical applications. It was upon this point especially that he wished to initiate a discussion.—The discussion on this subject was adjourned to the next meeting.

SOUTH-EASTERN BRANCH: EAST AND WEST KENT DISTRICTS.

FRIDAY, NOVEMBER 24TH, 1876.

STEPHEN MONCKTON, M.D., President of the Branch, in the Chair.

Intravitreous Hemorrhage.—Mr. ADAMS (Maidstone) read notes of two cases of intravitreous hemorrhage. The first case was that of an adult male with spongy gums, and who had had frequent attacks of epistaxis. The exciting cause was a fit of sneezing, immediately followed by almost complete loss of vision in both eyes. He was treated with iron and other hæmostatics, and ultimately recovered, though he had a second and a third attack. The other case was older, aged 35. Only one eye, the right, was affected. The exciting cause was using a blow-pipe over a large fire in fusing silver; the predisposing cause appears to have been syphilitic. The treatment was accordingly mercurial, both by inunction and internally. The result was satisfactory; although a recent case, the sight had nearly recovered. This patient was shown. Mr. Adams considered the source of hemorrhage to be from parts anterior to the retina, either from the choroid, or more probably from the ciliary processes. He invited attention to a study of the morbid changes occurring in the fundus of the eye in connection with the latter stages of syphilis.

Hydrophobia.—Mr. RIGDEN (Canterbury) read notes of a case of hydrophobia. A male, aged 42, was, on April 30th, bitten on the left hand by a dog, supposed to be suffering from distemper. The dog was destroyed. No caustic was applied; the man suffered from nervous depression, and was ordered change of air. Seven weeks after the injury, he awoke with a suffocative feeling; and medical advice was sought on the following day. There was then slight dysphagia, which the next day amounted to total inability. This somewhat abated on the succeeding day; but unmistakable symptoms of the dread disease soon showed themselves. Morphia subcutaneously injected was then used; but the extreme sensibility of the skin prevented its continuance. Opium *per rectum* was tried, but with no relief. Chloroform was attempted to be given, but the patient positively refused to submit to its use. He soon sank into a state of perfect exhaustion; and died nineteen hours after the advent of the more severe symptoms, or three days and five hours after the first symptoms of suffocation. The great repugnance

to the sight of fluids did not extend to the sight of his own urine.—Mr. REID raised the question as to whether hydrophobia ever arose spontaneously.—Dr. JOHN ARMSTRONG had seen great relief from full doses of morphia subcutaneously injected.—Dr. BOWLES strongly advised the use of the nitrate of silver to all wounds from bites, and mentioned Mr. Caesar Hawkins and Professor Ewart of the Zoological Gardens as being greatly in favour of its use.—Dr. GALTON mentioned a case in which it had been used, and hydrophobia had supervened.—Mr. GARRAWAY suggested the inhalation of nitrite of amyl.—Mr. NANKIVELL, Mr. BURTON, Mr. HUBBARD, and Dr. MONCKTON joined in the discussion; the latter urging the advisability of always "saving the dog".

Penile Fistula.—Mr. NANKIVELL (Rochester) brought forward notes of a case of penile fistula in a man aged 32, who twelve years ago was struck on the penis by some boiler-tubes, when abscess and fistula followed. About three weeks before admission into the hospital, he fell over a bar. When admitted, no urine had passed for eighteen hours; the penis was much swollen, and the skin over it was tense and fluctuating. The prepuce was slit up, and an ordinary sized elastic catheter was used, but with no success; a smaller one was passed into the bladder, but no urine flowed, but a large amount of foetid pus escaped through it and by its side. The swelling of the penis then subsided, and a larger catheter was then introduced, and the bladder emptied. The case did well for five days, when suppression of urine occurred; and the man sank and died on the seventh day. No *post mortem* examination was permitted. It was evidently a case of abscess of the corpus spongiosum pressing upon the urethra, and so producing retention. The suppression of urine was one of those conditions to which patients who have suffered for any length of time from urethral mischief are particularly liable.

Intussusception.—Dr. THOMAS EASTES (Folkestone) read a very interesting case of intussusception in a boy, aged 3. When first seen, he was found in great pain. He had been quite well up to a few hours previous, except that for a few days he had had diarrhoea. The pain was paroxysmal; he had been sick; and, after a dose of castor-oil, a fairly natural motion passed at first, followed afterwards by blood and glairy mucus, with much straining. The pulse was quickened; the abdomen flaccid; and in the right inguinal region a firm sausage-shaped swelling was felt, directed upwards. Opium was at once given, and ice with small quantities of milk. Three hours later, a similar, but somewhat larger, swelling was detected in the left side; the symptoms had not improved, and bloody mucus still oozed from the anus. Four hours later, under chloroform, inflation by means of a pair of bellows and elastic tubing was made use of. This was gradually persevered with for forty minutes; the abdomen was also gently manipulated. Within ten minutes, the mass in the left inguinal region retreated upwards and disappeared. At the end of the operation, a slight feeling only of resistance could be detected in the right side. Four hours afterwards, the child was sitting up, feeling comfortable and laughing. Next morning, no swelling could be found; and the case made an uninterrupted recovery. Dr. Eastes considered the successful result, to a great extent, due to the early use of inflation; if this had not given relief, he would at once have opened the abdomen, and endeavoured to draw out the intussuscepted bowel; he mentioned that, out of the thirteen cases in which the abdomen had been opened, five had recovered.—Dr. HILTON FAGGE urged great care in the use of inflation, as he had seen the bowel ruptured and death ensue. He considered the presence of blood as indicating incomplete strangulation, and, therefore, no likelihood of sloughing, and consequently suitable for careful inflation.—Dr. BOWLES called attention to the difficulty sometimes occurring in the diagnosis; the nervous phenomena sometimes leading one astray. He cited cases to prove this.

Retention of Urine.—Mr. TEEVAN (London) introduced notes of four typical cases of retention of urine, in which mistakes in diagnosis had either been made, or could easily have been.—1. A healthy boy, aged 3, was attacked with retention, which was relieved by catheterism. The retention recurred. There was no phimosis. He was sounded; a stone was found. Lithotomy was performed; and the boy cured.—2. A gentleman, aged 68, was for three months under the care of a physician for dyspepsia, with no relief. It was then found that his bladder was distended. An enormous quantity of urine was drawn off. The case was one of retention from enlargement of the prostate.—3. A gentleman, thought to be suffering from retention, and whom various surgeons failed to catheterise, was ultimately tapped *per rectum*, with no escape of urine. On the following day, on the *post mortem* table, he was found to have died from a perforating ulcer of the stomach.—4. A gentleman, aged 46, suddenly began to suffer from retention, requiring the use of the catheter thrice daily. An elastic catheter was used; and a spasmodic stricture diagnosed. No permanent

relief being given, Mr. Teevan was consulted. He noticed that, when the catheter was used, the urine not only passed through but by the catheter. This to him was diagnostic of the presence of a foreign body in the urethra; whether a stone, or polypus, or a pedunculated lobe of the prostate, he could not then tell, but advised the use of a *metallic catheter*, which, when used, at once elicited the presence of a calculus, which in a few days he extracted by enlarging the meatus.

Effusion into the Pleura successfully treated by Aspiration.—Dr. C. E. HOAR (Maidstone) narrated a case of pleural effusion. A man, aged 47, began first to complain of pain in the epigastrium. A week later, his breathing became short. A fortnight afterwards, when he first came under his care, great dulness and absence of respiratory murmur as high up as the nipple was found on the right side. The dyspnoea increased, and the dulness advanced upwards, till ultimately the whole of the right side was invaded. His symptoms becoming urgent, it was decided to draw off the fluid with an aspirator. A large quantity was withdrawn rather too quickly, producing some amount of faintness. The urgent symptoms were at once relieved; and the case did well. Ten days after the operation, the right side was nearly as resonant as the left.—Dr. ARMSTRONG, though not denying the good results from aspiration, remarked that in his early days he used generally to cure such cases without having recourse to emptying the pleural cavity by operation.—Dr. MONCKTON considered that great oppression indicated the necessity for abstracting the fluid.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, DECEMBER 1ST, 1876.

THOMAS CREED, M.D., President, in the Chair.

Treatment of Phthisis.—Dr. J. C. THOROWGOOD read notes of cases illustrating the treatment of phthisis. In the first series of cases, it was shown how patients with a cavity in one lung only might recover and live for many years. The cavity might become lined with a fibrous membrane, and so remain in a quiescent state. At times, inflammatory action might be set up by cold caught in the wall of such a cavity; and after such an attack, it was possible that the cavity might contract and get smaller. Thoroughly quiescent cavities were not likely to contract much, owing to the rigid character of their fibrous wall. Hæmoptysis in the case of one who was known to have a pulmonary cavity was a serious thing, and might proceed from an aneurismal bulging of a vessel into the walls of the cavity. Among remedial measures, much stress was laid on a dry bracing climate. Humid and relaxing climates promoted the softening and breaking down of lung-tissue. The hypophosphite of lime, Dr. Thorowgood had found a valuable medicine in checking excessive expectoration and controlling diarrhoea. In the second series of cases, illustrating the arrest of phthisis when in the first or second stage, much benefit had resulted from the use of the hypophosphite of soda, a remedy which the author began to use in 1863, and of which he still had a very high opinion. An instance was recorded of a very obstinate case of recurring hæmoptysis permanently cured by passing several months in Canada. Phosphorated cod-liver oil had been used in some cases with very beneficial results.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MADEIRA.

MESSRS. HENRY WATSON AND CO., of 16, Clement's Lane, have submitted to our notice samples of their selected Madeira. The wines of Madeira have of late years recovered their productive power. Possessing great stability, with a smaller amount of alcohol than is found in ports and sherries, this wine is eminently fitted for invalids requiring the addition of wine to their regimen, or for those patients who are recovering from exhausting maladies, and for whom a stimulant is desired. The remedy will be an agreeable one, for these wines are characterised by remarkable bouquet and softness, and have all the qualities for which the wines of Madeira were formerly celebrated.

MR. PUGIN THORNTON has tendered his immediate resignation of the post of Surgeon to the Hospital for Diseases of the Throat (Golden Square).

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 23RD, 1876.

MALE AND FEMALE MORTALITY IN LUNATIC ASYLUMS DURING 1875.

THE Thirtieth Report of the Lunacy Commissioners shows that, during the year 1875, the average daily number of inmates of the county and borough asylums of England and Wales was 33,327, among whom 3,789 deaths occurred. These deaths were equal to a proportion of 113.6 per 1,000 of the average number resident during the year; the rate of mortality was 140 per 1,000 among the male and 91.2 per 1,000 among the female inmates of the asylums. Each of these rates exceeded those in 1874, which were 106.7 per 1,000, 130.2 for males, and 86.6 for females.

In order to be able to estimate the proportion of these high rates of mortality which may be directly attributed to the effects of insanity, it is necessary to inquire what would have been the normal rate of mortality among this population of 33,327 males and females after due allowance for sex and age distribution. Each hundred of the inmates included 46 males and 54 females. The Lunacy Commissioners reports give no information as to the ages of the inmates living or deceased, and the approximate ages of a population must be known before it is possible to calculate its normal death-rate. The Census Report for 1874 gives the ages of the inmates of all lunatic asylums in 1871, and it has been assumed for the present purpose that the proportion of inmates living at four groups of ages in 1875 were the same as prevailed at the enumeration in 1871. The groups of ages adopted were under 20 years, from 20 to 40, from 40 to 60, and 60 years and upwards. It may be noted, that only about 2 per cent. both of the male and female inmates were aged under 20 years; 39 per cent. of the males and 34 per cent. of the females were aged between 20 and 40 years; 42 per cent. of the males and 44 per cent. of the females were aged between 40 and 60; and 16 per cent. of the males and 20 per cent. of the females were aged more than 60 years. It follows, therefore, that the mean age of the male inmates is lower than that of females; and, according to the proportions enumerated in 1871, the mean age of the male inmates of lunatic asylums is 44 and of the female inmates 46 years. At the rates of male and female mortality for each of these four groups of ages, according to the English life table, the annual deaths per 1,000 of the inmates of the county and borough lunatic asylums should be 24.3 for males and 25.4 for females. It has before been stated, that the actual rates recorded among the 33,327 residents of county and borough lunatic asylums in 1875 were 140.1 among the male and 91.2 among the female inmates. After due allowance for sex and age distribution of this resident population, the deaths in a year, according to the life table rates of mortality, would be 832, whereas the recorded number of deaths was 3,789; thus, 2,957, or 78 per cent., of the actual deaths in asylums, may be said to represent the excess of mortality due to insanity and diseases resulting therefrom. Among male lunatics, the recorded deaths were as 5.8 to 1 that would have occurred in an ordinary English male population, having the same proportional age distribution as that which prevails in asylums. The excess of mortality among female lunatics is considerably less than that among males; the recorded asylum deaths of females were as 3.6 to 1 that would have occurred in the average English

female population of the same ages. In equal numbers living, the deaths of male lunatics to those of female lunatics, in 1875, were as 154 to 100; whereas, the normal number of deaths among males and females having the same age distribution, according to the English life table, would be but 96 of males to 100 of females. The age distribution of the lunatic population would, in equal numbers living, give fewer male than female deaths, owing to the large proportion of female lunatics living at ages exceeding 60 years. The excess rate of mortality due to insanity is 76 per cent. greater among males than among females, or as 176 to 100. It would be interesting to be able to observe the variations in this excess insanity death-rate at the different group of ages, and we venture to suggest that the Lunacy Commissioners in future reports should endeavour to obtain and publish some information as to the ages of the living and deceased inmates of the county and borough lunatic asylums, arranged in four or five groups of twenty years. These facts would afford the necessary materials for calculating the excess death-rate due to insanity at different periods of life, with an especial view to throwing light upon the remarkable disparity between the excess rate among male and female lunatics.

It may be useful to consider briefly the variation in the death-rates which prevailed in the various county and borough lunatic asylums during 1875. It should be borne in mind, however, that the mortality in a single year, calculated from the proportion of deaths to the average daily number of residents, will not always give results sufficiently trustworthy for comparative purposes. These rates of mortality may be affected by the varying ages of the inmates and by the average severity of the cases, which must, to a considerable extent, be governed by the relative adequacy of the county asylum accommodation to the amount of pauper lunacy of the county. Where the accommodation is ample and sufficient, the rate of mortality would inevitably be lower than in those asylums where, from inadequacy of accommodation, the greater average severity of the cases admitted and under treatment would cause a higher rate of mortality. With these reservations, however, we may proceed to notice a few of the asylum rates during 1875, as published in the last Report of the Lunacy Commissioners.

Excluding the new Kent County Asylum at Chartham, which was not opened until April 1875, the lowest proportions per 1,000 of deaths to the average daily number of residents in the several county and borough asylums were 47.4 in the Newcastle-upon-Tyne Borough Asylum and 66.1 in the Cumberland and Westmorland Counties Asylum; the highest rates of mortality, calculated in this manner, were 174.1 and 196.9 in the two Staffordshire County Asylums, at Stafford and Burntwood respectively, 192.8 in the Cambridge and Isle of Ely County Asylum, and 208.3 in the Hull Borough Asylum. The average daily number resident in these six asylums, showing the extreme highest and lowest rates of mortality during 1875, ranged from 144 in the Hull Borough Asylum to 528 in the Staffordshire County Asylum at Stafford. It is worthy of note that the rates of mortality in the Newcastle-upon-Tyne Borough Asylum and in the Cumberland and Westmorland Counties Asylum were remarkably low in 1874, as well as in 1875; and that the rates in the two Stafford County Asylums and in the Hull Borough Asylum in 1874 considerably exceeded the average rate in the whole of the county and borough asylums for that year, although the excess was not nearly so great as in 1875. With regard to the mortality in the Cambridgeshire County Asylum, it was 97.9 in 1874, and increased to 192.8 in 1875; the average inmates being 286 in 1874 and 280 in 1875.

The range in the rate of mortality among male lunatics in 1875 was between 69.5 and 81.8 in the Cumberland and Newcastle-upon-Tyne Asylums, and 213.3 and 224.3 per 1,000 in the Staffordshire, and Hull Asylums. The female death-rate among pauper lunatics was so low as 16.3 and 50.4 in the Newcastle-upon-Tyne and Ipswich Asylums, whereas it ranged upwards in the other asylums to 193.3 and 202.8 in those for Cumberland and Westmorland, and Hull.

The variations in these rates of mortality, among pauper lunatics in the various county and borough asylums, are sufficiently wide to suggest

the desirability that the Lunacy Commissioners' Reports should, in future, show the average annual rate of mortality in each of the county and borough asylums for a period say of five years, in order to supply a standard of comparison with the rate in the year to which the Report more especially relates. This, together with tables showing the ages of the living and deceased inmates of those asylums, would materially enhance the value of the mortality statistics of lunacy now contained in those Reports.

LEUKÆMIA AND ALLIED DISEASES.

WE devoted some of our space in last week's JOURNAL to the consideration of some of the points opened up in the discussion on leukæmia at the last meeting of the Clinical Society. But the subject is one of so much interest, and even of importance from the standpoint of some of the speakers at the debate, that we again allude to it to-day, in order, if possible, to lay down one or two bases which seem to us likely to prove valuable outposts from which to extend the boundaries of our knowledge. It will be foreseen that any additions to the information which we already possess must of necessity come by way of pathological study, not by the door of Clinical Medicine. In the latter direction, indeed, the debate has been of use in several ways: as a record of facts, as a warning note on the use of a remedy which must always be used with extreme caution, and as the expression of the opinion of some high authorities on the merits of a particular line of treatment in certain forms of disease. So far, too, we think that Sir William Jenner must have been quite satisfied with his admonition, that the members should abstain from discussing theories, and keep to the record of facts. But here the satisfaction which we feel ceases. The discussion certainly showed the want of, shall we say, a more catholic society, or rather, perhaps, the want of a society which, while sectarian proper, might now and then change its skin and become catholic upon occasion. There are, of course, many objections to such a proceeding; still a discussion such as that which has just passed made it very evident that most of the speakers, obeying the ruling of the chair, spoke from within the barrier comprehended by the term "clinical", and were all the time struggling with what was in reality a headwave of pathology, which it was hard to repress, and, indeed, could not be repressed altogether, if the discussion were to be in any sense complete. What is leukæmia? Till that is settled, it is at least premature to discuss treatment; and whether or not phosphorus will determine the degeneration of enlarged lymphatic glands, is hardly more than a side issue.

To judge from the remarks that fell from the various speakers, the opinion of all concerning the nature of leukæmia is still very nebulous. For instance, leukæmia splenica, leukæmia lymphatica, lymphadenoma, Addison's disease, pernicious anæmia, and even intermittent hæmaturia, all came in for mention, and most of them without any attempt at orderly pathological arrangement, merely as cases bearing upon the utility of phosphorus. But we are inclined to think that there is a good deal of truth in some such generalisation as this. It is easy to criticise it and call it vague, and it may turn out to be a premature one; but, at any rate, it will do to work from, and it can even be supported by arguments which deserve consideration. Three hypotheses were thrown out at the meeting as to the cause of leukæmia, and each of them tended towards some such conclusion.

To take them in order, Dr. Goodhart brought his case forward, because it seemed to him to suggest that leukæmia itself is a state so variable, and is found in so many different conditions, that it must be considered, not as the essential disease, but as a late symptom of some blood-change which had, he thought, the early clinical aspect of anæmia. He will, of course, be quite ready to admit that the particular case upon which he grounded his observations was a very anomalous one; but it is, notwithstanding, abundantly proved by other cases that the condition of the blood does change greatly. Dr. Broadbent confirmed this, and Dr. Moxon also. But here comes a difficulty. Dr. Moxon would seem to agree that the blood alters, and

yet he is disinclined to allow that the cases recorded by Dr. Wilson Fox and Dr. Broadbent were leukæmic. It is not easy to see the reasoning which allows of variation and yet accepts Trousseau's dictum, that the white corpuscles must be to the red at least in the proportion of one to twenty. Enough cases are now on record to prove that, when Trousseau described leukæmia as a certain persistent increase of the colourless blood-corpuscles, he certainly did not make his definition sufficiently comprehensive. Dr. Broadbent, finding that several diseases show in common febrile exacerbations, pigmentation of the skin, and leukæmia, which varies greatly in degree, supposes that they all have a common basis which is not that of leukæmia, but some failure in the reaction between the blood and tissue or the blood and glands—a somewhat similar position to that taken by Dr. Goodhart. Lastly, Dr. Moxon brings forward a very ingenious simplification of some of our difficulties. He wishes to dismiss the term "lymphatic leukæmia" from our nomenclature, considering that a pure example of such a variety is very rare, and that the enlargement of the glands is secondary to a wandering of leucocytes which choke up the tissues and stop the lymph-streams. Allowing for the moment that this may be so, it is not unfair to suppose that either the blood itself or its surroundings must be at fault; and this view also is in favour, as the others are, of the existence of some common cause which is at the bottom of several diseases which are now looked upon by so many as distinct.

There is yet another question of great interest; namely, that of the relation of leukæmia to malignant tumour-growth. Dr. Moxon observed, as indeed Trousseau, in his admirable article, had done before him, that the occurrence of an increase of white blood-cells is not uncommon in cases of cancer; and there are cases on record of Hodgkin's disease, or, perhaps better, of generalised lymphadenoma, in which the overgrowth infiltrated neighbouring structures, and took on, therefore, the characteristics of "malignancy". Possibly, Dr. Moxon's theory might come in here also, a somewhat out-of-the-way example in growing blood of the baneful effects of the misdirected energy of ill-educated youth.

We cannot pursue the subject farther; but we have said enough to show that it is a most complex one, and that, on the whole, it is to be desired that further light may dawn upon it in the direction of some general law which shall group varied conditions together rather than divide them asunder. Whether this will be so or not, time alone can show.

A MAN named Thomas Grimshaw was fined £10 and costs, at Bolton last week, for practising as "Dr. Shaw and Co.", his name not appearing in the *Medical Register*.

WE are requested by Dr. Bucknill to correct an inaccuracy in the balloting paper of the Royal Medical and Chirurgical Society this week; namely, that he is not in practice, which has arisen from Dr. Bucknill's nomination having taken place some time since, when the statement was exact.

THE *Manchester Guardian's* London correspondent writes:—I understand that the parliamentary grant of £2,000 a year for scientific investigation into the "causes and processes" of disease is in future to be placed at the disposal of the Royal Society. Heretofore, this endowment of research was controlled by Mr. Simon, as Medical Officer of the Privy Council.

THE Paris Academy of Medicine has accepted the offer of a site in the old Luxembourg Gardens. The lecture-rooms, laboratory, fine library, unique museum of surgical instruments, and precious archives of this institution, which it inherits from the old Society of Medicine and Academy of Surgery, and which are almost a sealed book, will now find a fitting habitation. The Academy has been for the last fifty years provisionally located in a building of which it never could permanently have possession, and will now be properly lodged in the vicinity of all the learned societies of Paris.

UNIVERSITY OF LONDON.

At a meeting of the Senate on Wednesday, the opinion of the law-officers of the Crown was received on the question submitted to them as to the nature and extent of the power conferred on the University by the Act 39 and 40 Victoria, cap. 41, as to whether women, if admitted to degrees in Medicine under that Act, will be entitled thereby to become members of Convocation. The question originated in an application from Miss Edith Shove to be admitted to examination for a degree in Medicine. The opinion of the law-officers seemed to be to the effect that, under the present regulations, women could not be admitted to the examination for Medical degrees, but that the Senate might, if it thought fit, with the approval of the Home Secretary, alter the regulations so as to allow women to come up for examination. If women obtained their degrees, they would thereby be eligible to become members of Convocation; but the Act above quoted would prevent them from taking any part in the management of the University. The law-officers point out "a slip in the words" of the Act, which seems strange in an Act in which the words are so few. The consideration of the subject was postponed to a future meeting of the Senate. The programme for the altered preliminary scientific examination was approved of, and ordered to be published in the forthcoming *Calendar*. The alterations, which seem sufficiently appropriate, will require to be attended to by students preparing to pass the examination.

ROYAL COLLEGE OF SURGEONS.

It will be seen, on reference to our advertising columns, that the next primary and pass examinations for the diploma of membership of the College will take place on January 12th and 19th respectively, when the new members of the Board, Messrs. Durham and Pick, will take part in the examinations. The metropolitan hospitals are represented on the Court of Examiners by the following gentlemen; viz., Messrs. *John Birkett (Vice-President of the College) and *J. Cooper Forster, of Guy's Hospital; W. Scovell Savory, F.R.S., and *Luther Holden, of St. Bartholomew's Hospital; *Frederick Le Gros Clark, F.R.S., of St. Thomas's Hospital; *T. Blizard Curling, F.R.S., of the London Hospital; H. Spencer Smith, of St. Mary's Hospital; *John Marshall, F.R.S., and *John E. Erichsen, F.R.S., of University College Hospital; and Timothy Holmes, of St. George's Hospital. The gentlemen with the prefix * are also members of the Council of the College. On the Board of Examiners in Anatomy and Physiology, only one gentleman is a member of the Council, viz., Mr. J. Birkett, the Vice-President. The other members are: Messrs. Arthur E. Durham, of Guy's Hospital; W. Scovell Savory, F.R.S. (Chairman) and Henry Power, of St. Bartholomew's Hospital; Timothy Holmes and Thomas P. Pick, of St. George's Hospital; John Wood, F.R.S., of King's College; Christopher Heath, of University College; and J. Whitaker Hulke, F.R.S., of the Middlesex Hospital.

SCARLET FEVER AT PORTSMOUTH.

ON Monday last, an influential deputation of the practitioners of Portsmouth waited on the Mayor of that town, in order to present the resolutions adopted at a previous meeting of the profession, as reported in our issue of last week, and especially to urge upon the Urban Sanitary Authority the necessity of erecting a hospital for infectious non-pauper cases. Mr. W. H. Garrington added to the reading of the resolutions a courteous and forcible speech, and he was supported by Dr. Miller, Dr. Axford, Mr. Morley, Dr. Hardin, Mr. Denham, Mr. Pike, Dr. W. Cousins, and others. Mr. George Turner, the Medical Officer of Health, was fully at one with the deputation, and had already pressed the matter upon the Sanitary Committee. In receiving the resolutions, Mr. Pink, the Mayor, thanked the deputation, and said that the Town Council were practically unanimous in desiring to erect a hospital for infectious diseases, but were hampered by a promise not to vote an increased rate, which was now limited to two shillings and sixpence, for sanitary purposes. Their debt already

was £150,000, and they had carried out many improvements. They proposed, however, now to apply to Government for higher rating powers. In the meanwhile, a house had been taken for hospital purposes, and land had been bought for a site. He did not think the drainage could fairly be blamed. We understand that nearly five hundred deaths from scarlet fever have occurred at Portsmouth since August 1875. This, of course, represents a very extensive prevalence of the malady, and we would urge upon the authorities that such a focus in any one town means unfortunately and necessarily the infection of other towns. We do not know how far the epidemic at Brighton might be traced to Portsmouth, but it seems to have been subsequent to it, and the communication is frequent; and, from Brighton, London is readily infected, as we have recently had good reason to know. We are glad to be assured that the epidemic is now lessening, and that the deaths last week in the Portsmouth district were only three. The courtesy and accord that mark the communications between the profession and the public authorities lead us to hope that the very important result of a special hospital will be soon obtained. Dr. R. Thorne Thorne has been commissioned to inquire and report on the part of the Local Government Board, and is at present in Portsmouth.

SCARLET FEVER AT BRIGHTON.

THE following are the authentic figures respecting deaths from scarlet fever in Brighton (municipal borough) during the current quarter up to December 16th inclusive. In the Kemp Town district there have been seven deaths; two were of adults, one of the two being sixty-seven years of age. Five were deaths of children. Of the seven deaths, only two occurred in first-class streets, the remaining five occurred in poor districts. In Palace district there were five deaths—one adult, four children; only one in a first-class street. In Preston district there were two deaths, both children. In St. Peter's district there were twenty-one deaths—two adults and nineteen children. The total number of deaths is thirty-five; namely, five adults and thirty children. Three deaths took place in first-class streets, while the remaining thirty-two took place in the poorest neighbourhoods or districts. The great majority of the children were under five years of age. During the week ending December 16th, only three deaths from scarlet fever took place, two in St. Peter's, one in Preston, all children. The total number of deaths from all causes for the week has been only twenty-two, giving a death-rate of 11.0 per 1,000. During the last eleven weeks, the position Brighton has held in the list of twenty large towns was as follows: 18, 18, 15, 18, 20, 20, 18, 11, 25, 19, 11. On three occasions Brighton has held the highest place with death-rates of 11, 11, and 18 per 1,000; on one the second place; on one the third place; on one the fourth place; on one the fifth place; on one the sixth place. On December 20th, no death has been recorded since the 16th.

DEATH FROM CHLOROFORM AT THE CHARING CROSS HOSPITAL.

THE following details have been courteously supplied by the resident officers, in answer to our inquiries. On Wednesday of last week, a man, aged 33, was admitted with a recent inguinal hernia, which had resisted several attempts at reduction, but was not strangulated. Renewed endeavours to reduce it after a bath were unsuccessful, and, when the patient was seen by the visiting surgeon in charge, he recommended chloroform to be given, expecting, then, no difficulty in the case. Liquid diet was ordered, and the man took some beef-tea or milk every two hours. There was no vomiting. On Friday, he had his half-pint of beef-tea at one o'clock, and was ordered to have no more food after that hour, as the chloroform administration was fixed for the evening. The man lay quietly in bed, and did not complain of exhaustion, but asked to have as little chloroform as might be, saying that he was not a strong man. He had been a publican, but there is no evidence as to his habits. Shortly after eight o'clock, the administration was commenced by one of the assistant resident medical officers, who was quite accustomed to the duty. The patient lay in bed, loosely

clad. The heart was examined by the stethoscope, and considered to be normal, and no stimulant was administered. The anæsthetic was given on folded lint, one-half drachm being poured on at a time. At the end of four or five minutes, when the fifth half drachm had been poured out, the taxis not having been commenced, and there having been no marked struggling, the face suddenly became livid; and the administrator, having his finger on the pulse, noticed it to become feeble, at the same time that respiration became slightly stertorous. The chloroform was at once removed, a pillow was placed under the patient's shoulders, so that the head fell rather backwards, the tongue was drawn forward by forceps, and artificial respiration, by Silvester's method, was commenced. As soon as possible, two ounces of brandy, with warm water, were injected into the rectum; the chest was also flapped with wet towels, and the extremities rubbed and warmed. The patient, however, gave no sign of rallying, and ceased to breathe in the course of three or four minutes from his seizure. Later on, Paradisi was applied to the phrenic nerve, and artificial respiration was continued for an hour, but without result. At the *post mortem* examination, the lungs and brain were found congested. The heart was large, and its right cavities were full of dark blood. The right ventricle was noted to be thinner than normal, and was overlaid with fat. There was no naked-eye evidence of fatty degeneration, and the microscope was not used. The liver was fatty. An inquest was held, and a verdict returned to the effect "that deceased [died from the effects of chloroform, but that it was properly administered]."

PROFESSIONAL ETIQUETTE.

RATHER a sharp contest is in progress for the office of assistant-physician at St. George's, between Dr. R. J. Lee and Dr. Watney. The latter has received a flattering testimonial from the whole of the members of the existing medical staff, and from his former university teachers. These two documents he has since publicly advertised. This course is, we think, much to be deprecated, and we trust it will not become a precedent. It is not consistent with the traditions of the profession, that, even under the excitement of a contested election, advertising should be carried to such a length; still less can it be agreeable to these eminent members of the profession to find such bad use made of their testimonial. The whole system of canvassing subscribers for election to a professional post, which should be bestowed by skilled and responsible persons upon the candidate best fitted, is a very bad one, and has been abolished at the majority of our hospitals. We are sorry to see that it still flourishes at St. George's, and still more sorry to see that it has led to a serious abuse of publicity.

THE SCHOOL-SHIP "CORNWALL."

THE uncertainty we expressed last week concerning the nature of the outbreak of fever on board this vessel cannot even yet be cleared up, and we are still left in doubt as to whether we have to deal with scarlatina or with typhoid fever. According to the latest advice, there seem to be some cases of each of these diseases. Since our last report, we understand that only two more boys have been attacked; and accordingly we may hope that the epidemic influences are declining, or that, by the manifestation of some unwonted energy, the lads stricken by the sickness have been effectually isolated. We understand that one boy has died during the week; and that, at the necropsy, peritonitis of rather a severe character was found, quite out of proportion to the symptoms during life. Two small ulcers, apparently affecting only the mucous membrane, were also discovered in the ileum, and some thickening and ulceration of one margin of the ileo-cæcal valve. These ulcers did not seem to be connected with Peyer's patches, nor to have anything to do with the production of the peritonitis, which was mostly in the cavity of the pelvis. Of course, one immediately says "Typhoid"; but then, on the other hand, during this same week, in two other boys, the skin has been peeling off the hands, arms, and cheeks; and a considerable quantity of albumen has been found present

in the urine of each. One or two of the temperatures are very like the third week of typhoid; but the majority became quite normal in the course of a day or two, and have continued so. One boy has been admitted at the Seamen's Hospital, Greenwich, with a well-marked red papular eruption. The mildest cases seem to be very much allied to the "hospital sore-throat", frequent amongst those students of our large institutions who devote more than an ordinary amount of their time to the faulty atmosphere of the dissecting-room and the wards. Some of the severest cases seem to be undoubtedly scarlatina, while one or two resemble typhoid. The Committee of the Cornwall are endeavouring to secure the use of a hulk to which the boys can be removed for the present. We are glad to find that the Medical Officer of the Port of London has recommended that each of the training ships shall be provided with hospital accommodation, without, but near to the ship itself. We have repeatedly advocated the adoption of a similar system of complete isolation for each of these ships, and the suggestion that the school-ship *Worcester*, just vacated by the cadets, should be fitted up for the purpose, ought to be adopted without delay. We have no doubt that the Admiralty would willingly grant the loan of the vessel for the purpose of providing permanent hospital accommodation for all the training ships on the river, if the proper authorities will unitedly urge this course upon the Government. Delays are dangerous, and the sooner this course is adopted the better.

IGNORANT POISONING.

DR. MACKINTOSH, medical officer, reported to the rural sanitary authority of Chesterfield last week, that the infant mortality for the fortnight was fifty-five per cent. The most glaring cause of this large mortality he asserted to be "ignorant poisoning", through administering soothing medicines containing opium, the frequent use of which became fatal. The working classes, he said, bought large quantities of these mixtures, and druggists made up poisonous prescriptions for the children to such an extent that many of the deaths registered "natural causes" were really chronic poisoning.

CROWN MEDICAL EXPERTS IN CRIMINAL CASES.

THE Railway Regulation Act (1868) provides that, in actions to recover damages for personal injury, the judge may order the examination of the plaintiff by any medical man not being a witness on either side, and may make such order for his costs as he may think fit. This provision has rarely, if ever, been utilised, for the following curious reason. The Act does not say that the expert is to make any report; nor, if he do make a report, who is to read it, or what use is to be made of it; nor that counsel or either side should call him as a witness or examine him in any way. The judges will not call him; and of course, as neither side knows his opinion, neither side will call him. We refer to this subject partly to show that the legislature has already recognised the principle of neutral medical evidence, and partly to point out a danger to be avoided, should this principle be extended to criminal cases. All the reasons which may be supposed to have swayed the framers of the Railway Regulation Act, in respect to actions for damages, seem to us to apply with increased force to criminal cases. The conflict of evidence, the bigotry of opinions, are then, if not so conspicuous, at all events more painful. The case of William Drant furnishes a still more cogent objection to the existing mode. His solicitor has stated in the *Times* that no medical evidence was called for the defence, because the prisoner was too poor to obtain it. We think, although the solicitor may not have known it, that it might have been possible to procure gratuitous medical attendance in such a case. But the fact remains that, in this case, justice was not done because the prisoner was poor, for the least skilled witness would have procured his acquittal on the ground of insanity. In railway cases, there may be a difficulty in finding properly qualified persons; in cases of alleged lunacy, there would be none. The county lunatic asylum is always near the assize town, and no more suitable

and impartial witness could be called than the medical superintendent, for undoubtedly these gentlemen form a class of which any profession might be proud. We hope that before long it will be imperative that the medical head of the county asylum shall be examined as a neutral witness in all criminal cases where insanity is pleaded, and that for this extra official work he shall be fairly remunerated by the Treasury.

SMALL-POX.

THE deaths of two somewhat notable persons from the effects of the prevailing epidemic are announced. Mrs. Peake, wife of the Rev. G. E. Peake, curate in charge of St. John's Parish, Chatham, caught small-pox while visiting the sick and died. The deceased lady had only been married about eighteen months. The *Manchester Guardian* also announces the death, at the Monsall Fever Hospital, of Mr. Pitt, Steward of the Manchester Assize Courts. Mr. Pitt was seized with small-pox shortly after the close of the assizes, and was removed to Monsall at his own request. There is little doubt that he contracted the disease in the performance of his public duties.

DEATH FROM SELF-ADMINISTRATION OF CHLORAL.

ON Tuesday last, Dr. Hardwicke held an inquest as to the death of Randle Jackson Waters, aged 41, telegraph-engineer, who was found dead in bed on Sunday morning by his wife, who saw a bottle that had contained "hydrate of chloral" on the dressing-table. Deceased was very restless at night, and found it necessary to occupy a separate bedroom. The widow said she and her husband lived happily together. On Saturday evening, deceased was in capital health and spirits. He was about to go on a tour to examine telegraphs. She believed he had taken an overdose of the chloral, which he had been in the habit of using to procure sleep. He did not drink excessively, nor were his affairs embarrassed. Mr. Mason, of Osnaburgh Street, said the cause of death was failure of the heart's action, caused by an overdose of chloral. The jury agreed to a verdict of "Death by misadventure".

THE HEALTH OF LONDON.

DURING last week, 5,906 births and 3,424 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,482. The mortality from all causes was at the average rate of 22 deaths annually in every 1,000 persons living. In London, 2,546 births and 1,443 deaths were registered, the former having been 165 above and the latter 348 below the average numbers. The annual death-rate from all causes in the metropolis was 21 per 1,000. According to the return of the Registrar-General, the deaths from small-pox in London, which had been 67 and 50 in the two preceding weeks, rose to 75 last week, the highest weekly number since the commencement of the present epidemic; 34 were certified as unvaccinated, 25 as vaccinated, and, in the remaining 16 cases, the medical certificates did not furnish any information upon this point. Of the 75 fatal cases, 38 took place in the three hospitals at Homerton, Stockwell, and Hampstead, and 3 in the Highgate Hospital; the remaining 34, or 45 per cent. of the total cases, occurred in private dwellings. In all (excluding two cases admitted to the metropolitan hospitals from Hendon and West Ham, situated outside registration London), 4 belonged to the West, 25 to the North, 3 to the Central, 10 to the East, and 31 to the South groups of districts. The deaths showed the largest increase in South London.

VOLUNTEER SICK-BEARERS.

A MEETING in support of the movement for the formation of volunteer sick-bearers was held on December 14th in the United Service Institution; Colonel Gordon Ives in the Chair. Surgeon-Major Sandford Moore, the instructor of the Army Hospital Corps, explained what was essential in order to attain the object in view. He said that the modern plan of relieving wounded in the field of battle embraced three essential features: the individuals who were to be employed as bearers required to be strong and able-bodied; secondly, relief in the

field must be given simultaneously with the progress of the action—destruction and relief should go on side by side; and, thirdly, the individuals who imparted relief should themselves be trained men. It was preposterous to put bandsmen or broken-down men to this work. The very handling of the wounded necessitated a certain amount of training; besides which they would, in the absence of the surgeon, be expected to put on the bandages of the wounded. They should be disciplined men, because the duty was performed under fire, and for this reason they required a distinct military organisation, under officers to see that the work is effectively performed. The most perfect system was that of the Prussians.—A discussion ensued; after which the following resolutions were passed. 1. Proposed by Colonel Routledge and seconded by Mr. Corrie Jackson, "That it is the unanimous opinion of this meeting that the surgeons of the volunteer force are desirous of promoting the formation of a band of sick-bearers in connection with the force, and that they are prepared to undergo training with that object if opportunities are given them." 2. Proposed by Colonel Labrow and seconded by Dr. Helsham, "That Colonel Gordon Ives should kindly represent the feeling of this meeting to the Inspector-General of Auxiliary Forces, and inquire what steps he would sanction, and also obtain the views of the Secretary of State for War on the subject."—A vote of thanks to Surgeon-Major Moore closed the proceedings.

SPIRITUALISM AND INSANITY.

DR. W. B. CARPENTER, in the second of his lectures on Spiritualism delivered last week at the London Institution, insisted that, in the inquiry into the so-called phenomena and facts of spiritualism, nobody was to be trusted; that almost everything in it must be the result either of deception or self-deception, and that there was an immense difference between the fact itself and the observer's idea of the fact. In conclusion, he said that these investigations were calculated to produce insanity, because insanity was nothing more than the possession of a fixed idea which tinted everything with which we have to deal. We are glad to see that, on both occasions, Dr. Carpenter's lectures were very fully attended. The clear common sense and scientific method which Dr. Carpenter brings to bear on this subject cannot fail to have a beneficial influence on the large body of the public who are incapable of judging these so-called phenomena by any logical process. The republication of these lectures in a cheap and popular form would be of great service to the cause of healthy thinking.

METROPOLITAN PROVIDENT DISPENSARIES.

THE St. Giles's Committee of the Charity Organisation Society have just issued a paper which gives a tabular view of provident dispensaries in the metropolis. The table includes the following points: the number of years each dispensary has been in existence; their origin; the competition against which they have to contend; the number of their members; their income; the number and position of the medical staff; the medical payments; the number of attendances; and the amount of subscription payable by members monthly. It appears that the oldest provident dispensary in London is that in Star Street, Paddington, which was founded thirty-nine years ago. That which has the largest number of members is in Ordnance Road, St. John's Wood. The Camberwell Dispensary has the largest income—viz., £1,430 8s. 8d. The number of the medical officers varies from three to eleven. The monthly subscriptions vary: for adults, from fourpence to eightpence; and for families, from sixpence to two shillings. Though, as we have said, the Provident Dispensary in St. John's Wood is the largest in point of numbers, having 9,649 members, yet, strange to say, the members' payments only amount to £254 6s. 11d., notwithstanding a high rate of charges; whereas the Camberwell Dispensary, with its 7,896 members, and a much lower rate of charges, has an income from this source of £800 12s. 7d. The number of medical officers at both institutions is the same—viz., seven. Among these, the Camberwell Dispensary divides £793 10s. 2d., while the St. John's Wood Dis-

pensary only divides £191 2s. These figures convey a very unfavourable impression with regard to the management of the Dispensary in Ordinance Road. However, in both cases alike, the table affirms that the doctors are "content." We should like to inquire whether those in St. John's Wood are really satisfied with so moderate an allowance when it is obvious from this table that much larger sums are allotted to the medical officers in other provident dispensaries. Taking all points into consideration, the Dispensary at Haverstock Hill appears to be one of the best managed. We notice that the Kilburn Provident Medical Institution is not included in the list, and there may probably be other omissions. If the St. Giles's Committee, after making the table as complete as possible, were to bring out a fresh edition of it year by year, it would create a healthy competition, and would serve to stimulate these useful institutions.

SANITARY WORK IN THE PORT OF LONDON.

THE last meeting of the Port Sanitary Committee of the Corporation for this year was held on Tuesday last at Guildhall. The Medical Officer of Health reported that during the month of November 532 ships had been visited and inspected in the docks, and 791 on the river. Of these, 116 required cleansing, or some structural alterations, to assist ventilation; and one ship had been fumigated on account of small-pox, the patient having been previously removed to hospital in the Rotherhithe ambulance from the Commercial Docks. Of the total number of craft inspected, 21 only were outward bound, and 122 were sailing barges. Six parcels of clothing were disinfected by the inspectors, and 28 sick sailors were sent or referred to the *Dreadnought* Hospital at Greenwich, on account of some acute or chronic disease. Nine foul cargoes were found in various parts of the port, and measures taken for their immediate removal. Dr. Leach also reported the commencement of another epidemic on board the *Cornwall* schoolship, and that in consequence the captain had, acting under the advice of the port sanitary authority, removed 17 boys to hospital at Greenwich.

ACCIDENTAL POISONING BY OPIUM.

AN inquiry into the death of Henry Randall, aged 23, a potman in Chelsea, was opened on Wednesday by Dr. Diplock, Coroner for West Middlesex. On Monday night, the young man, shortly after he had had his supper, complained of being ill and in great pain. A medical man was sent for, who pronounced the case to be one of apoplexy, and the sufferer died the same night. In his pocket was found a paper containing a number of pills, of which it was ascertained he had taken four or five. It was found that these pills had been given him by a female servant at the Hospital for Women, who had abstracted them from a drawer in the dispensary, with the idea that they would be good for a cough with which he was troubled. Each pill contained a grain of opium. The inquiry was adjourned.

VISCERAL SYPHILIS.

THE Pathological Society of London will devote the evening of Tuesday, January 16th, to the discussion of the subject of visceral syphilis. Specimens illustrating the subject will be exhibited. The Council are desirous that the specimens should demonstrate something new or unusual in the histology of the disease; but specimens of interest in other respects will be gladly received. Those gentlemen who are intending to exhibit specimens are requested to send in their names without delay to the Medical Secretary; and to also state the subject of their specimens, or their communications.

ROBBERY OF MEDICAL PRACTITIONERS.

JOHN ROGERS, 27, clerk, pleaded "guilty", at the Middlesex Sessions, on Monday, to an indictment charging him with having stolen a bag containing surgical instruments of the value of £15, the property of Lewis May, a surgeon living at 371, Holloway Road; and also to a further indictment charging him with having stolen a coat and other articles of the value of £7, from No. 30, Northampton Park, Canonbury, the dwelling-house of Dr. Thomas Hamilton. Mr. Tickell

(with whom was Mr. Besley) prosecuted. The jury found the prisoner guilty, and Mr. Sergeant Cox sentenced him to be imprisoned and kept to hard labour for two calendar months upon each indictment.

THE EPILEPTIC HOMICIDE: A "CASUS OMISSUS".

IN commenting upon the case of epileptic homicide at Lincoln, we expressed a doubt whether, under the circumstances, the prisoner could now be sent to his proper place, Broadmoor. The subsequent action of Mr. Secretary Cross in simply respiting him confirms the accuracy of this opinion. The Lunacy Act (27 and 28 Vict., c. 29, § iii) directs that, "if at any time it shall be made to appear to one of Her Majesty's Principal Secretaries of State that there is good reason to believe that any prisoner in confinement under sentence of death is then insane, such Secretary of State shall appoint two or more physicians or surgeons duly registered as aforesaid to inquire into the insanity of such prisoner; and if, on such inquiry, the prisoner shall be found to be then insane, the fact shall be certified in writing by such persons to the said Secretary of State; and, on the receipt of such certificate, the said Secretary of State shall direct by warrant under his hand that such prisoner shall be removed to such lunatic asylum or other proper receptacle for insane prisoners as aforesaid". That this prisoner was insane at the time he committed the homicide has obviously been proved to the satisfaction of Mr. Cross, his reprieve shows; for, apart from insanity, a more brutal murder could not have been perpetrated. But the insanity was of an epileptic, and therefore paroxysmal character. In the intervals, he is, like many such cases, sane. If so, no one could properly certify him to be otherwise. The Secretary of State has, therefore, no power to send him to an asylum. No one, indeed, can be certain that he may ever again have an attack, any more than we can be perfectly certain than any given epileptic, however confirmed his disease, will ever have another fit. On the other hand, our knowledge of this disease assures us that this man will, in all probability, have a recurrence of fits; associated with which again, in all probability, there will be mania, and very likely mania of the homicidal type. If, but not until, he have a return, he may be sent to Broadmoor. It is painful to reflect that the first indication of the future attack may be the murder of a warder or of a fellow-prisoner. This case of William Drant, then, is a *casus omissus* for which the law does not provide: an omission which ought to be rectified without loss of time by an Act which should not only provide for such cases in future, but even be retrospective.

ORGANISATION AMONG CHEMISTS.

AN adjourned meeting to discuss this subject assembled in the Chemical Society's Room, Burlington House, on Saturday, November 4th, 1876. Professor F. A. Abel, F.R.S., President of the Chemical Society, in the Chair. The minutes of the previous meeting were read and confirmed. The Report of the Committee appointed to confer with the Council of the Chemical Society was read. It was proposed by Mr. J. A. Wanklyn and seconded by Professor Redwood: "That the cordial thanks of the meeting be tendered to the President and Council of the Chemical Society for the consideration given by them to the proposals of the Organisation Committee, and for the efforts made by them to meet the views of the Committee in relation to these proposals." (Carried unanimously.) It was proposed by Professor Frankland, F.R.S., seconded by Dr. Voelcker, F.R.S., and supported by Dr. Williamson, F.R.S.: "That, having regard to the limited powers of the Chemical Society under its charter, it is desirable that an Association be formed that shall be independent of the Chemical Society, and that the Organisation Committee already formed be dissolved, and that the following gentlemen, or such of them as may be willing to act, form a new Committee (with liberty to add to their number) to settle the form and details of the scheme, and to take all steps necessary to secure the formation and incorporation of the proposed new Association." (Carried unanimously.) The proposed Committee are the following: Professor Abel; Mr. A. H. Allen (Sheffield); Dr. H. E. Armstrong;

Professor Atfield; Mr. James Bell; Mr. I. Lowthian Bell (Middlesbrough); Professor Bloxam; Professor Cruik Brown (Edinburgh); Mr. M. Carteighe; Mr. Dugald Campbell; Mr. W. Crookes; Mr. G. E. Davis (Runcorn); Dr. Dupré; Professor James Dewar (Cambridge); Mr. F. Field; Mr. R. J. Friswell; Professor Frankland; Professor Gladstone; Mr. George Gore (Birmingham); Professor Galloway (Dublin); Mr. C. E. Groves; Mr. W. N. Hartley; Mr. C. W. Heaton; Mr. Douglas Hermann (St. Helen's); Mr. David Howard; Mr. C. T. Kingzett; Professor Marreco (Newcastle); Mr. F. A. Mahning; Dr. E. J. Mills; Dr. Hugo Müller; Mr. E. Neison; Professor Odling (Oxford); Mr. F. J. M. Page; Mr. J. Pattinson (Newcastle); Dr. B. H. Paul; Mr. W. H. Perkin; Mr. C. H. Piessé; Professor Redwood; Professor Emerson Reynolds (Dublin); Dr. W. J. Russell; Dr. R. Angus Smith (Manchester); Dr. H. Sprengel; Dr. Stevenson; Mr. R. Tatlock (Glasgow); Mr. E. T. Teschemacher; Professor R. V. Tuson; Dr. Voelcker; Mr. J. A. Wanklyn; Professor Williamson; Mr. J. T. Way; Dr. C. R. A. Wright. A vote of thanks to the Chairman (Professor Abel) for presiding was carried by acclamation, and a vote of thanks to the Secretaries terminated the proceedings. The *Chemical Times* states that the majority of the gentlemen whose names have been proposed have agreed to aid in forming the institution.

THE SHEFFIELD INFIRMARY.

THE vacancy which has been made at the Sheffield General Infirmary by the death of Mr. Parker is, we understand, likely to be filled by the appointment of Mr. Arthur Jackson, now Surgeon to the Public Hospital and Dispensary; Mr. R. J. Pye-Smith, the only other candidate, having retired in favour of Mr. Jackson. For the vacancy thus occasioned at the Hospital, several candidates have come forward—Messrs. Pye-Smith, Hallam, Taylor, Barber, and O'Keefe. Without wishing to disparage the claims of other candidates, we may state that Mr. Pye-Smith was one of the most competent and completely educated students who ever left Guy's Hospital; he is, we believe, also the only candidate who is a Fellow of the Royal College of Surgeons.

ABUSE OF HOSPITAL SERVICES.

THE *Student's Medical Journal* publishes a report of a paper read at the Students' Society of the London Hospital, which contains a good deal of sound sense, and may be read with advantage by elder men.

Payment may be claimed in the case of endowed hospitals, on the ground that the lay officials pay themselves or are paid for what is ordinary labour, whilst the medical officials are unpaid for what is skilled labour. In the case of hospitals supported by voluntary contributions, it may be claimed on the same ground as the druggist and manufacturer claim it, who are not asked to supply drugs and lint free. No special section of the community ought to be taxed above the rest, in order to provide public institutions for the public good. Government should be appealed to before doctors as a class. In general vindication, it may be said that there is no parallel in any other profession, *i.e.*, no profession gives a lump gift of a large province of the work its members live by to the state. Thus there is no free system of legal aid, and no sect with unpaid clergy. Even hospital chaplains are paid. Then, again, it is better that there should be a proper internal organisation in a work of charity rather than a sacrifice made from interested motives. Any bad moral effect resulting from the loss of public exercise in humanity would be compensated for by the humanising character of medical work. Practical action is a matter for the future. First, the profession must be brought to see the matter in a right light. Then a firm and united front would probably be enough to secure the object wished for.

SCOTLAND.

THE new supply of water for the burgh of Cupar-Fife was formally turned on last Friday by the Provost. There was a masonic procession on the occasion, and in the evening a public dinner was held.

A MEDICAL student was last week apprehended in Glasgow and taken to Ayr, where he was examined before the sheriff on a charge of culpable homicide. It is alleged that some two months ago the

accused, while acting for a local practitioner in an Ayrshire village, attended a young married woman in confinement, and that in consequence of his unskilful treatment she shortly afterwards died. The accused has been remanded for further examination.

AT the annual general meeting of the Stirling Infirmary contributors, it was stated in the report that, during the past year, there had been 2,958 patients attended to, of whom 159 had been indoor-patients. The income was £974, while the expenditure was less than £800.

PRECAUTIONS AGAINST SMALL-POX.

THE Board of Supervision have sent to the local authorities throughout Scotland copies of a minute passed by them, stating that, as small-pox threatens to become epidemic in England, they deem it expedient to direct special and immediate attention to the powers entrusted to them by the Public Health Act, by means of which the disease may be mitigated and checked when it comes to Scotland. The special measures urged on the authorities are vaccination and revaccination, the removal of nuisances, obtaining notice of cases from medical practitioners, the establishment of hospitals, and the isolation of cases. "It may be assumed," the minute says, "that small-pox is almost certain to be imported from England into Scotland, unless it speedily dies out in the former country." The *Aberdeen Free Press* states that a case has appeared at Woodside. The patient, a young woman, a domestic servant, has been removed to the Cottage Hospital, Middlefield; and the local authority have applied to the Board of Supervision for permission to keep the hospital open for cases so long as may be thought necessary.

A CENTENARIAN.

THERE died last week at Barrhead, Renfrewshire, a labourer named Thomas Park, who had attained, it is said, the age of 107 years. He had always been a man of temperate habits, retained all his faculties, and enjoyed good health up to within a few months of his death. He was a native of Ireland.

THE KILMARNOCK FEVER HOSPITAL.

FROM the annual report of the Kilmarnock Fever Hospital and Infirmary, it appears that the institution is in a very flourishing and efficient condition. The number of cases admitted during the year was 334, which was greatly in excess of any previous year. Fever had been unusually prevalent, 99 cases having been admitted, but there had only been 5 deaths. The medical officer gave it as his opinion that the timely removal of these cases, and the cleansing and disinfecting of the houses, had prevented what might have been a very serious epidemic. The financial statement also was very satisfactory.

HYDROPHOBIA IN GLASGOW.

PROFESSOR MACLEOD of Glasgow, in the course of a popular lecture recently delivered, referred to the cases of hydrophobia which had lately occurred in Glasgow. It was remarkable, he said, that all of a sudden there should have arisen in Glasgow a disease which none of the members of the medical profession there had ever seen before. The disease was one very difficult to propagate. He would not care though a mad dog bit him through the clothes, because the animal's teeth would be cleaned, and there would be no fear of any bad results. It was foolish to destroy a dog which had bitten a person, because many men had been brought as from a bed of death by being shown the dogs that bit them. The first patient, in the Western Infirmary, had told him that he was perfectly well until one day he took up a newspaper and read of a man that had died of hydrophobia, and he was never of any use from that moment. The second told him exactly the same thing; and Sergeant McGilvray informed him that his mind was haunted night and day by the bite he received, knowing, as he did, that people had died from hydrophobia, till, at last, he had those extraordinary symptoms, which seemed really as much mental as bodily. There was a huge lot of nonsense talked about hydrophobia, and they

need not be afraid of it. If they tried for twenty-five years, the chances were they would not see any more of it in the city. Hundreds of people had been bitten in Glasgow during the last few months, and there had been only three, if these were, as he thought they were, cases of hydrophobia. None of the men who died had any fear of water. They took hold of the cup containing water, but the moment the cup touched their lips it produced a spasm, which sometimes made them throw it from them, not from horror of the water, but from fear of the spasm.

IRELAND.

THE Town Commissioners of Wexford intend, in the ensuing year, to apply to the Public Works Loan Commissioners for a loan of £20,000, to enable them to construct waterworks for the supply of the town with a sufficient supply of pure water.

AN outbreak of typhus fever has taken place among the crew of H.M.S. *Valiant*, at present stationed off Foyes. Captain Salmon, her commander, communicated with the medical officer of St. John's Fever Hospital, and fifteen cases were transferred as pay patients to the wards of that institution. It is stated that the outbreak is of a very serious kind.

DR. WILKIN died recently at Blaney House, Enniskillen, at a very advanced age. He served at the battle of Vittoria, and was present at the storming of Badajoz. After leaving the army medical service, he was appointed medical officer of Derrygonnelly and Churchill dispensary districts, which post he held for nearly fifty years.

RATHMINES WATER-SUPPLY.

AN influential meeting of the residents of Rathmines and Rathgar was held at the Town Hall, Rathmines, last week, for the purpose of considering the question of the introduction of the Vartry water into those townships in place of the present supply from the canal. The following resolution was adopted: "That this meeting is of opinion that the introduction of the Vartry water into the township is essential to the health and comfort of the inhabitants, and from its softness and purity is far to be preferred for all domestic purposes to the canal water supplied to the township; and this meeting protests against any expenditure whatever in the canal scheme contemplated by the township commissioners as wholly opposed to the wishes of the inhabitants, and that the honorary secretary do forward a copy of this resolution to the Board." Professor Galloway supported the resolution, and remarked that the organic impurities in the canal water were of a most dangerous character. A deputation was finally appointed to wait on the Commissioners, and request them to act in accordance with the above resolution.

LECTURES AT THE COLLEGE OF PHYSICIANS.

THE authorities of the College of Physicians have determined that an annual course of lectures on subjects connected with medical science shall be delivered. These lectures are arranged to take place two months in each year—January and February, and the lecturers for 1877 will be Dr. Reynolds, Dr. Macalister, and Dr. Foot, the two former being connected with the University of Dublin, and the latter with the College of Physicians. The lectures will be open to all licentiates of the College, free of charge, but a small sum will be charged to other medical practitioners.

VICE-REGAL APPOINTMENTS.

THE following appointments have been made by the new Lord Lieutenant.—*Physician in Ordinary*: G. W. Hatchell, M.D. *Surgeon in Ordinary*: Philip Crampton Smyly, F.R.C.S.I. *Surgeon to Household*: James S. Hughes, F.R.C.S.I. *Surgeon-Dentist in Ordinary*: Robert H. Moore, F.R.C.S.I. These gentlemen acted in a similar capacity for the Duke of Abercorn.

CARELESS VACCINATION.

THE profession will be glad to hear, and, indeed, the general public who are deeply interested in the subject, that notices have just been sent to all the metropolitan and provincial hospitals that, the attention of the Council of the Royal College of Surgeons of England having been drawn by the General Medical Council to the defective character of the certificates of proficiency in vaccination received by some of the licensing bodies, the Council have resolved that in future the certificates of proficiency in vaccination to be received by the College shall be such as will entitle their holders to contract as public vaccinators under the regulations at the time in force of the Local Government Board. This new regulation will take effect in the case of all candidates presenting themselves for the final examination, whether for the membership or the fellowship, on and after May 1st next.

CERTIFYING FACTORY SURGEONS.

DEPUTATION TO THE HOME SECRETARY.

ON Monday, December 11th, a deputation of Certifying Factory Surgeons waited on the Right Honourable R. A. Cross, Secretary of State for the Home Department, for the purpose of laying before him the commentary on the Report of the Commissioners, which was published in the JOURNAL of October 28th. There were present: The Right Honourable Robert Lowe, M.P.; Mr. Hermon, M.P.; Mr. S. Fielden, Manufacturer, Todmorden; Dr. Risdon Bennett, President of the Royal College of Physicians; Mr. Prescott Hewett, President of the Royal College of Surgeons; Mr. Ernest Hart, Chairman of the Parliamentary Committee of the British Medical Association; Dr. Peter Royle, Greenheys, Manchester; Dr. Arlidge, Chairman of the Association of Certifying Medical Officers; Mr. Stansfeld, Bristol, Secretary of the Association; Mr. Johnson, Lancaster, Treasurer of the Association; Mr. W. H. Folker, Hanley; Dr. Purdon, Belfast; Dr. Moore, Dublin; Dr. Collins, Wolverhampton; Mr. Hugh Robinson, Preston; Dr. Ferguson, Bolton; Mr. Benjamin Thomas, Llanelli; Dr. Brown, Preston; Mr. F. Greenwood, Huddersfield; Mr. Poppleton, Bradford; Dr. Edward Lynes, Coventry; Mr. Kelty, Walsall; Dr. Watson, Glasgow; Dr. Simpson, Glasgow; Dr. F. M. Pierce, Manchester; Dr. J. H. Paul, Camberwell; Mr. S. W. Sibley; Mr. W. Underhill, Tipton; and Dr. W. Roden, Kidderminster.

MR. ROBERT LOWE, M.P.: I have great pleasure in introducing to you a deputation, consisting mainly of certifying surgeons under the Factory Acts. I believe they have reason to complain of some recommendations in the recent report of the Royal Commission. I have no doubt that it would be saving your time if they stated the case for themselves, instead of having it stated by me and restated by them. They are more conversant with the subject than I am, and will be better able to place it before you. Both you and I are lawyers; and we have both heard of Dr. Beckett's question: "What is the base fee?" and the answer to that is, "half a guinea". Now, the fee here complained of is one-twentieth part of the base fee of the lawyer. When the work is expected to be done for sixpence, it must be confessed that that is rather a small allowance for gentlemen of education to receive. I will, therefore, present to you the head of the Association, who will state the matter to you.

DR. ARLIDGE, Chairman of the Association, said: We have attended as a deputation to-day to set before you our views in regard to the report of the Royal Commission, and also what we consider desirable in reference to any future legislation on Factory matters. We attend as a deputation of the Association, in the first instance; but, besides the members of the Association, there are some non members of the Association present, who could not be committed to the recommendations in the memorial, and, with your permission, one of their number would like to express his opinions. I may say, however, that they attend to concur with us generally. We have gentlemen from Glasgow, Dr. Watson and Professor Simpson, and Dr. Watson will address to you a few words after myself. The first point to which I would draw attention is the sanitary character of the Factory Acts. The sanitary character is indicated by their origin in the general demand, in the United Kingdom, for some remedies for the evils generally recognised as following upon the employment of children and others in textile

mills and places of that kind. That this was so, the preambles, especially of the earlier Acts, distinctly prove.

Mr. CROSS: You need not labour that point, I am perfectly well aware of all that.

Dr. ARLIDGE: I would then proceed to say that, as medical men, although we insist upon the sanitary aspects of the Acts, we are not all ignorant of the provisions of the Acts. But we consider that, now the Education Act has been passed, the Factory Acts, as educational measures, have ceased; and they have been, so to speak, supplanted by the Education Act.

Mr. CROSS: I do not know that.

Dr. ARLIDGE: They have been so in a great measure. It has fallen under your observation that the Commissioners, in their recommendations, and the report generally, have added very little to the sanitary provisions which have been previously enforced under the old Acts. The recommendations are very few and inconsiderable as to the extension of sanitary measures to the interior of factories. As medical men, acquainted with the work of factories, we are aware of many processes of manufacture which are detrimental to the health and lives of the workpeople; and, generally speaking, the conditions of labour are not as they might be, and they are more or less injurious, and we hold that some sanitary inspection is necessary. It is a subject, we admit, surrounded with great difficulties; because the question immediately arises, Who is to pay the certifying surgeons if they are called upon to inspect the interior of the factories? There is one thing that occurs to my mind; that we have already, under the Public Health Act, the medical officers of health, who have the power of entry into factories, and can be called upon to make an examination if any nuisance be reported in these factories. Therefore, it might be that the sanitary state of the factories might be delegated to the health-officers. In many cases, the certifying surgeon is also the health-officer of his district; and probably this combination of the two offices might be extended. That would be practical in small places; where there are few factories, and where the duties are not so laborious, the certifying surgeons might undertake the additional duties of health-officer. But, however this question may be settled, we consider that very ample work remains for the discharge of the certifying surgeons in many factories, even if the duty of the internal sanitary supervision be not imposed upon them. If the recommendations of the Commissioners were carried out in reference to certificates, it would be a great gain to manufacturers to have the assistance of medical officers, even apart from sanitary functions; because, if these recommendations were put into the clauses of an Act, they would impose great responsibility and trouble upon the manufacturers, who would have to retain the certificates, and ascertain that they had not been tampered with, and that the person who presented the certificate was the individual to whom the certificate applied. Referring to the past history of the Act, we are of opinion that, without the aid of the medical officers who have been acting under the Factory Acts, those Acts would not have had the efficiency that they have had; that the country would not have had those beneficial results which are admitted to have followed in the social improvement of the working classes, particularly in the textile districts, where those Factory Acts have been longest in operation; and we should deprecate any diminution of the medical supervision of factories and of those engaged in them by any measure brought into Parliament, as we consider that the same causes are in operation as when the Factory Acts were first introduced, and which are detrimental to the health of the people; and if that care and watchfulness over them be withdrawn, we should have a repetition of the evils which the Factory Acts were introduced to remedy. I would refer to some of the clauses in the memorial which has been placed in your hands. In the clause marked "D", on the fifth page, the arguments against the recommendations of the Commissioners are fully set out, and it will not be necessary for me to detain you by adding to it. The next clause, marked "E", is one which must be regarded as a provisional one. It is framed on the supposition that the system of endorsing certificates would be accepted. Then the next remark I would make is this: that there has been a general and a very prevalent feeling that the certifying surgeons have nothing else to do but certify as to age. Now, this is a point which we consider very important; because it is only the surgeons who can know how far the Act has been beneficially extended or applied to the preservation of children in sufficient capacity for work, and, of those labouring under disease, how far they have been excluded from work. No report is made of the refusals of children or the existence of disease; and, therefore, it can only be known to the surgeons themselves. Therefore, it is not surprising that a strong impression has got abroad that the certifying surgeons are only certifying surgeons in the matter of age. Then there is a statement there as to the large average of rejections. It shows an average of from 20 to 50 per cent. of those presented for examination, and that is the com-

bined testimony of the different medical officers. The paragraph marked "H" refers to the system of contracts. By the system of contracts, the certifying surgeon paid a weekly visit, which produced good results. Then the paragraph marked "I" raises a point of some importance: "The onus of rejecting children, and young persons, as unfit for work, now falls on the certifying surgeon, who is a disinterested person, thus obviating any idea of favouritism or partiality." We consider that it is a great advantage to the manufacturers to have the surgeon interposing between him and his workpeople. The paragraph marked "J" is: "In places of work, where not more than ten protected persons are employed, the employer shall have the power of sending children to be examined by the certifying surgeon at his residence at a fee of sixpence per head." This recommendation has been introduced under the pressure of some manufacturers who complained of the amount of money charged by the surgeons for their fees—the charge being two and sixpence for a visit for certifying a certain number of children.

Mr. CROSS: You say that it is injurious to the interests of persons engaged in private practice.

Dr. ARLIDGE: We consider it injurious to the interests of medical men. Some few are almost entirely engaged in public work; but the majority of them are engaged in private practice. This access of children is a matter which they feel to be a great nuisance to them and some detriment; and if it is to be allowed that the certificates of age are to be granted at any other place than the place of manufacture, it would be necessary that the child should bring with him the certificate of his birth and registration, and that he should be accompanied by some person of responsibility, who should identify the child as belonging to the particular factory. Some guarantees are necessary against fraud and impersonation. We are altogether against the endorsing of certificates and sending children to the private residences of the medical men. On the question of the fee, there is a proposition in the recommendations of the Commissioners that those who are sent to the house may obtain an examination at the cost of sixpence. This fee we consider derogatory altogether to the medical profession, and we do not consider that either Her Majesty's Ministers or Parliament would sanction such a thing. The minimum fee for the certifying of a child is half-a-crown; and the Act says that. That is the only clause that I am aware of existing in the present Acts. It is upon the basis of sixpence each, because it is a permissive clause, and one not really acted upon very largely; and it provides that the fee of two shillings and sixpence shall be paid by the manufacturer, who may bring five at a time, at the cost of the sixpence each. But it is provided that the surgeon shall not receive less than half-a-crown for the visit. The last point is that of the examination. The Commissioners have proposed that there should be only an examination on the first hiring of the child, and that he should go through his whole career without any further examination as to his fitness. We consider this will render the sanitary work entirely futile; because there is no guarantee that the child, who was free from disease five or six months before, will remain fit for work and free from disease at any future time. He may be the subject of disease or accident. He may have contracted a contagious disease, and be the vehicle of contagion into the factory. And then, again, the work in the different factories varies, so that the child who may be fit for work in one factory may be entirely unfit for work in another manufactory.

Mr. CROSS: That is quite true.

Dr. ARLIDGE: That would be subversive of the whole intentions of the sanitary laws. I think I have gone through the most of the points; but I have no doubt there are others, which it is difficult to pick out and grapple with at a hurried glance. Perhaps you will allow me to put into your hands a copy of suggestions that I have drawn up, on my own responsibility, as to certain provisions which I consider essential to any future legislation. They are somewhat influenced by the work of the Commissioners, and, if the recommendations of the Commissioners are not adopted, some of them will be altered, and will be subjected to the consideration of my colleagues and the certifying surgeons generally, who will discuss them, and who will present to you at some future time a more comprehensive and more correct series of suggestions than I have been able to do. Dr. Watson of Glasgow will next address you.

Dr. WATSON: Sir, I have the honour, with Professor Simpson, of representing in this deputation the certifying surgeons of Glasgow and the West of Scotland. Indeed, I understand that we are the only certifying surgeons from Scotland, and, as we do not belong to the Association of Certifying Surgeons, we think it right to say distinctly that we entirely concur in the memorial which has been presented by Dr. Arlidge. We have a very strong opinion that, if it were fully recognised and borne in mind by you and by the Government, that the certificate of the certifying surgeon contains a professional opinion as to the health and fitness for work, we should not appeal to you in vain.

We should not have proposed an appeal to you at all, unless we had been satisfied that you would place us in a proper position and secure for us a proper remuneration. The very mention of sixpence as a fee for a professional gentleman is assuredly rather a curious one.

Mr. CROSS : That is in the first Factory Act. I am expressing no opinion as to the fitness of the fee, but it is distinctly in the Act.

Mr. LOWE : It is five for half-a-crown, which is distinct from sixpence each.

Dr. WATSON : I hope that in any new Bill no certifying surgeon will be put in the position of having to give his professional opinion for sixpence. Passing from that point, I may say that we, in Scotland especially, are very decidedly opposed to children being sent to private residences. We have in Scotland no open surgeries; we have only private residences; and to invade our privacy with these children would be very disagreeable to us, and it would be injurious to our private practice. Then, again, another point with regard to the re-examination of the children. That is obviously necessary, for we know that health and fitness for work are not permanent with any one, and especially during childhood, so that we think the children should be examined at every new hiring.

Mr. CROSS : Who is to pay the fees?

Dr. WATSON : My present opinion is that it should be the master entirely, because those fees go into the cost of production, and the master can charge enough for his manufactured article to recoup him for this outlay. Therefore, it is quite fair to charge the manufacturer, who can charge it upon the consumer afterwards. We have found it in our experience to be a disadvantage that we have not the official power of inquiring into the kind of work for which we certify the children; and we think that, in any new Bill, there should be some provision made for them that we should know for what kind of work we are certifying. I have to thank you for allowing me to make these few remarks.

Mr. S. FIELDEN : I have had forty years' experience of this in business, and, as I have taken an active interest in the Bill, I ought to know something about it. I do not know that there is any grievance as to the present system of fees. I am merely speaking of the textile manufactures—I have no experience of others—when I say that there is no complaint that I know of, and I do not think that we ask that the present fee should be increased. In the early days of certifying surgeons there was no registration. The Act passed, and the doctors were the only men who could give any information as to the probable age and capacity for work, and I hope that that veto on allowing children to work will never be removed. It is most important. We find that the tallest children are the least able to work, and want to be held back. Only last week, the certifying surgeon disallowed 29 whom we knew to be over the age recognised. That depended upon the first Act made by the old reformed Parliament of 1833, which passed a law restricting the hours of labour for adults to twelve, and making the children's time eight hours; and then, in 1844, these hours were reduced to the half-time system, which was done on the score of the health of the women, mothers, and young persons and children who formed the rising generation, and I do not think there is any justification for giving way on that point. Since the Workshops Act has come into force, you have not half the inspectors that you ought to have to do the work; and in our own neighbourhood they visit as well as they can, but they have not the power to visit the factories in the way that they ought to do. The inspectors get an enormous amount of information really from the certifying surgeons. They are, to a great extent, subspectors. I should like rather to see the old method of inspectors reverted to, with a larger staff. Certainly, on the score of health, we ought not to give that up. But there is one thing that I ought to mention, which is rather out of the record, and that is the detection of fraud. It is simply impossible for the inspectors to detect this. The law is better now than it used to be; but it will never be of any use until you make an alteration in the moving power. It would reduce the cost of inspection, no doubt; but whether it would be palatable or not is another question. As to the half-a-crown fee that a medical man charges, why should not the master pay for it?

Dr. ROYLE : I have not the honour of belonging to the Association of Factory Surgeons; but I have felt it a duty to come here to-day, inasmuch as I think theirs is a very proper and legitimate case to bring before you, and I do not think that they are asking anything unreasonable. With regard to the certificate business, as mentioned by this Royal Commission, it should be borne in mind that it is not a question of age only, but of fitness for work, and, what should be added, for the special work for which the child is intended; because the child might be perfectly fitted for one situation, but not for another. I am quite sure that, if the certifying surgeons do not get a proper amount of remuneration, the work will be done in a more or less imperfect

manner. I do not think it has been so done in the past, because they have always felt—and I believe our profession is patriotic enough—that they take the lead in everything for preserving the health of the body, and the moral and social improvement of the people; and in you, sir, they have an able coadjutor. With regard to the fees, I speak from knowledge that the minimum is two shillings and sixpence for the visit, and sixpence for each additional child presented. With regard to the fee of sixpence for the examination of any individual and giving information as to his fitness for the special trade, I think in these days, when all classes of labour are increasing in value, it is not the time to reduce the fees of the medical profession in that way, because we do a great deal for nothing. There is one point that we have not mentioned. Dr. Purdon of Belfast, who is here, has examined 7,400 *per annum*, and 2,400—I will not pledge the exact numbers—were rejected. That is about 30 per cent. Now, they are not paid for the rejections, so that there is actually a premium for being slovenly, and passing these people. I need not tell you, if you want to get work out of the people of this country, you must keep up their stamina by taking care of them in their youth. For instance, a boy brought before a surgeon may be fit for labour if he get better food for a few months; and if he got better food, his parents would get him employment; and if he were put too early to work, he would be thrown on the country or the rates, or have a premature death. Of the 2,400, the great majority of the rejections were on account of misrepresentation of age on the part of the parents, who, from pecuniary circumstances, were anxious to get their children to work too soon. You ask a question as to who should pay the fee. I think it should be paid between the employer and the *employé*. The advantage would be this—that the young persons would not thoughtlessly change their situation, nor would the master so readily dismiss his hands. Now, with regard to infectious diseases, the constant attention of an inspector cannot possibly do much. In case of fever in homes, or ringworm and itch, which could go through large works, constant medical supervision is the great point to be considered. These things show the absolute necessity of there being a constant medical supervision; and it would be much better for the master and much better for the man, and it would carry out the views of those people who would like to see the work-people strong, healthy, and vigorous. I am quite sure that you will give this memorial your best consideration, and that you will do all in your power to see that there is a fair amount given for professional services fairly and honourably given.

Mr. ERNEST HART : Sir, I shall not take up your time, for the case has been clearly and thoroughly stated, except to say this, that the Parliamentary Bills Committee, of which I am chairman, has assumed in this matter an attitude of watchfulness, hoping to be able to co-operate in bringing about a satisfactory result. They feel that it is a matter of very much more importance to the public and to the nation than to the profession; and they think that they ought to look to you with much confidence to see that nothing shall be done to weaken the present securities for the welfare of the operatives. We feel that several of the suggestions of this Commission are essentially retrogressive; and that they are made upon the false basis and erroneous supposition, that the object of the certifying surgeon is purely to certify as to the age. They believe that the object of their inspection should be as to constitutional condition, as to fitness throughout a certain period—not at a particular moment, but for a certain number of years. They believe that that fitness will, during the first years of child-life, vary with the change in the nature of the occupation; that the check proposed by the Commission is inadequate; and that no one single examination, at a particular moment of age, will suffice to afford to the children that protection which is necessary throughout the early part of their work. Believing that those points will present themselves to you in their proper light, the Parliamentary Committee have not taken any more active part than to concur with the Association; and they hope to find a measure introduced in which these considerations will have a very large part.

Mr. CROSS : I am not a friend of what is called "paternal legislation"; and I am not likely to put anything into an Act of Parliament which would interfere in any way with perfect freedom, excepting for the necessary protection of those persons who cannot protect themselves. So far as the rest goes, I would hope that the public will not believe that you have come here to haggle about the question of a sixpenny fee; because, if that impression went out it would be a pity, inasmuch as I believe it to be wrong, for I should take it that all this deputation means is this—that so long as you have important duties to perform to the public, you do not mind how you are remunerated so that you are reasonably remunerated for the performance of those duties. I suppose you do not expect me to say more at present.

The deputation then retired.

THE MILITARY HOSPITAL AT NISH.

NISH, as perhaps every one now knows, has been the head-quarters of the Turkish army ever since the commencement of the present war. It is a small, dirty, antiquated place, older even than the Christian era, and probably in no respect different from the Nish where the great Emperor Constantine first saw the light. At the commencement of the war—or rebellion, as the Turks prefer to call it—Nish was the centre of all the fighting, and the scene of many a sharp skirmish between the advanced guard of the Servians and the Turkish irregulars. In those days, the quiet little town was a lively enough place, and was of necessity the head-quarters not only of the general's staff, but also of the medical staff. It was, in fact, "the first line of surgical relief," and, in the old cavalry barracks of the town, the first military hospital was established. As the war gradually assumed larger proportions and the fighting extended far away up the Morava valley, to centre finally before Alexinatz, Nish still continued to be the spot to which all the wounded were brought. It soon became evident that the accommodation was altogether insufficient for the requirements of the service. The barracks were small and old, extremely dirty, and deficient in all the appliances necessary for ventilation and cleanliness. Hospital gangrene and erysipelas made their appearance as long ago as last May, and finally it became self-evident that either the place must be abandoned or new and larger hospitals built. The latter alternative was adopted, and Nish thus became the great central military hospital of the army of the Morava; and, in so doing, became also the second line of surgical assistance.

Nish contains many good houses, chiefly belonging to the wealthier Bulgarians, and these were engaged for the use of the wounded. A staff of over one hundred medical men, Turkish, German, Hungarian, and English, aided by the professors of the Constantinople School of Medicine, were brought to the spot, and everything was done that was possible to meet the rapidly increasing demands of the service. After the hard fighting of August 30th to September 1st, wounded men poured into Nish in vast numbers, and taxed the energy and resources of the medical authorities to the utmost. It was determined finally to build hospital accommodation for about five thousand wounded, and to centralise the buildings as much as possible. With this object, several isolated sheds were rapidly but efficiently built, each capable of containing about two hundred and fifty beds. In many respects, the sanitary arrangements and the construction of these buildings are open to criticism; but, on the whole, they have answered their purpose well, and have been of the greatest use in emptying the overcrowded houses and old barracks-rooms. In the severe fighting that occurred at the end of October, great numbers of wounded were brought in, and, in all cases, comfortably housed. Some notion may be formed of the sudden demands made on the hospital space and on the medical staff by the fact that, in one train of carts, above eight hundred and fifty wounded were sent down from the front, while for one hundred and fifty or two hundred to arrive suddenly of an evening was no uncommon thing. On one occasion, the barrack-stables had to be utilised, and four hundred poor fellows, sadly maimed and mutilated, and wrapped in their greatcoats only, lay on the ground for hours, waiting till assistance could be given them. On such occasions, the medical staff was, of course, taxed to the utmost; but, speaking generally, the work that has fallen to our share has not been at all heavy.

In the compass of a short letter, it is manifestly impossible to give any detailed account of the Turkish Medical Service; but I shall hope to do so on a future occasion. Suffice it to say that there are at present twenty English surgeons employed by the Government in various parts of the empire. At Novi Bazar, there are about nine; at Sophia, three; at Nish, six; at Larissa in Thessaly, one; and so on. Immediately on arrival here, we were each given charge of a ward containing thirty-six beds, the entire management of which as regarded details, was left in our hands. During the first month, when it happened that the fighting was most severe, we had plenty of surgery. I myself, in five weeks, had something like eight capital operations, besides numerous extractions of bullets, fractures, etc. The Turkish soldiers, though by no means deficient in fortitude, have a great horror of any operative interference. They say boldly that they prefer to die, and mean what they say. They consider an amputation performed on the left side of the body as necessarily fatal, because it is on the same side as the heart. No operation can be performed without the consent of the patient or of his colonel, and after consultation with the director-general or his deputy. In spite of these restrictions, there is plenty of surgery to be had, though, owing to the lack of appliances, not of a very scientific kind. I send a few cases of my own, a few out of some hundreds, which, perhaps, your readers may find interesting.

CASE I.—Mahmoud, a private, was wounded before Alexinatz on September 1st, and sent down to Nish. When he came under my care, I found him suffering from a compound fracture of the radius in the upper third. The bullet had been extracted, and there were apparently but few splinters of bone; in fact, it was a case similar to a large number of others in the ward, and offered nothing of particular importance. I dressed it daily, and, at the end of about a month, the bullet-wound of exit had healed, while from that of entrance a small quantity of laudable pus escaped. Suddenly, however, a new symptom, that of hæmorrhage, appeared and set in with such violence as to reduce the man very quickly to a state of great depression. The hæmorrhage evidently came from the radial artery, but from which end it was impossible to say. I cut down on the artery, but found not only all the anatomical guides gone, but, furthermore, extensive sinuses and several minute fragments of bone and a portion of bullet still remaining. As the artery could not be tied, it became a question as to what was the best course to pursue. Most of my colleagues recommended tying the brachial, but to this I could not consent, fearing that, in the state of the arm, mortification would be certain to result. Amputation, though suggested, was not to be thought of, if for no other reason than because the patient would not give his consent. Under the circumstances, I determined to enlarge the incision, cut the artery sharply across, and, after cleaning out the wound thoroughly, plug it with lint. This I did, and the results so far have been most satisfactory. The wound has healed up kindly by granulation, and the limb, though much wasted, will eventually be serviceable. At present, there is a slight discharge from the wound; but, since the operation, there has been no hæmorrhage or any pain to speak of.

CASE II.—J. M., a middle-aged man, was wounded in the right leg at the battle of September 1st. The tibia was splintered through the inferior and middle thirds; the tissues considerably lacerated, but the fibula and main vessels and nerves intact. I placed the limb on a splint, and kept it so for some five weeks, during which time there was no attempt at repair. Profuse suppuration set in, and it was evident that, without some operative interference, the man must die. He would not consent to amputation, which, indeed, in the state of the wound, would have been almost certainly fatal. Under the circumstances, the only feasible course that offered was to excise a portion of the tibia and trust to Nature for effecting the necessary repair. I consequently made an incision about five inches in length immediately over the bone, and removed it in great part, finding several splinters and one large fragment, which I allowed to remain. At this date, about six weeks after the operation, the original wound is almost healed. The large fragment which I left has apparently resumed its vitality, and the bone is now firmly united by fibrous tissue and callus (?). The sinus had to be opened about a month after the operation; but with this exception, there has been no tendency to burrowing of matter or other untoward symptom. Though the man is still under treatment, I have little doubt of a successful result.

CASE III.—A private received a scalp-wound over the right parietal bone. The wound itself was about the size of half a crown, and presented nothing of apparent interest. A slough separated in due time, revealing the bone, a portion of which, of about the size of a fourpenny-piece, was dead. The man progressed favourably for several days, when suddenly he was seized with anomalous symptoms and died within twenty-four hours. I diagnosed the cause of death to be abscess in the brain; but, as a *post mortem* examination is against both Mahomedan law and religion, no opportunity of verifying it was given. This case is, perhaps, interesting in a medico-legal point of view.

SUPPLY OF LYMPH FOR RE-VACCINATION.

At the present moment the following memorandum will interest many of our readers; the latter part of it also answers a question of "A Public Vaccinator," in another column.

"The frequent demands which are made on the National Vaccine Establishment for the supply of lymph for revaccination—sometimes for the revaccination of large numbers of persons—render it necessary to explain that the supply of lymph for that purpose is not within the objects for which the Establishment was instituted, and that the fulfilment of these demands, except to a very moderate extent, is not within its power.

"Revaccination, in regard of lymph-supply, differs unfortunately from primary vaccination, in that it contributes nothing to its own support, but that each case of revaccination, while requiring to draw lymph from a case of primary vaccination, will itself furnish no available lymph in return; for even when good vesicles result from revac-

cination, their lymph cannot properly be used for other vaccinations or revaccinations. Thus, no wholesale revaccination is possible which does not have for its basis a large system of primary vaccination, such as, in England, exists only in the hands of the public vaccinators.

"At the public vaccination stations a large majority of all the infantine vaccinations of the country are performed in successive weekly groups; the cases of each vaccinating-day returning a week afterwards to furnish lymph for the arm-to-arm vaccination of a new group. Each well-frequented station is thus a continuous source of primary lymph-supply, and is able, not only to maintain its own weekly performances of vaccination and revaccination, but also to contribute more or less towards the requirements of places where the public stations are too ill-frequented for the maintenance of a continuous supply, and towards the similar requirements of private practitioners. It is from certain of these stations, carefully selected and superintended, that the National Vaccine Establishment receives regular contributions of lymph, preserved dry on ivory points, or liquid in capillary tubes; and it is out of the stock thus contributed that the establishment answers, day by day, the demands which are made on it for lymph; demands emanating not only from among the many thousand vaccinators, public and private, of the civil population of the United Kingdom, but also from Her Majesty's army and navy in all parts of the world, from the diplomatic and other foreign services, and from the colonies.

"The principle on which the National Vaccine Establishment proceeds (and has always proceeded) in its distribution of lymph, whether to public or private vaccinators, is as follows. It furnishes each applicant with a sufficiency for the performance of a few first vaccinations, and it expects that the recipient, so far as the circumstances of his practice render necessary, will exert himself to vaccinate in series from the beginning which he is thus enabled to make. This principle is acted on in relation to public vaccinators (as especially in country districts) whenever, from local circumstances, the weekly succession of groups of cases has been interrupted; and no other principle can be worked on a large scale in relation to private vaccinators. If revaccinations are in question, they, to any considerable extent, cannot be immediately dealt with at the expense of the central depot. And if the vaccinator, on receiving his packet of preserved lymph, does not use it for starting primary vaccinations, from which afterwards his revaccinations could be performed, but, instead of so doing, expends the preserved lymph on some of his claimants for revaccination, he must not rely on being able to satisfy other claimants with new supplies from the central depot.

"Where medical practitioners, not being public vaccinators, and not having otherwise in their practice cases for primary vaccination, are called upon to revaccinate on a considerable scale (as in hospitals, commercial establishments, schools, and even large households), they would generally find it best to make direct application for assistance to the public vaccinator of the district in which they have to act; with whose assistance they may commonly find it in their power to arrange with the parents of children recently vaccinated at the public station, that some of such children shall at the proper time be taken to places where private revaccinations have to be performed, so as to furnish from arm-to-arm any required quantity of lymph. Generally, too, any private medical practitioner who, from any cause, desires to obtain extraordinary supplies of lymph, will most easily attain his object by applying to the public vaccinator of the district in which he resides. And as public vaccinators, appointed under the Vaccination Act, 1867, are of course free to accept payment for any extra-official work which they may be willing to undertake, private practitioners would probably have no difficulty in obtaining, by voluntary agreement, the assistance of some of these officers as collectors of lymph for private revaccination."

BETHNAL GREEN.—Dr. Bate estimates the population at 128,000, the number of persons to a house as 7.1, and as many as 169.5 to an acre. The total births are estimated at 5,255, and the deaths as 3,020, in 1875, showing an excess of 2,235 births over deaths. There were 598 deaths from the seven chief zymotic diseases, which is above the average, chiefly in consequence of the great excess from whooping-cough. The deaths from all causes were at the rate of 23.4 per 1,000, and from zymotics of 4.6 per 1,000; whilst the birth-rate was 41.0 per 1,000, and 16.7 per 100 children born, which was higher than for all London. Dr. Bate says that much time had been devoted to the milk-supply and the cowsheds of the district; and he consequently objected to the condition of some of the sheds. He regrets that there is no mortuary in the district. The amount of sanitary work done during the year appears small for such a parish as Bethnal Green.

ASSOCIATION INTELLIGENCE.

MIDLAND BRANCH.

THE third monthly meeting of this Branch will be held at the house of the President, Joseph White, Esq., Oxford Street, Nottingham, on Friday, January 19th, 1877.

Coffee at 7.30 P.M.

Paper on Practical Disinfection by Dr. Seaton, Medical Officer of Health for Nottingham, at 8.30 P.M.

L. W. MARSHALL, M.D., Hon. Local Secretary.

Nottingham, December 17th, 1876.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETING.

A MEETING of the East Surrey District Branch was held at the Greyhound Hotel, Croydon, on December 14th, 1876; Dr. STRONG in the Chair. Twenty-three members and four visitors were present.

Next Meeting.—It was agreed that the next meeting should be held at the Crystal Palace Hotel on March 8th, 1877; Dr. Jeaffreson in the Chair.

Papers.—The following papers were read.

1. Dr. Holt: On a Case of Infantile Convulsions.
2. Mr. Timothy Holmes: On Pyæmia as seen in Hospitals.
3. Dr. Frederick Taylor: The Diagnostic Value of Apex-Murmurs.
4. Mr. Stilwell: Four Cases of Paralysis.
5. Dr. Lanchester: A Case of Foreign Body in the Trachea.
6. Dr. Strong: A Case of Fatal Hæmophilia.

Dinner.—Eighteen members and two visitors sat down to dinner.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above districts was held at the Marine Mansion Hotel, Brighton, on Thursday, November 30th; Dr. E. F. FUSSELL in the chair. Thirty-seven members and visitors were present.

Communications.—1. Mr. BLAKE of Brighton read notes of a Case of Successful Ovariectomy.—In the discussion which ensued, Dr. HOLMAN of Reigate mentioned the difficulties of diagnosis in cases of ovarian disease.—Dr. A. HALL of Brighton mentioned a case of unilateral ovarian dropsy in a young woman, who was tapped four times. Rupture and hæmorrhage subsequently took place into the peritoneal cavity. Three gallons of bloody fluid were then evacuated by tapping. A perfect recovery ensued, and every trace of the tumour disappeared.—Dr. ROBERTS of Eastbourne especially insisted on the value of small nutrient injections; from two to four ounces, in similar cases.

2. Mr. BANNER of Brighton explained his system of Sanitation as applied to the Drainage of Guy's Hospital, and illustrated it by models.

3. Dr. FUSSELL read notes of Outbreaks of Diphtheria occurring in his district during the last three years.—The discussion of this paper will be resumed at the next meeting.

4. Dr. FUSSELL exhibited a specimen of Fracture of the Os Suf-fraginis in a horse, in which plaster of Paris splints were used, but without success. The horse was eventually killed before enough time had been given for a fair trial of the treatment.

5. Mr. HAWKEN of Hurstpierpoint showed a patient, in whom he had removed the Condyles of the Humerus after a compound and comminuted Fracture of the Elbow-joint, resulting from a fall from a height of twenty feet. The heads of the radius and ulna were uninjured. The cartilage was left alone. Very little suppurative ensued, though no particular antiseptic treatment was employed. A capital recovery, with but slight deformity, resulted. The power of pronation and supination not being, however, yet recovered.

Dinner took place at the Hotel; forty-two members and visitors being present; and Dr. Fussell filling the chair.

The Next Meeting is to be held in March 1877, at Lewes; Dr. H. Martin Holman of Hurstpierpoint to be Chairman.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE second ordinary meeting of the Session was held at the York House, Bath, on Thursday evening, December 7th; Dr. H. F. A. GOODRIDGE, President, in the chair. There were also present twenty-four members.

Special Discussion.—In accordance with a resolution passed at the annual meeting, that certain meetings should be devoted to the discussion of special subjects, Mr. MICHELL CLAKE proposed, and Mr. LANSDOWN seconded; "That the January meeting, to be held in Bristol, be devoted to a discussion on the Treatment of Acute Rheumatism; and that Dr. Skerritt be requested to open the debate."

Papers.—1. Dr. E. M. SKERRITT reported a Case of Spontaneous Rupture of the Spleen, which led to some observations by Dr. Swayne.

2. Dr. J. K. SPENDER read a paper on Boracic Acid. Mr. Fowler made some remarks.

3. Mr. BARTRUM narrated the history of a Case of Sclerosis of the Spinal Cord extending over fifteen years. Drs. Fox, Skerritt, Spender, and the President made remarks.

4. Mr. MOIR read a paper on the Position of Alcohol from the Richardsonian point of view.

CORRESPONDENCE.

DISSOLUTION OF THE MEDICAL TEACHERS' ASSOCIATION.

SIR,—After long deliberation, the Medical Teachers' Association has at last resolved to terminate its own existence. It was never a lively institution. Early in its career, it decided to do nothing, and only wanted the energy to take itself off. For the last four years, however, it has been in a condition of suspended animation, which all but its most intimate friends mistook for death. That event is now publicly announced.

It must be admitted that the task it undertook was beyond its strength. The shortcomings of hospital teaching are easily seen but readily tolerated. Only last year, for instance, by the exertions of Dr. Farquharson (the Association being already moribund), the lecturers on *Materia Medica* were induced to protest with one voice against the practice of discussing the treatment of disease first and disease itself afterwards. That protest was endorsed by the Medical Council, and there the matter ended. I doubt not that the same eminent body would be prepared to go further. They would concur in the inexpediency of overloading the student in his first winter, and leaving him almost idle in the succeeding summer; they would feel it to be unreasonable to expect a very close attention to lectures on medicine and surgery while the mind was occupied with the subjects for the first College examination. Nevertheless, things go on unchanged, to the common suffering, as by a law of Nature. The much lectured pupil petrifies or reads a book; the teacher learns to be blind; the Medical Council is ready with sympathy; nothing is done.

And, while the method of teaching is thus unreal and ill-contrived, knowledge itself keeps moving, and, with its progress, new difficulties and new defects begin to appear. As a single illustration from the teacher's point of view, take the cardinal topic of all hospital instruction—medicine. The subject is now so vast, that the lecturer is in a real dilemma. Should he seek to be brief, pointed, and dogmatic, he will find himself in unsuccessful rivalry with professional grinders and the writers of *vade mecum*s; should he desire to discuss his subject at length in all its aspects, the limit of time and (to be perfectly honest) the limit of his own knowledge and experience interfere. He is again beaten by the books. In a word, so soon as the learner recognises the fact that he has always within easy reach and awaiting his leisure, not only concise text-books, but the very highest authorities upon every point that his teacher can bring before him, systematic lectures unaccompanied by demonstration sink inevitably into mere routine. In such circumstances, the perfunctory manner of the lecturer is no more to be wondered at than is that remarkable condition of stoniness (a species of hibernation almost peculiar to the lecture-hour) which overtakes the audience.

In these days of cheap and profuse literature, no oral teaching can be profitable unless it can supply something more than book-learning. The pupil must be attracted by the hope of obtaining what is not to be had through the medium of a printing press, not formal teaching, but practical guidance. In other words, the use of the modern teacher restricted in one direction is widened in another. He has to accompany the student in his early attempts to apply the doctrines of books to the actual service of men and women; to watch him at his practical work; to place his knowledge before him in its proper perspective; to check in him sometimes conceit and sometimes despair. This is not a showy service; it is very laborious; it is sometimes little valued and ill-requited. That it is a service of urgent need, anyone shall judge for himself who will take the average student from his books and high

learning and place before him the end and object of it all—let us say a sick child.

The Teachers' Association, however, has elected to terminate such life as it had, because, to quote its own words, dictated surely by some wag, "there are not many points connected with medical education requiring its special attention". No such guarantee was needed for the maintenance of the *status quo*, for no institution was ever less threatened than the system of formal lectures. I for one, as formerly a member of its council, shall make short mourning over the Association thus dying in public with its legacy of £18 odd collected for a specific object which it had never the resolution to undertake. I would fain hope that, in its last amazing assertion that, for the present, its work is done, no hint is conveyed that, under any circumstances whatever, it will consent to be restored to life: *Non tali auxilio nec pugnatoribus istis*.—Your obedient servant, OCTAVIUS STURGES.

Wimpole Street, December 1876.

INVALID LIFT.

SIR,—In the JOURNAL of December 9th, 1876, is a short account of an ingenious mechanism for raising an invalid to a sitting posture without inconvenience. I can personally endorse your high opinion of it.

Mr. Hillyard, of 90, Horseferry Road, S.W., has shewn me a model (also simple and ingenious) for elevating an invalid bodily. Two cog-wheels, connected at the head and foot-piece of the bed, act upon a frame-work that rises and falls: on elevating this, ample space is given for attention to cleanliness, dressings, or bed-making beneath. The machinery is inexpensive, and may be fitted to any ordinary bedstead.

I am, etc., RICHARD DAVY,
December 1876. Surgeon to the Westminster Hospital.

CÆSAREAN SECTION.

SIR,—I hope that you will allow me to add a few words to your observations on Dr. Edmunds's case of Cæsarean section. Having been present at the operation, and having seen the patient at subsequent stages, I am able to corroborate the very accurate description given by Dr. Edmunds. At the time of the operation, he very correctly describes the condition of the patient as that of a person with much vigours exhausted and worn out by strong and fruitless labour and by want of sleep. If the operation had not been performed without delay, the condition of the patient would have become such as would have materially altered the prospect of recovery.

As regards the use of stimulants, without entering into the general question as to the employment of alcohol, I may state that, in this case, there were no sufficient indications for their administration. Relieved by the operation, there was no further call for exertion on the part of the patient; sleep and repose were required for restoration. I think that the favourable progress of the case and the rapid recovery were partly due to the simple and bland regimen upon which the patient was placed.—I am, sir, yours obediently,

Savile Row, December 19th, 1876. SEPTIMUS W. SIBLEY.

EXAMINATION OF RECRUITS.

SIR,—As you have directed attention to regulations recently issued on the above subject, I claim your indulgence to be permitted to make some remarks. The regulation is one of a series from time to time issued, and intended ultimately entirely to supersede the Army Medical Code of 1858. A month before these regulations were circulated, those regarding the invaliding of soldiers were issued in their new form. It is but a natural sequence that carefully selected recruits cause a small amount of invaliding. The disqualifications are very carefully and clearly laid down, but practically many of them are set aside. In proof of this, I need only refer to the returns rendered yearly by the authorities at 6, Whitehall Yard, when it will be found that, among other causes rendering men unfit for the toil, hardships, and exposure incidental to military life, there are—*a*. Want of sufficient intelligence; *b*. Want of sight; *c*. Impediment of speech; *d*. Ill-formed feet and toes.

The probability is that these conditions existed at the time when the recruit was examined. The inference may be drawn that both judgment and experience were wanting on the part of the examining medical officer. This is exactly the point to which I desire to draw attention. The recruiting medical officer is in a dilemma. If his percentage of rejections be considered high, he is told that "he is not to reject men on account of minor defects or trivial ailments". If

the contrary, he is informed that "this most important duty cannot be performed in a perfunctory manner, and that he must exercise more care in future."

It is most desirable that regulations should be written in clear and unmistakable language. There should be no necessity for addenda, no need for departure from the text. That such, however, is the case, compare this extract with the qualifications required by the Regulations for recruits. "And such men as may, from slight ailments, be considered unfit for service in the ranks of the army shall be allowed the option of volunteering for service in the Army Hospital Corps before being brought forward for final discharge." The difficulty of determining the fitness of men pronounced elsewhere unfit is at least embarrassing. Summarised, the principal points to be attended to are that the recruit shall possess physical and mental capacity. If these conditions are essential at the commencement of a soldier's career, how necessary they must be later on. "Acquired" disease or disability is surely as serious a disqualification as if it existed when he presented himself as a recruit. These two classes, then—"the ineligible recruit" and "the soldier with acquired disease"—are the men who cannot walk, ride, or carry, and are oftener in hospital than out of it. The latter class is too often a sequence of the former. My endeavour is to prove that, if well considered regulations were rigorously adhered to, the army would gain immensely in efficiency, and that those concerned with recruiting, whose task is now difficult and uncertain, would perform them with greater ease and pleasure. From a medical point of view, the lowering of the height standard does not mean deterioration; but the chest-measurement, an approximative estimate of lung-capacity, is an important factor, and must materially assist the medical officer in arriving at a decision as to the recruit's fitness or otherwise. The British army is considered by some to be very inferior in *physique* to what it ever was and ought to be. The only testimony I can adduce as bearing upon the question is, that "a very large number of men are admitted to the ranks who are not up to the standard", and over these considerable difficulties are encountered before they can be got rid of. If the cause is, in your opinion, to be benefited by my comments, kindly assign space, and believe me,

A WELL-WISHER.

December 1876.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE Gainsborough Rural Sanitary Authority have reduced the salaries of the Medical Officer of Health and Inspector of Nuisances from £125 to £100 *per annum* each.

RELATIONS OF MEDICAL OFFICERS OF HEALTH TO THEIR MEDICAL BRETHREN.

SIR,—I have only just seen a copy of your JOURNAL of the 9th ult., containing your remarks on my correspondence with Dr. Hollis.

I regret that I should have acted unprofessionally, though legally according to a leading article in last week's *Lancet*. The same article says "the position of a medical officer is anomalous, and his duties delicate"; this, taken into consideration with my misinterpreting my instructions (for I read them before acting), and my not being acquainted with my correspondent, must be the excuse for what you consider my excess of duty.

I am, Sir, your obedient servant,
WILLIAM PHELPS, M.R.C.S., L.S.A.

Freshwater, I.W., December 18th, 1876.

MILITARY AND NAVAL MEDICAL SERVICES.

AN examination of candidates for commissions in the Medical Service of the Royal Navy will take place at the London University on February 12th and following days.

DEPUTY SURGEON-GENERAL J. S. FURLONG, M.D., has been appointed Principal Medical Officer at Edinburgh.

SMALL-POX IN CHATHAM.

THE unusual circumstance of placing certain public-houses and beer-houses in Chatham as what is known as "out of bounds" has just been carried out by the military authorities of the garrison, the step having

been rendered necessary in consequence of the alarming spread of small-pox in Chatham, the epidemic being prevalent chiefly in those parts of the town most frequented by the troops. The order issued by Major-General Erskine directs that no soldier or royal marine is, under any pretence, to visit either of the public houses or beer-houses therein named, in which persons known to be suffering from the small-pox were living. Should the small-pox continue to spread at its present rate, it is not improbable that an order would be issued prohibiting any of the troops from entering the town of Chatham, and confining them within a very small boundary near their barracks; but this extreme course will only be adopted by the military authorities should it be considered to be imperatively needed. Within the garrison, every precaution is taken to prevent the small-pox from gaining a footing among the troops, and, up to the present time, no cases have made their appearance. The whole of the troops have been medically inspected, and, in cases where such a course was deemed desirable, a number of the soldiers and recruits, both among the troops of the line and the Royal Marines, have been revaccinated. A similar course has also been adopted in the case of the soldiers' wives and children residing in the quarters provided for the married troops.

OBITUARY.

JOHN GAIRDNER, M.D., F.R.C.S. ED.

DR. JOHN GAIRDNER was the son of Captain Robert Gairdner of the Bengal Artillery, and was born at Mount Charles, on the banks of the Doon, near Ayr, in 1790. Captain Gairdner died from the effects of an accident in 1795, and his widow removed to the town of Ayr, and afterwards to Edinburgh, with her family, of which the subject of the present notice was the eldest, with a view to their education. Dr. Gairdner having studied at the University of Edinburgh, obtained his degree of Doctor of Medicine in 1811. He then went to London, and studied during the winter of 1812 under Mr. Charles Bell. In 1813, having returned to Edinburgh, he commenced practice there in partnership with Dr. Farquharson. While winning for himself the position of a successful practitioner, he from an early stage of his career took an active part in matters connected with the general interests of his profession. Having in 1813 become a Fellow of the Royal College of Surgeons of Edinburgh, he was in 1817 appointed an examiner for that body, and acted in that capacity for a number of years. From 1830 to 1832, he filled the President's chair in the College, his term of office in that capacity being signalised by the opening of the new Surgeons' Hall in Nicolson Street; and during his whole life he continued to show the liveliest interest in the welfare and advancement of the College. At the time of his presidency, the President of the Royal College of Surgeons had a seat in the Edinburgh Town Council as Deacon of the Profession. In this capacity, he used his energies in favour of reform during the Reform Bill agitation.

In every effort made during nearly half a century to improve professional education, he was invariably to be found with the party of progress; and it was due to him and other men like-minded that the College of Surgeons became honourably distinguished for its liberal views, and that in all negotiations with regard to medical reform it took the side of the public and of the profession at large against all local or other monopolies. As an advocate for the recognition by the University authorities of extra-academical teaching, Dr. Gairdner all along stood prominently forward; and to his public action in this matter, more perhaps than to that of any other individual Fellow of the College, unless it be the late Mr. William Wood, may be attributed the measure of such recognition now accorded, which, in the judgment of most impartial observers, has largely contributed to the present prosperity of the Medical School of the University.

From the influential position he long occupied in the College of Surgeons of Edinburgh, of which he was for many years Treasurer, Dr. Gairdner was on many occasions chosen as the mouthpiece of the Fellows in giving evidence on medical and University reform before Commissions and Parliamentary Committees; and, until the Medical Council of Education and Registration was constituted in 1858, he continued to be, in a manner, their representative. Dr. Gairdner was a man of high culture, an accomplished classical scholar, and the contributor of a variety of papers to the medical journals. Two lectures were read by him at *conversazioni* of the Royal College of Surgeons, in presence not only of his medical brethren in Edinburgh, but of the heads of all the learned professions in the city. The first of these, delivered in 1860, was a sketch of the Edinburgh Royal College of Surgeons; and the second, given in 1864, was a sketch of the early history of the medical profession in Edinburgh. They both contained a great deal of curious and in-

teresting information on the subjects with which they dealt, and were both published. One of his last contributions, printed a few years ago in the *Edinburgh Medical Journal*, embodied the results of much historical reading, its object being to show the ravages of small-pox in the royal families of Europe in the century before the introduction of vaccination. The writer's view was that the terrible character of the disease in question could scarcely be realised by this generation, except by disclosing what took place even in the highest rank of society in former days; and a long course of research, carried out, like all he undertook, with the most painstaking accuracy, enabled him to present a very complete view of the subject. He also prepared a "Calendar" for calculating dates backwards and forwards indefinitely. This work, which cost him much time and thought, has been highly approved by persons engaged in historical inquiries.

Among the offices held by Dr. Gairdner, besides those already referred to, was that of President of the Medico-Chirurgical Society of Edinburgh. When engaged in the active duties of his profession, he had a large practice, from which he retired a considerable time ago. During the last four or five years, his health has been failing, and he has died at the ripe old age of eighty-six.

His accomplishments were enhanced by kindness of disposition. Although decided in argument, his bearing was always courteous. Students found in him a strict, but by no means unpleasant examiner. He had a happy knack of drawing out what was in those who passed through his hands, and his memory will ever be regarded with respect by numerous medical practitioners, resident not only in Britain, but all over the world.

Dr. Gairdner is survived by three sons and two daughters. Of the former, the eldest is Professor Gairdner, who occupies the Chair of the Practice of Medicine in Glasgow University. The others are Mr. John Gairdner, late Controller of Stamps, Dublin; and Mr. James Gairdner, of the Public Record Office, London.

JOHN MCCREA, A.M., M.D., OF BELFAST.

We record with regret the death of this member of our profession, which took place at his residence, Howard Street, Belfast, on December 18th. The deceased was a graduate of the Queen's University in Ireland; and died, it appears, from blood-poisoning, at the comparatively early age of thirty-seven. Dr. McCrea was medical officer to the Belfast Union Workhouse, and contributed several important and interesting papers to various medical publications, one of his last literary productions being a paper on Legislation for Habitual Drunkards, which was recently read before the members of the Belfast Literary Society. A local newspaper thus refers to his decease: "Society mourns his loss. There is no height of his profession to which, if spared, he could not have attained, as he was devoted hourly to its advancement (for he loved it). Medical science has lost an earnest student, the poor a considerate friend, the profession an ornament, society a distinguished member, a bereaved family their pride and joy."

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following candidates have passed the recent B.S. Examination for Honours.

First Class.

Pepper, Augustus Joseph (Scholarship and Gold Medal), University College
Duncan, Andrew, M.D. (Gold Medal), King's College

Second Class.

Ottley, Walter, University College

The following candidate has passed the examination in subjects relating to Public Health:

Persons, Henry Franklin, M.D. (Gold Medal), St. Mary's Hospital

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 14th, 1876.

Blamy, James, Penryn
Grimby, Richard Henry, Banbury
Nickoll, John Sayer, Milton, Gravesend

The following gentlemen also on the same day passed their primary professional examination.

Giles, Bernard Farady, Guy's Hospital
Harvey, George Henry, London Hospital
Pain, Alfred, Guy's Hospital
Pearce, Henry, St. Mary's Hospital
Warrillow, Edward Sadler, General Hospital, Birmingham
Wheler, John Mordaunt, General Hospital, Birmingham
Young, Alexander Stewart Ward, Bristol Hospital

UNIVERSITY OF DUBLIN: SCHOOL OF PHYSIC IN IRELAND.—At the Michaelmas Term Examinations for the degree of Bachelor of Medicine, held on Monday and Tuesday, November 27th and 28th, 1876, the following candidates were successful.

Story, John B.	Connolly, William R.
Pim, William J.	Thompson, James E.
Nelis, J. Alexander	Houghton, John B.
Blyth, Howard	Flood, John W.
McCartie, Frederick F.	McDermott, Ralph
Browne, John St. George A. G.	Lynch, Gilbert
Malone, Jonathan H.	Duckworth, Richard H. D'Olier
Fraser, William J.	

At the examinations for the degree of Bachelor in Surgery, held on Monday and Tuesday, December 4th and 5th, 1876, the following were the successful candidates.

Story, John B.	Marshall, Joseph
Pim, William J.	Nelis, James A.
Fitzgerald, Dudley L.	Power, Edward R.

At the examination for the Diploma in State Medicine, held on Thursday, December 7th, and following days, this candidate was successful.

Fenton, Mark Antony, M.D.

N.B.—In the above lists, the names of the candidates are arranged in the order of merit.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BINGHAM, Samuel, Esq., appointed Medical Superintendent to the Hampstead Hospital, vice *H. Case, M.R.C.S.Eng.

*CASE, Henry, M.R.C.S.Eng., appointed Medical Superintendent of the Metropolitan Asylum at Leaveston, vice T. Clavey Shaw, M.D.

*THOMAS, W. R., M.D., late Lecturer on Practical Physiology, appointed Joint Lecturer on the Principles and Practice of Medicine in the Sheffield Medical School.

VENN, Albert, M.D., appointed Obstetric Physician to the Metropolitan Free Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:—

BOURNEMOUTH GENERAL DISPENSARY—Resident Surgeon. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Testimonials, diplomas, etc., to be sent in on or before December 31st.

CANCER HOSPITAL, (Brompton)—Resident House-Surgeon and Registrar. Salary, 100 guineas per annum, with board and residence. Applications to be made on or before January 18th, 1877.

DULWICH AND LOWER NORWOOD DISPENSARY—Resident Medical Officer. Salary, £100 per annum and rooms.

FISHERTON HOUSE ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and lodging.

GLAMORGAN COUNTY ASYLUM, Bridgend—Assistant Medical Officer. Salary, £125 per annum, with board, lodging, attendance, and washing. Applications on or before January 1st.

GREAT NORTHERN HOSPITAL, Caledonian Road—House-Surgeon. Salary, 60 guineas per annum, with board and lodging. Applications on or before the 30th instant.

MANCHESTER PROVIDENT DISPENSARIES ASSOCIATION—Resident Medical Officer. Salary, £120 per annum, and private practice allowed.

NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Resident Medical Officer and Registrar. Salary, £100 per annum, with board and lodging.

NORTHAMPTON GENERAL INFIRMARY—House-Surgeon. Salary, £125 per annum, with furnished apartments, board, attendance, and washing. Applications on or before the 23rd instant.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY—Junior House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications on or before the 23rd instant.

SUSSEX COUNTY HOSPITAL—Surgeon and Assistant-Surgeon. Applications, with testimonials, to be made on or before January 3rd, 1877.

QUEEN'S HOSPITAL, Birmingham—Honorary Physician—Resident Physician. Salary, £50 per annum, with board, rooms, and washing. Applications on or before the 30th instant.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

FOX.—On December 20th, at Hyde Road, Ardwick, Manchester, the wife of Dacre Fox, F.R.C.S.E., of a son.

KILLIAN.—On December 17th, at 49, Harscampstrasse, Aix-la-Chapelle, the wife of *Paul Killian, M.D., of a son.

MARRIAGE.

STEWART—HEBDEN.—At St. Peter's, Sutton Place, Edinburgh, on November 30th, by the Rev. Canon Maccoll, assisted by the Rev. J. A. Sellar, Incumbent, William Stewart, M.B., of Redland, Orkney, to Edith Eleanor, second daughter of R. J. Hebden, of Eday.

DEATH.

SMITH, William, M.R.C.S.E., at his residence, 79, Pembroke Road, Clifton, Bristol, on November 24th, in his 56th year.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1 30 P.M.
TUESDAY.....	Guy's, 1 30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1 30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1 30 P.M.—St. Mary's, 1 30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2 30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.
THURSDAY...	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1 30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1 30 P.M.
SATURDAY....	St. Bartholomew's, 1 30 P.M.—King's College, 1 30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1 30 P.M.—St. Thomas's, 9 30 A.M. and 1 30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

THE ARCTIC EXPEDITION.

SIR,—I am not going to enter into a discussion whether lime-juice was or was not given in sufficient quantity to the men of the Polar Expedition. Captain Markham states that the blood of the men was saturated with lime-juice before the sledging parties started: if so, whether this was prejudicial or beneficial, has to be determined. I think a question also arises whether lime-juice, as ice, loses any of its chemical properties. Lime-juice is a bulky thing, and apt to decompose, and, when frozen, in this state is of doubtful benefit. My object in addressing you is to suggest a method of preserving it and making it more portable—viz., as lozenges or in gum-capsules. These could be carried in the pocket of the dress, and not necessarily frozen.—I am, sir, your obedient servant,

December 20th, 1876.

WILLIAM STORY.

OBSTETRICIANS.—Instruction in the duties of a midwife is given at Queen Charlotte's Lying-in Hospital, Marylebone Road.

HOMER FOR DIPSOManIACS.

SIR,—Can any of your readers inform me of a "retreat" for dipsomaniac gentlemen, giving me briefly an idea of the general line of treatment and the expenses thereof—such an one, for instance, as that described in the recent pamphlet *Who's to Blame?*—I am, etc.,

M.B.

A COUNTRY MEMBER. The Museum of the Royal College of Surgeons will be open to members and visitors introduced by them on "boxing-day," but not the other departments of the College.

SUPPLY OF VACCINE LYMPH.

SIR,—There seems to be an unfortunate custom among medical men in sending periodically to the public vaccinators for a supply of lymph, without ever making the slightest acknowledgment in the shape of a present. It is obvious that this sort of thing may become a nuisance. In order to protect oneself, would it be considered unprofessional to make a charge of, say, 2s. 6d. for three tubes—this merely as a protection against those who have not the delicacy to perceive that favours should not be altogether one-sided?—I am, sir, yours faithfully,

December 20th, 1876.

A PUBLIC VACCINATOR.

COUNTY COURT SUMMONSES.

SIR,—In business, under section 1 of the County Courts Act (1875), you can put any one in Court without appearance, by making an affidavit, either before the registrar of the County Court, for which the fee is *nil*, or before an attorney, for which the fee is eightpence, and obtain judgment in sixteen days (unless notice of defence be given within that time), which must be done within two months from date of summons, or a fresh one would have to be taken out.

Would it not be a benefit to the profession to be placed in a similar position, as surely our time is as valuable as that of business-men? Under the present system, we often have to wait two or three hours before our cases come on. Can anything be done to alter the present state of affairs?—Yours truly,

Hull, December 18th, 1876.

W. H. HENSON.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN NOVEMBER 1876. The following are the returns of the Society of Medical Officers of Health.

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen		Ammonia.		Hardness. (Clarke's Scale.)	
			As Nitrates, &c.	Saline.	Organic.	Before Boiling.	After Boiling.	
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Grains.	Degs.	Fegs.	
Grand Junction ..	20.31	0.048	0.120	0.000	0.007	14.3	4.2	
West Middlesex ..	19.84	0.048	0.165	0.001	0.006	14.3	3.3	
Southwark and Vauxhall	20.42	0.058	0.120	0.001	0.008	14.8	3.7	
Chelsea	20.80	0.039	0.168	0.000	0.006	14.3	2.8	
Lambeth	21.60	0.038	0.180	0.001	0.005	14.8	4.2	
Other Companies.								
Kent	26.12	0.014	0.300	0.000	0.002	18.8	5.1	
New River	19.31	0.014	0.165	0.001	0.004	14.8	2.0	
East London	22.01	0.034	0.120	0.000	0.004	15.9	3.3	

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it. The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid, namely, in that of the Southwark and Vauxhall, the Chelsea, and the Lambeth Companies.

C. MEYMOTT THOMAS, M.B.

A FORMER COMPETITOR.—Essays for the Triennial Prize of the Royal College of Surgeons must be sent to the College not later than 4 o'clock on Saturday, the 30th instant. Essays for the Jacksonian Prize must be sent at the same time. This prize is awarded annually, if the essays are of sufficient merit. The subject for this prize for the year 1877, is "The Disease of the Lymphatic System known as Hodgkin's Disease or Lymphadenoma". The money value of the prize is between £11 and £12.

PROFESSIONAL FEES AT PETTY SESSIONS.

SIR,—I recently obeyed a summons to attend the Petty Sessions at a place seventeen miles distant from my residence, to give evidence in a criminal case. A few days afterwards, our police-sergeant brought me a guinea as remuneration, at which I was somewhat surprised, being under the impression that I was entitled to a guinea for the evidence, and sixpence a mile for travelling expenses. I wrote to the magistrate's clerk, and he informed me that he could not legally allow more than a fee of 10s. 6d., and 8s. 6d. for expenses; but he remarked that a few professional men have to travel any distance a guinea is sanctioned by the magistrates. In Glenn's *Abstract of the Principal Laws affecting the Medical Profession*, it says: "On an examination before a magistrate, a sum not exceeding 10s. (d. may be allowed to a medical witness residing in the city, borough or parish where the examination takes place, or within two miles thereof; and to such a witness residing beyond that distance, a sum not to exceed £1 1s. for mileage, a sum not to exceed 3d. a mile each way." It appears to me that the magistrates have the power to allow less than the sums mentioned, therefore I shall be glad to know if there is any way of going about the matter when I am next summoned, by which I can ensure the obtaining of the maximum fee, as I consider that even £1 9s. 6d. is a nominal sum to receive for going a journey of seventeen miles by road, there being no railway; and then, after waiting several hours, to be severely cross-examined by counsel, to say nothing about what is happening to one's patients in the meantime.—I am, yours truly,

December 12th, 1876.

J. T.

RHUN.—Licentiate of the Royal College of Physicians of London have no legal right, as such, to use the title of Doctor.

ABUSE OF TEA.

SIR,—A correspondent requests, through the JOURNAL, information on the above-named subject. Two other correspondents have replied through the same medium, but both seem to be unaware that Dr. G. G. Sigmond delivered an address before the Royal Medico-Botanical Society in 1879, on "Tea, its Effects, Medicinal and Moral," a subject which had hitherto escaped the notice of scientific men of England, while Auguste de Candolle and other Continental botanists had considered it of the highest importance. Dr. Sigmond's address will be found in the *Transactions of the Society*, where its character is described; couched in all the scientific technicalities in which it was delivered. This address, with the exception of the technicalities being transcribed into popular language, is also printed in a small volume.

Your correspondents do not refer to Dr. Lettsom's *Natural History of the Tea-Tree, with Observations on the Medical Qualities of Tea, and Effects of Tea-drinking*, published in 4to, 1772.—I am, etc.,

London, December 16th, 1876.

E. N.

FROM pressure on space, we are obliged to delay the letters on Charity Organisation and Mr. Crossman's letter on Medical Defence.

SALICYLIC ACID.

SIR,—The case referred to by Mr. Lilley in the Journal of December 9th is a very interesting one, and it should at some time be fully reported. It is difficult to offer an opinion with only the few facts before one that is contained in Mr. Lilley's brief letter, but I should be much more inclined to the belief that the necrosis of the tibia and disorganisation of the ankle-joint which developed in his case were the results of surgical disease rather than the effects of salicylic acid administered for acute rheumatism. The Clinical Society's *Transactions* for this year contain a paper by me on a case of acute necrosis of the tibia and disease of the knee-joint, which at first simulated acute rheumatism. If Mr. Lilley were to refer to this case, he would be able to state whether the two cases present any points of resemblance.—I am, sir, yours faithfully,

12, Colebrooke Row, N., December 12th, 1876.

GEO. BROWN, M.R.C.S.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

CORONERS AND THEIR COURTS.

SIR,—As you invite answers to the queries contained in a letter signed A. X. in to-day's JOURNAL, will you permit me to say that his experience with regard to coroners' courtesy to medical men is not unique?

Some years ago, when practising at Staunton, near Gloucester, I was summoned at a late hour to visit a lady, who, I was informed, had fainted whilst at supper. On arrival, I found the patient dead. As I was not the regular medical attendant of the deceased, but had been sent for as the nearest, I at once communicated with the gentleman who had attended her for many years. I was informed by him that she had suffered from cardiac weakness; and, as all the circumstances pointed to death from that cause, and there was not a shadow of suspicion attaching to anyone, I expressed my entire concurrence in the propriety of giving a certificate to that effect. But the family legal adviser persisted in sending information to the coroner, Mr. Carter of Newnham. At the inquest which ensued, neither my evidence nor that of the family doctor was called for; the jury obtaining their pathological information from a gentleman, Mr. A. P. Carter of Gloucester, who certainly never treated the deceased during life, but who by a happy coincidence was the brother of the coroner.

Upon another occasion, a man whom I had attended for some months, and who exhibited great mental depression, but no suicidal tendency, so far as I could ascertain, was found hanging in an outhouse, dead. In this case also, my evidence was never asked for at the inquest, held, as before, by Mr. Carter.

An opposite course was pursued in the last instance, which I shall relate. A man, who was well-known in my neighbourhood as having once been in a better position, had latterly gone downhill as regards his affairs; although, as he never consulted me, and as I never heard of his being ill up to the time of his death, I looked upon him as a healthy man. He earned his livelihood in great part by drawing up leases, wills, etc., for farmers in the neighbourhood, getting food and lodging in part payment. He arrived at a farm at 4 P.M. one day; complained of abdominal pain about 6 P.M., and was placed in a manger in an unused stable by the hospitable farmer, who, judging by the body and the time I took to get to the case, did not, I believe, send for me until the man was moribund, if not actually dead. Possibly some of your readers may think that I acted properly in refusing a certificate, and urging the necessity of an inquest upon Mr. Carter. If so, their views do not coincide with those of the latter, who positively refused to hold an inquiry, expressing himself, as I was told by the daughter of the deceased, as perfectly satisfied on the statement of the *police*, that the man had died from bursting a blood-vessel. I was afterwards told that the deceased had been felled in a public-house brawl some days before his death. All attempts to move the coroner having failed, I wrote to the Home Office, with the result that the omniscient police were again stirred to make inquiry. What the nature of their report to the Home Office was, I had no means of ascertaining; but apparently it satisfied that department that there should be no further action taken. All that I can answer for is, that no satisfactory reason for death was ever supplied to me, that no *post mortem* examination ever took place, and that the cause of death is still a mystery.

If A. X. investigate the subject, I think it not improbable that he may arrive at the following conclusions.

1. The public have no objections to a man being elected coroner whose knowledge of medical jurisprudence is absolutely *nil*. I have myself heard a coroner betray such ignorance as would infallibly have caused his rejection at any College examination upon this essential subject.

2. A coroner may legally refuse to listen to proffered testimony, or to hold an inquiry at all; or, conversely, may persist in holding an inquest without any *prima facie* reason whatever.

3. The coroner is thus the most irresponsible functionary in the state, although his office ought to be one of the gravest responsibility.

4. In this year of grace, the collected wisdom of the nation might devise a better means for investigating questions of the greatest delicacy and difficulty, involving honour and reputation, even life itself, than by investing a village lawyer with autocratic power to summon twelve unlettered Solons,* and to act upon the outcome of their bigotry and ignorance.—I am, sir, yours faithfully,

C. M. CAMPBELL, M.D.

17, Belgrave Terrace, Torquay, December 2nd, 1876.

AN ANXIOUS CANDIDATE.—The new regulations respecting the Fellowship of the Royal College of Surgeons will not be settled until the latter part of the ensuing month.

DR. JONES (Llandudno).—Apprenticeship to a Chemist and Druggist, or to a member of the Pharmaceutical Society, will not exempt you from the preliminary examination.

THE TREATMENT OF HERPES.

SIR,—In your JOURNAL of the 9th instant, I note a paper from Dr. Broadbent upon herpes. I have before seen elaborate disquisitions upon the pathology of herpes, but I do not remember seeing anything like a successful mode of treating the different forms of that disease. In my own experience, there is scarcely any disease so intractable. I call to mind three cases that have occurred comparatively lately of herpes zoster, all of which ran a course of several months, without, as I believe, deriving benefit from any medicines—and there were legion, including arsenic, strychnine, iron, ergot, quinine, bromine, etc. Of course, hypodermic injections and morphia gave relief at intervals, but neither external nor internal so-called remedies were of the least avail. Perhaps some of your contributors can enlighten my ignorance.—I am, etc.,

Mansfield, December 12th, 1876.

THOS. GODFREY.

T. M.—The Royal Medical Benevolent College at Epsom: office, 37, Soho Square, London, W. The British Medical Benevolent Fund has also six cottages for aged or disabled members of the Royal College of Surgeons of England.

M. B. C.—We do not see that there can be any legal objection to revaccination of the poor at their own homes.

* I have myself given evidence to a jury, a majority of whom could not sign their names to the verdict.

MEDICAL INSPECTION OF SHIPS AND EMIGRANTS.

SIR,—I presume Mr. Cochrane has never taken out emigrants to the Australian colonies under the imperial government system. He will, I think, on inquiry, find that the examination of emigrants is conducted on the same principle he proposes: it was so when I was in the service twenty years ago. The depot was at Plymouth, where the emigrants were collected in a home, and remained a few days before embarking. With regard to Queensland, I suppose Mr. Cochrane refers to the first ship which took out emigrants there in 1861-62, where, no doubt, the ships were too much crowded at first, and, like all young colonies, they had much to learn. I saw these ships in the docks, and persuaded some friends not to go out in them, and called on the agent-general, advising him to adopt the government system, which he subsequently did; and the Queensland emigration since then, with some trifling exceptions, has been conducted on the same principle. There is, however, I believe, no depot; but in the voyage I made there was, I consider, sufficient time for examining the emigrants on coming on board, in order to discover any disease in its "stage of invasion". The deaths were only two per cent. during the voyage, and those infants, which I believe is the general average.

Shall I be intruding too much on your space by making a few observations on "lime-juice" and scurvy? About ten years of my earlier life were spent at sea as surgeon-superintendent in the Imperial Government Service, the Queensland Service, and the Mercantile Marine; my last voyage being a two years' cruise to the Australian colonies in a brig of 174 tons, fitted out as a yacht, with a consumptive patient, being part owner, and subsequently obliged to take the command. Having the charge of about two thousand emigrants and passengers during the whole of that period, I never saw a single case of scurvy at sea. The only time there was a threatening outbreak of the disease was during the second voyage I made as surgeon-superintendent, with three hundred coolie emigrants from Calcutta to Demerara. When off the Cape of Good Hope, I found that the gums of several of the emigrants were swollen and easily bled, accompanied with feverishness, and an eruption broke out exactly similar to "measles". On inquiry, I found that the tamarinds and tschilies which were added to the rice had failed. I immediately gave out lime-juice as a substitute; and in seven or eight days afterwards the symptoms had all abated. We put in at St. Helena, got off several sacks of watercresses, and ten days afterwards arrived at Demerara with a clean bill of health.

Your remarks on the outbreak of scurvy in the Arctic expedition are, I consider, very appropriate and pertinent. I look forward with much interest for the medical report.—I am, yours, etc.,

JAS. GARDNER, M.R.C.P.E., etc.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Whitby Times; The Suffolk Chronicle; The Exeter and Plymouth Gazette; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Penrith Observer; The Buxton Advertiser; The Border Advertiser; The Edinburgh Courier; The Bournemouth Visitors' Directory; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Hampshire Telegraph; The Falkirk Saturday Herald; The Craven Herald; The Broad Arrow; The Fife Times; The Shield; The British Press and Jersey Times; The Elgin Courier; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Hull and Lincolnshire Times; The Derby Mercury; The Hull Criterion; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; The Redditch Indicator; The Dundee Evening News; The Hampshire Post; The Hull News; The Lakes Chronicle; The Tring Telegraph; The Hexham Herald; The South Wales Daily News; The Dudley Herald; The Tunbridge Wells Gazette; The Jarrow Express; The Northampton Herald; The Liverpool Argus; The Daily Telegraph; The Greenock Advertiser; The Torquay Directory; Punch; etc.

* We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. H. Broadbent, London; Dr. Bradbury, Cambridge; Dr. J. Hughlings Jackson, London; Dr. Mackey, London; Mr. John S. Wilson, Gourock; Mr. W. Barnard, Londonderry; Dr. W. R. Thomas, Sheffield; Dr. Cronin, Dublin; Mr. J. Lloyd Roberts, Denbigh; Dr. Henry Bennet, Mentone; Mr. G. Eastas, London; Mr. W. Hay, Hull; Mr. J. Lowe, Blackburn; Dr. Whitmore, London; Dr. M'Cook Weir, Birmingham; Mr. J. F. Ollard, London; Dr. George Johnson, London; Dr. Meymott Tidy, London; Mr. Thomas Godfrey, Mansfield; The Secretary of the Obstetrical Society; Dr. Hunter, Banff; Our Paris Correspondent; Dr. Gairdner, Glasgow; H. D., Birmingham; A Public Vaccinator; F.R.C.P.; Mr. P. A. Smith, Dumbarton; E. N.; The Secretary of Apothecaries' Hall; Mr. Mason, Birmingham; Mr. Henson, Hull; A. M. W.; A Non-Militia Surgeon, Lincoln; A Member; Dr. Dudfield, Kensington; The Registrar-General of England; Obstetric; Dr. Sturges, London; Dr. Stephen Mackenzie, London; Mr. Philip Miall, Bradford; Mr. W. Taberner, Wigan; Dr. Fairlie Clarke, Southborough; Our Edinburgh Correspondent; The Registrar-General of Ireland; Mr. W. Phelps, Freshwater; Dr. J. W. Moore, Dublin; Dr. Laidlaw Purves, London; Mr. T. M. Stone, London; The Secretary of the Pathological Society; M.; Dr. Francis Warren, Birmingham; Mr. H. Burdett, Greenwich; A Cork Student; Mr. Sibley, London; Dr. Marshall, Nottingham; Dr. Arlidge, Stoke-upon-Trent; Dr. Albert Venn, London; Dr. Farquharson, London; A Well-wisher; Dr. Stewart, Orkney; M.B.; Our Dublin Correspondent; Dr. Galton, Akeley; Dr. Bateman, Norwich; Dr. J. Matthews Duncan, Edinburgh; Dr. Coghill, Ventnor; Dr. Sheen, Cardiff; Mr. F. G. Larkin, London; Dr. Joseph Bell, Edinburgh; Dr. Edis, London; Mr. J. G. Doidge, Lifton; Dr. J. Milner Fothergill, London; Dr. Reginald Thompson, London; Dr. McKendrick, Glasgow; Mr. W. H. A. Jacobson, London; Mr. W. Story, Chorley; Scrutator; Mr. L'Heureux Hlenkarne, Buckingham; Rhun; Dr. Spencer Thomson, Torquay; Mr. J. Hancocke Wathe, Fishguard; etc.

CLINICAL LECTURE

ON

ALCOHOLISM.

Delivered at Guy's Hospital, London.

By SAMUEL WILKS, M.D., F.R.S.,

Physician to, and Lecturer on Medicine at, Guy's Hospital, etc.*

THERE is no room for a lecture on this subject in the usual courses, except, perhaps, in that of *Materia Medica* and Therapeutics, and therefore I take this opportunity of bringing it before you.

The special interest in our case is that, in addition to the ordinary symptoms of chronic alcoholism, the patient has spinal paralysis. It is not uncommon for the cerebro-spinal system to be involved, yet it is not so sufficiently recognised as it should be, and therefore it is that I draw your attention more particularly to this case. I do not know of any subject that is of greater importance to consider, both with reference to diet and medicine, than that of alcohol. You must be well acquainted with the evil effects of drinking in this great city, whether you look in the medical wards and see the patients brought there through it; in the surgical wards, and notice the number of accidents resulting from it; in the prisons; in the workhouses, where some of their wretched occupants owe their downfall from superior stations to it; or in the lunatic asylums, where 12 to 15 per cent. of the inmates have been broken down by it. The subject, therefore, must be one of the greatest importance. What are the physiological effects of alcohol? It is very remarkable how little we know of them, when it is considered what an enormous quantity of spirits is consumed. I believe twenty-five millions of gallons, at least, are made in this country every year. It is still disputed whether it acts as a food or not. A few years ago, it was said that it all passed out of the system as alcohol, or as some of its products of decomposition. These authorities, French chemists, said that it was eliminated by the skin, urine, breath, etc. They used chromate of potash, which is turned green by alcohol, as their test for it. I have read lately of a test in the French papers, where, to detect alcohol in the brain, this was boiled with benzoic chloride, and, if alcohol were present, it was changed into benzoic ether and recognised by its smell.

But the amount of alcohol excreted in this way is so infinitesimal that the remainder must be in the body, and there can be no doubt that it is oxidised; and this supports Liebig's theory that it is a food for the lungs.

Although it may not be directly a food, yet indirectly it might be so; for, if two men be taken, and one have nothing whatever to eat, and the other have alcohol given him, I presume the latter will remain alive the longer. It must certainly be oxidised; and persons who take a large quantity of spirits grow fat, as we shall presently see.

If, however, we do not understand its physiological workings, yet we can see the effects of it on the system for all practical and clinical purposes. In the first place, does alcohol appear to be a necessary food? There can be but one answer. There are many nations who do not take it, and some whose religion forbids its use. Is it necessary for us? Well, you know many in this country who do not take any. It is not a necessity then; it is for this we have to contend, and, if I can impress this on you, the hour will not be wasted. English people are, however, too often brought up with the idea that it is a necessary article of diet. Patients will take their wine and spirits even when they are doing themselves harm, and, if you object, will ask, "What must they do?" You tell them to do without them; to which they will reply that they must take something. I want you to get it thoroughly out of your minds that there is any *must* in it, and start afresh with the idea of its non-necessity.

Let children always live and grow up without alcohol: in after years, when we pass an artificial life, there may be reasons for taking it; but remember, even then it is not an absolute necessity. Start with this principle; let your patient, even an adult, try to do without it, and then, and if circumstances seem to suggest it, let him have his glass of wine. I do not say that a number of persons can do entirely without any in our present mode of living, but let us regard alcohol in its true light, as a luxury, as we do tea, tobacco, etc. If we do this, we are safe. I cannot recommend you to live entirely by rules and natural laws, and give up all the conventional luxuries of life, for then

we should dismiss more than half the dishes from our table. I do not want this to come about, and, for my own part, I like a glass of wine or a cigar as well as other people. There is in to-day's paper an account of some vegetarians who never eat any meat. I do not advise you to follow their example, but it shows you that meat is not essential to life. We might, I have no doubt, live on what Dr. Johnson states Scotchmen and horses do, viz., oats.

What are the effects of a small dose of alcohol? It is said to be stimulant. If a man be jaded and tired, it gives a sort of temporary support; a little beyond this point, and he is depressed, the stimulant effect lasting only for a time. There is a dilatation of the vessels and warmth of the surface taking place; at the expense, however, of internal heat. In large doses, the temperature goes down. On this point read two cases mentioned by Mr. Carrington, in that admirable essay of his on Alcohol in *Guy's Hospital Gazette*.

Do these small amounts really stimulate and help one in his work? I ask a sportsman; he says he gets tired, and then has lunch, after which he feels comfortable and jolly, but never shoots another bird. It is the same with billiard-players. A violin player in my house was advised to take a glass of wine for his excessive nervousness, but refused, saying, "I know I shall lose all my nervousness, but I shall also lose my touch, and my notes will be blurred, and I shall be the last to find it out, although it will be very apparent to others."

You see, therefore, it does not stimulate or add edge to our accomplishments; but we might ask, does it add to our strength, or enable us to endure longer? To answer this, I will refer to a little book in my hand by the late Dr. Parkes, entitled, *On the Issue of a Spirit Ration during the Ashantee Campaign*. This book contains the reports of the medical officers on the effects of spirits doled out to the men. The result is given in the short preface written by Dr. Parkes, to the following effect.

"When, as frequently happens in campaigns, soldiers are marching nearly the whole of the day, and can obtain their regular food only late in the evening, what can be given to lessen the sense of fatigue, and to enable them not only to continue the march, but to be ready for any emergency which may arise? The usual resort is to a spirit ration, and there is no doubt that for a time this exerts a reviving effect. But is it the best thing which can be given, and are its advantages without alloy? I think it can be shown that it is not a perfectly reliable aid, and requires, when used at all, to be so with a full knowledge of its mode of action. The first effect of alcohol when given in a moderate dose (for example, what is equal to one fluid-ounce of absolute alcohol) is reviving; but this effect is transient. As shown in the report, the reviving effect goes off after, at the utmost, two-and-a-half miles of additional march, and sometimes much before this; then the previous languor and sense of exhaustion not only return, but are sometimes more intense, and if alcohol is again resorted to, its effects now are less satisfactory. Its reviving power is usually not so marked, and its peculiar anæsthetic and narcotising influence can often be distinctly traced. The men feel heavy, dull, disinclined to march, and are less willing and cheerful. It is clear, then, that alcohol is not a very trustworthy aid; for, supposing a commanding officer having marched twelve or fourteen miles, and desiring to cover ten more miles, finds his men weary, and not being able to halt and feed them, orders an issue of spirits of an amount sufficient to revive, but not to depress; the first effect will be good, but, in less than an hour, his men will be as weary as before, or probably more so. If, then, he reissues the spirit within so short a period of time, it is certain that, in the case of many men—perhaps the majority—the marching power will be lessened. Even the reviving power of the first issue is not always so considerable as might be supposed; and, indeed, I have been surprised to find how little good effect it has sometimes produced."

The fact is that alcohol, as usually taken, is not a stimulant at all. It is a depressant and narcotic. People are simply under a delusion when they think it otherwise. We ought to change its name, and we should then get a proper notion of its character. I believe this change would tend more than any other single circumstance to make people cautious in its imbibition. It is taken for the same reason as chloral, and as opium in other countries. If you regard it as a narcotic, you will then better understand all the consequences of its use. A man in a drunken brawl overnight gets his teeth knocked out. The next morning, he has no recollection how it occurred, or in what manner he could have met with the accident. Cases such as this are constantly being brought into the police courts, and to some people seem almost incredible.

Alcohol, you see, is an anæsthetic. The man we have just mentioned has felt no pain. In smaller doses, as you all know, it benumbs not only the sense of touch, but that of sight and taste. Every man

* Reported by Mr. Alfred Pain.

who has drunk much wine feels that he has lost his taste for the time. He does not know whether he is taking good or bad. "Every man at the beginning doth set forth good wine; and when men have well drunk, then that which is worse." If it were a stimulant, your taste ought to be more refined. It seems to be an utter absurdity to suppose that human nature can crave after a stimulant. For what are people craving? For what is a hard worked man longing? not for a stimulant, but for holiday and repose. It is for repose that every one is seeking. Some miserable people even long for death, "where the weary are at rest". Is not the cry of the lotus-eaters as far reaching as humanity itself: "There is no joy but calm." It is contrary to human nature to crave for stimulants. The idea is absurd; and the more one knows human nature and its history, the more one wonders how such a name as stimulant could be given to any substance which has had so powerful an influence on the human race as alcohol. It might be known that anything so craved after must be of a soothing, benumbing, or dulling nature. People say they feel better after taking alcohol. Of course they do; one does feel better.

If any of you, whilst working up for your College or Hall, get down-hearted, and take a glass of wine or spirits, I have no doubt you feel better; but would you go on with your work? or, would you not go to sleep, or take the newspaper and sit over the fire? If a man have a racking pain in his head, a strong glass of brandy and water will often drive it away: a proof of its narcotising effect on the brain. A man worn out with anxiety and pain, does he want a stimulant to increase these feelings? Is he not making use of a misnomer when he takes a stimulant to drown his sorrows in the bowl? Do not the lower orders, as in an Irish wake, know the benumbing influence on grief. As it likely they would have recourse to a drink in order to increase their susceptibilities? If it were a stimulant, it would bring out our faculties; but, instead of this, it paralyses our intellect and then allows all the bad passions to have free play. This is the meaning of *in vino veritas*, just as a madman loses his will and control by his higher faculties becoming paralysed.

An immense evil has been perpetuated by giving alcohol a wrong name. It is called a restorative and stimulant; but this it is only to a very slight extent and under special circumstances. Its general effect, and that for which it is almost universally used, is for its benumbing action. I want you to think of it as a depressant, an anæsthetic and narcotic rather than as a stimulant, and you will then get an insight into its injurious effects on the human body.

As a medicine, of course, it is a good one. It is excellent as a sedative. After trying opium and chloral without success, alcohol will often give a good result in the severest neuralgia. It lowers the temperature in febrile conditions, sometimes two or three degrees. This is especially the case in typhoid fever and pneumonia. A quick pulse and high temperature call for it. There was an old man in this state last year in the ward; and I believe his life was saved by the large quantities of brandy that he took. It seems to prevent tissue change; and large quantities seem to make a person fat. There was one case of it in this hospital some time ago, of a woman who had suddenly taken to drink spirits and became inordinately fat. It is curious that, with all my reluctance to order alcohol, unless I clearly see its necessity, I never find anyone but myself order spirits of wine as a food in order to promote the growth of fat; but its effects in this respect are very striking. Little children wasting away, such as those who are not suckled, may have cod-liver oil and steel wine given them, and yet still waste; but, if put on alcohol, will often get rapidly fat and well. I have now seen several such cases.

What are the effects of alcohol, if taken in excess?

Now, I am not going into the subject of drunkenness; but may mention that some of the effects are possibly due to the impurities put into the spirit. The adulterations of beer, I have no doubt, give rise to other symptoms than those arising from taking the genuine liquor. It is a horrible thing to contemplate that rich people, holding high positions in parliament and society, should be gaining large incomes out of houses where poison is sold. An officer of a regiment met me one day, almost in tears, because one of his men, under the influence of drink, had committed a murder; and "I believe," he said, "if the beer was drugged, and no one is to be punished but the man who drank it". In Paris, there is a terrible liquor called absinthe, and patients are often being brought into the hospitals mad through intoxication from it.

Then, besides ordinary drunkenness, we have dipsomania, a disease for which many want to legislate. The subjects of this are not, for a time, responsible persons. They feel a craving coming on, and sometimes have strength of mind to go at once to a medical man and ask him to take them into his house, or shut them up in a lunatic asylum to restrain them from committing themselves. I once had a clergyman in

a country district affected with this under my care; and he had nearly ruined himself. When the fit came on, he used to go to the village ale-house, and take glass after glass until he was drunk. Now, knowing when the fit is approaching, he rushes away from his home and takes the train for London. There is no use in talking to that man; he is as well informed as you; he merely asks for assistance. There is a little book published on this point, styled *Who is to Blame?* It is well worth your while to read it. It is an account of a man who gets drunk, shuts himself up in an asylum, but, as there is no power to retain him, he rushes out when the fit comes on him, goes to the public-house, then home, and kills his wife.

Then, there is chronic alcoholism, bringing about dyspeptic and other symptoms only too well known. I have no hesitation in saying, although I am speaking against the evil effects of alcohol, that a considerable part of my income is derived from the drinking propensities of my patients. Every day some young man comes to me, with mottled face, yellow eye, and red tongue, saying the first thing in the morning he is sick, and the vomit sometimes streaked with blood; his bowels are loose, and he does not eat his breakfast. I have then heard quite enough to inquire how much whiskey or sherry he takes at 11 A.M. You may have observed that whiskey has taken the place of brandy in the medical dietary. I have failed to discover the reason, so I suppose it is a secret of the distiller's. He, of course, remembers well the ominous hour of eleven; and you then have only one duty to fulfil—i.e., to tell him he is killing himself; and, if that be his object, he had better continue in his course. If not, he must desist; and you will assist him in his endeavour.

If the practice continue, the liver undergoes cirrhosis, and the kidneys become granular; and in some cases there is a special tendency for the cerebro-spinal system to be affected. Thus, in delirium tremens, long before the attack, a man is foolish and half-witted, what is called a good-natured fool. The brain wastes, and weighs several ounces less than it should. This was figuratively expressed by Shakespeare when he said—"Oh, that a man should put an enemy in his head to steal away his brains". The spinal cord also is attacked, and a paraplegia may result, so that the popular saying is quite true, that some persons get drunk in the head and others in the legs. The effect on the head is very well-known; that on the spinal cord does not appear to be so readily recognised.

Alcoholic paraplegia is generally found in women of about the middle age of life. It is ushered in by pains in the limbs, then sensation may be partially lost, at the same time some want of power to move them. So you see the chronic action of alcohol resembles much its acute temporary effect where the man getting drunk is narcotised, foolish, and loses sensation, so that one can do anything with him, his hand trembles, he cannot find his house in the street, fumbles in his pocket for his key, and his vision is so indistinct that he declares some one has run away with the key-hole.

Alcohol produces a chronic inflammation of the brain and cord with their membranes. These latter are thickened, and the nerve-centres waste and often become what is called sclerosed. It is very difficult to say when a functional malady has become an organic disease, so that in these cases, however bad they may appear, there is a possibility of ultimate recovery.

I had an instance of this lately in a lady. Her husband was away; she had no children, and was fond of going to the sideboard. When I saw her, she was in bed, quite childish, and unable to move her legs; and had, besides, many of the other symptoms of chronic alcoholism. I considered the case hopeless, but, on leaving off all stimulants and the renewal of good food, she got better, and is now walking about. The great thing you have to do is to get rid of the cause, and have no tampering with it whatever. Women of middle age, at the change of life, have a number of aches and pains, and have recourse to the doctor. He advises a little stimulant, which they soon double, and the case terminates in two or three years. Here is our patient, Sarah N., aged 43. She has had children and miscarriages. Her nervous system is excitable. Seven months ago, she was out of health, lost her appetite, had none for breakfast, and has since had morning sickness. For the past six months, she has been unable to take any solid food. She goes to a doctor, medicine is prescribed without benefit, and brandy and ice are ordered if sickness continue. This advice she followed, and has been living principally on brandy for the last six months. I am not reflecting on the doctor, and I do not say that he ordered it; but it is by no means unlikely that he did, for I am sorry to say some of us do prescribe in a very careless way, and without due regard to the consequences. Four weeks ago, she passed blood by the bowels; this was Nature's effort to unload the gorged liver. She has had melæna more or less until now. She has a large liver, anorexia, a certain amount of numbness in the legs, and an almost total inability to stand. All

stimulants have been left off, and a tonic given. This treatment, you will say, is founded on common sense; but in private practice it seems difficult to follow. You will find a certain amount will be cut off, but not all; a little must be given, just to keep the patient going. I believe this to be a great mistake, as experience proves. I saw a friend's wife some time ago, who was dying from alcoholic poison, and yet he allowed her to have a little, just to keep her alive for a few days longer. I stopped it altogether, and she was sitting at her dinner-table a fortnight afterwards. Why not stop it all? The patient is saturated with the poison, and therefore the sooner he is free of its deleterious influence the better; I have been in practice a great many years, and I have never seen, nor have I heard, although making inquiries, of any harm resulting from the sudden and complete withdrawal of alcohol. What do surgeons of prisons tell us, who have a dissipated class of people put on bread and water; or the medical officers of workhouses, who put the tramps on "skilly"? They say they never see delirium tremens. It used to be said that delirium tremens and other evil effects follow the sudden withdrawal of alcohol; but I have never met with such a case, nor do I know anybody who has. If it be said that the patient will not eat, nor take anything else but stimulants, let him go without eating. One of the worst cases of apparently hopeless drunkenness I ever saw was in a fellow-student. He was in bed, drinking brandy and champagne. He knew my voice, but could not see me—was what is termed blind-drunk. I would not have anything to do with him until the wife promised to have all wine and spirits taken out of the house. This was done. By-and-by he asked for some, but could not get any given him; then he tried to get up, and tumbled out of bed on the floor, where he was very sick. He then went to sleep, and, on waking, wanted something to drink; and a little beef-tea was given. The following day or so, he took some meat; and was soon driving about in his brougham, seeing his patients. That man would have died, had he been left in the hands of his friends. As to medicines, I am very fond of the medicine I prescribed in this case—nitric acid, capsicum, and nuxvomica. The latter seems to give tone to the stomach, and the patient also seems roused by it. I believe it is a favourite constituent of the draughts they style "pick-ups," sold in the chemists' shops at the West End of the town.

The time has now expired, but one might go on for a week lecturing on the effects of alcohol. In conclusion, let me address you, as members of our noble profession, to endeavour to use all your influence to put a stop to this growing evil, this horrible curse of drink. More solemnly still I am bound to add, with this example before us, do not for self-interest be blindly guided by your patients' wishes, and especially by women who have arrived at the change of life, and order them stimulants or allow them to continue in the excessive use of what you find them already taking. You must clearly see they are following an artificial system, which must soon have its end. I have, unfortunately, seen too many instances of this disastrous method of treatment. We witness the commencement of a plan which is thought to be only a temporary measure, but which soon becomes a habit, and the end can be as clearly foretold in two or three years' time as any other natural event. Be always careful how you order the so-called stimulants.

MILE END OLD TOWN.—There were 4,005 births and 2,077 deaths, the annual birth-rate being 40 and the death-rate 20.77 per 1,000 population; upon which Dr. Corner remarks that a high birth-rate and a low death-rate have obtained for many years in his district. He regrets that he cannot give a complete statistical report for the year ending March 1876, in consequence of not having been supplied with the death-returns from the local registrars. The death-rate from the seven chief zymotic diseases was 4.5 per 1,000 population, and about 25 per cent. of the total deaths, which is high. The number of inhabitants per acre in the two districts into which the hamlet is divided is as high as 211.6 in one (the Western), and 122.4 persons in the other (the Eastern); but the death-rate in the least crowded district is higher than in the most crowded, that of the latter being 18.1, and of the other 22.5. Perhaps the population has increased since 1871 to a much greater extent in one than in the other, or more probably from the deaths in the workhouse, which is situated in the Eastern District, not having been distributed *pro rata* to population over the whole district. The death-rates of infants were about equal, but there were more deaths proportionately from infectious diseases. Dr. Corner thinks that the modern system of metropolitan drainage is a greater source of atmospheric pollution than the old cesspool system with its local abominations; as the sewer-gases now escape from the sewers into the streets and houses. He also considers that there is much overcrowding in some parts of the district, and that healthy dwellings cannot be expected under present conditions of living and of constructing houses.

ABSTRACT OF A CLINICAL LECTURE ON THE DRESSING OF WOUNDS.

Delivered at the Westminster Hospital.

By RICHARD DAVY, F.R.C.S.,
Surgeon to the Hospital.

GENTLEMEN,—For the last three years, as many of you know, most of the wounds received into my wards have been exposed to the air without any dressing whatever; and we may now fairly judge of the results obtained by this method.

The following is a list of the excisions and amputations performed by myself during the past two years: Excision of hip, 2; of knee, 5; of shoulder, 1; of elbow, 3; of os calcis, 1; of astragalus, 1; of cuboid bone, 4; amputation of thigh, 1; of leg, 4; Syme's, 5; Chopart's, 2; of fingers, 1; of mamma, 3—total, 33. These cases were treated by the open method, and no death resulted.

But, without asking you to pin your faith to any special style of dressing, I will briefly recall to your minds some of the ancient and modern procedures, and tell you why I prefer the method of the open treatment.

Nothing can cap the elaborate detail of ancient surgical dressings; layer after layer of compounds were heaped upon the raw surface; success was supposed to result in a direct ratio to complexity. Surgical practice ran a race with religious observances; both were highly complicated; unnecessary, and distorted the simplicity of truth.

Here is a surgical specimen:

Ambroise Paré, in 1545, writes: "When I first came to Turin; there was there a Chirurgion farre more famous than all the rest in artificially and happily curing wounds made by gun-shot; wherefore I laboured with all diligence for two yeeres time to gain his favour and love; that so at the length, I might learne of him, what kinde of medicine that was; which he honoured with the glorious tittle of Balsame; which was so highly esteemed by him, and so happy and successful to his patients; yet could I not obtaine it."

On Paré leaving Turin, he says: "Wherefore I went unto my Chirurgion, and told him that I could take no pleasure in living there, and that I intended forthwith to returne to Paris, and that it would neither hinder nor discredit him to teach his remedy to me, who would be so farre remote from him." When he heard this, he made no delay, but presently wished me to provide two Whelpes; 1 pound of earth-wormes, 2 pounds of oyle of Lillyes, sixe ounces of Venice turpentine, and one ounce of aqua vitæ. In my presence he boyled the Whelpes put alive into that oyle, untill the flesh came from the bones, then presently he put in the Wormes, which he had first killed in white wine, that they might so be censed from the earthy drosse wherewith they are usually replete, and then hee boyled them in the same oyle so long, till they became dry, and had spent all their joyce therein; then hee strayned it through a towell without much pressing, and added the turpentine to it, and lastly the aqua vitæ. Calling God to witnesse, that he had no other Balsame, wherewith to cure wounds made with gun-shot, and bring them to suppuration. Thus he sent me away as rewarded with a most pretious gift, requesting me to keepe it as a great secret, and not to reveale it to any."

This diabolical dressing Paré recommended as a fit medicine to procure the falling away of an eschar.

Sir Astley Cooper, in his *Lectures on Surgery*, spoke thus: "It is curious to see the difference between the mode of dressing stumps now (1830) and that adopted a few years ago. The old practice was, after the adhesive plaster had been applied, to put some lint, then plaster again, after that tow, and, lastly, over the whole a cap of flannel. If a surgeon were to do this now, he would be laughed out of the operating-theatre, and very deservedly too, because he would prevent the success of the adhesive process by unduly heating the limb. All that is necessary to do is to apply three strips of adhesive plaster over the wound, and one circular piece; if the weather be hot, to apply the spirit of wine and water lotion; and if it be cool, to keep the limb quiet."

How marked has been also the change in medical practice from the old-fashioned doses of physic (containing admixtures of the most abominable compounds) to the rational treatment of disease by prevention, sanitation, and change of air and scene. But the thought of drugs reminds me of a clinical study of much interest, viz. the dressing of wounds by internal remedies; such as the treatment of wounds of

the skin by arsenic; that of an irritable phagedænic sore by opium; or that of a syphilitic ulcer by iodide of potassium. Although simplicity of treatment indicates your general faith, yet surgical practice should by no means degenerate into an expectant sameness.

In more recent times, the plan of irrigation, overflowing foetid sores, gave, and continues to give, satisfaction. This overflow is practically inconvenient, because excessive; to obviate this, Dr. Lee's steam-kettle is a good mechanism for gently applying a continuous stream of disinfecting moisture without deluge. As for poultices, I hold them in abhorrence; they are both dirty and vulgar; warmth and moisture may be obtained by hot flannels, the steam-jet, or by warm water dressing; but, in all cases where warm water dressings are used, the element of moisture should assuredly be constantly changed, because water is a prime factor in favouring decomposition; the wet lint and gutta-percha sheet placed over an open sore shortly becomes impure by reason of admixture with blood and discharge, the granulating surface is swamped, and its tone enervated.

At the present time, surgical attention has been prominently focussed on the antiseptic system of dressing wounds by Professor Lister. I well know that by his method more serious operations may be performed with impunity than hitherto; *e.g.*, the free opening of joints, deep abscesses, serous cavities, etc., and that in the Royal Infirmary, Edinburgh, admirable have been the results in his own hands; but, with all due deference to so high an authority, I cannot but think that his hobby has been ridden hard, and that a tedious expenditure of energy occurs in the Edinburgh school. Will the majority of English surgeons admit that the antiseptic system is necessary for tenotomy? or for the operations of minor surgery?

By so pointedly directing attention to the dressing of wounds, the minds of surgeons are in danger of becoming narrow; for the wound itself is but a single element in a surgical case, and in many instances the amount of suppuration is of no vital import; the bugbear pyæmia is to be combated by sanitation, only one condition of which is supplied by the dressings.

If I may liken a surgical case to a domestic establishment, Lister's treatment of wounds is represented by a householder who disinfects his drain; a most wholesome practice, but not so absolutely essential as to justify the stigma that an ordinary well-trapped sewer is impure and untrustworthy. In the same way as many establishments are well regulated and successfully conducted without such artificial remedies, so also many cases in surgery are to be treated satisfactorily without antiseptics. My own experience at this hospital supports this view.

Professor Lister has, by his talent, given surgeons a grand ally in performing operations where death is to be apprehended from exhaustive discharge, or from the results of interference with synovial or serous cavities. In ordinary surgical work, I question the necessity for the antiseptic system; "the game is really not worth the candle"; and, until I learn that the open treatment of wounds is unsuccessful, I shall continue it, for the following reasons.

1. Our results are equally as good as by the antiseptic system; no death having occurred from pyæmia or exhaustive discharge.
2. Trouble and expense are reduced to a minimum.
3. The fullest opportunity is granted to students for clinical observation; on the antiseptic system, the wound is but seldom and briefly exposed.
4. All nervous apprehension from the indiscreet removal of, and the painful repetition of, dressings is done away with.
5. The process of healing by scabbing is solicited.
6. Nature is duly accredited with her share in the performance; and a host of lotions and ointments are dismissed as plagiarists.

I have been in the habit of comparing surgical dressing to the dress of individuals; the simplest suits best; the elaborate appears most ridiculous; and I strongly suspect that as much of the drapery displayed now-a-days is unnecessary and expensive, so also are many of the contents of a dresser's panier. By divesting ourselves and our wounds of excessive dress and dressings, we prepare both for repose and the reparative process.

I have said this much from the firm conviction that in surgical dressings much that is done had better be left undone; dressings are not to eclipse the beneficent repair of Nature, but need only (if used at all) be neat, pure, and simple to be effective.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Stanley having been placed under orders for embarkation, Surgeon Steele has been ordered to proceed to Brecon, to take over charge of the station hospital there.—Surgeon-Major Goodwin has returned to Dublin, and assumed medical charge of the station hospital at Arbour Hill.

CASE OF IDIOPATHIC OR PROGRESSIVE PER- NICIOUS ANÆMIA TREATED UNSUCCESSFULLY BY PHOSPHORUS: DEATH: NECROPSY.*

By J. B. BRADBURY, M.D., F.R.C.P.,

Physician to Addenbrooke's Hospital, Cambridge, etc.

THE pathology and treatment of the disease called "idiopathic" or "progressive pernicious" anæmia are still so little understood, that it is of the greatest importance to record accurately every case of this affection, so that perchance in time some one may, from a careful study of a group of such cases, be able to draw a correct inference as to the origin and successful treatment of this obscure malady. It is with this object in view that I have ventured to relate an instance of the disease before the Medical Section of the Association.

CASE.—Emmanuel Littleboy, aged 40, married, living at Wimblington, in Cambridgeshire, was admitted into Addenbrooke's Hospital on June 7th, 1876, under my care. His wife and three children were quite healthy. Previously to the present attack, he had never been laid up with illness since the age of 15, when he had an attack of ague. From this he completely recovered, and was quite strong and healthy up to eighteen months ago. The first thing noticed was a condition of jaundice accompanied by giddiness and nausea. There was also some vomiting. The appetite was bad, and there was considerable weakness; but he was able to be up and go about. He remained in this state about a month, and then, feeling better, he resumed work. Last January, a similar attack occurred, and lasted a month. He got better by degrees, and was able to work till May 20th. On that day, whilst at work in the open air in the morning, he became suddenly giddy and had to lie down; he was able, however, to resume his work that afternoon; but, on the following day, he felt so weak and faint, that he remained at home. Since then, there had been some bilious vomiting and the giddiness has remained. He had lost flesh somewhat, but was still fairly nourished. There was no history of any hæmorrhagic attacks or of syphilis. On admission, the temperature was 99.2 deg. Fahr.; pulse 84. The skin was dry and sallow looking. The tongue and mucous membrane of the mouth were very pale; the conjunctivæ were not tinged yellow. Respiration tranquil. The urine was clear, and contained no bile-pigment nor albumen, and was of specific gravity 1015; its reaction was acid. Nothing abnormal could be detected in the lungs. The heart's apex beat a little external to the nipple-line, behind the sixth rib. There was a soft blowing murmur with the heart's first sound heard all over the cardiac region. The liver and spleen were apparently not enlarged. The abdomen was soft and not tender.

On June 8th, he was placed upon full diet, and ordered a mixture containing tincture of the perchloride of iron (ten minims), spirit of chloroform, and infusion of quassia.

June 9th. After getting up this morning, he fainted and fell, cutting his right nostril. On June 13th, he was ordered four ounces of port wine and beef-tea, in addition to his ordinary diet. The next day, he had an attack of epistaxis from the right nostril, which again induced syncope. The dose of iron was increased to fifteen minims thrice daily. On June 15th, he was placed upon phosphorus, one-thirtieth of a grain capsules, twice daily after food; but, by an oversight on the part of the dispenser, capsules containing only one-sixtieth of a grain were given. He was so faint this morning, that it was necessary to give him half an ounce of brandy.

June 16th. He was rather wandering in his mind yesterday afternoon, but to-day his mind was clear. There was no return of the hæmorrhage or fainting.

June 17th.—The urine contained, after standing, numerous bacteria; it was strongly acid, and there was a large increase in the amount of phosphoric acid precipitated by molybdate of ammonia, as compared with that of the previous day.

June 18th. Bowels inactive. In other respects, he had improved. There was no delirium. He took eggs instead of meat, for which he had no appetite. The ankles were rather swollen. A remarkably foul smell was noticed about him, which was also observable at the time of his admission. When freshly passed urine was examined, no bacteria were found in it.

June 19th. He was ordered a capsule thrice daily.

June 21st. He was improving. His strength was somewhat better. For the last three days, the weather being very fine, he had been placed on the colonnade in front of the hospital for the benefit of the air. The patient's blood (drawn by pricking the finger) had been examined

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Sheffield, August 1876.

under the microscope on several occasions. The white corpuscles were about the size of ordinary red corpuscles. There was a decided diminution in the number of the red corpuscles, but the relative number of white corpuscles was not increased. The red corpuscles were larger than normal. Scarcely any were circular or biconcave. Some were rather pear-shaped, and others threw out a tail-like projection from either end. They had less tendency to aggregate in *rouleaux*, and were paler than in health. The diminutive and more deeply coloured red corpuscles regarded by Eichhorst (*Centralblatt für die Medicinischen Wissenschaften* for June 24th), as pathognomonic of this disease, were not present in this case.

June 22nd. The skin had a decided greenish tinge. There was no sallowness of the conjunctiva or sclerotic. The tongue and mucous membrane of the lips and mouth were very pale. He was unable to get out during the day, as he nearly fainted whilst being dressed.

June 23rd. He was rather delirious last night. This morning, whilst his bed was being made, he fainted in the chair where he was sitting; his lips twitched and his eyes were fixed. On return of consciousness, he was at first unable to speak, and slept soundly for an hour. He was ordered an ounce of brandy.—9 P.M. Pulse very feeble, 100; temperature, 100 deg. He was wandering slightly.

June 24th. He was delirious last night. The bowels had not acted since yesterday morning. Temperature, 99 deg.; respirations, 20; pulse, 100. There were slight sordes on the teeth. His general condition was considerably worse. He passed his urine involuntarily. There was venous pulsation in the neck. The phosphorus was omitted and a quinine mixture ordered (two grains three times daily).—Evening. He had passed more urine involuntarily in bed. He was lying on his right side. He ate a little fish for dinner, and felt faint afterwards. Pulse 100.

June 25th. He was worse. The pulse was much feebler. He still lay on the right side. He had had three more epileptiform attacks. He was ordered a drachm of tincture of perchloride of iron every hour. After two doses of the iron, he vomited freely. It was, therefore, stopped. He gradually sank and died at 7 P.M.

Necropsy Fifteen Hours after Death.—The body was fairly nourished and of waxy hue all over; there was no oedema of any part of the surface.—*Pleura:* There were adhesions on both sides, especially at the apex of the left lung. The right pleural cavity contained about two ounces and the left rather more of a reddish-yellow serous fluid.—*Lungs:* The right lung was very bulky, weighing 52½ ounces. It was anæmic, pitted deeply on pressure, and, on section, a very large quantity of watery serum exuded. There were slight ecchymoses on the surface and patchy redness in portions of the cut surfaces. It was crepitant throughout and floated in water. The left lung was intensely anæmic, and the upper lobe quite collapsed. The lower lobe pitted deeply and contained much serum, but this was not the case with the upper lobe. The weight of the lung was nineteen ounces and a half. On cutting through the pulmonary vessels, not a drop of blood escaped. The bronchi were healthy. The *Pericardium* was healthy; there were no adhesions. The heart was enlarged, and its muscular structure appeared natural; it was not anæmic. It weighed sixteen ounces. All the four cavities were absolutely empty. The endocardium was rather thickened, especially in the auricles, and markedly pale. The right ventricle was slightly dilated, the left somewhat hypertrophied. There was very slight thickening of the mitral valve. The organ was otherwise healthy. There was no staining of the aorta.—*Liver:* The liver was large and firm; it weighed seventy ounces. It cut hard, but the section appeared normal. Nothing abnormal was revealed by microscopical examination. The gall-bladder was full of bile. On cutting the vessels at the porta hepatis, no blood whatever escaped. The *kidneys* were large and firm; the right not so anæmic as the left; otherwise healthy. The weight (with capsules) of the right was seven ounces and a half, of the left eight ounces. The suprarenal capsules were healthy, but perhaps somewhat smaller than natural. The *spleen* was large and soft and tore readily; its weight was twelve ounces. The pulp was soft. The *alimentary canal* was healthy throughout. There were no ecchymoses. The intestines contained plenty of bile, and their walls were rather thin. Peyer's patches were very indistinct. The *pancreas* was healthy. There was no enlargement of the lymphatic glands in any part of the body.—*Brain:* The brain was exceedingly anæmic. There was a slight excess of fluid beneath the meninges. On the left hemisphere, there was an ecchymosis about the size of a shilling beneath the membranes. The whole surface of the brain was rather wetter than natural. The substance of the brain was exceedingly pale on section. There was no unusual amount of fluid in the ventricles. There was no blood whatever in the sinuses. The *muscles* were of natural colour and well developed. The *veins* were more transparent than natural, and contained but very little blood, which

was of a pinkish colour and exhibited no tendency whatever to clot. The microscope showed an extreme reduction in the number of red blood-corpuscles, which were very irregular in shape. Scarcely any were normal; the majority were pear-shaped, some triangular, and others, again, somewhat fusiform, sending out, as it were, a process from either end. They showed but little tendency to collect into *rouleaux*. The white corpuscles appeared to be somewhat reduced in number as regards their proportion to the red.—*Marrow:* The red marrow from the right tibia looked no paler than natural. It was made up almost entirely of granular spheroidal cells about the size of white blood-corpuscles, and very like them in appearance. Some cells were of a distinctly reddish colour. There were a few oil-globules and some free granules. Some of the larger cells contained a single nucleus, but no nuclei were apparent in the majority of the cells without the use of reagents. The red marrow from the sternum contained plenty of oil-globules, and was made up of cells larger than those from the tibia. The large cells were distinctly nucleated. Some of the cells were twice as large as an ordinary white blood-corpuscle. There were very few coloured cells, and these were not so distinctly coloured as those from the tibia. The yellow marrow had the normal appearance.

REMARKS.—I think there can be little doubt as to the case being one of that form of anæmia first described by Addison (New Sydenham Society's edition of his works, 1868, p. 212) as "idiopathic", and since called by Biermer, Immermann, and Pepper "progressive pernicious". We are still quite in the dark as to the causes of this malady, hence the specific name of "essential" has also been given to this kind of anæmia.

Although allied to Addison's disease, leukæmia and the anæmia lymphatica of Hodgkin, it is yet different from them, as there is neither bronzing of the skin nor disease of the suprarenal capsules, nor an increase of white corpuscles in the blood, nor any enlargement of the lymphatic glands. Idiopathic anæmia is characterised by an absolute diminution in the red corpuscles of the blood, either from these not being formed in the requisite numbers, or from their too rapid disintegration. Besides the change in the red corpuscles, other constituents of the blood most probably undergo organic changes, as evidenced by its want of coagulating power after death. If anything, the relative number of white corpuscles is diminished and their size diminished. Physiologists have not yet discovered the mode in which the red corpuscles are formed, nor the locality of their formation, although there is a growing belief that some of them at least result from the transformation of the pale corpuscles. Of late, it has been discovered by Neumann and Bizzozero that transitional forms to the red corpuscles exist in the marrow of the cancelli of bones, and hence pathologists have looked to this tissue for the solution of the mystery. The appearances of the red marrow from the tibia and sternum in the case I have related corresponded very closely with those given by Professor Pepper (*American Journal of the Medical Sciences* for October 1875, p. 332) from the radius and sternum in one of his cases; but, on comparing these appearances with those of healthy marrow as given in the eighth edition of Quain's *Anatomy* and elsewhere, I find them almost identical. Of course, I am not prepared to say there may not be some slight increase in the number of the lymphoid cells, as I am not sufficiently acquainted with the microscopical appearance of normal red marrow; but, so far as I can judge from the descriptions in books, the differences are not sufficiently great to warrant one in calling idiopathic anæmia "merely the simple medullary form of pseudo-leukæmia" (Pepper). Let us now see if the present case lends support to any other pathological theory. I think it does. The spleen has long been considered as the death-place of the red corpuscles, and recently the liver, among its other functions, has come to be regarded also as one of the localities where these corpuscles are destroyed. In my patient, it was found on *post mortem* examination that both these organs were enlarged. The splenic pulp was very soft. Perhaps, then, this disease is not one in which the morphological elements of the blood are generated in too small numbers, or in which the requisite transformation from pale to red does not take place, but rather an affection in which too rapid destruction goes on, or, at any rate, the process of destruction exceeds that of formation. Has the yellow tint of the skin and that imparted by the blood to the fingers, etc., any connection with the rapid destruction? I notice that some pathologists, failing to find any other satisfactory explanation of this disease, are inclined to take shelter in that "refuge for the destitute", viz., the nervous system. Idiopathic anæmia, say they, is a neurosis. Lebert thinks it not improbable that the disease is a special neurosis of the great sympathetic, like exophthalmic goitre (*Archives Générales de Médecine* for April). Dr. Broadbent thinks "there is lacking some influence for want of which the reactions between the blood and the blood-forming organs fail to be effected". (*Practitioner*, January 1875.)

My patient had suffered from ague twenty-three years previously to the commencement of the attack of anæmia which proved fatal. He also came from a district in Cambridgeshire in which ague used to prevail, but in which it is now almost unknown. It is highly improbable, therefore, that exposure to paludal miasma was the cause of his illness. The blood had not the appearance described by Eichhorst as characteristic of this affection, as I have stated in the notes. Dr. Grainger Stewart has failed to discover these appearances in two well marked and ultimately fatal cases which occurred in his practice (BRITISH MEDICAL JOURNAL, July 8th, 1876). In some cases of this disease, fatty degeneration of the heart has been observed; but, in my case, the heart was somewhat hypertrophied and the muscular tissue was firm and of a good colour.

The patient's illness commenced with so-called "bilious attacks", of which he seems to have had several; some at considerable intervals. After his admission, no evidence of jaundice could be detected beyond the sallowness of the skin, which was the sallowness of anæmia, and not that of jaundice. This hue of the skin has been noted by other observers. The giddiness, somnolence, and epileptiform attacks which occurred towards the termination of the illness, bear out the theory of cerebral anæmia being the proximate cause of these conditions. The only hæmorrhage the patient had was that from the nose a few days before his death. There were no ecchymoses of the skin or mucous membranes, but slight ones of the right pleura and of the membranes of the brain, over a circumscribed spot on the left hemisphere, were found at the necropsy.

With regard to the treatment of the case little need be said. Iron had been given before his admission, and was tried the first week after it, but without the least apparent benefit. It is true that at first large doses were not given; but this was done purposely to avoid irritating the stomach, an effect which was produced when drachm doses of the perchloride were given on the day of his death. Iron seems to have no curative effect in this form of anæmia. Phosphorus was the drug next resorted to, and I was induced to give it upon the recommendation of Dr. Broadbent, who, in the *Practitioner* for January 1875, has recorded two cases of this disease treated successfully by this drug. As to its *modus operandi*, but little is known. It would seem, however, when given in medicinal doses, to influence favourably the processes of blood-formation and nutrition. The patient was a little better for the first few days after its administration, but the improvement did not continue, either from the dose being too small or the disease having progressed too far before the phosphorus was tried.

Transfusion was thought of, and a consultation was held by Dr. Humphry and myself as to its advisability. The results recorded by Professor Pepper and Gussertow were not, however, thought sufficiently encouraging to induce us to operate. Besides, it was felt that the only real use of transfusion would be to prolong life whilst some remedy was fairly tried, and, phosphorus having apparently failed, it was difficult to tell where to look for another.

IRREDUCIBLE FEMORAL HERNIA: OPERATION: RECOVERY.

By G. F. MAUNDER, F.R.C.S.,
Surgeon to the London Hospital.

THE publication in the JOURNAL of October 7th of the report of an operation for the cure of an irreducible femoral hernia, leads me to record an instance of a similar kind which occurred in my practice ten years ago.

S. A., cook in a gentleman's family, and forty-five years of age, had been the subject of a lump in the right groin for about eight years. This gradually enlarged, latterly somewhat quickly, associated with local pain, especially on lifting a weight. Also, she often suffered from pains in the stomach and "spasms". The swelling interfering with her comfort and occupation, she consulted Mr. E. W. Pait of Highbury Park, who asked me to see her.

The tumour, of the size of an egg, but somewhat irregular in shape and indurated, occupied the site of a femoral hernia.

Operation, June 1866.—The patient having been chloroformed, a longitudinal incision was made along the centre of the swelling and the structures divided till the sac was reached, and was found to contain a small quantity of fluid and a mass of omentum, thickened and nodulated. On tracing the tumour to the crural ring, it was found to be continuous through this with the structures within the abdomen by a slender pedicle. This pedicle or stem having been tied with a silk ligature, the tumour was cut away. The ends of the ligature were brought out at the lower angle of the wound, and the latter was closed by suture.

Very little suppuration occurred; the ligature came away in due time; and the patient made a good recovery.

In very many instances of herniotomy necessitated by strangulation, I have, after reducing the bowel, cut away large masses of omentum without unfavourable consequences. In one instance in which the omentum was firmly adherent to the bottom of a scrotal sac, I placed a double ligature on this structure and divided it between them. This plan allowed the lower portion to subside into the scrotum, while the upper, being lodged at the ring, enabled the patient to wear a truss after his restoration to health.

If, from any cause, omentum cannot be reduced, or it be deemed undesirable to reduce it, it should be treated by one of the above methods, in order to enable the patient thereafter to wear an effective truss, upon which his future comfort and safety will much depend.

CASE OF INTUSSUSCEPTION SUCCESSFULLY TREATED BY INFLATION: WITH REMARKS.*

By THOMAS EASTES, M.D., F.R.C.S., Folkestone.

THE following are some notes I took of an interesting case of intussusception recently under my care.

August 6th. I was called at 10.30 A.M. to see W. T., a boy aged 3. I found him lying down, apparently in pain. His mother informed me that he had been quite well until 2.30 A.M., except that for two or three days he had had slight diarrhoea; but this had not been sufficient for her to seek medical advice for him. Between 2 and 3 A.M., he woke up complaining of great pain in the abdomen; this pain was not constant, but it troubled him again very frequently until my arrival. At 5 A.M., he was sick; there was no food in the vomit, and it consisted chiefly of greenish glairy mucus. At 6 A.M., his father procured some castor-oil, and it was immediately given him. At 6.30 A.M., the bowels acted, and a fairly natural motion was passed. At 7 A.M., or soon after, blood and glairy mucus passed from the bowel with much straining, and twice again before 10.30. The pain was paroxysmal and very severe, making the boy twist and roll himself about all over the couch, and scream to his mother for relief.

On examination, the pulse was a little accelerated; the abdomen was flaccid, and easily examined thoroughly. In the right inguinal region, a firm sausage-shaped swelling was felt, not apparently more than an inch in diameter, and two or three inches long; it was directed upwards, parallel with the side of the abdomen. Three drops of liquor opii sedativus were given to the child; and the mother had strict orders to give him nothing but a tablespoonful of milk every half-hour, and a little ice to suck; and to save everything passed or vomited.

At 1 P.M., the swelling was felt as before in the right inguinal region; but there was now a much firmer and rather larger sausage-shaped mass in the left inguinal region. Its apparent diameter was about two inches, and it could be traced up to the splenic flexure of the colon and partly across towards the median line. It was lost there, and could not be felt again till the swelling previously noticed in the right inguinal region was reached. Each lump was tender, but especially that in the left inguinal region. The symptoms had not improved, except that the child had had some sleep from the opiate, but the pain had been as bad as ever since the sleep, and blood and glairy mucus oozed from the bowel frequently. Three more drops of opiate were given, and only small quantities of milk and ice allowed. At 4 P.M., the parents were told of the very serious nature of the child's illness, and it was explained to them that, if the bowel could not be returned to its proper position, death was almost inevitable; also that I intended, with their consent, to try to remedy the state of things by blowing air into the bowel with a pair of bellows, and, if that did not succeed, to resort to the graver operation of opening the abdomen and pulling the small bowel out of the greater, into which it had been drawn.

At 4.45 P.M., my brother, Mr. George Eastes, who was then staying at Folkestone, kindly met me at the house and administered chloroform to the child. When the child became insensible, I examined the rectum with the forefinger, and could reach well into the commencement of the sigmoid flexure; and with the other hand could press down the mass on to the tip of my finger, but could not actually touch the end of the invaginated part without two layers of bowel-wall intervening. I now, with the help of the father, proceeded to force air into the rectum. The apparatus used consisted of an ordinary pair of bellows, over the nozzle of which I fastened one end of a yard of India-

* Read before the conjoint meeting at Rochester of the East and West Kent Districts of the South-Eastern Branch.

rubber tubing, the other end of this tubing being slipped over the end of a gum-elastic tube, such as is usually sold with Higginson's syringes. This gum-elastic tube was then passed into the rectum. It had at its base an ivory plate of the size of a halfpenny, which helped to retain the air in the rectum. After blowing the bellows for about four minutes, the sigmoid flexure and descending colon became inflated; but there was no great distension for a quarter of an hour; this was chiefly due to imperfect action of the bellows, which I then attended to, and was able to improve temporarily; but there was also what one might call a safety-valve action of the rectum, so that, when the distension of that part of the bowel was too great, some of the air escaped by the side of the tube, and blood and mucus were forced out with it. The distension now became more visible; and, after about half an hour, it was evident that the air had passed through the intussuscepted part and through the ileo-caecal valve, and that the small bowel was partly distended. The process of inflation took about forty minutes altogether. From time to time, the action of the bellows was stopped, and the abdomen manipulated gently to help the return of the bowel to its natural state; but the air was never all allowed to escape, until the end of the operation, when it was desirable to make as perfect an examination of the abdomen as possible before allowing the child to recover consciousness. Within ten minutes of commencing the inflation, the mass had retreated upwards from the left inguinal region, and soon it could not be felt. When the abdomen was quite flaccid again and the child still insensible, there was a slight feeling of resistance in the right inguinal region, probably due to the swollen state of the extremely congested part of the bowel that had formed the deeper and more advanced part of the intussusception; and I had strong hopes that we had accomplished the desired object, and saved the child's life without running the risk of opening the abdomen.

At 9 P.M., the child was sitting up in bed, comfortable and laughing, and would not admit that the abdomen was tender; but I was careful not to press very heavily. The pulse was 122 per minute; there had been sickness once, and an attack of slight pain once since the operation, and a considerable quantity of blood and mucus had been passed.

August 7th, 11.30 A.M. The child had been very comfortable indeed; his pulse was 92; there had been no further action of the bowels, but a little vomiting on two occasions, the vomit consisting of some of the milk and ice-water that he had taken, and having a slightly green tinge. He had had one very slight pain in the night. The abdomen was not so flaccid, but not at all tender, and no lump or swelling could be felt on either side. His diet still consisted of milk and ice.

8.30 P.M. The pulse was 100, and the boy was comfortable; there had been no further sickness; no tenderness nor swelling was discoverable. The bowels had acted naturally at 8 P.M.; no blood nor mucus being passed. There had been no more pain; and from this time the boy continued to improve rapidly, having no other bad symptoms.

REMARKS.—*Cause.* I believe that the increased and irregular peristalsis accompanying diarrhoea is a common cause of intussusception; and this is in agreement with the fact that intussusception is much more common in the summer months than in winter.

Diagnosis.—The case could not be mistaken after a careful examination of the abdomen, and the history alone made one strongly suspect its true nature; the mother's account of slight diarrhoea for a few days, then sudden severe colicky pain and vomiting recurring at intervals, followed in rather over four hours by the passage of blood and mucus, with much tenesmus, in a child under six years, made the existence of intussusception highly probable; and the presence of the tumour rendered it quite certain. It seems to have been a case of the ileo-caecal variety of intussusception, such as is much the most frequent in children. There is a little uncertainty as to the real character of the tumour in the right inguinal region. When first I saw the child, it was probably part of the bowel involved that was felt there; and, having once felt it unmistakably, I, perhaps, did not afterwards pay so much attention to it as to the mass in the left side of the abdomen. For, when the intussusception was plainly felt in the left inguinal region, the tumour in the right could only have been the portions of meso-colon and mesentery corresponding to the intussuscepted bowel stretched extremely tight.

Prognosis.—This, apart from the chance of successful treatment, was very bad. Recovery of children by separation of the invaginated part is a rare result. Under treatment, the prognosis was good, because the intussusception was not probably of more than fourteen hours' duration when inflation was practised, and, therefore, so much the more likely to be reduced by that process.

Treatment.—I think there can be no doubt that, when once intussusception is diagnosed, an anæsthetic should be given, and inflation tried as the most successful treatment known; and, if that be entirely unsuccessful, the tumour not changing its position at all, I believe that, where the diagnosis is certain, the proper step to take is to open the

abdomen at once, and draw out the bowel from its enclosing sheath of neighbouring bowel as carefully as possible, and close the wound. This, of course, applies especially to cases seen early; for there is no doubt that immediate treatment is of the greatest importance. By delay, the intussusception will probably increase; if not, adhesions may form, or strangulation of the enclosed bowel proceed to a dangerous degree, both complications lessening the chance of successful treatment so much that, after awhile, it is wiser to trust to the small chance of recovery by gangrene and separation of the intussuscepted portion of bowel than to attempt to return it to its normal position. In thirteen cases (referred to in the New Sydenham Society's *Biennial Retrospect of Medicine and Surgery for 1873-74*, page 341), in which the abdomen was opened for intussusception, five recovered. This is an encouraging result; and, I believe, far above the number that recover after the separation of the bowel.

CASES ILLUSTRATING THE SUCCESSFUL TREATMENT OF SUFFOCATIVE GOITRE WITHOUT EXCISION OF THE THYROID GLAND.*

By LENNOX BROWNE, F.R.C.S. ED.,

Senior Surgeon to the Central London Throat and Ear Hospital; Surgeon and Aural Surgeon to the Royal Society of Musicians; etc.

AT the meeting of this Association in Edinburgh last year, Dr. Heron Watson related some cases of excision of the thyroid gland on account of goitrous enlargement, and received the support of Professor Lister, who showed a gland which he had removed in the method advocated by Dr. Watson. This gentleman had taken precautions against the most obvious danger of such a procedure—hemorrhage—by previously tying the thyroid arteries; and he had undoubtedly had greater success than any other surgeon who had performed the operation. Nevertheless, one fatal case had occurred in a series of seven, and others in which alarming hemorrhage had to be reported. I ventured on that occasion to express my opinion very strongly to the effect that the operation was totally unnecessary, because there were other remedial measures involving no danger whatever, and completely removing the enlargement, and with it the distressing and dangerous symptoms to which the disease frequently gives rise. I further stated that the procedure I advised was so simple that the patient was not required to remain in bed a single day, or even to cease from work; and that the after-disfigurement was very much less than could be the case even under the most favourable circumstances; when an incision had been made "from the thyroid cartilage to the sternum".

The two particular procedures to which I referred as suitable for the form of goitre under consideration were, the injection of tincture of iodine into the substance of the gland after the plan of Lücke of Berne, and the introduction of a seton; and I stated that I had had several cases in my own practice, and had also seen many others treated with great success by colleagues.

As many members of the Association appeared sceptical of the benefits to be derived from treatment so simple, I determined at the next annual meeting to relate some cases. I shall on this occasion recount but six, all of which have been sent to me by, or have otherwise been under the notice of, independent practitioners. In these cases, also, relief has been sought for and afforded on account of distressing symptoms, and no case is included in which treatment was adopted solely to remedy a disfigurement.

It is somewhat difficult to say in exactly what cases one may expect benefit from the iodine; and in which the seton may be indicated beforehand as preferable. The effect of the former is to produce absorption of the cellular portion of the gland; but the fibrous tissue is often bound more tightly together by such absorption, so that, though the whole lump is reduced, it is more dense, and a varying number of more or less hard fibrous nodules remain. The after-marking from use of the injection needle is, however, nil; and in the softer forms of goitre this treatment is most successful, especially if suppuration, which is never excessive, be produced, so as to cause breaking up of the fibrous as well as of the cellular portion of the tumour. This is what always takes place by use of the seton. The after-marking by this method is extremely slight, and can, in the case of a female, be easily covered by a velvet ribbon round the neck.

* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Sheffield.

† Since I have read this paper, Dr. Webb of Wirksworth, a very bronchocœlous district, informs me that he has had great success by injection of a solution of iodine, four times stronger than that of the *Pharmacopœia*; this has been, however, in polycystic goitres. He agrees with me, that in the denser forms the area of inflammation produced by the iodine injections is often very limited.

In cases where the enlargement is general and the trachea is embraced on each side, I greatly prefer the seton, since the relief is much more rapid; whereas not unfrequently there is actually a temporary increase of distress after the first or second injection of the iodine.

There are many points of clinical interest in the following cases on which I would have liked to dwell, but for want of time. I would especially draw attention to the fact that, except when the tumour is substernal and causes dyspnoea by exercising direct pressure on the windpipe, extension of one or both lateral lobes behind the trachea and oesophagus is always the cause of trouble. The actual variety of hypertrophy also is, in all these cases, fibrous. Cystic goitre, forming as it does, for the most part, a swelling in front of the neck, which grows outwards and very often attains an enormous size, seldom causes dyspnoea. As a rule, suffocative bronchocele are not of large size. It is not the dimensions, but the unyielding nature and the position of the tumour, that is in these cases the cause of the symptoms.

Latterly I have been in the habit of completing treatment by a course of baths and waters at the Bromo-Iodine Spa of Woodhall, a spring of very high therapeutic value, but the merits of which appear to be but partially recognised by the profession.

In conclusion of these prefatory remarks, I trust that my cases will show that the very serious disease to which they refer can be treated safely and effectually without the knife; and it may be remarked that there is nothing in such treatment to prevent the success of radical measures, should the milder means fail. In all cases, however, which have come under my notice, relief has been speedy, complete, and permanent. The tumour generally disappears entirely, and I have never seen an instance in which it has recurred.

CASE I. Substernal Enlargement of the Isthmus and Left Lobe of the Thyroid Gland, Dyspnoea, and Dysphagia: Iodine Treatment: Cure.—Miss Dora J., aged 19, consulted me on December 9th, 1873, by the advice of my friend Dr. Hope of Bolton Row, on account of shortness of breath and difficulty of swallowing. The history was, that for three years there had been gradually increasing shortness of breath, with enfeeblement of the general health. The respiration had become laboured on exertion. She was unable to lie down, except when propped up with many pillows. She suffered from a most distressing loud spasmodic cough, being obliged to hold on to a chair or other object of support during an attack, and was afterwards so prostrate as to have to lie down and rest. Her singing-voice had failed her early in the progress of the case. For the last twelve months, her speaking-voice had become enfeebled, very quickly fatigued, and had often been quite lost. Her power of swallowing had been also greatly reduced; she could now take no food unless sopped or minced, and was obliged to take liquid with each morsel of food. There was, however, no pain in swallowing. She suffered from constant headache, flatulence, and constipation. Menstruation was rather irregular and scanty. She had become very enervated and debilitated. During all this time she had observed that the collars of her dresses had become tighter, and were constantly requiring to be let out, or were left unfastened. There was, however, no visible undue enlargement of the neck; and no medical attendant in England, France, or Germany—and in each of these countries she had sought advice—had directed attention to this point.

On examination, I found a moderately hard oval tumour, of the size of a small hen's egg, over the trachea and rather to its left side. More than half of it lay between the windpipe and the sternum. The least pressure with the hand on the tumour produced increased embarrassment of breathing and brought on an attack of coughing. With the laryngoscope, it was seen that there was pressure on the left recurrent nerve, as well as directly on the trachea, for the left cord was but imperfectly abducted in inspiration.

Six injections of thirty drops of tincture of iodine (pharmacopoeial preparation) were made at intervals of a week or fortnight. After the first injection, which rather increased the symptoms, recovery was uninterrupted. The final result was an entire disappearance of the tumour and of the symptoms. I have frequently seen the patient since; and she visited me on July 29th last, to show me, at my request, how well she was. She has never had the least recurrence of any of her former discomfort. Her speaking-voice has returned with full strength, and has not again failed her. She sings occasionally; but her singing-voice has never regained its former power, and she says that singing always fatigues her throat.

CASE II. Fibrous Enlargement of Right Lobe and Isthmus of the Thyroid Gland: Extreme Dyspnoea and Stridor: Dysphagia: Iodine Treatment: Suppuration: Cure.—Frederick P., aged 18, residing at Folkestone, applied at the Central London Throat and Ear Hospital, September 15th, 1874, on account of extreme difficulty of breathing. He stated that for more than two years his parents had noticed his

breathing becoming increasingly laboured; but, before that time, his neck had been observed to be large, and he had found the collars of his shirt getting tighter and tighter. The difficulty of breathing had for the last six months been so severe that the least exertion produced stridor and choking. He had been obliged to entirely give up his work as a gas-fitter's apprentice; and he had undergone much medical treatment, allopathic and homoeopathic, without the least benefit. For the last eighteen months, he had suffered from increasing hoarseness, and from pain in swallowing, as if the food had to be forced down beyond an obstruction.

On examination, there was found to be a fibrous enlargement of the right lobe and isthmus of the thyroid gland, of the size of a large hen's egg. The neck measured $15\frac{1}{4}$ inches. With the laryngoscope, the vocal cords were seen to be congested and weakened both in their adductive and abductive action. The pharynx was also congested. Respiration was noisy and stridulous even when the patient was at rest. Distress was immediately increased on the least exertion.

I showed the boy at the Harveian Society in October, and commenced treatment about that time, injecting tincture of iodine, thirty drops of the pharmacopoeial preparation on each occasion. This I did for a month three times a week, with the result of producing a small abscess in the gland, which having been well poulticed, I opened and introduced pledgets of lint to keep up the discharge. To show the depth of the abscess, I may mention that the pledgets would at first go in more than four inches without packing. This, with poulticing, was continued for six weeks. The whole treatment lasted three or four months. The tumour entirely disappeared, and with it all trouble of respiration and voice. I saw the patient with my colleague Dr. Llewelyn Thomas on July 28th, when we satisfied ourselves that there was not the least enlargement remaining, and an almost unappreciable scar.

The lad is now working daily at his trade, and does not suffer the slightest inconvenience. He has, in fact, never had a day's illness since he was cured of his neck. The measurement is now $13\frac{1}{4}$ inches over the site of the former swelling. Mr. Bateman of Folkestone, who "perfectly remembers that the lad had a very large bronchocele pressing much on the trachea and causing considerable difficulty of breathing", further writes on July 30th: "The young man R. P. has been to me to-day to show me his neck. I am glad to find there is not a trace left of the large goitre he suffered so much from previously."

CASE III. Fibrous Enlargement of Isthmus and Left Lobe of the Thyroid Gland, causing Dyspnoea, Dysphagia, and Sympathetic Derangement: Treatment by frequent Injections of Iodine, so as to produce limited Suppuration: Cure.—Miss R., aged 24, residing at Finsbury, consulted me in October 1875, by the recommendation of Dr. Thorowgood, on account of suffocative symptoms due to thyroid enlargement. The patient, a fair, rather anæmic girl, of slight build and of highly nervous temperament, gave the following history. For a long time she had been conscious of having a full throat, but it was only during the last six months that her breathing had been affected. During this period, she had suffered from a sensation of choking when lying down, accompanied with palpitation of the heart. At first, she was awake in her sleep with a feeling of suffocation, as if some one were strangling her; and during the day she would suffer only from a sensation as of a ball rising in her throat. Latterly, however, the symptoms of strangulation had been constant. It was impossible for her even to lie on the sofa. She did not suffer from sleeplessness, but was afraid to sleep for fear of being suffocated; and her brother or a friend had sat up with her for many nights past. On the slightest exertion, her breathing became short, and the action of her heart was hurried. Walking, even up stairs, occasioned the greatest fatigue, and she was in a state of great general prostration and debility. Her power of swallowing had been so enfeebled, and as it were interrupted by sense of constriction, that she could only take sopped food accompanied with frequent draughts of liquid. She had acquired the greatest distaste for animal food. She suffered from constant floodings, preceded or followed by cold. She felt generally cold, and found great trouble in getting warm in bed or by any artificial aid, as hot-water bottles, etc. Recently, she appeared to have lost power in the upper limbs, and could hardly lift her arms; had constant frontal headache, with great weight and pressure in the occipital region. She suffered much from flatulence with acid eructations. The bowels were constipated. The menstruation was regular in appearance, but always painful, deficient in quantity, of very pale colour, and passing in clots. I need not say that, under Dr. Thorowgood's hands, general therapeutic treatment had been active and judicious; but the patient had got worse rather than better.

On examination of the neck, I found a hard, firm, uniform swelling of the isthmus and left lobe of the thyroid body, in all as large as a

Tangerine orange. While the central swelling dipped low down, so as to lie partially between the sternum and windpipe, the left lobe extended quite around the trachea and gullet. The voice was very feeble and at times almost lost. On laryngoscopic examination, the adductive power of the vocal cords was seen to be much weakened; but there was no visible narrowing of the trachea.

On October 9th, the central tumour was injected with iodine from above downwards, so as to endeavour to relieve at first the substernal pressure. Thirty drops of the pharmacopœial tincture were used. The next day, the patient came with considerable increase of the dyspnoea, and having passed a very bad night. On the 11th, I repeated the injection, with the result of seeing, on the 13th, that the skin over the point where the syringe had entered was red and tender. I repeated the injection on this date, and ordered the patient to commence poulticing and fomenting on the 14th. In a few days, suppuration took place. I did not open the abscess, but on the 24th injected the side-swelling, a procedure which was repeated a week later. In the meantime, the small abscess had pointed and commenced to discharge. It was kept open by small pledgets of lint for four weeks, when it gradually filled up. Only five injections in all were made, the amount each time being about thirty drops.

The following is taken from my notebook on December 18th, about ten weeks after commencement of treatment.

"The tumour is reduced to a very small hard lump the size of a small common nut-kernel. The patient sleeps well. She has lost all sensation of strangling since the first six weeks of treatment; suffers no longer from globus hystericus. The swallowing is still weak, but there is no longer a feeling as of stoppage of the food from a sense of constriction of the gullet. Still feels rather cold, but has regained power in the upper limbs. Circulation generally improved, and palpitation much less urgent. Menstruation devoid of pain and of clots, and of better colour. Bowels still confined, unless Friedrichshall water is taken. Digestion and appetite generally much improved. She is far from strong, but takes short walks daily, and is able to attend to her brother's household. The local scar is not as large as a pea."

July 26th, 1876. The patient visited me, at my request, on this date. She has remained quite well in every respect since she left my care more than six months ago, and there is not the slightest sign of the former tumour, nor is there any scar.

CASE IV. Enlargement of the Thyroid Gland, principally of the Right Lobe, displacing the Trachea, pressing on its Right Wall, and giving rise to considerable Dyspnoea and Sympathetic Derangement.—Elizabeth C., aged 38, married, but without children, and residing at Luton in Bedfordshire, a goitrous district, consulted me at the Central London Throat and Ear Hospital on December 15th, 1875, on account of shortness of breath caused by a swelling in the neck. Her history was that, fifteen years previously, she had observed a small swelling as of a pea in the centre of the throat. As it increased, it seemed to move to the right side; and for the last four months a similar small tumour has shown itself also on the left side. No pain or inconvenience was experienced till twelve months ago, when the breathing was first affected, becoming short not only on exertion, but being always laboured even when sitting still or walking. The voice also became quickly fatigued and weak, as if for want of breath. For some months she had been unable to lie down, but had to be supported in bed in a sitting posture by pillows, and to draw her knees up towards her body. On attempting to lie down or to put her legs straight, the breathing became more difficult. She suffered great pain in her right shoulder, and could not even allow the bedclothes to touch the right side. She had a troublesome hacking cough, with tenacious, clear, saliva-like expectoration, rarely expectorating phlegm, but, if so, experiencing relief. She had had occasional but not frequent serious suffocative attacks in the night. Eight months previously, the patient had noticed that she did not perspire on the right side of the face, neck, and upper arm; but she perspired below the right elbow and in the right hand. The right side of the face would be pale and dry, while the left would be flushed and the perspiration stand out in beads. The line of demarcation was distinct and in the median line. For ten years she had had a tendency to bleeding of the nose; the attacks had been more frequent lately. The right eyelid had perceptibly drooped, and was sometimes almost closed. She had for years been subject to browache, and latterly also to occipital headache. Menstruation had for the last six years been excessive, in frequency of appearance, in duration, and in amount. The bowels were regular; the appetite fair. There was no distaste for animal food. She had suffered greatly from sleeplessness, and the periods of sleep had been much shortened. She was quite unable to do any work on account of her breathing, but she had only felt bodily weak and disabled for the last six months. She had become much emaciated. Her family history was, that both father and mother had

died of consumption. She had but two sisters, both of whom were married, with families, were in good health, and without any tendency to thyroid enlargement.

On examining the neck, a swelling of the size of a large hen's egg was observed on the right side and front of the neck, just in the region of the thyroid gland. The vessels of the neck were pushed back, and the windpipe pressed right out towards the left. The thyroid cartilage was not displaced. There was a smaller lump, the size of a walnut, on the left side, rather behind the trachea, and also pressing back the carotid. The neck measured $14\frac{3}{4}$ inches over the swellings. With the laryngoscope, the trachea was seen to be not only displaced, but its calibre largely encroached upon by the tumour of the right side pressing on the inner wall, so as to give the appearance of a large semi-oval non-pedunculated tumour. With the sphygmograph, there was found to be increased arterial tension of the right radial, with undue pronounciation of the secondary waves of that side. The pulse was 100 and weak. The temperature was normal on the right side, and one degree above normal on the left. With the ophthalmoscope, both discs were seen to be equally anæmic; the right pupil was unduly contracted and but little acted on by light.

This patient was exhibited at the Pathological Society on December 21st; and on the following day I passed a seton right through the whole mass from left to right, prescribing also perchloride of iron and quassia, and phosphorised cod-liver oil at night. Disintegration was very slow, and the setons were retained for six months. Long before that time, however—in fact, very soon after introduction of the seton—the breathing had improved, and about the middle of June it was quite well. Perspiration had been re-established in the right arm, axilla, and neck, but not on the face. The pain in the shoulder had gone. The patient could lie moderately high in bed. She had gained flesh; she slept better. The ptosis had almost disappeared, and the pupils acted equally. She has now been at Woodhall a fortnight, taking baths and the water, and constantly wearing the compress of concentrated liquid. I saw her two days ago, and she has still further improved since her stay there. The tumour is very greatly reduced, the neck measuring barely $12\frac{1}{2}$ inches; and, with the laryngoscope, the trachea is seen to be normal in direction, and in its circumferential capacity and uniformity.

CASE V. Enlargement of Isthmus and Left Lobe of Thyroid Gland, causing Dyspnoea and Dysphagia: Treatment by Seton.—Cure.—Charlotte H., aged 22, single, a barmaid, was first seen by me at the Central London Throat and Ear Hospital on March 16th, 1876. She stated that she had noticed a gradual enlargement of the neck for two years; that for the last four months her breathing had become distressed; and that lately she had been quite unable to lie down, but had slept in a chair. Swallowing also had become difficult. There was a constant feeling of choking and of a lump in the throat. Her health otherwise was good. Menstruation was regular; and, if her breathing were only relieved, so that she could sleep, she said she would feel quite well. She was, however, greatly debilitated. The swelling of the neck was general, but it was on the left side that the tumour appeared to embrace the windpipe. The measurement was $15\frac{1}{2}$ inches, and the hypertrophy was of the fibrous variety. An injection of tincture of iodine was made at the first visit. Great pain was complained of at the time by the patient. The next morning, very early, she came to my house suffering from extreme dyspnoea. She stated that she had not slept a minute all the night, that she had been unable to take any food but liquids, and that she felt as if she should be strangled. With the consent of herself and her friends, I at once inserted a seton. The effect was most marked. She passed a very fair night, and within twenty-four hours found her breathing was quite easy. Suppuration became established in a few days; the seton discharged, freely, and the tumour diminished in size most markedly. The seton was removed in a month; and on April 26th she went to the hospital at Woodhall. Mr. Cuffe, under whose care she there was, has kindly supplied me with the following note.

"This patient has had five baths a week, has taken daily one tumbler of spa water in divided doses after meals, and has had a compress of the concentrated water (*Müller-lauge*) fifty times stronger than the natural water constantly applied. No other treatment has been pursued. There was some swelling of the central lobe remaining on admission, and the seton-points discharged for a few days after arrival; but at the time of dismissal, at the end of a month, all discharge had ceased. No thickening is perceptible, and no mark of the tumour beyond the cicatrices, which are mere points."

On her return to London, Charlotte H. visited me. The tumour had entirely disappeared, and with it every distressing symptom. Her general health had greatly improved by her stay at Woodhall, and she was about to take a fresh situation.

CASE VI. General Fibrous Enlargement of the Thyroid Gland, causing Dyspnoea: Unsuccessful Treatment by Counterirritation, Electrolysis, etc.: Treatment by Seton and Mineral Waters: Cure.—Sarah M., aged 13, a native of Louth in Lincolnshire, applied at the Central London Throat and Ear Hospital June 7th, 1875, on account of difficulty of breathing occasioned by enlargement of the neck. The thyroid gland had been observed to become generally and progressively enlarged for the last two years, and for the last six months breathing had been noisy and difficult. She occasionally had a cough of a laryngeal and spasmodic character. Her swallowing had not been difficult or painful; but she constantly felt a lump rising in the throat, with a general sense of constriction. Her general health was good. The bowels were rather constipated, and she had never menstruated. On examination, there was seen to be a general moderately large enlargement of the thyroid gland. The neck measured $15\frac{3}{4}$ inches.

Ointment of biniodide of mercury was ordered, with iron tonics, and a five-grain pill of aloes and myrrh each night. In the course of two or three months, menstruation was established; but the tumour did not diminish. In January, I commenced a series of experiments with electrolysis, and pursued that treatment on this patient as well as on seven others. [I may mention, in passing, that I only got a really beneficial result in one case and partial diminution in another, both of them being simple glandular enlargement of the non-fibrous variety.]

Sarah M. underwent twelve operations in four weeks, having two needles introduced each time, and a strength of from sixteen to twenty-five cells of a Stöhrer's battery. Not the least good was effected; in fact, both tumour and dyspnoea appeared to increase, so that early in March I introduced a seton right through both lobes and isthmus of the gland. The seton was retained for six weeks; and in June the patient was sent to Woodhall, where I saw her two days ago. She has been an inmate of the Woodhall Hospital for six weeks, taking the baths and water, and wearing the compress; and her general health has improved most markedly. Locally, there is still some slight fullness remaining, but all distress is relieved. The child plays and runs about without any trouble.

THE MILITARY MEDICAL SERVICE OF TURKEY.

By JOSIAH WILLIAMS, L.R.C.P. ED.,
Surgeon to the Central Military Hospital, Sienitza.

NOW that Turkey engages a large share of public attention, I think that a few remarks on her military medical service may prove of some interest to many of my medical brethren in England. I have been about three months in the service, and have had a good opportunity of becoming acquainted with the treatment of the wounded and sick, the former more particularly, as few but wounded are admitted into my wards.

Whilst at Constantinople, I crossed the Bosphorus two or three times, and visited the hospital at Scutari. This hospital is splendidly situated on rising grounds, no houses near it, facing the Black Sea. The English cemetery intervenes, and is as nicely kept as any of our London cemeteries. I accompanied the chief physician in his round, and observed that he looks over the food and tastes it before it enters the wards. The wards are wide, long, but not very lofty; they are well lighted, and capable of being well ventilated, but ventilation appears to be a matter of very secondary importance in all the hospitals I have visited. A large wide verandah runs round the outside of the wards the whole length of the building.

The interiors of the wards look clean, and the patients look comfortable and well cared for. The *French Pharmacopœia* is used in Turkey, and all prescriptions are written in French. The diets range from 1 to 6. No. 6 is the highest, and consists of a good supply of meat and rice, and bread. Hushaf, or stewed raisins, is an extra, and is a very favourite thing with the Turks. Mahalabie is also an extra, consisting of rice and raisins, and is often given with No. 5 diet, as that contains less meat. Nos. 1, 2, 3, 4 are soups, or soups and rice. This hospital is a large one, and contains chiefly medical cases. It holds, I think, six or seven hundred beds, but this I am not sure of. The wards are fumigated two or three times a day with incense.

In due time (the Turks never hurry themselves, no matter what it is or how important), I received my commission, and was fortunate in being sent to the front, where severe fighting was going on. I had to pass through Salonica, and thence by rail to Metraniza, thence a four days' journey on horseback to Sienitza, passing through Novi Bazar. The little hospital at Metraniza consisted of a few old hay-lofts, etc., knocked into one. I found a very large number of troops

encamped by this village. Two of the camps were on perfectly flat ground by the side of a river. In wet weather, the place was like a swamp. The latrines are placed much too near the camps, and all around and close to the camp is freely used by the soldiers. The out-patients of this hospital chiefly suffered from ague, dysentery, and diarrhoea. The hospital at Novi Bazar is a large one, and contains four or five hundred beds. The wards are clean, and the chief medical officer here (Oshmed Bey) is, I think, a very suitable man for the position he holds. He has studied in Paris, and seems well up to his work. The privy accommodation here is of a very rude description, and large open gutters convey the faecal matter away from the hospital. The inmates of this hospital are chiefly convalescents from Sienitza. I stayed here for two days, and was much struck by the extraordinary number of cases of goitre I saw; many of them very large indeed. I am sure it is no exaggeration to say that every third person has this disease more or less developed.

After resting two days at Novi Bazar, I started for Sienitza. I halted one night in a fortified camp and arrived at Sienitza next day. Before entering the town, we passed by a large encampment of Arab troops—about ten thousand or so. The weather at the time was very hot, and the atmosphere in the neighbourhood was extremely unpleasant to the olfactory nerves. This was easily accounted for, as the calls of nature were relieved all around and close to the camp. The tents were pitched on perfectly flat ground, and were never removed until the rain and snow compelled their removal, and not then until the whole place was like a great dismal swamp. Need I say that dysentery, diarrhoea, ague, rheumatism, and bronchitis engaged our attention very much after this?

The Sienitza Hospital is a short distance from Javor, otherwise called Cantremet, where very severe fighting, under Mehemet Ali Pasha, has lately been going on. The hospital is a large quadrangular building placed in an elevated position overlooking the town. It contains six hundred beds; but, during the late severe battles near here, the floors also were covered with wounded. The whole is under the able superintendence of Oshannes Bey, an Armenian, and a very efficient courteous gentleman, who was much pleased on the arrival of English surgeons here. It has been necessary to occupy about twenty wooden houses here, and the Greek church also, with medical cases. There are about a dozen medical men to attend to the patients. One has to attend the houses, and each of the others has the superintendence of one, two, or three wards.

The visit is made at 8 A.M., accompanied by the *pharmatien*; his business is to take down the diets and medicines ordered on the patients' cards, and at once make up the medicines and see that they have their proper diets. As my two wards contain very few but surgical cases, my surgeon accompanies me round the wards after I have ordered the diets and medicines. He has to dress, under my supervision, about one hundred and twenty or one hundred and thirty cases. I ought to explain that my surgeon is equivalent to a dresser in a London hospital. He has no diploma, but simply learns to dress the wounds and bandage. This one dresses and bandages very nicely, but certainly requires looking after. Any narrow piece of wood wrapped around with one thin layer of wadding will answer his purpose as a splint, and he persists, unless I am there, in plugging a wound with charpie long after it is required, and, in many cases, has caused large sinuses where the wound would have healed up two or three weeks sooner had he not been too officious. We have no lint; charpie is used and answers quite as well. Sloughy and gangrenous wounds are dressed with cinchona powder and camphor, or decoction of cinchona, and a very good dressing it is too. We have had no carbolic acid, permanganate of potash, or disinfectant of any kind, since I have been here, until within the last three days. Notwithstanding this, we have been very free from gangrene and erysipelas until now. I have had two or three cases of erysipelas within the last few days following wounds of the head. Here they use a mask of some mercurial preparation in the form of an ointment, leaving it on for three or four days; and the application is certainly very effective. The absence of gangrene and erysipelas I attribute to the free ventilation of the wards. Every morning, I had a fight about this; but I carried my point until quite lately. Now that the cold weather has set in, not only are the windows nailed down, but every crack is pasted over with paper. At first, I wrenched the nails out, as I could not get any one else to do so, but found them more securely nailed next day, so I have been obliged to give up the unequal contest. As there is no fire-place in the room, the wards smell very offensive in the mornings where so many wounded are crammed together. My wards are each about one hundred feet long by twenty-four feet wide.

A few cases of typhoid fever have cropped up within the last few days, also one case of small-pox. Within the past four weeks, the

weather has been very severe; heavy falls of snow and severe frost. The Arab troops suffer most severely; several have been frozen to death, and many have been admitted into hospital with frost-bitten feet; some have become gangrenous and will require amputation.

Now that the armistice has been agreed to, a great number of battalions have left here, and most of those remaining have been housed, so we shall not have many more of those cases, unless they come from Javor, where, of course, they still live in tents.

We have no wine or brandy in the hospital, and, if we had, I do not think many of our patients would take it, as I believe it is contrary to their religion to do so. They certainly get on just as well without, and my opinion on the free use of stimulants in hospitals has undergone some modification, though, doubtless, those living in crowded cities require them more than these very temperate men living so much in the open air. Conservative surgery is here pushed to its utmost limits, very many preferring death to amputation.

Bayonet-wounds are very rare, and for this reason. Mehemet Ali Pasha, who is an extremely genial and accessible man, told me the other night that, when he has ordered the bugle to sound "cease firing", the Servians have ceased also. The bugle has then sounded "charge bayonets", and, whenever that order was issued, they invariably executed a strategic movement to the rear. I got a few cases of shell-wounds and very few from cannon; nearly all are caused by conical bullets.

I will mention a few of the more curious cases as regards the course of bullets.

A., aged 35. The bullet entered the outer and upper part of the right thigh, passing across the back part of the thigh; made its exit at the inner side of the thigh; then it passed across the lower part of the scrotum, slightly abrading it, and then entered the inner side of the left thigh. The soft structures only were injured, and the man has made a good recovery, having been in hospital six weeks.

B., aged 30. The bullet entered the inferior portion of the right buttock, passed around the anterior part of the femur, and made its exit in the right inguinal region. No bones were fractured.

C., aged 32. The entry of the bullet was at the upper and outer side of the left thigh; it passed across the lower part of the abdomen and pubes to the outer side of the right thigh, where I cut down on it and took it out. No bones were fractured.

D., aged 36. The entry of the bullet was at the anterior and middle portion of the arm. It passed up and over the head of the humerus and down to the lower angle of the scapula.

E., aged 34. The bullet entered at the inferior part of the mastoid process on the left side, passing around the head immediately below the occipital protuberance; it made its exit at the inferior portion of the mastoid process of the right side. No erysipelas supervened, and the man has nearly recovered.

F., aged 32. The bullet entered about an inch and a half below the right nipple, taking a direction downwards and towards the left side. What became of the bullet I do not know. I passed a Nélaton's probe about two inches, following the track, but did not succeed in finding it. This patient has been under my care for six weeks. Soon after admission, he had an attack of pleuropneumonia and diarrhoea. He is now recovering, and the wound is nearly well.

Very little fever, as a rule; follows very severe injuries; occasionally we have had a case or two of erysipelas following wounds of the scalp; but, considering the crowded state of the hospital, it really is most surprising that so little gangrene and erysipelas have troubled us. A great number of the wounded from Javor look very anæmic. Food has sometimes not been obtainable there for a day or two, and, during the late severe weather, it has been very difficult to get food for such a large number of men as were at Javor.

They soon rapidly improve under ferruginous preparations and good diet, and their wounds get on well. I find wounds of the upper part of the trunk and upper extremities much more common than of the lower. It is quite astonishing to see the number admitted with index-fingers shot away; thumbs also, and wounds of the palm of the hand; and I at first could not account for it. But I soon found what I conceived to be the cause. The Turks, in opening fire on the enemy, lie down, just lifting the head and shoulders. This, of course, would account for the number of wounds about the head and shoulders and down the back, and the great number of compound comminuted fractures of the humerus and radius, and ulna. The latter are much more frequent than of the tibia and fibula, and have every one recovered with useful arms. But the cases of compound comminuted fracture of the tibia and fibula have generally done badly. I have two cases now where the foot and lower part of the leg are almost ready to drop off, but it is impossible to persuade these fellows to submit to amputation.

THERAPEUTIC MEMORANDA.

LIQUOR FERRI PERCHLORIDI FORTIOR AS A LOCAL APPLICATION IN ERYSIPELAS.

In the JOURNAL of December 9th, Dr. W. Leavens White gives a note on the use of the above applied locally in erysipelas. I used the tinctura ferri perchloridi seventeen years ago as a local application, painting over the whole affected surface, and about half an inch beyond it, with a camel-hair pencil. For the last seven years, I have used equal parts of the liquor ferri perchloridi fortior and water, giving ten-minim doses of the tincture of perchloride of iron internally every three hours, and I have never known the remedy to fail. I may state that I have only recently recovered from a very severe attack of erysipelas in the head and face, which was treated in this way with the most favourable results.

JAMES W. J. OSWALD, L.R.C.P. Ed., etc.,
Kennington Road, S.E.

SALICYLIC ACID IN ACUTE RHEUMATISM.

J. B. HAD been suffering from subacute rheumatism for a week, and was under alkaline treatment. He derived little benefit during this time, and the rheumatism somewhat suddenly assumed the acute form and seized upon all the large articulations. The affected joints were much swollen, very tender and red; all voluntary movement was gone, and there was lancinating pain in the left groin and the back. There was nearly total suppression of urine, with anxious countenance, hurried breathing, a hacking cough, headache, and "pain at the heart". The pulse was intermittent and rapid. There was no murmur on auscultation; but the normal cardiac rhythm was replaced by five or six "hurried beats", followed by a distinct pause, and then repeated.

The patient was placed between blankets, the affected joints swathed in cotton-wool, a linseed-meal poultice applied over the heart, and the following prescription ordered: R Acidi salicylici gr. 80; liquoris ammoniæ citratis ℥ij; potassii iodidi gr. x; infusi aurantii ad ℥viij. An ounce to be taken every two hours. The medicine was begun at 2 P.M.; and at 6 P.M., after the administration of twenty grains of salicylic acid, the patient's friends noticed "a change". At 8 P.M., he was visited, and found perspiring profusely, quite rational, and feeling easier. The pulse was still irregular. The medicine was ordered to be given every hour during the night. Strong beef-tea, with a tablespoonful of brandy every two hours, had been given *ad libitum* from 2 o'clock, and was ordered to be continued in the night. Fifteen hours afterwards, he was again visited, and found moving his arms and legs quite freely, declaring himself "painless", and the only visible trace of the rheumatism was a faint blush on the left inner ankle. He had been sleepless and wandered a good deal during the night, wanting to get out of bed when the pain left the joints. The pulse was still intermittent; but the heart's action was less tumultuous, and there was very little precordial pain. He was ordered to be well rubbed with a dry warm blanket, care being taken to avoid exposure. A purgative of salomel and jalap was administered, and the medicine ordered to be given every four hours. The brandy was stopped and beef-tea continued. Cold to the head could not be borne, as it produced a general chill and made the patient feel uncomfortable.

From this time—i.e., twenty-one hours after the administration of the salicylic acid, during which time he had one hundred and seventy grains of the drug—there was no relapse of the rheumatism. The excitement, however, remained while the drug was continued; and, in spite of chloral and Battley's solution (ten grains of each every three hours), the sleeplessness persisted until its entire discontinuance twenty-four hours later. So delirious was he for two nights succeeding the disappearance of the rheumatism, that he was kept with difficulty in bed, and even struggled with those near him. The second night after the discontinuance of the acid, the patient slept soundly without a draught. By this time, the secretions were restored, and he was allowed to sit by the bedroom fire and have a liberal diet.

This case, I think, points to the physiological action of salicylic acid, and its power to arrest, in certain cases, a grave and troublesome disease. The case is both a parallel and contrast to Dr. Foster's, published in the JOURNAL of December 9th. The parallelism is vivid in the sleeplessness and disturbed state of nervous system following its prolonged use; the contrast is equally remarkable, Dr. Foster finding the temperature undiminished, the articular pains "severe", and the rheumatism spreading, on the third and fourth days of its administration. I regret that the temperature was not taken in my case, to show the degree of fall in twelve hours.

I observe from a contemporary that "active" delirium, accompanied with remarkably high temperature—viz., 110 deg. Fahr.—succeeded by violent convulsions, followed the use of salicin (twenty grains every two hours) for five consecutive days. Thus, on the second day occurs the note, "All pains gone; patient can move all his joints well, except his fingers." On the third day, however, there was a relapse; "the pains in the knees and ankles were severe"; and the patient had twenty-five grains of chloral the night preceding this relapse, but "got little sleep". He is reported as again "having power of free movement in all his joints". At 10 P.M. of the fifth day, just before the onset of the delirium, coma and temperature of 110 deg. Fahr., which terminated in death thirteen hours later. Thus, while Dr. Foster's case showed no diminution of the articular pain during the salicin treatment, there were complete disappearance of pain and free use of the joints on the second day in both mine and the case reported from Westminster Hospital. It is surprising that the dose was not diminished, or the treatment somehow modified when the latter case took so unfavourable a turn on the second day. I have had other but less severe cases of acute rheumatism since, which did well with alkalies in combination with iodide of potassium and soothing applications to the joints. ALEX. MCCOOK WEIR, M.D., L.R.C.S.Ed.

PREVENTION OF PITTING IN SMALL-POX.

I HAVE used many applications to prevent pitting in cases of small-pox, but none from which I have derived such manifest good results as from common linseed-meal poultices assiduously applied to the face from the moment the eruption shows itself until the fever begins to decline. Among the many advantages that the poultice possesses over other applications, is the by no means unimportant one of softening and determining to the skin, and thus aiding the development of the pustules, and in this way relieving the system of the strain placed upon it. Anyone who has seen much of small-pox must have learned to look with anxiety for the appearance of well thrown up pustules on the face, knowing well the likelihood of a coincident relief to respiration and decline of temperature. This the poultices hasten, I had almost said effect; while, more than this, they exclude the light and completely prevent subsequent pitting.

My mode of proceeding has always been to have a saucepan with linseed-meal and water on the fire in the bedroom, and, so soon as the poultices dry on the patient's face—and this, in really severe cases, they do very speedily—I direct the attendant to take some of the linseed-meal paste from the saucepan and apply it as a fresh poultice. In this way, the poultice is always ready.

It may be said that this application would be offensive; but let any one try it in a really serious case of commencing confluent small-pox, where the skin of the face burns with the deterioration of blood caused by the effort to throw out the eruption, and I am sure that, however disagreeable it may appear in description, in practice it gives almost heavenly relief. I do not question the advisability of bathing the face with a carbolic acid wash between each poultice; but, contrasted with the poultice application, I doubt if carbolic acid alone would be equally satisfactory. ROBERT J. COOPER, M.D.T.C.D., Ladbroke Road, Notting Hill, W.

REMEDIES FOR CHRONIC DIARRHŒA.

AMONG the different forms of this complaint is one which may be called *nervous diarrhœa*, and consists in a too great excitability of the peristaltic action of the intestinal canal. Opium is, of course, valuable in this complaint, as well as the vegetable and metallic astringents. Among the latter, mineral acids given after food, or sulphate of zinc in doses of half a grain gradually increased to a scruple, are the best. But it is less generally known that bromide of potassium given before meals is extremely effective for this purpose, in doses of twenty or thirty grains. A preparation of steel may be required to complete the cure. Attention to diet is important, but perhaps not so valuable in these as in some other cases of diarrhœa.

PHILIP MIAL, Bradford.

SURGICAL MEMORANDA.

THE BLOODLESS OPERATION.

THAT the use of Esmarch's bandage is not contraindicated by the presence of profuse suppuration in severe injuries, appears to be proved by the following case.

M. B., aged 60, was admitted into the Queenstown Hospital on

October 14th, suffering from a compound and comminuted fracture of the tibia and fibula of the right leg. With a view to conservative surgery, an attempt was made to save the limb; but, after a fair trial of splints, including McIntyre's, extensive suppuration occurring, it was deemed necessary to amputate.

It may be mentioned that, on the patient being admitted to the hospital, the upper fragment of the tibia was found to protrude through the wound, and had to be sawn off. Owing to the man's restlessness, however, it was impossible to bring the fragments into perfect apposition and retain them; besides which, profuse suppuration and the attendant irritative fever threatened a fatal termination unless the offending cause was removed. The operation was performed under chloroform on November 10th; and, ably assisted by Drs. Dick and Gordon Jackson, R.N., and the hospital staff, I removed the leg by the circular method above the knee. Little blood was lost during the few minutes of the operation; and I am happy to say that at this date the stump has nearly healed, being treated antiseptically from the first. It is, however, to the careful application of Esmarch's bandage by Dr. Dick, R.N., that the success of the case is chiefly owing; and, although there was extensive purulent infiltration at the time the elastic bandage and tubing were applied, there have been not only no ill effects in the stump since, but not even one bad constitutional symptom. This I attribute chiefly to the absence of hæmorrhage, which in ordinary amputations is so common a cause of death, and which can be easily avoided by the employment of this most excellent bandage.

J. D. CRONIN, M.D., F.R.C.S.Eng., Queenstown.

STRICTURE OF THE URETHRA.

IN the JOURNAL for November 25th, Mr. Teevan relates a case of stricture of the urethra complicated with false passage. In it he employed Mercier's manoeuvre of occupying the false passage with a medium-sized soft catheter whilst a fine bougie was passed on into the bladder. This plan, though it may be well known, is perhaps not sufficiently valued. I have found an analogous proceeding answer perfectly in a case of perineal fistula, where every silver instrument stopped short in the urethra, and every elastic one, when used alone, passed aside through the fistula.

CHARLES B. KEETLEY, Queen Anne Street.

CLINICAL MEMORANDA.

A CASE OF HERPES FRONTALIS, TREATED LOCALLY BY ANODYNE AMYL COLLOID.

F. F., AGED 25, of rather sedentary occupation and bilious habit, sent for me on December 5th, as he "was suffering from dreadful headache". On my arrival, I found he had well-marked herpes frontalis. He told me that he had suffered great pain over the left temple for nearly a week. The eruption appeared on December 2nd, and was papular at first, or, in the patient's own words, "came out in red spots". The pain gradually increased till December 4th, and he had no sleep that night. When I saw him the next evening, the pain was excessive. I called shortly afterwards, and took with me some anodyne amyl colloid, with which I painted all round the different patches of the herpes, which were situated over the left supraorbital foramen, on the forehead, and at the outer side of the eyebrow. There was a very slight patch on the side of the nose, but no soreness or disfigurement of its lining membrane. I painted on two "coats" of the anodyne, and the relief experienced was well-nigh immediate; and the patient had a good night. There was slight recurrence of the pain next morning; I therefore painted on the anodyne again, since which time the patient has been totally free from pain. The scabs came off about the tenth day. There was no inflammation of the eye or eyelid, and no impairment of vision. The patient has never had the complaint before, nor has he been subject to the "chingles".

REMARKS.—1. This complaint is not a true skin-disease (like eczema or psoriasis), but is rather a nervous disorder, the appearance of the herpes representing its eruptive stage—analogous to the rash of small-pox, scarlatina, etc. 2. Local anodyne applications seem to be the best treatment for the disease.

I was led to apply the anodyne amyloid colloid from having met with great success by its use in "shingles". It would be very interesting to know the exact cause of the nervous lesion. In this case, there was no blow, nor, indeed, anything to account for it.

W. L'HEUREUX BLENKARNE, M.R.C.S., L.A.C., Buckingham.

REVIEWS AND NOTICES.

RECHERCHES HISTORIQUES ET CRITIQUES SUR L'ÉTIOLOGIE ET LA PROPHYLAXIE DE LA FIÈVRE TYPHOÏDE. Par le Docteur NOËL GUÉNEAU DE MUSSY, Médecin de l'Hôtel-Dieu, etc. Pp. 127. Paris: V. A. Delahaye & Cie. 1877.

THE prevalence of typhoid fever in Paris has led Dr. GUÉNEAU DE MUSSY, who is well known as one of the most able and careful clinical physicians in France, to publish this little work with the view of aiding and encouraging his *confrères* in their endeavours to arrest the course of the epidemic. "We know at least", he says, "the source from which it most usually springs; and it is there that we must direct our efforts to destroy the productive germ."

It is the source of typhoid fever which forms the main subject of the work. Deeply conversant with British medical literature as well as with that of his own country, Dr. Gueneau de Mussy devotes a large share of space to an able analysis and criticism of the doctrines of Murchison and William Budd regarding the cause of the fever. Dr. Murchison's doctrine of pythogenesis, or the origin of typhoid fever from decomposing excremental matter, appears to the author to be deficient in proof.

"The pythogenic doctrine, which makes typhoid fever arise from excremental matters and perhaps from other animal matters in a state of putrefaction, seems to me not to be based on any solid evidence. The arguments against the existence of a specific principle and against the contagiousness of typhoid fever do not appear to me to have the value attributed to them by our eminent and learned *confrère* (Murchison), with whom rests the glory of having demonstrated and made generally known the pathogenic relations which exist between faecal emanations and typhoid fever. And if, as I firmly hope, sanitary measures founded on this datum and on the other etiological conditions brought to light by Dr. Budd, reduce in a very great measure the ravages of typhoid fever, the names of these two illustrious physicians will have to be placed among those of the benefactors of mankind."

Having commented on the pythogenic theory, Dr. Gueneau de Mussy examines the doctrines promulgated by Dr. William Budd, from whose work on Fever, as well as from that of Dr. Murchison, he makes copious extracts. He agrees with Dr. Budd so far as regards the specific character of typhoid fever and its origin from contagion; but does not agree with him in regarding the intestinal lesion as the indication of the exanthematic character of the disease; for this character is also indicated in the lenticular rose-coloured spots, and, according to the author, in an erythematous congestion of the isthmus faucium and pharynx. Either of these, as well as the intestine, may be the source of contagion.

Having examined the doctrine of the English physician, Dr. Gueneau de Mussy sums up his own opinion in the following words.

"Whatever opinion he adopted, above doctrinal discussions, above theoretical interpretations, which may vary, there arise two facts of cardinal importance, indisputable and undisputed.

"1. Reservoirs containing human excrement are habitually, if not always, the receptacles or foci of origin of typhoid fever.

"2. The stools of patients attacked with typhoid fever, if they are not the only source, the only vehicle of the poison, contribute more than any other putrid matter to its development.

"Dr. Murchison does not deny this, but he endeavours to explain it in accordance with his theory.

"This poison may be carried by the air, by water, by clothing, by the attendants on the sick, and may perhaps attach itself to some of the materials of which a house is built."

On these data, the author says, the prophylaxis of typhoid fever must be founded; and in his last chapter he gives valuable instructions as to the measures to be followed. In his private practice, he adopts the advice given by Budd with regard to the use of disinfectants; and he describes the means which he employs. He then goes on to give advice regarding the disinfection of privies and the avoidance of the contamination of water, and insists strongly and most judiciously on the necessity in Paris of improved measures for preventing the pollution of the air by emanations from alvine evacuations.

We have given an imperfect sketch of a book the perusal of which has given us much pleasure; and we hope that its careful study by the author's countrymen will produce the results which he desires. We cannot, however, conclude without noticing a graceful act on the part of the author, who is well known to many as a frequent and welcome visitor at our annual meetings. He dedicates the work to Dr. A. P.

Stewart; reminding him how, thirty-six years ago, they studied typhoid fever together in Chomel's wards.

"You were the first," he says, "with all the strictness of the modern scientific method, to prove, as was asserted by very few and disputed by a great many, that typhus and typhoid fever were two diseases essentially different; and, tracing every symptom of both these affections, you pointed out with undeniable evidence how dissimilar they were in their manifestations during life and in the organic changes after death.

"Allow me to dedicate to you, and through you to the English physicians, who welcomed me with such a gracious hospitality, this pamphlet, the principal and best part of which is borrowed from English medical works."

CONSUMPTION IN AUSTRALIA. By C. E. REEVES, B.A., M.D. Melbourne: Brooks. 1874.

THE study of disease as influenced by the varieties of climate is of great interest, and might perhaps be pursued with greater zeal and profit by English physicians than has hitherto been done; for it has been too much the fashion to assume that any given disease prevailing in different countries must exhibit the same type and run the same course as it does in our own land; whereas a careful and patient student in what may be called the department of climatic pathology will discover very important variations, and even find the recognition of his old enemies under their new forms a far from easy task. What a study the various fevers alone present, and how difficult it is to recognise the intermittent ones of one climate in the remittent of another! We, therefore, hail the appearance of Dr. REEVES's book on *Consumption in Australia* as an attempt, and a very creditable one, to portray, clinically and pathologically, the distinctions which that fell disease exhibits in one of our most distant and important dependencies.

Dr. Reeves's book is founded on between 2,000 and 3,000 cases observed by him during the last thirteen years at the Melbourne Hospital and the Institution for Diseases of the Chest, and the statistical information collected by the author has led him to arrive at some remarkable conclusions.

We learn that the number of cases of consumption and lung-disease is largely on the increase in Melbourne and its neighbourhood. In 1851, of 222 patients admitted into the hospital, 10, or 4½ per cent., were instances of lung-disease. In 1867, of 3,095 patients, 387, or 12½ per cent., were cases of lung-disease: a very marked increase in even a period of sixteen years. The mortality, as might be expected, was greatest amongst the new arrivals, some of whom were already phthisical; but the author proves clearly, by his statistics, that a lengthened residence in the colony is no protection against the occurrence of consumption.

This increase in the deaths is attributed to a change in the climate of Melbourne, due to the large quantities of water used for irrigation purposes in the neighbourhood; the atmosphere has become heavily charged with moisture, and the mean temperature has fallen nearly two degrees. Bronchial diseases and asthma have become more prevalent, and a curious result of the dampness appears in the increased amount of expectoration in phthisical patients.

Dr. Reeves states that he has not for some time seen any pulmonary case do well—a conclusion which it were well for physicians who are consulted about Australian climates to bear in mind.

In addition to the usual causes of the disease, Melbourne has an important one in what is called "colonial fever", a febrile complaint prevailing during the hot months, and characterised by thirst, rapid pulse, heat of skin, nocturnal delirium, offensive urine, and congestion of the lungs, affecting first the bases and afterwards spreading to the apices. This congestion passes rapidly into induration and excavation, and the cases often assume a consumptive aspect, without, according to the author, the formation of tubercle; and, from a large experience of *post mortem* examinations, Dr. Reeves arrives at the conclusion that tubercle is of rare occurrence, and is to be found, when it does occur, generally among the newly arrived emigrants.

Five different modes in which consumption arises in Melbourne are enumerated; viz.: 1. From acute inflammation and pulmonary apoplexy; 2. From acute or chronic gangrene; 3. From chronic inflammation and tubercle; 4. From bronchitis; 5. From hydatid cysts.

Some of these, it will be noted, differ materially from the usual modes of origin in our own country, and to these we will allude. Pulmonary apoplexy often occurs in Melbourne in connection with valvular disease of the heart, and especially during the hot season, causing a large number of deaths. In many instances, the clots of effused blood become encysted; in others, they suppurate and eventually open into a bronchial tube, and in this way a cavity is formed, though Dr. Reeves

confesses he has never been able to trace the separate stages of the process; but a striking feature of all inflammatory products of the lungs in this climate seems to be their tendency to softening and excavation, the process being so rapid that a cavity may form in a lung which, ten days before, appeared to be only congested.

Gangrene of the lung appears as a sequence of embolism in the pulmonary arteries and its branches, and is often more limited in extent than is usual in this country. After the gangrenous portion has been expectorated and a cavity has formed, it does not close up, but remains open and even extends itself, further excavation going on, strange to say, with little or no expectoration, though the general symptoms become worse, and the patient's aspect grows cadaveric and death ensues. Several interesting cases are cited; but the most fully narrated one loses much of its significance from the fact, that tubercles were found in the lungs after death, in addition to the sphacelus.

Hydatids are a common disease in Australia; drinking the water of pools frequented by sheep and pigs, or even eating the plants growing in them, as, for instance, watercresses, being the alleged sources of the disease. The lungs become the seat of cysts, which, as a rule, become connected with, and discharge themselves through, a bronchus, the wound being healed by contraction of the surrounding tissue. Sometimes, however, the cyst only partially separates, and, in doing so, lays open a large vessel, causing extensive and fatal hæmorrhage; or, again, the cyst may remain in the lung, giving rise to irritation and thickening of the adjoining tissues, pus being largely secreted from its interior, causing the symptoms and physical signs of a cavity.

The book is an useful addition to our knowledge of the variations of disease from climate, and contains important evidence on the close connection between inflammatory states of the lung and phthisis; many of the cases bear testimony to careful observation and recording; but there is a want of precision about the details of the necropsies, as if the author's ideas on pathology were by no means clear. The characters of the consolidations are not sufficiently defined, and Dr. Reeves does not seem to understand the close connection existing between fibrosis of the lung and tubercle, or to recognise that the former is often but the past tense of the latter.

In conclusion, we heartily commend the work to our readers, and, if it gives a less favourable view of the climate of Melbourne than is usually entertained, abundant and careful evidence is furnished in support of this opinion.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FLEXIBLE TRACHEOTOMY TUBE.

WE have now before us one of Mr. Marrant Baker's flexible tracheotomy tubes, upon which he recently read a paper before the Royal Medical and Chirurgical Society (BRITISH MEDICAL JOURNAL, December 2nd). We have little doubt, after examining this tube, in stating that this will come into general use in future. By the woodcut,



it will be seen that it very much resembles the ordinary silver tube in shape. It is made of the red mineralised India-rubber, and of such firmness that it is capable of resisting ordinary pressure, while, at the same time, it is sufficiently flexible not to cause ulceration of the trachea, which is frequently the result of wearing the silver tube. The instrument is made by Messrs. Millikin and Co., St. Thomas's Street, Southwark.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1876.

SUBSCRIPTIONS to the Association for 1876 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 30TH, 1876.

MORTALITY DUE TO CHILD-BEARING IN ENGLAND.

THE proportional mortality among women due to child-bearing is interesting from three points of view; as a test of sanitary condition, of physical stamina in women, and of the skill of medical practitioners and midwives. The death-register is of necessity the most reliable basis for all statistics of mortality, and although certain imperfections in the system of certifying causes of death undoubtedly exist, mortality statistics, based upon the death-register, possess for all general purposes a definite value. Before proceeding, however, to examine in detail the mortality statistics of child-bearing in England, it will be well to consider one source of error which especially applies to statistics of death from this cause. It is an undeniable fact that there exists on the part of a certain portion of the medical profession an objection to refer the deaths of their patients to childbirth, or any of its incidental results. This appears to be especially the case with reference to deaths from puerperal fever. The Registrar-General and Dr. William Farr, in drawing up the "Suggestions to Medical Practitioners respecting the mode of returning the Causes of Death", printed at the commencement of each book of Forms for Medical Certificates, suggest that, "Whenever childbirth has occurred within one month before death, it should invariably be registered in connection with the cause of death". If this suggestion were uniformly acted upon, the value of the mortality statistics of child-bearing would acquire additional value; unfortunately, however, a certain percentage of deaths in childbirth are indefinitely certified as peritonitis, pyæmia, or in some other manner, without any reference to the fact of childbirth. The Registrar-General has, from time to time, caused special inquiry to be made into the circumstances of those cases in which the cause of death of women of child-bearing ages was returned in such a way as to suggest, although no reference was made to, the puerperal state. The result of these inquiries has been, almost invariably, to show that about half of the cases in which the cause of death of married women is returned as peritonitis or pyæmia, are in reality cases of metritis or puerperal fever. Dr. William Robertson of Edinburgh contributed some months since to the *Journal of the Institute of Actuaries* a short but valuable paper "On the Mortality of Males and Females from Peritonitis between Fifteen and Fifty-five Years of Age". In this paper, Dr. Robertson showed that, during this reproductive period of female life, the mortality ascribed to peritonitis to women in Scotland was nearly double that among males; whereas, at certain and later ages, the rate of mortality from peritonitis was fully as high among males as among females, and indeed slightly higher. We have applied a similar test to the mortality ascribed to peritonitis in England in 1873 with very similar results. In 1873, which is the most recent year for which the Registrar-General has yet issued his detailed annual report, the rate of mortality ascribed to peritonitis in England and Wales was equal to 75 per million males living at all ages; whereas, among females, it was 96 per million. Between the ages 20 and 45, the male rate was 50, and the female rate 120 per million; while, at all ages under 20 and over 45 years, the male rate was 88 and the female rate 82 per million. It is evident that there is no greater predisposition to fatal peritonitis among females than among males at other than

the child-bearing ages; and it appears, therefore, fair to assume, that the excess of deaths referred to peritonitis among females at these ages is really due to indefinitely described cases of childbirth, and, for the most part, of puerperal fever. If, as at other ages, no more women than men die from peritonitis between the ages of 20 and 45, it would follow that, in 1873, 211 deaths resulting from childbirth or puerperal fever were incorrectly certified from simple or idiopathic peritonitis. It is impossible to estimate the full extent to which deaths from childbirth are understated in the mortality returns; but that there is a considerable understatement there can be little doubt from the foregoing analysis of deaths referred to peritonitis. Although, in considering the subject of mortality due to parturition, it is necessary to keep in mind this element of error in the statistics with which we shall have to deal, there is no reason to believe that the source of inaccuracy is more prevalent in one locality than in another, or that it varies to any great extent from year to year. In this case, the value of the figures, which we propose to use for comparative purposes, will scarcely be diminished.

During the 27 years—1847 to 1873—the deaths of women referred to childbirth and puerperal fever ranged from 6.1 per 1,000 children born alive in 1848, to 4.2 both in 1857 and 1869. It is satisfactory to find that, with some fluctuations, the rate of mortality in childbirth has declined during this period of 27 years; it was equal to 6.0 and 6.1 per 1,000 children born alive in 1847 and 1848; whereas it averaged only 4.4 in the three years 1868-70. Since 1870, the puerperal death-rates have again somewhat increased, owing to the greater fatality of puerperal fever. Indeed, in 1874—the detailed statistics for which year are not yet available—the puerperal rate rose to 6.9 per 1,000 living births, which considerably exceeded the proportion in any of the 27 preceding years. In 1874, no fewer than 3,108 deaths resulted from puerperal fever; whereas, the highest number in any previous year was 1,740 in 1873. In 1873, the most recent year for which detailed statistics are available, the proportion of deaths in childbirth in England and Wales averaged 5.0 per 1,000, and ranged from 4.1 in the agricultural population of the south-western counties, to 5.7 both in the north-western and northern counties. It will thus be seen, that the puerperal death-rate shows a definite relation to the death-rate from all causes, and appears to be governed to some extent by the proportion of population living in large urban districts.

Of the 5.0 mothers who died during 1873 in England and Wales to each 1,000 children born alive, 2.1 fell victims to puerperal fever, and 2.9 to what may be called the accidents of childbirth. The proportional rate from puerperal fever is highest in those registration divisions which contain the largest proportion of urban population, and in this respect forms no exception to the rule which governs the fatality of other zymotic diseases. The rate from puerperal fever during 1873 was 2.4 per 1,000 births in Lancashire, 2.7 in the northern counties (it was especially high in the mining population of Durham), and 2.8 in the metropolis; the rate from this disease, however, did not exceed 1.3 per 1,000 births in the south-western agricultural counties. With regard to the deaths referred to what we have called the accidents of childbirth, the smallest proportion during 1873 occurred in London, where it was equal to 2.4 per 1,000 registered births; on the other hand, it ranged upwards in the other registration divisions to 3.5 per 1,000 in Wales. This excess in Wales is probably due to the large proportion of persons who die in many parts of the principality without any medical attendance, owing to the sparseness of the population. It would appear that the low death-rate from puerperal fever in rural districts is to some extent balanced by an excess of deaths from the accidents of childbirth; rural populations suffer less from the zymotic form of puerperal disease, but labour under the disadvantage of less accessible medical assistance in cases where delay is dangerous.

In the Registrar-General's Supplement to his Annual Reports for the ten years 1861-70, Dr. Farr published some interesting disease life tables, showing, from the experience of the 25 years, 1848-72, the diseases of which a generation of children born may be expected to die,

not only in England and Wales, but also in an unhealthy town like Liverpool and in the healthy districts. It appears from these tables, that of a million children born alive in England and Wales (including 488,255 girls), 6,921 will die of childbirth or metria; now in Liverpool only 4,127 of an equal number born will die from those causes; whereas, in fifty-one of the healthiest districts of England and Wales, the calculated number is 7,065. From these numbers, however, it must not be assumed that childbirth and metria are nearly twice as fatal in the healthy districts as in Liverpool. The larger proportion of deaths from childbirth occurring in the healthy districts during a generation, is due to the low rate of infant mortality which prevails in these districts, and thus increases largely the proportion of children who survive to become adults, and to become liable to the puerperal condition. In unhealthy towns like Liverpool, if the population were not so largely recruited by immigrants, the proportion of adults at the reproductive ages would be remarkably small.

It may be interesting briefly to notice the average puerperal mortality during the ten years 1861-70. In England and Wales, the proportion of deaths from childbirth and metria to 1,000 living births averaged 4.7 during the ten years, and the same proportion prevailed in fifteen of the largest towns; in the fifty-one healthy districts it was 4.4, in London 4.6, and in Liverpool 4.9. It is evident that the combined mortality from childbirth and metria does not vary very widely in urban and rural populations, probably owing to the compensatory process between the deaths referred to puerperal fever and childbirth, which has before been alluded to. Among the fifteen large towns, in which the death-rate from childbirth and metria averaged 4.7 per 1,000 births during the ten years, the proportional mortality in the several towns ranged from 2.8 and 3.5 in Leicester and Birmingham, to 5.2 and 6.7 in Shrewsbury and Worcester. Here we find a remarkably wide divergence in the puerperal death-rates; and why, in an equal number of child-bearings during the ten years 1861-70, 2.3 deaths of mothers should have taken place in Worcester to each one in Leicester, appears to call for investigation.

A more uniform and perfect system of certification of the causes of death is now urgently needed, together with a more general appreciation of the importance of this gratuitous service which has been imposed upon the medical profession. The laxity and indefinite character of a large proportion of the causes of death, certified as well as uncertified, that are entered in the death-register, can only be explained on the assumption that the uses to which these certificates are put can scarcely have been known to those who fill them up. The contribution to State Medicine rendered by the profession in filling up these certificates is, in the aggregate, of incalculable value; which, if more generally appreciated, would inevitably lead to a still more rapid improvement in their quality.

The statistics of puerperal mortality are, perhaps, somewhat more imperfect than are those of most other diseases, for reasons to which we have alluded, and although we have expressed our belief that those imperfections do not invalidate the uses to which we have put the facts entered in the death-register, we would venture to express a hope that the profession will afford the Registrar-General and the public their indispensable assistance to remove these imperfections by the more definite certification of the causes of deaths of women in the puerperal condition. Above all things it is desirable that the fact of recent childbirth should invariably be entered in the certificate of the cause of death of a patient.

There are many points in connection with puerperal mortality, information relating to which would be interesting if it could be obtained from the death-register; and there are some shortcomings in the mode of publication of the Registrar-General's statistics which we should be glad to see obviated in future reports. In consequence of the present state of the law, still-births are not entered either in the birth- or death-register; and, as the Registrar-General does not publish any abstract of multiple births, it is impossible to arrive at the correct number of child-bearings. According to the experience of other

countries, still-births vary, in proportion to living births, from three to four per cent.; and, in England, two or more children at a birth are born in about one per cent. of the child-bearings. Thus, we may assume, that the number of child-bearings in England exceeds the number of living children born by about two or three per cent. Again, as the danger to a woman is far greater from giving birth to a dead than to a living child, it would be desirable to have the cases of women who die after the birth of a dead child distinguished in the register. It is a fact, too, that the mortality of unmarried women in childbirth is very largely in excess of that among married women. The reasons for this are patent; the child-bearing of most unmarried women takes place without medical assistance; and not only is the woman neglected or unskilfully attended, but in a majority of cases her mental condition is antagonistic to a favourable delivery and recovery. In order to arrive at the true mortality due to natural parturition, it would be preferable to eliminate all cases of still-birth, and all cases of unmarried women. The statistics of workhouses and of lying-in hospitals, so far as these exist, may be referred to in proof of the assertion that child-bearing under precisely similar other conditions is far more fatal to unmarried than married women. To the mortality in lying-in hospitals as compared with the puerperal mortality at home, we shall refer on a future occasion.

CIVIL MEDICAL PRACTITIONERS AND "NON-DIETED" STATION HOSPITALS.

THE very insufficient rate of remuneration doled out by Government to civil practitioners in charge of military duties has long been a subject of general complaint, and the British Medical Association has, on several occasions, recorded its emphatic protest. It is only a few months ago that the Committee of Council appointed several of its experienced members to investigate a case of peculiar hardship occurring under these regulations, and that their report, commenting in strong terms on such degrading treatment, was forwarded to the Secretary of State for War. We are not without hopes that more liberal terms may now be rendered necessary by the somewhat depopulated condition of the army medical department, and by the urgent need for civil aid in the recently established "non-dieted" station hospitals. A correspondent, in drawing our attention to Paragraph 2 in the regulations for these institutions, issued with army circular of October 1st, 1876, and which states that "the patients will be placed generally under the medical charge of civil medical practitioners", asks whether the scale of charges is to be identical with that proposed for the volunteer medical officers, at about twopence halfpenny per visit, including medicine.

It is well that general attention should be drawn to this important point, and that medical men, before undertaking duties, the extent and responsibility of which it is often difficult to foresee, should come to a distinct pecuniary understanding with the authorities. It is just conceivable that, in an unusually large and healthy detachment, the head money per man may, under exceptionally favourable circumstances, constitute a bare offset against the practitioner's loss of time; but the occurrence of any amount of sickness, of an epidemic, or even of a single severe case, will make the few pence allowed for each visit seem ludicrously inadequate in amount. It has often happened that, whilst a civil practitioner is performing all the many and complicated duties of his military brother, he is unable to obtain more than from two to three shillings a day; and we cannot doubt that his services are naturally valued in precise proportion to their pecuniary recompense. Such treatment cannot but lower our profession in general estimation, and we would suggest the propriety of some hesitation in assuming any share in the military yoke except upon something more nearly approaching military terms. Our civil brethren have the remedy in their own hands; their tongues and pens are unfettered by the terrors of Whitehall Yard; their souls are unvexed by the prospect of an official "wiggling", or the awe-inspiring mystery of a confidential report. We

have no reason to believe that the terms offered for the charge of station hospitals will deviate in any way from the official scale. But should any unexpected outburst of generosity suddenly break forth, we shall be the first to hail the dawn of a brighter day. In the meantime, however, we can hardly recommend any blind attitude of faith in the liberality of the authorities, but would rather counsel the expectant method of treatment, as more in accordance with the teachings of advanced science; and, as this position is essentially one of repose, it is incumbent upon us to remind those most immediately concerned, that it may be well for them at the present crisis to confine their professional activity to those spheres of civil life where they can at all events make their own terms.

SANITARY FATALISM.

A SPECIES of fatalism is at the root of that dangerous apathy which still offers the most serious obstacle to sanitary progress. This fatalism, which still finds too large a number of believers among rate-payers and their elected representatives, is generally the result of a want of belief in sanitation, arising from ignorance of the subject. It is, on this account, far more excusable, and even less mischievous, than similar doctrines when enunciated by a medical officer of health, who runs the risk of being accepted as an authority upon public health and vital statistics. Dr. Letheby, a year or two since, in an address, delivered as President of the Metropolitan Health Officers' Association, somewhat surprised sanitarians by some extraordinary calculations as to the dangers to be feared from the rapid increase of population in England and Wales. The surprise was not caused so much by any novelty in the result of increase at a geometrical rate applied to population, as by the use of these facts by an officer of health in such a way as actually to suggest danger from sanitary progress. Dr. Letheby's address, however, attracted much attention; and we are still continually having the bugbear of a too rapid increase of population reproduced in a more or less mischievous manner. Mr. Hawksley, in his presidential address to the health section of the last meeting of the Social Science Association, borrowed largely from the fallacies and extravagancies of Dr. Letheby's address. Still more recently, Dr. C. M. Tidy, in his Report on the Sanitary Condition of Islington in 1875, only just issued, has reiterated some of the most objectionable features of Dr. Letheby's fatalistic doctrine. Dr. Tidy says: "There must be some limit to the increase of the people; and nature has in great measure, it appears to me, taken the matter of population in her own hands." Again, while acknowledging that sanitation may have "stopped the ravages of some diseases, still, in order to bring up the death-rate to what I may call its normal percentage, other diseases have, and must have, increased in a like ratio". If this were true, which fortunately it is not, we should want no sanitary authorities or health-officers; we might leave sanitary condition and public health to nature, as did our great-grandfathers. With regard to an abnormal death-rate, Dr. Tidy tells us we must be prepared to find it caused by circumstances "other than those of a sanitary nature"; and, further on, he warns us to remember that "an excessive death-rate does not necessarily imply failure; sometimes (strange as it may seem), it means success". The supposed explanation of this dangerous paradox (welcome and acceptable as it will be to the opponents of sanitation) is the stale and thoroughly exposed fallacy that "a large death-rate means a large birth-rate, and a large birth-rate means a large marriage-rate". Dr. Letheby's theory, that high birth-rates cause high death-rates, has been so frequently disproved that Dr. Tidy, in reproducing it, should at least have urged some new arguments or facts as his excuse. There is, however, an unanswerable reply to this false theory, in the fact that the age distribution of all populations having high birth-rates ought to give a lower death-rate than the age distribution of populations in which a low birth-rate prevails. As high birth-rates and high death-

rates are usually found to coexist in the same populations, Dr. Letheby's theory is a tempting one to apathetic sanitary authorities and to the opponents of sanitary reform; but it is not one that should be countenanced by medical officers of health, who are now bound to know that it was based in fallacy and error. Dr. Tidy strongly urges that a medical officer of health, to be fully useful, requires the earnest co-operation of the public; and there is much sound good sense in his condemnation of public apathy in sanitation. We sincerely regret, however, to find in his own report false arguments, which, if accepted and believed, cannot fail to strengthen this very apathy of which he, together with many other health-officers, has good reason to complain.

No fresh cases of fever have occurred on board the *Cornwall* School-ship this week.

HER MAJESTY the Queen, as President of St. George's Hospital, has been pleased to appoint the Duke of Grafton, Lord Leconfield, and Charles Hawkins, Esq., Vice-Presidents of this institution, to fill vacancies caused by death. The number of Vice-Presidents, exclusive of the Royal Family, is limited to seven.

AT the last weekly meeting of the guardians at Chatham, Dr. Buchanan reported that there was no abatement of the small-pox epidemic in that town. On the contrary, there were thirty patients in the hospital, as compared with twenty-two last week. Several deaths have taken place during the week.

DR. JAMES E. POLLOCK, Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, has been unanimously re-elected by the Committee of Management, on completing his term of office.

THE ELECTION AT ST. GEORGE'S HOSPITAL.

AT the Weekly Board, on Wednesday last, the opinion of the Solicitor-General and Mr. J. C. White, the counsel to whom was referred the question how far Dr. Watney's position as a candidate was invalidated by his advertisement of a testimonial signed by the medical school committee, was read. That opinion was, that he "was not disqualified." The senior physician and the senior surgeon then nominated Dr. Herbert Watney as a candidate, and Sir John Holker and Mr. Edmund Johnson nominated Dr. R. J. Lee. Both gentlemen were admitted by the board as candidates. A motion made by Sir John Holker to insert an advertisement in the *Times*, declaring that the testimonial of the "Medical School Committee" had not received the sanction of the Weekly Board, was negatived. It was clearly unnecessary. It could only serve to raise a presumption that one candidate has the support of the Board, thus placing the Staff and the Board in apparent antagonism, and of conveying an oblique and perfectly gratuitous censure on the Medical Staff. It is, as we have already said, greatly to be regretted that the testimonial was publicly advertised by Dr. Watney; but it must not be forgotten, on the other hand, that Dr. R. J. Lee himself is open to the charge of having made capital out of his connection with the hospital by dating his circulars from the Museum of St. George's Hospital. The election is fixed for the 10th of January. Apart from acts of indiscretion, both gentlemen are admirable candidates; and the contest will probably be warm.

THE SHEFFIELD INFIRMARY.

WE regret much to learn that the remarks made in last week's JOURNAL respecting the candidature of Mr. R. J. Pye-Smith for the office of Assistant-Surgeon to the Sheffield Infirmary, have caused annoyance to the practitioners in that town. It was by no means our intention to set forth the claims of that gentleman as superior to those of other candidates; and we desire to state, in confirmation of the assertion made by him in his letter published on another page, that he had nothing to do with the insertion of the paragraph in question. The

claims of the other candidates are very strong, and may fairly be put in competition with those possessed by Mr. Pye-Smith. One of them, Mr. Hallam, was for several years House-Surgeon to the Infirmary; Mr. Taylor was for a long time House-Surgeon to the Sheffield Dispensary; and Mr. Barber has been Junior House-Surgeon to that institution; while Dr. O'Keeffe has for some time lectured on Physiology in the Medical School. Certainly no claims can well be stronger than those of men who have proved their competency in the locality where the vacancy occurs, to fill which they are candidates. All that we wish is, that which our brethren in Sheffield also desire, that the best man, whoever he may be, may be selected.

THE MEDICAL PROFESSION IN HUNGARY.

IN Hungary, there are in practice 1,952 doctors of medicine and 1,255 surgeons; in all, 3,207 practitioners. The number of midwives is 4,439, and of apothecaries 818. Of these, 1,056 doctors, 956 surgeons, 3,478 midwives, and 619 apothecaries, practise in the counties; the remainder in the towns. As regards the proportion to population, the numbers are: medical practitioners, 1 in 3,059 (in the country districts, 1 in 6,159; in the towns, 1 in 993); midwives, 1 in 3,059 (country, 1 in 3,535; town, 1 in 1,225); apothecaries, 1 in 16,600 (country, 1 in 20,018; town, 1 in 5,996).

PROSECUTION OF AN UNQUALIFIED PRACTITIONER.

ON the 15th instant, the Sunderland Branch of the Medical Defence Association brought an action under the Apothecaries' Act, in the local County Court, against an unqualified practitioner named John Coul, for acting as an apothecary without being duly licensed. The defendant has carried on practice in Sunderland for several years past; and several witnesses were called, who proved that he had attended them at various times and received payment for the same. The judge made an order for the defendant to pay the full penalty of £20. This is the first case prosecuted by the Sunderland Branch of the Defence Association.

THE MEDICAL COUNCIL AND THE DEFENCE ASSOCIATION.

ON Friday, the 22nd instant, a deputation from the Medical Defence Association waited on the Executive Committee of the General Medical Council in reference to the penalties recovered in the metropolitan police-courts under the Medical Act of 1858. Dr. Richardson, President of the Association, stated that the object of the deputation was to explain to the Executive Committee the difficulties under which the Association laboured in carrying on prosecutions in London, in consequence of the Receiver of the Metropolitan Police Districts retaining the penalties recovered under the Medical Act, and to urge the Council to take some steps in order to secure that the penalties shall be applied towards the expenses of the prosecutions. When the Defence Association was first formed, a letter was received from the Registrar of the Medical Council to the effect that the Council would not undertake prosecutions; but, in case the Act was put in force by the Association, a portion or the whole of the penalties recovered would be allowed towards the expenses incurred in the prosecution. Several unqualified practitioners had been prosecuted in the metropolitan police-courts; but, instead of the penalties being handed over to the Treasurer of the Medical Council, as provided by the forty-second section of the Medical Act, they had been retained by the Receiver of the Metropolitan Police Districts under the Act 2 and 3 Vict., cap. 71. The Defence Association had taken counsel's opinion, which was to the effect that the Receiver of Police was entitled to retain the penalties. Under these circumstances, the Council of the Defence Association, having incurred considerable expense in enforcing the Medical Act, appealed to the Medical Council to take action with a view to the penalties being applied to the expenses of carrying out the Act. It was hoped that the Medical Council would give this matter their most serious consideration, as it was one that deeply concerned not only the individual members of the Defence Association, but the whole body of the profession. Dr. Thomas, Mr. Cook, Mr. Mason, Mr. Pridham

(solicitor), and Mr. George Brown, also addressed the Committee. Dr. Acland, President of the Medical Council, said that it gave the Committee much pleasure to meet the deputation and to hear their views on this question, which, he might say, had already occupied their attention. The courses open to them were, to endeavour to obtain an amendment of the Medical Act, so that it would not be affected by the clauses of the Metropolitan Police Act; or to apply to the Lords of the Treasury, asking them to resign their claim to the penalties. He (Dr. Acland) had been requested by the Medical Council to address the Treasury in this sense, but had delayed doing so until after he should have had an opportunity of hearing the views of the deputation. He would now do so at once, and the result would be duly communicated to the Association.

ST. BARTHOLOMEW'S HOSPITAL.

VARIOUS changes and improvements are being made in the buildings at this hospital and school, and still more important ones are contemplated. Very complete lavatory, bath, and closet arrangements are being set in towers, built out from the ends of the wards; the third tower is nearly finished, leaving three others to be built. At the school, the council, finding their entry of students to be again the largest amongst all the medical schools, have determined to delay no longer an increase in their accommodation. The anatomical theatre is being made part of the dissecting-room, by an archway in the wall, and the so-called inquest-room becomes a lecture-theatre *pro tem*. When the time comes for carrying out the major changes, we believe that the present school-buildings will be altogether replaced by a complete modern erection which is to have an extensive frontage in Giltspur Street.

THE TYPE OF MAN.

IN the two magnificent volumes recently published by the United States Congress, containing the results of Dr. Baxter's investigation of recruiting statistics over a long series of years, we find the following conclusions as the result of the attempts to ascertain the proportions of the human body.

1. There is a perfect form or type of man, and the tendency of the race is to attain this type [*l'Homme moyen* of Quetelet.]
2. The order of growth is regular toward this type.
3. The variations from this type follow a definite law, the law of accidental causes.
4. The line formed by these variations, when arranged in groups, receding on either side of their mean, is the curve well known to mathematicians as the binomial; it was first applied by Newton and Pascal to questions of astronomy and physics, but it is applicable to all the qualities of man which can be represented by numbers.
5. The more numerous the data obtained by actual measurement, supposing them to be made with reasonable care and without bias, the more nearly accurate is the mean result, and the more closely does it correspond with that obtained by calculation.

MEDICINE AMONG THE HEBREWS.

WE had lately occasion to seek some information on this subject from Dr. Kalisch. Out of the abundance of his learning and liberal kindness he promptly furnished us with a notice so valuable for its succinct fullness, that we put it here on record, as an interesting contribution to medical history.

Medical art was, among the Hebrews, practised from early times by a special profession—the *Kophaim*, and is already mentioned in the ancient Book of the Covenant, which embodies the oldest fundamental laws (Exod. xxi, 19). They may possibly have derived much of their knowledge from the Egyptians, famous for their discovery of remedies from remote ages (Hom., *Od.*, iv, 229-232), and for their medical skill generally (Herod., ii, 84; iii, 1, etc.); “embalming physicians” are mentioned in Genesis i, 2; and during their sojourn in Egypt they had Hebrew midwives (Exod. i, 13-20). Their art seems, for the most part, to have been limited to surgery and the cure of external injuries (comp. Isai. i, 6; Ezek. xxx, 21; 2 Kings viii, 29, ix, 15); but the physicians, many of whom belonged to the prophetic order (2 Kings iv, 33-36, v, 10, viii, 7, xx, 7; Isai. xxxviii, 21), enjoyed great respect and confidence, and were very generally employed,

especially after the time of the exile, when even the smaller towns had their medical practitioners (Jerem. viii, 22; Sirach xxxviii, 1-15, a remarkable passage; Joseph., *Vita*, 72, etc.), though the priestly book of Chronicles severely blames King Asa for “not having consulted God, but the physicians” (2 Chron. xvi, 12). In later times, the priests and Levites, who officiated barefooted at the Temple, had a special physician (“*medicus viscerum*”) to cure the colds to which they were liable, the Essenes particularly were celebrated for their knowledge of medicine and the natural sciences (Joseph., *Bell. Jud.*, ii, viii, 6). The remedies used by the ancient Hebrews were chiefly ointments (especially of balsam, Jerem. viii, 22; xvi, 11, li, 8), leaves of trees (Ezek. xlvii, 12), cataplasms (especially of figs, 2 Kings xx, 7), mineral baths (Joseph., *Antiq.*, xvii, vi, 5; *Vita*, 16), river-baths (2 Kings, v, 10), oil-baths (Joseph., *Bell. Jud.*, i, xxxiii, 5), animal warmth for restoring the circulation (1 Kings i, 2-4; 2 Kings iv, 34, 35). Music was employed for dispelling melancholy (1 Sam. xvi, 16); fish-gall put on the eye, to cure blindness (Tobit vi, 4). Of inward medicines, honey only is mentioned in the Old Testament (Prov. xvi, 24); several others occur in the Mishna and Talmud, where also many chirurgical manipulations are alluded to, even the insertion of artificial teeth (Mishna, Shabb. vi, 5). As a kind of sanitary police, the Law (*sic*, the Levitical Law, which is of very late origin) appointed the priests, not so much to practise, but to exercise the inspection and control over the sick and persons suspected of some endemic malady, especially leprosy, and it gives, in this respect, directions which seem to prove very careful observation (Levit. xii, xiii, xvi). The Laws of Purification had, of course, an important sanitary influence (Levit. xii, etc.). The Dietary Laws also (Levit. xi, etc.) were partially, though by no means exclusively, suggested by sanitary considerations.

PROSECUTION OF AN ILLEGAL PRACTITIONER.

AT the Marlborough Street Police Court, last week, Henry Thomas Lewis, of 104, Wardour Street, was summoned before Mr. Knox by Dr. Robert Carpenter, on behalf of the East London Medical Defence Association, for unlawfully and falsely pretending to be, and taking and using the name and title of, doctor of medicine, contrary to the fortieth section of the 21st and 22nd Victoria, c. 90, known as the Medical Act. Mr. Pridham prosecuted; Mr. Henry Kisch, Barrister, appeared for defendant. Mr. Knox, after hearing the evidence, remarked that in the present case the defendant had assumed to be Dr. Bell, a person who, by the mouth of his own witnesses, was proved to be long since deceased. The detective went into the shop; he asked for Dr. Bell. The defendant said he was Dr. Bell, and handed to the detective a card as his, with the title inscribed on it. He then remarked on the detective's sickly appearance, and offered to provide him with a bottle of medicine for six shillings, which would do him good. Now, merely the assumption of the title of doctor, with nothing more, might mean one of several things; but when a man held himself out as a doctor in a doctor's shop, and offered to prescribe, surely it was not a violent inference to draw that he held himself out as a doctor of medicine and not doctor of law, of music, and so forth. Then, as to the words “artfully and falsely,” in the statute, as in this case the defendant assumed to represent a dead man, there could be no great doubt as to this point. He held himself out as Dr. Bell, and practised medicine. The full penalty of £20 was inflicted, with £1 costs.

ELECTRIC BATHS.

VERY little is known by the profession about electric baths, and of the little that has been written still less is believed. The subject seems, however, to be one not undeserving of serious inquiry. The *Philadelphia Medical Times* reports that, at the meeting of the Medical Journal Association, October 20th, Dr. George M. Schweig read a paper on the Use of Electric Baths in Cerebral Exhaustion, in which he stated that he had found them more efficacious than any other plan of treatment which he has tried. The first essential, however, in this, as in all other modes of treatment, he believed to be perfect rest on the part of the patient. If he should continue to pursue his usual avocations, he would receive no benefit whatever from his physician; and the writer said that he had never succeeded in relieving a single case where this course was persisted in. Both currents might, of course, be used in the baths, but he was in the habit of relying mainly

on the galvanic, as he did not regard the faradic of much service, except in cases where there were evidences of paresis, in which it was of decided benefit. The length of the bath should at first be ten or fifteen minutes, but should afterwards be extended to twenty-five or thirty minutes. At first, the patient ought not to take one oftener than every second day, though after a time he may take one daily with benefit. As the case progresses towards recovery, it is not necessary to give the baths so frequently, and the length of time intervening between them can be gradually extended, until they are finally discontinued altogether. As a rule, the first evidences of improvement in the patient are noticed in about three weeks after the treatment has been commenced. The only remedies (except the bromides, in appropriate cases) which the writer has found of service, in addition to the electric baths, are cod-liver oil and phosphorus, the latter being given either pure or in the form of phosphide of zinc. The electric bath has proved an excellent hypnotic in his hands, and in one or two instances of delirium tremens he has succeeded in producing sleep by this means when all the ordinary remedies had failed. The Putnams are about publishing a book by Dr. Schweig on the uses of the electric bath and its mode of application.

EXSECTION OF THE PANCREAS.

IN the *American Medical Weekly* for November 11th, is reported a case of Western surgery which, the *Philadelphia Times* observes, stands unrivalled, although Dr. Justin, who operated, must share the credit not only with Dr. B. B. Allen of Sebastopol, California, who attended to and reports the case, but also with the unknown individual who handled the knife so skilfully, and with the mule-like obstinacy of the constitution of the patient operated upon. The case was that of an Indian who was stabbed in a number of places, from one of which the pancreas had protruded twelve hours before the arrival of the physician. As this protruded part was gangrenous, the remaining seven inches were excised. The report of the case was made twenty-one days after operation, at which time the ligatures had come away and the wounds completely cicatrised, the patient being to all observation well.

HARVEIAN SOCIETY OF LONDON.

THE second and final Harveian Lecture by Mr. James Lane, on Syphilis, was delivered on Thursday, the 21st instant. A large number of members was present, and many most interesting topics connected with the subject were thoroughly discussed by the learned lecturer. The following is a list of the names of gentlemen proposed by the Council, as officers of the society for the year 1877—*President*: T. Carr Jackson, Esq. *Vice-Presidents*: Thomas Morton, M.D.; W. F. Teevan, Esq.; W. B. Owen, Esq.; J. Hughlings Jackson, M.D. *Treasurer*: Henry Power, Esq. *Secretaries*: H. E. Sewill, Esq.; J. Milner Fothergill, M.D. *Council*: John Easton, M.D.; E. Symes Thompson, M.D.; H. Cripps Lawrence, Esq.; G. Eastes, M.B.; R. Farquharson, M.D.; F. Cock, M.D.; J. S. Ramskill, M.D.; Alfred Meadows, M.D.; Percy Boulton, M.D.; Stamford Felce, Esq.; F. J. Gant, Esq.; George Field, Esq.

THE ADULTERATION OF MILK OF SULPHUR.

PROSECUTIONS took place this week at Runcorn against three druggists, named Marshall, Speakman, and Brown, for selling adulterated milk of sulphur. Mr. Glaisyer of Birmingham defended, at the instance of the Chemists and Druggists' Trade Association, and said the present prosecutions would be regarded as a test case. Dr. Bell of Manchester stated that the milk of sulphur purchased was adulterated with sulphate of lime to the extent of 58½ per cent., and in one case 65. For the defence, Mr. Oliver Pemberton of Birmingham and Dr. Redwood of London were called, who spoke to the general use of the milk of sulphur, and said that it was much more beneficial on account of sulphate of lime. Messrs. Evans, wholesale druggists, of Liverpool, said they sold thirteen times more milk of sulphur than they did

of the other preparation. Milk of sulphur was known to contain sulphate of lime, and was extensively used by the medical profession. The bench decided to convict, on the ground that the article was not supplied that was asked for. In each case a fine of £1 and costs was inflicted. Mr. Glaisyer gave notice of appeal.

SCOTLAND.

THE medical examiners at the University of St. Andrew's have been reappointed for three years.

AT the last meeting of the Edinburgh University Court, Dr. William MacEwen was recognised as a lecturer in Glasgow whose lectures should qualify for graduation in the University.

THE Christmas vacation at the Medical School of Edinburgh commenced on Saturday last, December 23rd. Work will be resumed on Wednesday next, January 3rd, on which day the classes will be held as usual.

THE sanitary inspector of the district states that in the case of small-pox mentioned last week as having occurred at Woodside, near Aberdeen, the patient was a young woman, a worker at the Woodside Rag-works. He adds that the cases of small-pox which have occurred at Woodside for years past have invariably been among workers at this rag-work.

AT a meeting of the Fife and Kinross Asylum Board, held at Cupar on the 29th, a report was read from the Commissioner in Lunacy, Sir James Cox, M.D., who had visited the Asylum in November, from which it appeared that the mortality had been low and the general sanitary condition of the establishment very satisfactory. The open-doors system continued to work with satisfactory results.

HEALTH OF EDINBURGH.

IN a report on the health of Edinburgh during last month, Dr. Littlejohn calls attention to the low death-rate, 17.76, while in November of 1875 and 1874 it was 24.4 and 22.7 respectively. The chest-diseases made up 41 per cent. of the mortality, while only 5.4 per cent. was due to infectious diseases. Typhus fever, however, had again made its appearance after three months' absence, two deaths having occurred; one of these cases was imported. In relation to the large mortality due to diseases of the chest, two-fifths of the whole, allusion was made to what was undoubtedly a fruitful source of these complaints, namely, damp houses, occupied before the plaster is dry, and even before the houses are finished, this occupation actually preventing the natural process of drying, which consists in the windows and doors being kept open day and night, so as to admit currents of air through the apartments. The reporter had recently examined four houses which, after six months' occupation, were still unfit to be dwelt in, owing to the damp state of the plaster. In many of the rooms, the plaster was soft, and in some the water was running down the walls. The ignorance prevailing on these matters, even among the well-to-do, was greatly to be regretted. No house ought to be allowed to be occupied until it was thoroughly dry, and certified by the medical officer and burgh engineer to be fit for occupation, and a clause to this effect should form part of the New Police Bill. Another cause of the prevalence of chest-complaints was to be found in the very imperfect condition of the roadway in many of the new streets—some of them were almost impassable. The death is mentioned, at Dumbarton, of a woman, named McCall, a widow, at the age of 102 years; she had five sons and three daughters, and used to see forty grandchildren and seventeen great grandchildren.

THE ABERDEEN ASYLUM AND THE CITY PAROCHIAL BOARD.

A SERIOUS difference, which will probably lead to legal proceedings, has arisen between the City Parochial Board, Aberdeen, and the managers of the Lunatic Asylum. The parish authorities have put

forward a claim to the effect that, by its constitution, the Lunatic Asylum is bound to maintain gratuitously the pauper lunatics of the parish of St. Nicholas; and they support their claim by the opinion of the Lord Advocate and Mr. Fraser. The Asylum managers have resolved that this claim has no foundation in law or in justice, and have determined to resist it by all means in their power, stating that if the claim were conceded it would involve the ruin of their institution.

TYPHOID FEVER AT HERIOT'S HOSPITAL.

THERE has been a slight outbreak of typhoid fever at Heriot's Hospital, Edinburgh. Fifteen or sixteen cases in all occurred, but were of a mild type, and all are reported to be recovering. The water and milk supplied to the hospital were both subjected to chemical analysis by the desire of the governor. The water in the cisterns of the hospital was, with one exception, found to be of good quality, while the milk was of poor quality, but free from any deleterious matter. The impure sample of water was stated to be owing to some accidental contamination which admitted of easy remedy. The governor was directed by the managers to see that henceforth the milk supplied by the contractor is of the best quality, in terms of the existing contracts.

IRELAND.

SMALL-POX.

AT a late meeting of the Guardians of the South Dublin Union, a communication was received from Dr. Purcell, one of the City Dispensary medical officers, drawing attention to the fact that a case of small-pox had occurred in Cole Alley, which had been removed to the hospital, but that a woman residing in the same house had refused to allow her child, seven months old, to be vaccinated. The guardians very properly ordered that a prosecution should at once be instituted, but we regret to hear that the people dwelling in the locality have sympathised with this woman in her refusal. It is the first time we have had to chronicle an instance of opposition to the Vaccination Act in Ireland, the people being usually anxious to be thus benefited, and we trust that a similar objection to so beneficial a law will not be repeated.

THE IRISH JOINT CONJOINT SCHEME.

WE lately detailed this proposed scheme, and, after due consideration, we have very grave doubts that the plan will ever be accepted as it stands at present. Besides other reasons, we may mention the high price required for the joint diploma of the Colleges of Surgeons and Physicians—viz., thirty-one guineas; and, secondly, the non-representation of two corporations—Apothecaries' Hall and Queen's University, both bodies passing a considerable number of candidates annually. It is said that the Queen's University refused, and the Apothecaries' Hall was not asked to join in the formation of the committee for the conjoint scheme; however this may be, their absence must undoubtedly have a bad effect on the proposed plan, and we trust that before long something more feasible may be suggested than what has been proposed.

THE LATE DR. BEATTY.

LAST week, the tablet erected in St. Patrick's Cathedral, to the memory of this distinguished member of the medical profession, was unveiled by the Lord Mayor of Dublin. The memorial tablet consists of a slab of polished black marble, in the middle of which is an open scroll of white marble, which bears the following inscription:—"This tablet is erected by his professional friends to the memory of Thomas Edward Beatty, M.D., President of the King and Queen's College of Physicians, 1864, who died on the 3rd of May, 1872, in the seventy-third year of his age. Of noble nature, generous, kind, and just, he lived and died beloved of all who knew him." The Lord Mayor (Sir G. B. Owens, M.D.), in a few appropriate words, committed it

to the safe keeping of the Dean and Chapter of the Cathedral, who, he was sure, would guard and preserve it as a lasting memorial of a good man and a distinguished physician. He considered that Mr. Joliffe Tufnell, the Honorary Secretary of the Committee, was entitled to the best thanks of the profession for his zeal and energy in carrying out so successfully the object they had at heart. The Dean of St. Patrick's having accepted the charge of the tablet on behalf of the representative body, a vote of thanks to the Lord Mayor terminated the proceedings.

THE INTERNATIONAL MEDICAL CONGRESS IN PHILADELPHIA.*

SECTION OF OTOTOLOGY.

Importance of Treatment of Aural Diseases in their Early Stages, especially when arising from the Exanthemata.—A paper on this subject was read by Dr. A. H. BUCK. After an interesting discussion, the following conclusions of the reporter were adopted by the Section, and the entire paper was recommended for publication. 1. Chronic otorrhoea is, at the present time, a very common disease, due in most cases to the want of proper treatment during the acute stage of the affection. 2. It is by no means a harmless affection. 3. It may be fairly classed as preventable disease, at least among those who possess a healthy constitution. 4. Paracentesis of the membrana tympani, if resorted to during the first few days of the acute attack, and if not carried out too timidly, *i. e.*, if a free incision be made and not a mere prick, is almost a sure preventive of the subsequent chronic disease. 5. The profession at large, and especially the medical schools, should give the subject more earnest thought than they have in the past.

The Best Means of Testing the Hearing.—A paper on this subject was read by Dr. CHARLES H. BURNETT. It was considered under three divisions: 1. Character of the ordinary test means, *viz.*, the watch, tuning-fork, and speech: 2. Deficiencies and discrepancies in the hearing-power, under which was considered the question, Can disease be diagnosed by the manner in which an ear hears certain tests? 3. Manner of testing. (a) Importance of isolation of the better ear. (b) Consideration of what is needed in any form of test; how well the demands of any test are made by the watch, tuning-fork, or speech. The conclusion was favourable to the latter. The conclusions drawn by Dr. Burnett in favour of speech as a test were adopted by the Section, and the paper was recommended for publication.

Artificial Drum-Membranes.—A paper on the question, In what percentage of cases do artificial drum-membranes prove of practical advantage? by Dr. H. N. SPENCER, was read, and gave rise to a most interesting discussion. After reviewing the history of the artificial drum-membrane, there were considered (a) the condition of the ear admitting its use, (b) contra-indicating conditions. The forms of artificial drum-membranes were considered, and preference was given to Yearsley's cotton-wool.

The Hearing of School-Children.—A paper was read by Dr. C. J. BLAKE on the question, What is the best mode of determining the hearing of school-children, and how should partially deaf children be instructed; in mixed classes, with those who hear well, or in separate classes, where due allowance will be made for their defective hearing? After a careful narration of facts and personal experience pertaining to this question, the writer summed up in the following conclusions. 1. The frequency of partial deafness in children during the period of school life renders it advisable to make some definite provision in public school system for compensatory instruction. 2. Since partial deafness is a comparative term, some provision should be made for a proper determination of the degree of disability. 3. This is best accomplished either by establishing a series of speech-tests to be used by the teachers, or by instituting competent medical examination at the hands of a medical supervisor of schools. 4. Partially deaf children, whose hearing is not so defective as to require special instruction in articulation and lip-reading, are better taught in mixed classes with those who hear well. 5. Partially deaf children, whose hearing is so defective as to interfere with the natural acquirement of articulation and to render the ear of little or no value as a medium of instruction, should be accorded the advantages of special instruction, of which instruction in articulation and lip-reading should form a part. The conclusions were adopted, and the paper recommended for publication.

Aural Vertigo, with Variable Hearing.—Dr. CHARLES H. BURNETT read a paper on this subject. The point urged was, that many cases

* Concluded from p. 804 of number for December 16th.

of aural vertigo have been falsely diagnosed as Menière's disease, or disease of the semicircular canals, in which latter the prominent symptoms are tinnitus, vertigo, nausea, and vomiting, with sudden and permanent deafness. There are, however, cases met now and then, in which all the above symptoms are present excepting the permanent deafness. The affection of the hearing which is found in them either very gradually disappears, or it may come and go with the paroxysm. When the deafness gradually disappears with the cessation of the paroxysms of dizziness, or when it comes and goes with each attack of vertigo, Dr. Burnett was disposed to locate the cause of the aural vertigo in the tympanum and not in the labyrinth.

Eduction of the Deaf-Mute.—In a paper on this subject, Dr. L. TURNBULL agreed in the main with the report on the kindred subject by Dr. C. J. Blake, *Effects of Cold Bathing on the Ear*. An interesting discussion ensued upon the effects on the ear of cold bathing, especially cold plunging. The chief questions were, Are the bad effects brought about by sudden inhalations of cold water which is thus forced in the middle ear? or, Is the inflammation often aroused in the ear after the cold bath due to the entrance of cold water into the external auditory canal? The opinion seemed to prevail that it might occur either way, but the majority seemed to think it usually occurred in the way suggested in the first question.

SECTION OF OPHTHALMOLOGY.

The Comparative Value of Caustics and Astringents in the Treatment of Conjunctival Diseases.—Dr. HENRY W. WILLIAMS said that the results as attained by his treatment of these affections led him to the following conclusions. 1. In a considerable number of essentially transient affections of the conjunctiva, and in pterygium or other growths, no active treatment by caustics or astringents is required. 2. Where disease affects only a limited portion of the conjunctiva, as in phlyctenular inflammation, only the mildest stimulating or astringent remedies are required. 3. In the acute and chronic forms of general conjunctivitis, astringents are, as a rule, safer as well as more efficacious than caustics, and therefore better adapted to the requirements of the general practitioner.—Dr. WILLIAMS (Cincinnati) said his practice regarding the use of caustics had differed widely from the views stated by the reporter, especially in the treatment of the prevalent ophthalmia of infants. He placed the child's head between his knees, and, everting the lids, after cleansing, wiped them with solution of nitrate of silver (gr. x to f3j) and instilled solution of atropia; and, except in diphtheritic cases, they were very soon well.—Dr. REYNOLDS thought different cases presented different constitutional indications. He had adopted the caustic treatment.—Dr. RISLEY had relied upon the mitigated stick of nitrate of silver, thirty-three and a third per cent., and a twenty per cent. solution of carbolic acid in glycerin. The lids being thoroughly everted, the stick was drawn lightly over the entire tarsal conjunctiva, and the excess neutralised by solution of common salt, before allowing the lids to come into contact with the cornea. The carbolic acid solutions seemed to be equally efficacious, and had the advantage of causing less pain than the nitrate of silver.—Dr. HARLAN had relied upon solutions of silver, not stronger than gr. x to f3j; and the tendency was to make the solutions weaker rather than stronger.—Dr. POOLEY had usually used the crayon of copper in chronic forms of conjunctival disease, and solutions of silver in acute forms.—Dr. THOMPSON said that his experience was uniformly in favour of the use of silver in ophthalmia of new-born children. He used very weak solutions.—Dr. STRAWBRIDGE thought the mild treatment very good if it could be carried out.—Dr. AGNEW, at the outset of the disease, prescribed a solution of common salt. If, five hours later, there were change for the worse, he applied to the retrotarsal fold a ten-grain solution of silver nitrate, and simple ointment to the edge of the lids. He anticipated corneal perforation by paracentesis. In rapid cases of gonorrhoeal ophthalmia, he gave morphia to relieve the pain, cut the external canthus, and favoured the subsequent bleeding by hot water. Later, he everted the lids, and wiped them with a ten-grain solution of nitrate of silver. He regarded dry cold as an excellent adjuvant.—Dr. JONES asked as to cutting the external canthus in other conjunctival and corneal affections. He favoured the simple cutting as being quite as effectual as the so-called canthoplasty.—Dr. GREEN thought it important that a proper estimate should be placed upon the gravity of the disease.—The CHAIRMAN, Mr. CARTER (London) said that his reliance was upon weak solutions of nitrate of silver in the treatment of the ophthalmia of new-born children. He thought the anointing of the lids important, as it prevented the gluing of the lids together. He had listened with interest to the suggestion for cutting the external canthus to relieve pressure in gonorrhoeal ophthalmia. He would try it in his future practice. The conclusions of the author were accepted after slight modification.

Tumours of the Optic Nerve.—A paper on this subject by Dr. H. KNAPP was based upon fifteen cases of tumour of the optic nerve, twelve of which were compiled from other sources, the remaining three occurring in his own experience: two in his own practice, the other in the practice of Dr. E. Grüning. Seven pathological species were observed: 1. Myxoma in five cases; 2. Fibro-myxomatodes in two cases; 3. Sarcoma-myxomatodes in one case; 4. Glioma-myxomatodes in one case; 5. Fibro-sarcoma in one case; 6. Psammoma (perhaps alveolar sarcoma or carcinoma) in one case; 7. Scirrhus cancer in two cases; 8. Secondary cancer, following primary cancer of the ovaries, in one case. The prevalent symptom was exophthalmus straight forward, or with secondary deviation to one or the other side. The motions of the globe were preserved, but more or less restricted, and a softish tumour was felt directly behind the globe, and to greater or less degree moving with it. There was a free space between the tumour and orbital walls. Neuritis descendens was a constant symptom in the early stages of the affection, to be followed later by atrophy; vision was more or less impaired, and the field was restricted when the growth originated in the inner sheath and perineurium internum. But when the growth sprang from the outer sheath, vision was less impaired, and the field was not limited. There was persistent pain in the case of cancer. In the other cases, there was no pain except when the ball was inflamed. In Grüning's case of myxoma, intense pain came on after the protrusion of the ball had lasted four years without pain. All the cases showed a slow but constant increase in the size of the tumour. The longest period observed was fifteen years. The treatment had been extirpation of the tumour with the eyeball, until two years ago Dr. Knapp succeeded in removing the tumour and preserving the eyeball. Dr. Grüning did the same in another case. In both of these the wound healed by first intention.

Vision of School-Children.—Dr. AGNEW gave a brief résumé of statistics regarding the vision of school-children. They were compiled from two thousand eight hundred and fifty eyes examined in five grades of school life in Cincinnati, New York, and Brooklyn. His table showed an increase of myopia as the higher classes were reached, with a relative decrease in emmetropia and hypermetropia, thus verifying the conclusions of Cohn and Errismann.

Orbital Aneurismal Disease and Pulsating Exophthalmia, their Diagnosis and Treatment.—Dr. E. WILLIAMS (Cincinnati) read a paper in which, after summing up the reasons for the now general opinion that intra-orbital aneurism is indeed very rare, he gave a numerical statement of the symptoms which seem to justify the diagnosis of true orbital aneurism. 1. If traumatic in origin, the nature of the injury. If by direct penetration of the orbit, the ophthalmic artery may have been wounded by the offending body. 2. If the injury to the head or face, though severe, were not attended by symptoms of fracture at the base of the skull, or was not of a character to make that accident presumable, in the absence of symptoms. 3. The strictly rhythmical character of the pulsations, if such exist. 4. The limitation of the *bruit* to the region of the eye and the orbit, if *bruit* be heard. 5. The strictly intermittent character of such *bruit*. 6. The fact that the patient himself does not hear the souffle, or, if so, very slightly. 7. The less frequent occurrence of paralysis of motion or sensation, or of any symptoms indicating a disturbing cause in the cavity of the cranium. 8. The less frequent and serious impairment of vision. 9. The absence, except at an advanced period, and even then the less intensity, of the symptoms of obstruction in the ophthalmic vein, such as soft, thrilling, pulsating tumours around the eyeball, and enlarged pulsating frontal veins. 10. The complete curability of the disease by compression, direct through the eye, or of the common carotid artery, or by ligation of the one carotid.

Progressive Myopia and Posterior Staphyloma.—Dr. E. G. LORING read a paper on the question, Are progressive myopia and posterior staphyloma due to hereditary predisposition, or can they be induced by defects of refraction acting through the influence of the ciliary muscle? The following were the conclusions of the paper. 1. From the fact that so large a percentage of children are myopic whose parents are not near-sighted, while the myopia increases directly with the amount of increased tension of the eyes, and from the fact that an interchange of refraction may occur whereby an eye which is not congenitally myopic may become so in spite of hereditary tendency against it, it would seem to follow that hereditary predisposition, though undoubtedly a potent cause, is not only not the sole cause, but it is not even the predominating cause. 2. The action of the ciliary muscle, taken by itself, exerts but little influence on the production of myopia, and still less on the formation of the cone. Of these conclusions, the first was adopted by the Section unanimously, and the second by a majority of fifteen to seven.

DR. WILKS, F.R.S., ON THE IMPORTANCE OF STUDYING TEMPERAMENTS.

DURING a series of afternoon lectures delivered to the National Health Society, Dr. Wilks of Guy's Hospital delivered one on the Importance of Studying Temperaments.

The lecturer, in the commencement of his discourse, took as a sort of text the motto of the Society, "Prevention is better than cure". He said that in this motto he saw the germ of a principle, which, if developed by the Society, might grow and fructify in every sphere of life. These words, he said, conveyed to his mind one of the "most profound and important of doctrines, since they are applicable to man's being, whether he be treated physically, morally, or socially. They are as familiar in our mouths as household words, but, perhaps, there are none less acted upon, the masses of the people and the ignorant never rising to a due conception of their meaning. The object conveyed in these words is the very highest at which the physician can aim; they interpret the thought of the best men in the medical profession when they attempt to frame a true doctrine of disease and its rational treatment. A society with such a motto is at once setting itself against quackery, for the word 'prevention' is put, as it were, in opposition to 'cure', and the idea of cures lies at the bottom of all quack systems. They are all alike in this, that they do nothing else, and profess to do nothing else, than cure existing ailments, that is, to give a remedy for the alleviation of some present trouble. Now, as the tendency to quackery is in proportion to ignorance, it is clear that the idea of 'cure' is low-born and common-place, whereas the sentiment expressed in the motto is significant of a higher intellectual advancement. To perform a charm by words of incantation over a sick man is the act of a savage, and pouring a few drops of medicated fluid into his mouth betokens only too often an equally ignorant and debased mental condition. A rational system of treatment, founded on natural methods, and necessarily requiring time, comes only with culture and enlightenment."

After touching upon the public work undertaken by societies for promoting the health of the community by the removal or avoidance of deleterious influences which produce specific diseases, he said:

"There is another class of diseases besides the specific, which are far more important for us to consider, viz., those which are slowly and insidiously affecting us by causes inherent within us, and by influences which are continually surrounding us. There is a natural primary division of disease into two classes—the one in which our bodies are suddenly attacked from without by a subtle morbid agency, spreading its devastating effects over young and old; the other class in which the cause has its origin within us, and the results are more slowly brought about. The destruction in the one case is like what happens in the body politic, which, although compact and united, is overpowered by the superior strength of the enemy; in the other case, it resembles an internal decay arising from civil wars springing up in the midst of the community. An epidemic may now and then come upon us as a fearful scourge, and alarm us by its sudden fury, and by our futile attempts to ward off its blows; but the mortality produced by it is nothing compared with that which is caused by consumption, bronchitis, apoplexy, or liver-disease. It is, therefore, equally important to endeavour to discover under what circumstances these common diseases are produced, and by what means they can best be averted. Now, in this attempt, we have to consider the nature or temperament of the individual to be acted upon, as well as the circumstances surrounding him, which are prone to be injurious; and, if a morbid condition or derangement of the system be set up, we call that 'the disease'. Most of these derangements or maladies derive their name from the manifest disturbance of some particular organ, and we are accustomed to say that the seat of the disease is situated there; but we often mean nothing more than the derangement is most conspicuous at that particular spot."

"The popular belief," he said, "is that, if a particular part of the body is deranged, all else being right, a dose of physic may remedy it; or that, when a person dies suddenly from stoppage of the heart's action, or the rupture of a blood-vessel in the brain, death occurs in the midst of health. Now, both ideas are as absurd as to suppose that, when a pipe bursts in your house, and the water or gas escapes, it was previously perfectly sound; you know that it must have been undergoing decay for some time before the rupture. So with many other morbid conditions; a fatal obstruction in the intestines is frequently put down to indigestible food, but I never made a *post mortem* examination of a case of the kind where the cause was not of a most chronic nature. If disease came upon us suddenly in the midst of health, 'prevention

better than cure' would have no practical significance. It may be, that we are often unaware of chronic changes going on within us, but, nevertheless, the slow and insidious nature of all maladies is the important fact to take into account. Hippocrates, the father of medicine, had ascertained this when he said 'Diseases do not fall upon men instantaneously, but, being collected by slow degrees, they explode with accumulated force.'"

Dr. Wilks assured his hearers that "the higher the study of medicine has reached, the more is this idea seized—that a true knowledge of disease, or as we say of pathology, is to be gained from a recognition of the slow changes going on in the body, and an attempt to discover the causes which bring them about. The true workers in my profession are making this their aim—they ask, for example, what are the circumstances which induce consumption, so that it may be prevented, and they ask the same of heart-disease or liver-disease. With these views, what do they consider their relation to the public to be? I should say that they regard themselves as the custodians of the public health; in order to observe the character and peculiarities of those under their charge, to watch their surroundings, to judge whether these are operating for good or for evil, and then to advise accordingly.....The community at large know nothing of what I have been saying, and, therefore, the more need of your society; all they know is, they get ill and they wish to be relieved or cured. The patient has liver or stomach trouble, palpitation, pain in some part of the body, or headache; if good advice be offered him as to the cause and prevention of these symptoms, it is rejected, and he goes from door to door until he finds some one who, to use his own words, thoroughly understands his complaints, and will treat his symptoms.....This highly popular and vulgar view of disease and its treatment is well illustrated by the style of all quack books and advertisements; the writers of these know only too well what are the immediate needs of sickly people; they describe very accurately the depression which is felt on rising of a morning, the want of appetite, and the general feeling of lassitude, or they enter upon the direful effects of the bile, or the spasms, or the wind, as if these were three spirits that were to be exorcised. Symptoms are felt, and a remedy is offered, and all quackery depends upon this, that there are special medicines for special ailments. But, to study the human frame, its mechanism, and its working, to see how it may be deranged, and how these derangements may be obviated, is utterly opposed to this spirit of quackery."

"It is not to the interest of a medical man, or to the elevation of his profession, that he should always give physic rather than advice. A moment's consideration will show you that this is true. If a medical man set about the study of his profession in a rational way, by acquiring a knowledge of the healthy working of the human body, and subsequently of its deranged states or diseases, he will discover the causes of their production, their progress, and the amount of assistance he can afford by regimen, diet, or medicines. Now, you will see that if disease is to be arrested by some drug, it is not difficult for anyone, if he can learn its name, to give the prescribed pill or globule out of the domestic medicine-chest; but, suppose there be no such antidote, who is so likely to know the circumstances under which it may most favourably pursue its course as regards the best food, air, etc., as he who has made the disease his study? He alone who has spent years on its observation can rightly advise, for the knowledge cannot arise in one spontaneously. He only can know how long a typhoid fever or an inflammation of the lungs lasts, and what dangers accompany them, who has taken the trouble to study them in all their phases, and, therefore, he must be best acquainted with the measures to be pursued which are most favourable for the cure. Sometimes we have an useful medicine for a complaint, and sometimes we have not; but a hundred different influences may be brought to bear upon a patient either beneficially or harmfully."

"The distinction between the true and the false system is broad and deep; the false one, the treatment of symptoms, is quackery under whatever guise it appears.....If a man have a physical ailment, is it better to prescribe a narcotic for his pain or give advice for its prevention? Is it better when a man is out of work to relieve his present necessity, or put him in the way of earning his livelihood? Or if a lad be dishonest or otherwise depraved, to give him a week at the treadmill, or study his nature and the circumstances which induced his moral depravity? Whether you take man's physical, moral, religious, or social life, surely the means of improvement are not to be found, and its errors not to be eradicated by some magic formula."

In the commencement of the main subject of his discourse, Dr. Wilks said: "We are now agreed that the mere administering to temporary troubles, or those which appear to the patient to be seated in one organ or the other, is not the highest aim of medicine; it is essentially born of ignorance. The laws of disease are discoverable by ascertaining the

different causes in operation which influence the body for ill, and by ascertaining the different susceptibilities of each particular body. Now, the first or exciting causes are better known than the latter, or the predisposing. We are, for example, constantly speaking of the effects of cold, of heat, of vitiated air, of alcohol, but it is very remarkable how variously susceptible are different persons or constitutions to the influence of these agencies. The predisposition to particular ailments, that is, the temperament or idiosyncrasy, must be taken into account; and, in attempting to ascertain this, we have to meet with a difficulty of a most formidable kind, and for this reason, that we are often by no means assisted by the patient or his friends in the inquiry, but have to judge as well as we can for ourselves. In the case of consumption, I find at my insurance office that hereditary tendency is never allowed by the applicant, for, if a member of the family have died of phthisis, it is said to be due to some accidental cause, as exposure to cold, to dissipation, to grief, or any other fanciful reason. The public require instruction in this view of the case, and to be taught that it is to their interest to unfold or expose their peculiarities to themselves and to those of whom they take advice, so that they may guard themselves and their belongings from all those influences which may be injurious to them. I am sorry to say that most people attempt to hide their weaknesses, and the medical man is often obliged to form a judgment for himself. Nothing is so important in considering the question of health and the prevention of disease as the discovery of the peculiar characteristics of each person, and the class of agents which are likely to affect him injuriously. The predisposition is vastly more important than many think. One of the most striking examples of this is seen in the case of twins. In a very interesting paper by Mr. Galton, he mentions some remarkable instances of twins living in different countries, and exposed, therefore, to different influences, yet having similar diseases break out upon them at the same moment, and even dying of the same complaint at the same age..... Even mental changes and insane delusions occurred exactly at the same period of age. The influence of sex in the transmission of peculiarities is also very important. Medical authors speak of some which descend on boys, and others on girls. A case is related by an ophthalmic surgeon where all the children of a family squinted, the boys with the right eye, and the girls with the left..... The reason why parents are often blind to the peculiarities or propensities of their children is owing to the fact that they themselves partake so much of the characters of their offspring. This is one great cause of evil training, whether it be mental, moral, or physical.

"Given a particular propensity inherited by a child, will his instincts direct him to acts which shall counterbalance that propensity, or will they not rather lead him on in the direction of its further development? I have often heard it maintained that the instinct will prompt right in the cause of health, but my own experience has shown this to be far from correct. If a child be fond of exercise, or of a sedentary habit, it may be thought to be pursuing a plan best suited for its organisation; or if it have a liking for a particular article of food, its instincts will guide it right. This is a question to be solved. Perhaps if we take mental peculiarities, and ask ourselves whether most persons endeavour to counteract them or foster them, we shall arrive at a correct answer respecting analogous physical characteristics. Does a shy child instinctively know its weakness, and court society until he or she has lost the peculiarity, or does he not rather yield to it and develop it? Does not a highly sentimental and dreamy girl pursue a life which encourages her characteristics? In fact, we know that a child's inclination towards any pursuit is involuntarily followed from tendencies implanted in its nature; and we may also observe that, the parent's idiosyncrasies running in the same direction, the peculiarities may be fostered by either the father or the mother. Now, although it is not so self-evident, the same law, I believe, is followed in our physical nature. A child is born with certain inherited peculiarities which tend to increase by the continuance of those same influences which set them going in the parent. A drunkard begets children of weak mind, and with a strong propensity to drink; their children continue in the habit, become epileptic, idiotic, or markedly deformed, and in this way happily the family become extinct..... It is remarkable how few have studied the different temperaments of Englishmen..... Medical men of late years, when speaking of temperaments, have distinguished them in reference to certain tendencies to disease, as, for example, the gouty, consumptive, or nervous. This nomenclature has been very useful, but it would be preferable to have a division framed after the Greek model, on a healthy basis, for then we could speak of the different types of man, which would include at the same time their proclivities to special forms of disease. What we really want to ascertain in studying the health of the community is the variety of type amongst our countrymen, then to discover what are the tendencies in particular families and individuals, how these have come about, and by what means we

can best avert the development of any morbid susceptibilities. I cannot do more here than touch upon this question. For example, it is important to know why England, before all other countries, is apt to produce the disease called gout, and what are the circumstances which favour its development in any individual.

"Take a model man, put him on our island, feed him well with a large amount of animal diet, malt liquor, and wines, subject him to certain atmospheric conditions, etc., and you would probably produce an individual of the sanguineous and gouty type—a well-made man with plenty of vigour, both animal and mental, good-tempered, and social, given to generous impulses, as well as to generous living. This class of man is produced under certain favouring circumstances, and the tendencies of his life are to perpetuate his characteristics and peculiarities,..... Suppose you had influence in some part of the country where you may be residing, and you see a young family growing up with the peculiarities of the gouty or arthritic temperament. Place those children in a position where all their propensities will be fostered, where, surrounded by society, their inclinations towards free living are favoured, and a rapid development of their inherent evils takes place; on the other hand, let the young men be placed in a position where activity and temperance are encouraged, their morbid proclivities may all be counteracted.

"But England produces another tendency—that to consumption. Circumstances of climate, I apprehend, have given a start to this proclivity, and the tendency is developed into a diathesis in the course of generations. The child born of consumptive parents is generally well formed, but not robust, the framework is well proportioned, and the whole organism shows great activity. There is a quick circulation, and the brain and every other organ of the body is working at high pressure. The child is highly intelligent, and he continues so when grown to a young man; he is fond of exercise, and boasts of his walking feats. At the same time that the body appears over-oxygenated, and all the functions are performed with great activity, the digestive powers are not strong, the appetite is small, and there is a dislike to fat, alcohol, and all hydrocarbons on which his oxygen may feed. The chances are that he signs the pledge, and, being a good young man, has deceived himself into the conviction that he has done it for a moral object. A youth of this kind always appears to me like a high bred horse, very active, capable of remarkable performances, but at the same time highly susceptible to surrounding influences which may soon light up disease in the system. He is living at this high tension, a slight exposure to cold sets up an inflammation of the lung, rapid disintegration occurs, and consumption soon brings the precocious youth to an end. Now, you who intend to take charge of the public health, seeing the young people with these proclivities, may render them good service by timely advice; they are not to work all day at their books and consume mid-night oil in hours which ought to be devoted to sleep; they are to be well fed, and if there is a class of persons who require alcoholic drinks it is these; you will notice their aversion to them, but their feelings are leading them to evil; give them beer, wine, and fat foods, to counteract the over-oxygenation, and diminish the amount of labour; let them be well clothed and protected from those atmospheric causes which are likely to set up morbid processes in their delicate air-passages. Should an unfortunate marriage engender on both sides these peculiarities, the children are all apt to die out young.

"Take another example; there is what we call the nervous temperament, and in connection with it I will just mention this fact, that I have known several instances of medical students who have had peculiar sensitive dispositions and fantastic minds, who have been prone to leave ordinary every day work and discuss obscure metaphysical questions which have been more congenial to their disposition. These young men have instinctively found their way to take charge of lunatic asylums, and they themselves have finally gone mad..... Persons of the nervous temperament, being anxious, are often thought to be suffering from over-work. This is a great mistake; they will undertake much and perform much, but it must be cheerful work, and that in which they take an interest. It is not work, but worry, which injures the nerves; therefore it is that some of our oldest livers have been tremendous workers, but they have not been sensitive men; they have not shrunk from annoyances, but have rather courted them, feeling exhilarated by opposition and contention."

After speaking on other points, the lecturer touched upon "the discussion which has lately taken place on the endowment of scientific research as an acknowledgment of the fact that the valuable and paying results of science do not come directly forged from the laboratory, but are slowly developed from what seem mean or insignificant facts discovered by men whose only object of investigation is the unfolding of nature's laws. It is perfectly impossible that such men can see or foretell the various paths into which their discovery can pass, and,

moreover, they do not look into the future; they are content with the data before them, and all else in the way of consequence would distract their minds. Any one who knows the history of science and the workers in it are aware that the discovery of a fact brings with it its own reward. The pleasure of a discovery by a scientific man is one of the most intense which any human being can enjoy. If his mind be on some ulterior object, it is not fitted for the investigation; it fetters him, distracts him, and in all probability hinders him, for his pure scientific spirit has departed. I might illustrate my meaning by a reference to the Vivisection Bill. It will be observed that two sets of feelings animate the promoters of restrictive measures, as well as those who oppose them; and thus, besides the question of humanity, the scientific spirit is evoked. In alluding to Lord Carnarvon's Bill, I do not mean to impugn the right of society passing any laws it pleases as to the treatment of the lower animals; but I am perfectly annoyed that legislators should not, in the course of their reading, have discovered that it is impossible to dictate to a man of science the why and wherefore of his researches, and that they should attempt to alter the law of man's nature by dictating after what method scientific inquiry is to be pursued. . . . Scientific men are benefactors to their race, but it is absurd to suppose that they see the beneficial results which follow from their investigations, or that they themselves are working to obtain them. Perhaps some of you are not aware that the spirit of science is so little encouraged in England, that it would be impossible, without intercourse with other countries, for a medical man to obtain a complete education. Legal prohibitions are so stringent that a perfect knowledge of anatomy cannot be learned in this country. During the first months of a medical student's career, he is necessarily obliged to learn all about the bones of the skeleton. Now it is illegal to keep a single bone from an Englishman's body, and thus all our skeletons are imported at a great price from France, and the foundation of every man's knowledge of the human frame is gained from Frenchmen. I hope better things await us, but the scientific atmosphere is at present not so bright as it should be."

"And now I will conclude with a quotation from one of Robertson's sermons: 'We are fearfully and wonderfully made.' Of that constitution which we, in our ignorance, call union of soul and body, we know little except of what is cause and what effect. We would fain believe that the mind has power over the body, but it is just as true that the body rules the mind. Causes apparently the most trivial, a heated room, want of exercise, a sunless day, a northern aspect, will make all the difference between happiness and unhappiness, between faith and doubt, between courage and indecision. To our fancy there is something humiliating in being thus at the mercy of our animal organism. We would fain find nobler causes for our emotions, as well as of our sublimest sorrows. It is a duty, therefore, to keep the body in temperance, soberness, and chastity; to guard it from pernicious influence and to obey the laws of health, are just as much religious as moral duties."

SPECIAL CORRESPONDENCE.

PARIS.

[FROM AN OCCASIONAL CORRESPONDENT.]

M. Labbé's Clinique at La Pitié.—Use of the Actual Cautery, Thermo-Cautery, and Galvano-Cautery.—Cystic Disease of the Vagina.
—Fracture of the Acetabulum.—Observations on Hygiene and Administration.

I MENTIONED in a former letter, some months since, the extensive and successful use which M. Labbé makes of the actual cautery. Going through his wards again yesterday, I noticed a series of cases illustrating the application of this surgical resource, which may not be without interest to English practitioners, who are less accustomed to the free use of the cautery. The first case was a very severe one of diffuse cellular inflammation of the arm. The patient, an artisan, aged 33, entered the hospital with acute phlegmonous inflammation of the hand, forearm, and arm, extending nearly up to the shoulder. The forearm and hand were freely incised, and the incisions were cauterised with hot iron. The next day, it was necessary to make further incisions, which were similarly treated. The former incisions were now covered with diphtheritic membrane, and the cauterisation was repeated. The cauterisation was again employed on the third and fourth days, with the effect of completely modifying the diphtheritic inflammation and vanquishing the tendency to extension of the phlegmonous inflammation. The temperature, which had been between 39 and 40 deg. cent. (102-104

deg. Fahr.) on admission and during the first days of his stay in the hospital, fell to 37 deg. centigrade, his severe constitutional symptoms disappeared, appetite returned, and, although the arm is profusely but healthily suppurating, the man is progressing towards convalescence. Another case was one of extensive sinuses of the buttock of long standing, for which various methods of treatment by injection and drainage-tubes had been employed unavailingly. The whole of these were freely laid open, the more superficial being divided by Paquelin's highly ingenious thermo-cautery knife (platinum knife maintained at a red heat by benzole vapour), while the deepest was divided by the galvanocaustic wire. The surfaces thus exposed were freely cauterised with the hot iron. This has left a series of large and ugly wounds, which are, however, granulating from the bottom; and, although septicæmia is very rife in the Paris hospitals, it accords with M. Labbé's experience that it is less likely to occur in wounds which have been made or modified by the actual cautery than in those which are cut by the knife. In another case of fungating encephaloid of the front of the thigh, of an exceedingly vascular character, and which had caused dangerous hæmorrhage at the time of the patient entering the hospital, the whole tumour had been removed by the thermo-cautery knife without loss of blood or subsequent hæmorrhage. In a case of epithelioma of the penis, amputation had also been performed in a similar manner without loss of blood, and the urethral stump was healing very kindly.

A highly interesting case was that of an adult, aged 33, suffering from fungoid growths in the knee-joint; for the notes of which case I have subsequently been indebted to M. Remy, M. Labbé's interne. The patient, who had previously suffered from pleurisy and hæmoptysis, was attacked, on the 1st of January 1875, with severe pain in the left knee-joint. The pain lasted two months; it then ceased, and the joint began to increase in size. On January 1st, 1876, the patient sought hospital treatment. The joint was then of an enormous size, 20 to 22 centimètres (= 7½ to 7¾ in.) in diameter, uniformly round; an abundance of fungoid growth was diagnosed, with the synovial membrane and the bone being simultaneously attacked. At the same time, tubercle was diagnosed at the apices of the lungs. A few days after entering the hospital, the patient was attacked with acute pain at the level of the internal lateral ligament, occurring in spasms, and exasperated by the slightest movement. Injections of morphia were given, and the limb immobilised by plaster splints and silicated compressive bandages, but with no result. On January 12th, M. Labbé thrust into the joint, puncturing the skin, the fungosities, and the bone, twelve platinum points, mounted on a ball cautery and heated to a red-heat. The pain not being relieved, M. Labbé had recourse a second time to the same means, and, on February 20th, eleven points of platinum were thrust into the interior of the bone. The pain slowly decreased, but the limb was attacked with oedema, which it was found impossible to reduce by compression. At last, at the end of August, the pain ceased, the oedema diminished, and the patient regained his appetite. The cicatrization of the skin was rapid, and no fistulæ remained. At the present time, the patient has put on flesh enormously, the joint is no longer painful, and the cure can be considered complete. The limb is, nevertheless, still kept immovable by a bandage impregnated with a solution of silicate of soda. The state of the lungs is the same; the eruption having, however, disappeared.

The wards are rich in surgical material. In the course of my somewhat hurried round with M. Labbé, I saw several other cases of considerable interest. One was a case of cystic disease of the vagina, in which, from the position of the cyst immediately behind the urethra and corresponding to the wall of the vesica, there was great difficulty in determining if it were or were not a case of cystocele. Having satisfactorily ascertained that it was an independent cyst of the vagina, M. Labbé has treated it by incision and partial excision.

Among the rarities of surgical experience may be reckoned a case, now in the wards, of fracture of the border of the cotyloid cavity and dislocation of the head of the femur on to the dorsum ilii. The injury was suffered while the man was on his hands and knees on the ground, an immense weight falling upon his loins. When first admitted, the prominent symptom was dislocation on to the dorsum. This was reduced under chloroform, but the head of the bone subsequently slipped back into its old position. On further examination, fracture of the acetabulum was diagnosed. The patient is now being subjected to extension and counterextension; the extension being applied by strong India-rubber bands fastened to the end of the bed and acting on the limb by attachment to a cuirass of diachylon arranged around the leg on the American plan.

A case of perforating ulcer of the foot in the wards appears to be doing well under nutritive treatment with rest. It has the characteristic anæsthesia in the neighbourhood of the parts affected.

In this service, there are also at this moment an enormous fibroma uteri filling the whole cavity of the abdomen; a case of ovarian cyst awaiting operation; two cases of excision of the eyeball; a variety of fractures; two cases of internal urethrotomy; and several cases of coxalgia and arthritis. Thus it will be seen that it is a service unusually rich in surgical interest; and, as M. Labbé gets through his work very quickly, the surgical visitor to Paris will find a great deal of instruction crowded into a short space of time in paying a visit to these wards, where he is sure to be received with warm and kindly courtesy. The English visitor will, however, find more than one point in hospital administration which will strike him as capable of improvement. He will miss the head-cards and the record of treatment at the bed-head, which are almost equally useful, as affording a bird's-eye view of the past and present prescriptions to the surgeon and to the pupils. He will miss the clinical clerks with their well kept records of the history, symptoms, and progress of every case; the neat dressing trays of the dressers, and the constant attendance of the head nurse in the footsteps of the surgeon to receive his directions as to the details of nursing in his absence. He will be surprised at the paucity of air-pillows, water-beds, and appliances for the comfort of the patients; he will think that the beds are too close, and that there is less cubic space than there should be; and especially he will be surprised to find that, when operations have to be performed in the amphitheatre, patients have to be carried across a large uncovered open space in the most inclement weather and again carried back to their beds after the same exposure. What he will admire is the promptitude, resource, and skill of the surgeon, the clearness and facility of exposition, which are so frequently the product of the excellent system of successive *concours* by which every French hospital surgeon fights his way to his position, and by which he, at the same time, gives the proof of his capacity for office and acquires the habit of marshalling and arraying his knowledge in such orderly and systematic form as to have it always available for the purposes of diagnosis and of teaching. Owing to a similar system, the *internes* of the French hospitals are of a much higher average order of attainment, and have, as a rule, given more serious proofs of superior instruction and capacity than the average house-surgeon of an English hospital, and pupils are frequently much indebted to the *internes* for lessons of serious value. That which is best in these hospitals is their professional side; that which is least admirable is their defective attention to individual and general hygiene, and some unquestionable defects in administration. Such defects are probably more or less inseparable from extreme centralisation, such as is here rampant. Under these circumstances, there is no room left for individual initiative, for various development, or for competition in efficiency.

REPORTS OF SOCIETIES.

THAMES VALLEY BRANCH.

DECEMBER 14TH, 1876.

J. LANGDON DOWN, M.D., F.R.C.P., in the Chair.

Acute Rheumatism treated by Salicylate of Soda.—MR. HENRY PRICE read the notes and exhibited the temperature charts of twelve cases of acute rheumatism treated by salicylate of soda, in the practice of Dr. Langdon Down at the London Hospital. They all displayed a very marked diminution of temperature and pain at the end of twenty-four hours: a diminution which had not been approached by any other plan of treatment.

Quinsy.—DR. ATKINSON read a short paper on quinsy. He remarked that it was both an hereditary and a constitutional disease. His father, himself, two brothers, and four sisters, all suffered from it; and it occurred comparatively rarely after twenty-one years. The predisposing cause, he said, was, no doubt, a strumous diathesis: the exciting a want of tone in the system generally, such as is produced by excess of mental or bodily exertion, long continued fasts, and chronic dyspepsia. In some cases, he believed masturbation to be the cause of the nerve-depression, as he had found more than once that it was practised by those who were the subjects of quinsy. He did not consider that it resulted from cold acting directly on the throat, because laryngitis would be a much more frequent accompaniment than it now is. In his own case, the attacks came on most frequently when he took most care in wrapping up the throat, and that exposure to night air and want of precautions seldom seemed to produce an injurious effect. Cold, *i.e.*, suppression of perspiration, he thought, might produce an attack of quinsy when the person was in a weakened condition, the *materies morbi* having an elective affinity for the tonsil, the

same as it has in gout for the great toe. The treatment he advised was the following:—Bicarbonate of potash, twenty grains; tincture of guaiacum, thirty minims; mucilage, as much as is required in water to one ounce, to be taken with fifteen grains of citric acid in a state of effervescence every four hours; a gargle, consisting of twenty-five minims of tincture of iodine to the ounce of water (to be used by being held in the mouth while the head is shaken from side to side); four to six ounces of port wine daily, and as much beef-tea as the patient can take. When suppuration had commenced (as shown by the pain in the ear), he said it was best to order simply the iodine gargle and administer wine and beef-tea. The iodine either caused absorption to take place, or helped forward suppuration, according to the stage in which it was used. He discountenanced the use of caustic, plain or medicated steam-inhalations, the sucking of ice, the application of leeches, also of linseed, mustard, and turpentine externally. Extract of belladonna smeared over the outside of the throat occasionally did a great deal in relieving pain, but nothing towards stopping the progress of the disease. Purgatives he did not consider necessary, as, when the disease was over, the bowels always regained their tone and became perfectly regular. As regarded the use of aconite, he said he could not speak, though it struck him it would be useless without the administration of stimulants at the same time.

Intestinal Obstruction.—MR. MAUNDER related the leading features of two cases of intestinal obstruction from a diagnostic point of view, in which he had recently performed colotomy in the right loin. The knowledge gained by *post mortem* examinations and clinical observation had made the recognition of the nature and seat of bowel obstruction comparatively easy. Cancerous tumours and both cancerous and non-malignant strictures were almost invariably found associated with the large intestine, and almost invariably with the left half of this. The clinical feature connected with these facts was a prolonged history of bowel discomfort in contradistinction to the acute symptoms associated with obstructions of the small intestines. Of the two cases referred to, in both it had been possible to introduce the long tube seventeen and eighteen inches; but a comparatively small enema could be retained. This, with other symptoms, led him to select the right loin, lest, in opening the left, he might not have been above the obstacle. One patient had since died; and a cancerous tumour was found in the descending colon. The other patient was doing well.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 2ND, 1876.

THOMAS HAYDEN, F.R.C.P., President, in the Chair.

Lympho-sarcoma of Mediastinum.—DR. W. G. SMITH showed the thoracic viscera of a man aged 45, with good family history, and of robust constitution until five months before his death, when he became the subject of a primary mediastinal new growth. In April 1876, he caught cold; hæmoptysis set in, and pain was felt in the left mammary region. Last July, a tumour appeared in the neighbourhood of the left clavicle, and the corresponding arm ultimately became oedematous. This left pupil was contracted. The urine contained indican. The man died on September 21st. One superficial nodulated gland was discovered. The left pleura was thickened, and contained a hæmorrhagic effusion. The lung was condensed from continued pressure by a large lympho-sarcomatous mass, which took its origin in the mediastinum and occupied the left pleura. On section, it presented a yellowish-white creamy appearance. The œsophagus was adherent to its posterior aspect. There was also a hæmorrhagic effusion in the pericardium.

Aneurism of the Thoracic Aorta: Hemorrhage into the Peritoneal Cavity.—THE PRESIDENT showed this interesting specimen. A man aged 28, a house-painter, of intemperate habits, complained for eight weeks of pain between his shoulders and of a "stuffing" in the upper part of the chest, with dysphagia. When examined, the left radial pulse was scarcely perceptible; loud laryngeal stridor, complete aphonia, and contraction of the left pupil were also present. A post-systolic blowing murmur was heard over the left part of the arch of the aorta. The patient improved under treatment by iodide of potassium and local leeching, but died suddenly, within three minutes, on September 21st. An aneurism as large as an orange engaged the left transverse aorta and almost occluded the origin of the left subclavian artery. From the sac, a channel, lined with fibrin, led downwards parallel to the œsophagus to the diaphragm, through which it had burst into the peritoneum. Several pounds of partly coagulated blood had escaped through the rent into the peritoneal cavity. The heart and its valves were healthy. The aorta was extensively atheromatous.

Syphilitic Osteitis.—Mr. F. T. PORTER showed the calvarium of a male subject. The bone presented the characters of extensive syphilitic caries; but at the same time the appearance of the bone was such as to lead to the conclusion that it was not a case of syphilis.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 10th day of January next, at Two o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, W.C., December 23rd, 1876.

MIDLAND BRANCH.

THE third monthly meeting of this Branch will be held at the house of the President, Joseph White, Esq., Oxford Street, Nottingham, on Friday, January 19th, 1877.

Coffee at 7.30 P.M.

Paper on Practical Disinfection by Dr. Seaton, Medical Officer of Health for Nottingham, at 8 P.M.

L. W. MARSHALL, M.D., Hon. Local Secretary.
Nottingham, December 17th, 1876.

SHROPSHIRE AND MID-WALES BRANCH: QUARTERLY MEETING.

A QUARTERLY meeting of the above Branch was held at the Salop Infirmary on December 14th; the President (Dr. TAYLEUR GWYNN) in the Chair. There was a fair attendance of members.

New Members.—C. JORDISON, Esq., of Malpas, was elected a member of the Branch.

Communications.—I. Mr. WILLIAM EDDOWES, jun., read notes on a case of Colotomy for Cancer of the Rectum. A good artificial anus was established in a fortnight, through which fæces passed freely, affording great relief to the patient, who unfortunately sank from other causes a few weeks later.

2. The PRESIDENT read a few notes on three cases of threatened Mammary Abscess, illustrating the importance of not causing irritation of the Breast by drawing when there is a deficient supply of milk. In one case, there was a glandular swelling in the axilla, unconnected with the mammary gland, from which milk exuded, being probably a supplemental milk-gland.

3. Dr. ANDREW related a case of Empyema in a child, in which the lung was entirely collapsed. There was very little constitutional disturbance, and an interesting discussion ensued as to whether the best treatment would be to aspirate or to leave the case to nature; the majority of members agreed that it would be better to adopt the latter course.

4. Dr. ANDREW also related a case in which the Placenta had been left in utero. The first time he saw the patient was a fortnight after parturition; he again saw her in a month's time, when she had perfectly recovered, without any bad symptoms.

Life Assurance Fees.—A discussion was held concerning the propriety of receiving a smaller fee than a guinea for examining a candidate for life insurance. The opinion of the meeting was that, if the assurance companies reduced the fee on account of the candidate being assured for a small sum, they ought to increase the fee in proportion to the amount for which he was assured, or else pay a guinea in every case.

THAMES VALLEY BRANCH: ORDINARY MEETING.

A MEETING of the above Branch took place at the Griffin Hotel, Kingston, on December 14th; Dr. J. LANGDON DOWN in the Chair.

Communications.—I. Mr. HENRY PRICE read notes of cases of Rheumatism treated by Salicylate of Soda.

2. Dr. ATKINSON read a paper on Quinsy.

3. Mr. MAUNDER related two cases of Intestinal Obstruction treated by Colotomy.

Transfusion of Blood.—Dr. ROUSSEL of Geneva was introduced by Mr. Maunder, and gave a very interesting demonstration of the use of his instrument. Dr. Down stated that Mr. Maunder had also intro-

duced Dr. Roussel at the London Hospital the previous Saturday, that the students there might have the benefit of seeing the instrument; knowing also that amputation at the hip-joint was to be performed, when possibly its practical value could be seen. It was used after the operation had been performed by Mr. James Adams, who also gave the blood, and worked admirably. This was the first occasion of its actual employment in this country.

Operation Fees to General Practitioners.—Mr. MAUNDER made the following proposition:—"That an operation-fee, in a certain proportion to that given to the operator, should be received by the practitioner at the time, on the same principle as confinement-fees are paid. As a matter of delicacy, this suggestion should come from the consultant, either at the moment of receiving his own fee, or earlier, should the opportunity have presented itself." He said it had often seemed to him that gentlemen in general practice are called upon to exercise considerable forbearance when sharing the responsibilities of an operation performed by another. The operator takes his fee at the time, willingly bestowed when "the tear is in the eye"; while the regular medical adviser not only gives his valuable time and assistance at the operation, but also his attendance during possibly a protracted convalescence, and in the end may get no recompense.

It was resolved, "That it is the opinion of this Branch that it is desirable to put Mr. Maunder's suggestion with regard to an operation-fee into actual practice"; and it was hoped that the subject would be discussed by other Branches of the Association.

Dinner.—The members and friends to the number of eighteen afterwards dined together.

CORRESPONDENCE.

ABUSE OF MEDICAL CHARITY.

SIR,—In accordance with your kind permission, I forward a few more facts and figures bearing upon the question of out-patient relief in the metropolitan hospitals, its abuse, its excessive amount, and its inevitable encouragement of pauperism and fraud. Notwithstanding the very general refusal of the London hospitals, and especially of the largest and most richly endowed, either to undertake or to permit any adequate investigation of the cases of their out-patients, a large number of most significant facts have been collected with regard to the character, the social position, and the pecuniary resources of those who obtain gratuitous medical assistance; and I have, therefore, thought it advisable to devote the present letter exclusively to statistics of this class.

It would neither be easy nor encouraging to believe that at least one-fourth of our London population is unable to afford the six or eight shillings per annum for each adult, or the one shilling or one shilling and sixpence per month for each family, which would suffice to secure the advantages of a provident dispensary; and those who know what a frightful aggregate of imposture, inprovidence, and needless dependence has been created, wholly or in part, by unwise poor-laws and by indiscriminate charity, would not find it difficult, even in the absence of statistics, to imagine the results which must ensue if applicants are constantly admitted in the metropolis alone to more than eighty hospitals and free dispensaries with nominal payment and investigation, or, far more frequently, with none. Any philanthropic institutions which give even the slightest and most indirect encouragement to the pauperism and thriftlessness of the poor create of necessity a moral deterioration for which the largest amount of material benefit which they can confer will not easily compensate; and that the pauperising influence of the London medical charities is neither slight nor indirect the following statistics may partly suffice to show.

Referring to the Report of a Subcommittee on General Hospitals which was appointed in 1870 by the large and influential Committee on Out-patient Hospital Administration, which met at the rooms of the Medical and Chirurgical Society in Berners Street, we find it stated as the opinion of the Committee, "that the probable income of half the number of out-patients may be estimated at from £1 to £1.10 per week, one-fourth more than this, and the remainder less"; and that the one-fourth, whose income exceeds £1.10 per week,

should as a rule, and especially when unmarried, be expected to belong to a sick club or provident dispensary. The Subcommittee on Special Hospitals, appointed at the same time and by the same body, made inquiries at thirty-six hospitals as to the means adopted for the exclusion of unsuitable applicants from the out-patient departments; and from the replies which were furnished by thirty-three of these institutions it appeared that at three hospitals (or 9.39 per cent.) the authorities trust to the truthfulness of certificates; three (or 9.39 per cent.) leave it to the discretion of the subscribers; at eight (24.24 per cent.), it is left to the discretion of the medical officers; at six (or 18.18 per cent.), inquiry is instituted; at two, no means at all are used; at one, unfit cases are excluded by the secretary; at one, a prohibitory notice is used; at another, "the dispenser questions patients, and is allowed to sell them tickets of admission". The remaining hospitals interrogated are not accounted for in the Report. I do not forget that these statistics are already six years old; but, from information which I have lately received, I fear that they are not susceptible of any important modifications.

A member of the medical profession, well known for his interest in this question, writing of the medical charities in the *Quarterly Review* for 1874, has given it as his opinion that "from 5 per cent. at some of the general dispensaries to 50 per cent. at some of the special hospitals belong to a class to whom the medical profession have not covenanted to give their gratuitous services"; and in the same article the anecdote is related of a Leicestershire farmer who, hearing a destitute fellow-out-patient referred for relief to the Poor-law authorities, promptly bestowed on him the sum of half-a-sovereign. Again, not only are there instances on record which have rendered necessary a formal declaration on the part of the Committee on Special Hospitals to the effect "that the subscribers to hospitals should not have the power of recommending themselves as free-patients", but also it is a well-known fact that the hospitals are extensively subscribed to by West-End householders and by large manufacturers and firms, in order that the servants of the former and the well-paid employees of the latter should receive gratuitous advice in cases of sickness or accident. A writer in the *Westminster Review*, quoting from a satisfactory authority, asserts that Messrs. Truman, Hanbury, and Co. have been in the habit of making a large subscription for this purpose to the London Hospital; and a recent number of *Fraser's Magazine* contains the account of a Scotchman who, being complimented on his annual subscription of £10 to a neighbouring hospital, candidly replied, "Not at all; it is a matter of business." When I came here, the firm paid £300 a year for a doctor. I get them to subscribe £10 a year, and now we do without a doctor." A professional correspondent of the *Medical Times and Gazette* for May 10th, 1873, whose statement has been repeatedly quoted, but never, I believe, disputed, declares that gratuitous advice and medicine have, "in his own practice", been sought and received by the wife of a gentleman possessing an income of £800 a year; by the daughter of a musical instrument-maker who has two establishments and employs many hands; by a tradesman who had recently stated that, in the event of his death, his family would be comfortably provided for; by the wife of a manufacturer employing many hands; by the wife of a man who owned eighty houses; by the wife of a clerk in a Government office; by a lady living on her household property; by three well-to-do publicans or their families; and by several others whose cases are nearly as striking.

At a conference on medical out-relief summoned by the Charity Organisation Society, a well-known physician has gone so far as to state that "it is unquestionably the fact that the poor are now being gradually ousted out of the consulting-room by well-to-do persons"; and that he knew as a certainty that individuals possessing incomes of £1,000 a year came as out-patients to receive advice; and that the wives and daughters of men nearly as wealthy had actually borrowed their servants' clothes in order to make similar applications. Even more striking is the fact that, out of 641 out-patients at the Royal Free Hospital who were referred for investigation to the Charity Organisa-

tion Society, only 36 per cent. were estimated in the report as being "suitable applicants"; while 103 were classified as having given false addresses; 231 were considered able to subscribe to a provident dispensary; and in the report on this investigation, drawn up by the administrative Committee of the Society, the opinion is expressed that "the whole body of the patients is really divisible into two sections: 1. Those who might reasonably be expected to pay something for their medical relief; and 2. Those who ought to be referred to the parish." The large percentage of false addresses finds a parallel in the experience of Mr. W. H. Smith, M.P., who mentions that 20 per cent. of the cases which he himself selected for investigation from among the out-patients at a large hospital "had given false addresses, so that it was impossible to trace them"; and it is remarkable that, out of 3,498 out-patients at the Children's Hospital in Great Ormond Street who, during the three months ending September 30th 1875, were sent to the Committee of the Charity Organisation Society in order that their letters might be stamped if their statements as to their earnings proved correct, only 1,487 appeared at the offices of the Society, and in the case of 266 of these the letters could not be stamped; that is to say that, out of the total number, 65.1 per cent. either refused investigation, or, being investigated, were found ineligible. In connection with the system of inquiry pursued by the last-named hospital, some most striking cases of false statement as to pecuniary means have been published; and the report of the Committee of Inquiry appointed by the London Hospital contains certain very curious figures with regard to the sixty or seventy thousand out-patients advertised as being annually relieved at this institution. Space does not, however, permit me to advance at present any more of the many striking assertions and calculations which have been made with respect to this important subject; and I am compelled, though with much regret, to pass over entirely the remarkable results which followed the investigation in 1873, by the Charity Organisation Society of the out-patients at the Queen's Hospital, Birmingham, and the numerous and quite as striking statistics given by Mr. O'Hanlon in the paper read by him at a meeting of the Manchester Statistical Society in the same year. If, however, it be conceded that charitable relief should be given to those only who require it, who deserve it, and who will be the better for it, it will, I think, be conceded also, without further quotations or illustrations, that the so-called charity which is so freely bestowed on the out-patients at the London hospitals needs unprecedented restriction and very sweeping reform.—I am, sir, your obedient servant,

A MEMBER OF THE CHARITY ORGANISATION SOCIETY.

AN ETHICAL JUDGMENT.

SIR,—In an article entitled "An Ethical Judgment," which appeared in the *BRITISH MEDICAL JOURNAL* of December 9th, my alleged conduct in a case recently before the Lambeth Board of Guardians is keenly criticised; and I am called upon to offer an apology, not only to the individual member who has complained, but to the "entire profession." The article referred to appears to be founded upon a report drawn up by three of the most experienced members of the Committee of Council of the British Medical Association. Will you permit me to say, with the greatest possible deference and respect, that I think these gentlemen would have acted more in accordance with their deserved reputation, if they had inquired more fully into the facts of the case before giving judgment and pronouncing sentence?

I distinctly and emphatically deny having uttered any such words as those with which I am charged, implying or insinuating "that any member of the profession could knowingly consign a sane girl to a lunatic asylum."

I equally distinctly and emphatically decline to apologise for words I never uttered. I enclose you a copy of a letter from a member of the Board of Guardians, who was present at the several meetings, who asserts in the strongest terms that the expressions which have especially given offence were used, not by me, but by himself.

As to whether the certificate upon which the patient was consigned to the asylum was a "weak" or a "strong" certificate, that may be regarded as matter of opinion.

I do not doubt that it was as "strong" a certificate as could be given in the case, and it is no reflection on the medical man that truth could not justify him in writing a stronger one. It is no reflection on a barrister to go into court with a weak case, if the circumstances do not supply him with a strong one. I venture to think that others will share my opinion regarding the certificate in question.

The only facts stated on the personal observation of the certifier are, as will be seen, that the patient called the gentleman on whose warrant she was about to be sent to a lunatic asylum "a body-snatcher, and not a doctor; disowned a lady who had brought her up by saying she had not done so; was much excited and crying, and frequently kissed her mother in a silly and childish manner".

I am quite satisfied that Mr. Pope would have given stronger grounds for pronouncing the patient of unsound mind, if he had been able to do so. It has been with great regret, after the strictures that had been passed upon me, to have had to sever my connection from the pleasurable associations of the British Medical Association, of which I have been many years a member.

I am, sir, your obedient servant, WILLIAM SOPER.
283, Clapham Road, December 19th, 1876.

Copy of Letter from Mr. Smith.

December 13th, 1876.

"My dear sir,—I was greatly pained, on reading the BRITISH MEDICAL JOURNAL this morning, to find ascribed to you an observation you never made; viz., 'that it was probable it had made the girl a lunatic'; such an idea you never wished to convey. It was I who made an observation as follows: 'There is an old axiom, 'Oppression makes a wise man mad', and, if so, I supposed the more refined class, viz., woman, was equally sensitive to such treatment. And may this not be an illustrative case? Are we certain, then, that a young woman, naturally of a nervous sensitive idiosyncrasy, was not rendered insane, in the general acceptance, by being taken from her friends and home influence, and be confined with persons indisputably insane?' Those words were reported abbreviated in the *South London Press* as that I said she was so rendered. You never threw out such a hint. I can solemnly swear before any court that, when you introduced the case, you conveyed to the board that it was our own medical officer who took charge of the case; and this impression was strengthened by Dr. Lloyd's conduct before the board. He did not repudiate the responsibility, and thought that he himself gave the certificate. Dr. Pope's name only came up subsequently, and in no way is it to be ascribed to your action, and I deeply regretted, as did every other guardian, that he would listen to no explanation when before the board. Had he listened calmly and deliberately to the explanations offered by the chairman and several of the guardians, this painful unpleasantness would never have occurred.

"Yours very truly, JOHN SMITH."

* * It will be observed that, in this letter, explaining and defending the line of conduct on which we felt it our duty to animadvert, Mr. Soper takes somewhat high ground, and, declining in any way to retract or modify his reported statements, bases his explanation on an alleged inaccuracy of statement on the part of the *South London Press*. Our readers will remember that we founded our observations on the assumed fidelity of that published report, and, as its statements have been permitted to circulate unchallenged for nearly eight months, we think we can plead tolerably good reason for concurring in the decision of our committee derived from precisely the same evidence.

The *South London Press* of April 29th, 1876, tells us that, at the outset of the meeting in question, Dr. Lloyd explained how the certificate in the case of Eugenie Rogers had actually been signed by Mr. Pope, and, subsequently to this, Mr. Soper is reported to have said "that the medical certificate was unjustifiable"; that it "was abominably weak, and made the girl a lunatic". We, therefore, feel compelled to reiterate our assertion, on the authority of the printed matter before us, that Mr. Pope was unjustly accused of having consigned a sane girl to a lunatic asylum, and of having thus produced the aberration of mind which was amply confirmed by competent authorities. We can conceive of no more serious slur than this on any man's professional character, and we cannot acquit Mr. Soper of having carelessly and hastily jumped to an incorrect conclusion on a most difficult point of special practice, and used his position before the Board of Guardians to injure the authority and status of a medical brother. No jot or tittle of evidence has been brought forward to show that Eugenie Rogers was not from the beginning an undoubted lunatic; that she was not rightfully certified and rightfully detained; and Mr. Soper's mode of attacking a principle by means of offensive imputations on those whose duty required them to put the existing machinery in operation, is neither loyal nor professional. Nor can we admit that Mr. Soper's

repudiation of the newspaper report, nor the chivalrous demeanour of his friend Mr. Smith, exonerates him from blame. Granting that the version of the proceedings of the board as given by the *South London Press* is hopelessly at variance with the truth, we have a right to ask why has it been allowed to remain uncontradicted so long? And we hold that Mr. Pope has a right to expect some apology for the injury necessarily done to his professional character by the widespread circulation of the most improper remarks, at all events, imputed to Mr. Soper, and only at this late date formally repudiated by him.

MEDICAL DEFENCE.

SIR,—Permit me to second Mr. Hoar's proposition of a capitation fee, and to suggest that, as our annual subscriptions will shortly be due, it would be easy to add the shilling to the cheque or Post Office order.

As to a feeling about "trades-unionism", we cannot pretend to a very sensitive cuticle so long as we accept tradesmen's wages, or, more correctly speaking, wages which a tradesman would not for a moment entertain. On the other hand, a little more union is much needed to help possibly to raise the medical profession above any comparison with trade.—I am, sir, your obedient servant, A MEMBER.

SIR,—Allow me to register my humble protest against the assumption that it is the duty or object of the British Medical Association to enter upon a crusade against quackery or illegal practice.

The Association was established to "maintain the honour and interests of the medical profession". Is the honour of the profession to be maintained by persecuting poor and illiterate dabblers in drugs and nostrums? No doubt, the pecuniary interests of the profession may be somewhat enhanced by every sufferer being compelled to apply to us for relief; but where is the advantage of our improved education, if we are obliged to call in the aid of the law to compel the public to place faith in us?

Your correspondent, Mr. Hoar, desires "to protect the public"; as if the public was not able and willing to protect itself. The public prefers to be without such protection—prefers to be allowed to make its own choice; and a small and insignificant residuum will always prefer to cure its ills by some miracle-working nostrum rather than try the established methods of scientific treatment, or will chose to take a dose over the chemist's counter rather than consult and be prescribed for by the qualified doctor. But is it not beneath the dignity of the profession to show its jealousy of these little infirmities? Would it not be a nobler object for the British Medical Association to seek to elevate the profession itself, to point out and expose its own sins and shortcomings, and remove the beam from its eye before it attempts to pull the mote out of the eye of its neighbour?

Let us be true and honest in all our dealings one with another. Let us be true and honest in our dealings with the public. Let us get rid of the stains of "gratuitous public service" and "advice gratis"; and let the profession demand a fair remuneration for every service rendered. Let there be no underselling amongst ourselves; but let a code of fees be established which shall be binding upon every member of the profession. Let advertisements of our talents cease from appearing in the public prints, but let us commend ourselves to the public by our intrinsic merits; and then let the public chose for itself. If it prefer ignorance to knowledge, let it have it. There will be plenty for us, and to spare; and we shall be able to look with disdain rather than jealousy on the hungry camp-followers who always crowd the rear of a well-disciplined army.—I am, sir, your obedient servant,

EDWARD CROSSMAN.

Hambrook, near Bristol, December 19th, 1876.

CLINICAL THERMOMETERS.

SIR,—The clinical thermometer is now so generally employed by members of the medical profession, that the little instrument is carried in one's pocket almost as habitually as a watch; but, owing to their extreme fragility, there are probably few general practitioners who have not, at some time or other, experienced the misfortune of breaking one or more of them. I believe I am not more careless than others in the treatment of mine, but I have certainly been sufficiently unfortunate to break four of them in the course of three years. Now, it may be profitable enough to the makers to construct such fragile instruments, but at the same time it is frequently a serious inconvenience, to say nothing of pecuniary loss, to the practitioner in the country or abroad.

A few weeks ago, having by accident broken one, I sent to England

for two new ones made by one of the well-known London makers. On arrival, they were sound, but fitted so tightly in their cases (with bayonet-joint) that it was with considerable difficulty that they could be opened at all. Perhaps this was the effect of the warm climate, causing expansion of the metal; at all events, in using the slight force necessary to extricate one from its case, it flew out with a jerk and smashed the tube. Of course, the instrument could not be repaired; and thus my fourth thermometer came to grief, after having been used upon one occasion only.

Now, I fancy there is room for improvement in the construction of clinical thermometers, and I should be glad to know if it would be possible to make them of the toughened glass. If not, could not the tube be covered with vulcanite or some similar material, leaving a slit through which one could read the index? If feasible, one of these plans might be adopted with benefit; at any rate, the suggestion may be a hint to the instrument makers.

Algiers. H. R. THOMSON, L.K.Q.C.P., M.R.C.S.E., etc.

THE SHEFFIELD INFIRMARY.

SIR,—The paragraph headed "The Sheffield Infirmary," which appeared in your last week's number, has excited a good deal of uncomfortable feeling amongst the members of the profession in this town. Allow me to state that the paragraph in question neither originated with nor was authorised or approved by me or any of my relatives, and that I am sincerely sorry that any remarks should have been made upon the qualifications or claims of any one candidate without a similar notice of those of all the others.

I am, sir, yours, etc., R. J. PYE-SMITH.

25, Change Alley, Sheffield, December 27th, 1876.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

CROYDON.—The population is estimated by Dr. Philpot at 63,000 in the middle of 1875. The births were 2,155, and the deaths 1,362; so that the birth-rate was 34.3, and the death-rate 21.6, per 1,000 population. There were 38 deaths from scarlet fever, 45 from whooping-cough, 90 from fever, and 50 from diarrhoea. The fever death-rate was 1.42, and the zymotic death-rate 3.66, per 1,000 population. The epidemic of enteric fever began in January, when 15 cases occurred, and increased up to the end of April, during which month 186 cases were reported; it then decreased up to September, when it again increased, raging with greatest intensity in October, when 275 cases happened, from which time the epidemic gradually declined and eventually ceased. The largest number of deaths occurred in April, October, and November. As Dr. Buchanan has reported on the outbreak, we need not follow this matter any further. The sanitary work appears to have been well carried out, as there were 2,018 house-to-house inspections, 1,656 reinspections, 837 visits to slaughter-houses, and 1,287 orders served on owners of property to abate the nuisances existing on their premises. The mean birth-rate for Croydon during the ten years 1865-74 was 36.5, and the death-rate 19.66; so that the birth-rate in 1875 was lower and the death-rate higher than the average. The death-rate from pulmonary diseases was 3.25, from tubercular affections 2.68, and from wasting and convulsive diseases of infants 2.49, per 1,000 population.

PETERBOROUGH.—According to Dr. Thomson, the Medical Officer of Health for the Borough and City of Peterborough, during the last quarter typhoid fever has been very extensively prevalent. In one part of the city, "there were twenty-eight houses containing one hundred and thirty-three inmates, of whom thirty-nine were smitten with the fever.....The extremely hot season was the exciting cause, but the unsanitary condition of the houses was the real one." Another group of cases directed Dr. Thomson's attention to the National School, where he found "the privy close to the boys' schoolroom (the windows of which, in the hot weather, were all open), and communicating directly with the ashpit, also close under the windows; the smell from this was frightful". He "also here found the gratings without traps". It is right to state that these unfortunate defects have since been remedied; but it also strikes us rather forcibly that such defects in a public school ought to have been discovered and remedied long ago, and before attention was directed to them by their fatal effects. In connection with

the fever outbreak, Dr. Thomson seems to have paid much attention to the water-supply; and from his report it would appear that Peterborough is very peculiar as to the quality of the water-supply, all of which is apparently derived from the same source, viz., wells sunk in very open strata. "Eastgate pump: pure. National School, Albert Place: free from organic matter, but contains an excess of chlorides and salts of iron, which accounts for the taste and smell. Alma Place, Mill Field: pure. Copeland's house, Mill Field: very full of organic impurities. Johnson's houses, Lincoln Road East: two samples contain a trace of organic matter, but not sufficient to condemn them. Boyett's well, Monument Street, contains organic matter. Morris's well, Lincoln Road East: saturated with organic matter." Dr. Thomson recommends the silicated carbon filter. It is to be regretted that Dr. Thomson does not publish the details of the analyses he has made; and we venture to think that, on reanalysis, he will revise his opinion as to the freedom from organic matter of the National School well. Not having samples of the water, we can only theorise; but "the excess of chlorides, salts, and iron" makes us sceptical as to the conclusion regarding absence of organic contamination at which Dr. Thomson has arrived. Again, "pure" is a misleading term to apply to water; "wholesome" is a much better term. It would be exceedingly interesting to know whether these "pure" waters were free from chlorides, etc. Peterborough just now is greatly exercised as to its drainage and water-supply. If their medical officer's analyses be correct, it would appear that they have a supply of pure water close at hand. It is gratifying to learn that Peterborough is, save for this typhoid epidemic, a very healthy town; and without doubt the energy the Council are displaying in matters sanitary will be thoroughly repaid in the increased health, wealth, and comfort of the inhabitants.

TENBY.—The births in 1875 were 132 in number, and the deaths 62, of which 22 were of children under five years of age, or 46 per cent. of the whole, which is a very large proportion. There was only one death from zymotic diseases, against fifteen last year; whilst the deaths from consumption were above the average. A table of deaths is appended; but, as no percentages are given, the figures cannot be compared with those of other districts, unless calculated by the reviewer. Mr. Lock complains of the marsh, which, he says, is worse than ever, as the culvert, as usual, became blocked up, so as to render the adjacent roads impassable and to flood several cottages. The slaughter-houses are reported as being too small, and their situation near the stream "Ritec" as very bad, as he believes blood and garbage are thrown in.

MILITARY AND NAVAL MEDICAL SERVICES.

MILITIA SURGEONS.

SIR,—Will you kindly grant me the privilege of saying a word or two in reference to the claims of militia surgeons?

I confess that from what I have read on the matter, and from what I personally know of the subject, I am one of those who think that the surgeons have not made out fair claims for compensation on account of some of their duties, and consequently some of their perquisites, being transferred to army surgeons. The case of militia adjutants, which they adduce in order to strengthen their claims, is not to the point. The adjutants, in losing their appointments, lost their living; consequently, they had a right to compensation. The doctors, in taking their appointments, took them in order to gain for themselves influence and private practice. These objects being more or less attained, and they having been well paid for any little duties which they have performed, I think they are more than compensated for any drawbacks which they should know must necessarily attend all such appointments. But the militia surgeons have got increased rank by the transaction, a matter of no little moment when many of them have interesting families around them, and they are still in full control of their respective regiments when up for training. And this leads us to consider, Who are to be in medical charge of the regiments when called out for service, as they are likely to be, in case war breaks out between Russia and Turkey? If the country expect that the present militia surgeons will march with their men, I am afraid, in too many instances, it will be disappointed. Those with whom I am acquainted certainly will not throw up private practice and public appointments, for the honour of serving with their corps in foreign parts. If this is the true state of the case in many instances, I think those gentlemen who cannot respond to their country's call in case of an emergency, which may arise any day, ought to resign, and give young and untrammelled men a chance of distinguishing

themselves both at head-quarters and abroad. I am sure there are hundreds of the junior members of the British Medical Association who would be delighted to obtain militia appointments, and who, if it were deemed necessary, would repair to Netley, and there qualify themselves by study and examination for such important posts.

I am, Sir, your obedient servant,
December 18th, 1876... A NON-MILITIA SURGEON...

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on December 22nd, 1876.

Ballard, Philip, Bromyard
Bull, James Weston, Guy's Hospital
Clapp, Robert, Teignmouth
Ellis, Philip Mackay, St. George's Hospital
Eve, Frederick Samuel, St. Bartholomew's Hospital
Ferguson, John, Ardwick, Manchester
Green, Alfred Withers, Guy's Hospital
Gross, Charles, Guy's Hospital
Harris, Arthur Byam, Wotton-under-Edge
Jones, Valentine Llewellyn Watson, Dowlais
Masani, Hormasji Dadabhai, 3, Bulst rode Street.
Moone, John, 63, Queen's Crescent
Perry, Francis Frederick, University Hospital
Robinson, Ernest Laurie, St. George's Hospital
Robinson, George Winsor, St. Thomas's Hospital
Wallis, Kenneth Serjeant, Edmonton

The following candidates, having passed in Medicine and Midwifery, will receive the College Licence on obtaining a qualification in Surgery recognised by this College.

Dingle, William Alfred, Millbrook, Southampton
Gomes, Dominic Anthony, 85, Hereford Road

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 21st, 1876.

Bellaby, Frederick, Nottingham
Carlyon, Thomas Baxter, Cornwall
Christian, John Barrow, Ruthard
Folkes, Frederick Hyde, Dukinfield
Lewis, Thomas Hope, Carmarthen
Mansell, Edward Rosser, Upper Norwood
Robinson, George Mason, Faversham
Welchman, Walter Henry Lawrence, Walmouth Road, S.E.

The following gentlemen also on the same day passed their primary professional examination.

Blaikie, William, St. Bartholomew's Hospital
Graves, Thomas William, King's College
Noble, Henry Brewin, London Hospital
Osborne, James, Guy's Hospital
Wright, Harry Claude, St. Bartholomew's Hospital

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the examination held on December 4th and following days, the undernamed gentlemen, having passed the required examinations for the diploma, and having made and subscribed the declaration, were admitted Licentiates of the College.

Allen, Edmund Henry
Baxter, Richard Henry
Blunden, William
Castles, Joseph William
Cole, C. Dillon Croker
Diamond, John
Dodd, Henry Francis
Duigan, John Joseph
Dunne, Alexander
Fetherston, Charles
Flood, John Wellesley
Jenkins, Stewart
Kennedy, William
Kirkpatrick, Henry Ivers
Kinane, Michael Kiely
Lyndon, George
Malone, Jonathan Hill
Nixon, George Eccles G.
O'Connor, Maurice John
O'Neill, Laurence Joseph
Penny, Charles Hall
Penny, Henry James
Phibbs, William Harloe
Reynolds, George Gerald
Walsh, William Butler

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, December 12th, 13th, and 14th, 1876, the following candidates were successful for the Licence to practise Medicine.

M'Ahern, James
M'Brennan, James Henry
M'Bridgford, Charles Russell
M'Caruthers, Charles Ulick
M'Cox, Thomas
M'Hallowes, William Bourne
Lyle, Allen Andrew
M'Munn, James
Murphy, Edmund
M'O'Connell, Timothy
M'O'Leary, Edward Hyacinth
M'Thornehill, William Henry
M'Wallis, Francis Taylor

For the Licence to Practise Midwifery, the candidates above named marked M, and

Pim, William Joseph

MEDICAL VACANCIES.

The following vacancies are announced:—

BOLTON UNION—Resident Medical Officer for Workhouse. Salary, £150 per annum, with furnished apartments. Applications on or before Jan. 4th, 1877.
BOURNEMOUTH GENERAL DISPENSARY—Resident Surgeon. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Testimonials, diplomas, etc., to be sent in on or before December 31st.
BOSMERE and CLAYDON UNION—Medical Officer for the Claydon District.
BRADFORD UNION—Medical Officer for the North-East District.
CANCER HOSPITAL, Brompton—Resident House-Surgeon and Registrar. Salary, 100 guineas per annum, with board and residence. Applications to be made on or before January 18th, 1877.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—House-Surgeon and Secretary. Salary, £95 per annum, with furnished apartments, and £20 for coals and lighting. Applications on or before January 4th, 1877.
DEPWADE UNION—Medical Officer for the Fourth District.
DULWICH and LOWER NORWOOD DISPENSARY—Resident Medical Officer. Salary, £100 per annum and rooms.
EAST RETFORD UNION—Medical Officer for the Leverton District.
FISHERTON HOUSE ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and lodging.
GLAMORGAN COUNTY ASYLUM, Bridgend—Assistant Medical Officer. Salary, £125 per annum, with board, lodging, attendance, and washing. Applications on or before January 1st.
GLANFORD BRIGG UNION—Medical Officer and Public Vaccinator. Salary, £28 per annum, and fees. Applications on or before January 10th, 1877.
GREAT NORTHERN HOSPITAL, Caledonian Road—House-Surgeon. Salary, 60 guineas per annum, with board and lodging. Applications on or before the 30th instant.
HENLEY UNION—Medical Officer for the Caversham District. Salary, £75 per annum, and fees. Applications to be made on or before January 10th.
KINGSLERE UNION—Medical Officer for the Workhouse and Kingsclere District.
LINCOLN UNION—Medical Officer for the Eighth District.
MANCHESTER PROVIDENT DISPENSARIES' ASSOCIATION—Resident Medical Officer. Salary, £120 per annum, and private practice allowed.
MIDDLESBORO' Parish of—Medical Officer.
MIDDLESEX THIRD COUNTY LUNATIC ASYLUM—Senior Assistant Medical Officer; Second Assistant Medical Officer; Junior Assistant Medical Officer. Salary of the Senior Assistant to commence at £200, that of the Second Assistant at £150, and that of the Junior Assistant at £120 per annum, and furnished apartments, board, washing, and attendance to each. Applications on or before January 16th, 1877.
NATIONAL DENTAL HOSPITAL—Assistant Dental Surgeon. Applications to the Treasurer, 149, Great Portland Street.
NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Resident Medical Officer and Registrar. Salary, £100 per annum, with board and lodging.
NEWENT UNION—Medical Officer for the Dymock District.
ROYAL ALBERT EDWARD INFIRMARY and DISPENSARY, Wigan—Resident House-Surgeon. Salary, £100 per annum. Applications on or before January 2nd, 1877.
SUSSEX COUNTY HOSPITAL—Surgeon and Assistant-Surgeon. Applications, with testimonials, to be made on or before January 3rd, 1877.
QUEEN'S HOSPITAL, Birmingham—Honorary Physician—Resident Physician. Salary, £50 per annum, with board, rooms, and washing. Applications on or before the 30th instant.
ROTHBURY UNION—Medical Officer for the Rothbury Eastern District.
WIMBORNE and CRANBORNE UNION—

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

DUNCAN, Alexander T., L.F.P. & S. Chsg., appointed Assistant Medical Officer to the Joint Counties Asylum, Carmarthen, vice A. H. Martin, M.B., resigned.
ECCLES, Robert, M.A., M.D., appointed House-Surgeon to the Bootle Borough Hospital, vice C. Gibson, L.R.C.P. Ed., resigned.
SMITH, J. T., M.R.C.S. Eng., appointed Assistant House-Surgeon to the Bootle Borough Hospital.
*WARNER, Francis, M.D., appointed Medical Registrar to the London Hospital, vice Dr. Herman, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

M'KANE.—On December 26th, at Byers Green, Durham, the wife of *G. O. M'Kane, L.R.C.P. Ed., etc., of a son.

DEATH.

*WEBB, Matthew, M.R.C.S., etc., at his residence, the Orchard, Iron Bridge, Salop, aged 63, on December 19th. No cards. Friends will please accept this announcement.

SANITARY INSTITUTE OF GREAT BRITAIN.—A general meeting of the members of this Society was held at their rooms in Spring Gardens on Tuesday, the 12th instant, when the report of the Committee was presented. After full discussion it was unanimously resolved, "That the thanks of the members be accorded to the Committee for their report." Arrangements are in progress for holding an adjourned public meeting of the Institute early in the ensuing year, in accordance with the resolutions adopted at the meeting held at St. James's Hall on July 13th last under the presidency of His Grace the Duke of Northumberland.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 12 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 1.30 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 11 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 3 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M. and 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—	Pathological Society of London, 8.30 P.M.—General Meeting for the Election of Officers. Dr. Pye-Smith: Case of Xanthelasma. Dr. Gowers: Mitral Disease. Dr. Goodhart: Cerebral Aneurysm from Embolism. Mr. Bryant: Aneurysm of Femoral and Popliteal Arteries from Embolism. Dr. Greenfield: Aneurysm and Division of Brachial Artery. Dr. Goodhart: Cerebral Tumour. Mr. Godlee: Granulation Material from White-swellings of Knee-joint. Dr. Greenfield: Malformation of Aortic Valves.
WEDNESDAY.—	Obstetrical Society of London, 8 P.M.—Annual Meeting. Election of Officers and Council. Reports and other business. Specimens. President's Address: Cases of Trismus Nascentium and Pyæmia in Children, by Drs. Napier, Roper, and Edis; and other communications.
THURSDAY.—	Harveian Society of London, 8 P.M.—Election of Officers; President's Address; Conversazione.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the *BRITISH MEDICAL JOURNAL*, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the *JOURNAL*, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

REGISTRATION OF HONORARY DEGREES.

SIR,—I observe your correspondent omitted to include the F.R.C.P. Lond. qualification, which is likewise only conferred by election, but is also a registrable one.—Yours, etc., J. HANCOCKE WATHEN, F.R.C.P. EDIN.

ERRATA.—In Dr. Hughlings Jackson's article on Chorea, in first line of the third paragraph, p. 813, for "Parkes" read "Kirkcs"; in first footnote, p. 814, for "recently" read "essentially".

MEDICAL DEFENCE ASSOCIATION FOR SOUTH WALES AND MONMOUTHSHIRE.

SIR.—Permit me, through the medium of your *JOURNAL*, to remind the members of the profession resident within the above district that it has been proposed to form a Branch of the Medical Defence Association for South Wales and Monmouthshire. I have had many promises of co-operation in the movement, and propose calling a meeting early next month for the purpose of framing rules, electing officers, etc. In the meantime, let me urge those gentlemen who approve of the object of the Defence Association to communicate with me, if they have not already done so.—I am, sir, your obedient servant,

J. HANCOCKE WATHEN, Honorary Secretary *pro tem*.
Castle Hill, Fishguard, December 19th, 1876.

. We should advise Mr. Wathen to bring the subject under the notice of the South Wales Branch of the Association, and to endeavour to connect his Committee with that organisation, which will have many advantages in being already formed and having the power of an existing and important organisation.

A MEMBER OF THE SOCIETY.—The founder of the Society of Apothecaries was Gideon de Laune, M.D., apothecary to Anne of Denmark, the Queen of James I. There is a portrait of the founder in possession of the Society, dated 1640, aged 76.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

MEDICAL ATTENDANCE DEPARTMENT OF FRIENDLY SOCIETIES.

SIR,—I was much pleased to see Mr. Robert Johnson's letter in last week's *JOURNAL*, because his views coincide exactly with those to which I have been in the habit of giving expression for some years whenever the "club question" has been a topic of discussion. I have always contended that, although any number of people, however much their social position may vary, are at liberty to form societies for their mutual benefit in times of sickness, this should not enable them all to claim medical attendance when sick for the same small fee. If two men, earning respectively, say, 20s. to £4 a week, pay the same weekly instalments for equal benefits of sick pay, to a club or friendly society, no one is injured; but if each at the same time claim medical attendance for the fee of 5s. a year, the case is very different. There is then a great injury done to the profession, and an encouragement in a first step towards a loss of independence and self-respect on the part of the working classes. The mixing together of two things, which ought always to have been distinct and separate, is the main evil connected with the club question.

There can, I think, be no doubt that the two should be separated. The friendly societies should confine themselves to their legitimate work—the relief of its members during sickness. All members not earning, say, more than 30s. a week, should belong to a provident dispensary, a certificate from which should be accepted by the friendly societies; and all other members, being in a position to do so, ought to pay the usual fees of a medical practitioner. The matter is in the hands of the profession, if they choose to make an earnest effort in the right direction.—Yours, etc., A. G. SHEEN, M.D.

Cardiff, December 19th, 1876.

DR. MUNRO.—St. John's Hospital for Skin-Diseases is in Leicester Square, W.

ANATOMY IN QUEEN'S COLLEGE, CORK.

SIR,—Well knowing the interest you take in medical education, and the influence you have gained in the medical world, I beg to submit the following case to your consideration. A rule has lately been made by the new Professor of Anatomy of this College (Dr. Charles) preventing senior students from entering the dissecting room, unless on payment for the third time of the full fee for the course of anatomy. Two courses of anatomy are all that are required by the Senate of the Queen's University for their degrees and at these final examinations, as well as at the first professional, anatomy forms a most important item. Such being the case, it is very hard that men who have complied with the University regulations should be debarred during their last year at College from even entering the dissecting room and inspecting the dissections of others, and thus renewing their acquaintance with this subject. This rule, I believe, exists in no other medical school or college, and most certainly did not exist during the time of the late Professor (Dr. Corbett), and it falls with special hardness on the unfortunate men who will be presenting themselves for their degrees next June. These men have not seen a subject since the close of the session last April, and yet will be expected to have the whole anatomy at their fingers' ends next June. The great injustice must be apparent to all, and the only motive that can be ascribed for it seems to be pecuniary.

Trusting, sir, that I have not intruded in laying the case thus before you, I am, yours truly, A CORK STUDENT.

Queen's College Cork, December 18th, 1876.

. The case stated by our correspondent is *prima facie* a hard one. But the rule made by the Professor of Anatomy is in strict accordance with the regulations of the Queen's Colleges in Ireland, where a separate payment is required for each course. The difficulty might be obviated with advantage to the students and no detriment to the colleges by the establishment of moderate composition fees, entitling to perpetual attendance, as in the English medical schools.

W.—See the *BRITISH MEDICAL JOURNAL* for April 22nd, 1876, page 521.

CAUSE OF BLINDNESS IN TELEGRAPH CLERKS.

SIR,—In answer to your correspondent making inquiries about blindness occurring in telegraphic clerks, I beg to suggest that there may be two causes contributing to this result, supposing that the faculty of vision was really perfect on their first joining the service. One may be dependent on over-indulgence in the habit of smoking tobacco, especially after breakfast; and the other cause may be, in the older clerks, loss of accommodation in the eye from over-work. It is supposed by some that the effect of tobacco-smoking on the eyesight is derived from its effect on the brain first; and thence transmitted afterwards to the optic nerves; but this may more easily be explained without that *modus operandi*. The connections of the globe of the eye with the nasal branch of the ophthalmic division of the fifth central nerve, and the ciliary ganglion with the nerves of the mucous membrane of the palate and nose, will be thought amply sufficient to transmit poisonous effects by direct nervous connection, instead of going all the way round by the brain. (The sphenopalatine ganglion is probably the chief means of transmitting this baneful effect.) The application of the eyes too continuously to near and minute objects, with mental effort at the same time, and when they are in rapid motion also, will tend to wear out the elasticity and tone both of the ciliary processes and iris. These will, therefore, become congested and sluggish in action when required for the purposes of controlling the movements of the lens and the natural diaphragm for regulation of the focussing and admission of light.

The amelioration of this alleged impairment of sight will probably depend on abstinence from inordinate smoking, and modifying the appearance of the telegraphic instruments for the use of the eyes of those that use them. This may be done by increasing the size of the type of lettering on paper and dials, and having these coloured light blue or green, instead of being white, with the use of larger needles and other apparatus of registration.—I remain, yours, etc.,

December 1876.

AMBLYOPIA.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

VARIOLA AND VACCINIA.

SIR,—In the *JOURNAL* of December 2nd, under the head of Fatal Cases of Small-pox among Vaccinated Persons, is the following remark. "We do not know that it has ever been conclusively established at what stage of the vaccinia protection from small-pox is acquired; but it has never been even asserted that vaccinia, during the incubation period of small-pox, confers any protection, and the two above-mentioned cases prove that it does not." Will the following circumstance, taken from my notes when in general practice in a large union practice in the country, be of any service as bearing in some measure on the point?

Two boys (twins), about ten years of age, lived in a retired straggling village with their widowed mother. One was taken ill with small-pox; neither had been vaccinated. The brother, who showed no symptoms of the disease, I immediately vaccinated, and sent him away some miles to reside with his aunt. The first boy had confluent small-pox very severely, but recovered after a severe struggle. The vaccinia in the boy who was vaccinated went through its natural course (four marks) in the arm; but, strange to say, about three weeks after being vaccinated, the boy had modified small-pox, which also ran its course, but the effects were milder than the vaccinia, and were confined to a few isolated vesicles on the body, the face escaping any pitting, whereas his brother was strongly pitted in the face. Thus in this instance it would appear that the vaccinia was able to keep the variola in abeyance while it ran its own course, and have sufficient power to neutralise, or at all events modify, the effects of the variola-poison already in the stage of incubation in the system.

The only other case that I can remember as bearing on the above question, is where Hunter, "On the Blood-Influence," reports a case of a child which he inoculated with variolous matter. I have not the work with me at the present moment to refer to, but I remember he describes that, after inoculating the child, he was surprised to see that the mark receded after the third day; there was much fever, with sore throat, followed two days afterwards by a scarlatina eruption, which ran its course; after which, the variola inoculation marks took a fresh start, and went through their regular course very mildly.

Now in this instance there could be no doubt about the scarlatinal poison being in the system when the boy was inoculated; but it had sufficient power to keep back the action of the variola-poison until it had run its course, and would appear in some measure, like vaccine, to modify the effects of the latter. The question is, whether in the case I have before related, the boy whom I vaccinated had the variola-poison in the system in the stage of incubation. He had slept with his brother. It is possible he might have resisted the disease, as we often see instances where one or two in a family escape when all the rest are attacked with any eruptive disease; and being vaccinated and removed at once, the vaccinia ran its course before the variola affected the system. It certainly was singular that the attack of modified small-pox should commence directly the vaccinia had finished its course.—Yours, etc.,

JAS. GARDNER.

Box, December 9th, 1876.

MR. JOHNSON.—The time for sending in essays for the Collegial-triennial and Jacksonian prizes of the College of Surgeons expires on the 31st; and we hear with that surprise, which will be shared by many of our readers, that none have yet been received in Lincoln's Inn Fields.

LUNACY CERTIFICATES.

SIR,—I will be glad to hear, through your medium, from any of my brethren particulars of fees obtained in Scotland for lunacy certificates granted in the cases of paupers.—Your obedient servant,
December 23rd, 1876.

PARISH MEDICAL OFFICER.

MR. MASON.—There is a portrait of Cheselden in the Council room of the College of Surgeons. He was a man of considerable taste in matters of art. The plan of Fulham Bridge was drawn by him. He was, moreover, a most charitable man; and when the Foundling Hospital was first proposed, he sent a benefaction with the following lines from Pope.

"'Tis what the happy to the unhappy owe,
For what man gives, the gods by him bestow."

SMALL-POX.

SIR,—If you think it worth while, perhaps you will give room for a word or two of remark in reference to a letter on "small-pox" appearing in your issue of the 9th instant. *Apud* the first part of that letter, allow me also to recount a small bit of experience of my own. I was vaccinated successfully when an infant, bearing the marks clearly since. I was re-vaccinated about the time 1852-53, and the infection again took with distinct success. In the year 1865, I had under my charge, for a complaint of a perfectly different class, a man who was deeply, almost confluent, marked with small-pox; and while he was in hospital, another young man was taken in and put into a separate ward, suffering from fever, which in a day or two developed into a case of variola discreta. In the course of some days I became ill, and was attacked with small-pox, "modified," but unmistakable; and, a few days later, my other first-instanced patient likewise became the subject, for the second time, of small-pox, of which he then had a very severe attack—apparently, from its effects, quite as severe as his first attack could have been, the marks of which he bore before his admission, his whole countenance being eventually changed as if it had been by the removal of a mask.

I relate this because it seems apposite to a relation of a similar purport in your correspondent's letter; but I utterly disclaim for it any bearing militating against the necessity of universal vaccination—if, indeed, any such bearing be implied by the relation in your correspondent's letter. The "modified" and very mild nature of my own attack in 1865 was undoubtedly due to my being "protected" by vaccination; while the susceptibility of my first-mentioned patient, after having had small-pox, is wide of the question of protectedness after vaccination; or rather would tend to show that, if susceptibility occur sometimes after vaccination, so also does it after small-pox itself, and is as exceptional after one as after the other.

In the second part of your correspondent's letter, he advocates the use of a solution of carbolic acid, "one part of pure acid in eight of water." It might, perhaps, be useful if the writer would detail the means by which he obtains a solution of one part of carbolic acid in eight of water. I believe the solubility of carbolic acid in water to be about one-fourth of that here indicated.—I am, sir, yours faithfully,
December 12th, 1876.

SUBURBAN.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

NITRATE OF URANIUM.

SIR,—I have noticed for the first time to-day, in the last *JOURNAL* but one, an inquiry as to the action of nitrate of uranium. I have never used it internally, but have frequently used it as a topical application, more particularly as a gargle in relaxed sore-throat, in proportion of ten grains to the ounce of water, with one drop of dilute nitric acid and a drachm of glycerine. I have always found it a most effective and very astringent gargle.—Your obedient servant,
December 18th, 1876.

J. G. DOIDGE.

R. W. J. E.—Dr. C. J. B. Williams, Dr. C. T. Williams, Dr. Quain, Dr. Leared—*cum aliis*.

The glycyne emulsion of cod-liver oil, first made public by Mr. G. C. Close, in the *Druggists' Circular* of October, 1874, is again commended by that journal as probably equal to the best method for administering cod-liver oil. His formula is: "Cod-liver oil, four ounces; glycyne, nine drachms; aromatic spirit of ammonia, one drachm; sherry wine or brandy, sixteen drachms; dilute phosphoric acid, four drachms; essence of bitter almonds, two drachms." Glycyne is made by adding five parts in weight of concentrated glycerine with four parts of yolks of eggs, previously well beaten.

ALIBERT.—The Council of the College of Surgeons, so long ago as 1822, were fully sensible of the importance of a study of dermatology when they adopted the recommendation of the Jacksonian Committee to offer the prize for the best essay on "Diseases of the Skin," when Mr. Samuel Plumbe, a member of the College, carried off the prize. Mr. W. J. Erasmus Wilson, F.R.S., is the present Professor of Dermatology.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The North British Daily Mail; The Whitby Times; The Suffolk Chronicle; The Exeter and Plymouth Gazette; The Manchester Guardian; The Liverpool Daily Post; The Ulverston Mirror; The Penrith Observer; The Buxton Advertiser; The Border Advertiser; The Edinburgh Courier; The Bournemouth Visitors' Directory; The Bromsgrove, Droitwich, and Redditch Weekly Messenger; The Hampshire Telegraph; The Falkirk Saturday Herald; The Craven Herald; The Broad Arrow; The Fife Times; The Shield; The British Press and Jersey Times; The Elgin Courier; The Home Chronicle; The Manchester Evening News; The Glasgow Herald; The Liverpool Weekly Courier; The Lincolnshire Chronicle; The Sheffield Independent; The Manchester Courier; The Barnsley Chronicle; The Wigan Observer; The Metropolitan; The Liverpool Journal; The Southport Visitor; The Hull and Lincolnshire Times; The Derby Mercury; The Hull Criterion; The Dundee Advertiser; The Times of India; The Hereford Times; The East Lancashire Echo; The Liverpool Daily Courier; The Bath Herald; The Liverpool Porcupine; The Sheffield Daily Telegraph; The Glasgow News; The Sussex Daily News; The Hull Eastern Morning News; The Redditch Indicator; The Dundee Evening News; The Hampshire Post; The Hull News; The Lakes Chronicle; The Tring Telegraph; The Hexham Herald; The South Wales Daily News; The Dudley Herald; The Tunbridge Wells Gazette; The Jarrow Express; The Northampton Herald; The Liverpool Argus; The Daily Telegraph; The Greenock Advertiser; The Torquay Directory; Punch; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. S. Wilks, London; Dr. J. B. Bradbury, Cambridge; Dr. Edis, London; Dr. J. Matthews Duncan, Edinburgh; Our Paris Correspondent; Dr. Mackey, London; Dr. J. W. Moore, Dublin; Dr. Tripe, Hackney; Dr. Fairlie Clarke, Southborough; Dr. J. Milner Fothergill, London; Dr. Parsons, Dover; Mr. Eastes, London; Dr. F. J. Brown, Rochester; The Registrar-General of England; Mr. T. M. Stone, London; Mr. T. Vincent Jackson, Wolverhampton; Mr. T. Holmes, London; The Registrar-General of Ireland; Dr. Humphry, Cambridge; The Secretary of Apothecaries' Hall; M.D. Edin.; The Secretary of the Harveian Society; Dr. Douglas Powell, London; The Secretary of the Obstetrical Society; Dr. T. S. Dowse, Highgate; Dr. H. R. Hatherly, Nottingham; Dr. Pye-Smith, London; Mr. W. H. A. Jacobson, London; Dr. Gibson, Bootle; M.B.; Mr. J. Walters, Reigate; Mr. J. W. Allen, London; Mr. Higham Hill, London; A Member of the Charity Organisation Society; Dr. J. Hughlings Jackson, London; W.; F.R.C.S. Ed.; M. Alcock, Burslem; Mr. Walter, Stoke-upon-Trent; Mr. M'Nab, Hull; Dr. Arlidge, Stoke-upon-Trent; Dr. Munro, Battersea; Parish Medical Officer; C. J. D.; Mr. J. Hyde Houghton, Dudley; Dr. Crichton Browne, London; Mr. F. M. Prene, Manchester; Dr. Wallace, Liverpool; Dr. Wiltshire, London; Another Public Vaccinator; Dr. Farquharson, London; Mr. W. A. Marsh, Shrewsbury; The Secretary of the Pathological Society; Mr. M'Kane, Spennymoor; Guilielmus; Dr. Foley, Kilrush; Dr. H. R. Thomson, Algiers; M. F. Godrich, Brompton; Dr. T. M. Rooke, Cheltenham; Vinculum; Dr. L. W. Marshall, Nottingham; Dr. Bevan Lewis, Wakefield; Tatta; A Public Vaccinator; Our Edinburgh Correspondent; Mr. W. F. Terry, Tiverton; Mr. R. M. Mann, Manchester; Our Dublin Correspondent; Mr. J. Farrar, Bradford; Dr. W. Thomson, Peterborough; Dr. F. A. A. Smith, Walton-on-Naze; Dr. Holland, London; Mr. George Bland, Macclesfield; Mr. R. J. Pye-Smith, Sheffield; etc.

BOOKS, ETC., RECEIVED.

Woman, and her Work in the World. By C. N. Cresswell. London: Hardwicke and Bogue. 1876.
Surgical and Practical Observations on the Diseases of the Human Foot. By J. Zacharie. New York: 1844.—Revised. London: 1876.
Practical Physiology. By M. Foster, M.D., F.R.S. Assisted by J. N. Langley, B.A. London: Macmillan and Co. 1876.

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